UNIVERSITÀ DEGLI STUDI DI MILANO

Dipartimento di Scienze Sociali e Politiche

NASP – Network for the Advancement of Social and Political Studies

Doctoral Program in

POLITICAL STUDIES

XXXII Cohort

COMPLIANCE AND CLIMATE CHANGE.

THE MOTIVATING POWER OF DELIBERATION

SPS/01 – Political Philosophy

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ABSTRACT

This dissertation addresses the problem of individuals' noncompliance with climate change-related norms and behaviours. Starting from the consideration that noncompliance regarding environmental matters is too widespread to dismiss and that individuals' compliance ought to be stable in order to effectively address climate change, this work asks how individuals should be motivated to comply with climate change norms over time. I will argue that it is possible to distinguish between individuals' pertinent and non-pertinent reasons for compliance. This distinction plays on the correlation established between an individual's motivation and the policy's rationale. When the individual's motivation and the policy's rationale converge, then there are *pertinent* reasons for compliance. If instead, they diverge, there are *non-pertinent* reasons for compliance. Therefore, pertinent reasons derive from the coexistence of (a) aptly devised policies and (b) individuals' environmental concern motivating them to act. The hypothesis advanced is that only pertinent reasons can ensure *stable* compliance.

To prompt stable compliance, I propose an argument which develops into two phases. The first phase focuses on proving that pertinent reasons are more likely to sustain stable compliance than non-pertinent ones. Assuming that individuals are either equipped with an environmental concern or not, I will split them into two groups, concerned and unconcerned individuals. I will play on the possible political means that can be used to elicit reasons for compliance in both concerned and unconcerned people. For concerned individuals, I will argue that efficacy-driven policies would have a twofold role in bridging a cognitive gap (by showing

individuals how to act upon their concern practically) and motivating them to comply with climate-related policies. Considering that there would be a convergence between the policy rationale and individuals' environmental concern, I will conclude that concerned individuals would likely have pertinent reasons for compliance. By contrast, for unconcerned individuals, I will argue that to motivate them to comply, the political authority should play on their self-interest, by using incentives and sanctions as leverage to prompt unconcerned individuals' compliance. I will conclude that unconcerned individuals would likely have non-pertinent reasons for compliance, as the policy rationale and the individuals' motivation diverge.

Once established that concerned individuals would have pertinent reasons and that unconcerned people would instead have non-pertinent reasons to comply, I will focus on stable compliance. I will assess if pertinent and/or non-pertinent reasons could sustain compliance over time. To do so, I develop a counter-reasoning envisaging what might happen if the political authority would withdraw the policies addressing climate change. From this argument, it will emerge that individuals motivated by non-pertinent reasons, would likely stop to comply once that the incentives are removed. By contrast, individuals motivated by pertinent reasons would likely maintain their compliance because of their environmental concern, even if the effective policies are no longer at work, thus proving my initial hypothesis that pertinent reason can fulfil the stability requirement.

However, this conclusion will highlight that the crucial element for having stable compliance does not lie specifically into having pertinent reasons. Instead, it derives from the fact that pertinent reasons can exist only under the condition of having *an environmental concern*. Therefore, in the second phase of my argument, I will investigate if it is possible to raise in unconcerned individuals an environmental concern, so as to make it more likely for them to develop pertinent reasons. To do

this, I will drop the assumption that considered having an environmental concern in one's motivational set as a given fact, and I will argue that it is possible to raise such a concern in unconcerned individuals. Through deliberation it is indeed possible to induce reflection on unconcerned individuals' interests, values, and opinions to raise in them a concern about environmental matters. I will further discern unconcerned individuals into more specific 'ideal-types' representing the main contrarian stances regarding climate change – tackling both epistemic and normative disagreements. I will argue that for most contrarian stances, it is indeed possible to raise an environmental concern.

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ACKNOWLEDGEMENTS

During these years of PhD, I've always asked myself what the heck I was doing in Doctoral School and feeling (sometimes overwhelmingly) out of place. My fellow PhD candidates and the Political Theory group have always diminished this feeling of not belonging. The colleagues eventually became friends and they have always provided laughter, confrontation and support. I am very grateful to them for everything they have done for me – I hope that I gave back at least one percent of what I have received from them.

The Political Theory group comprises former and current PhD students, the Research Fellows, and the Professors of the Social and Political Science Department. I'm grateful to them for showing me how it looks like being a political theorist. Most importantly, I thank them for their comments and suggestions during the Political Philosophy Seminar held in the first year and their advice during many other informal conversations we had over these years. Their comments helped me to consider aspects that I would have ignored otherwise. You can hear echoes of their advice all over the chapters of this thesis.

Writing and thinking about this thesis was hard. But the several occasions in which I had to present parts of it, and the comments I received during these events, helped me improve it. I'm not sure this improvement will be perceived – think this: it could've been way worse. My most heartfelt thanks go to Giulia Bistagnino for being my discussant during the project colloquia and for encouraging me to break out of my shell. I wish also to thank prof. Ingrid Salvatore and prof. Federico Zuolo for accepting the role of external reviewers. Their written comments on the previous

version of this thesis and their suggestions led me to new and probably more fruitful directions.

I had the time of my life in Frankfurt Am Main as a Doctoral Visiting Fellow at the Exzellenzcluster Normative Orders. I thank from the bottom of my heart Prof. Darrel Moellendorf for welcoming me in his team and being generous with his time reading and discussing my writings. The whole Moellendorf team rocks. Actually, all Normative Orders rocks – it was an exciting place to be.

I am grateful to my partner in crime Dmitry. He has always been there for me, in any capacity I needed him. He was ready to comfort me. He provided a great deal of hard truths to get me out of the funk I sometimes fell in. He pushed me, and he called me out whenever I was bullshitting myself and the others over the drama of being a PhD student. There are no words to express what he is to me.

Breaking the traditional *etiquette* of acknowledgements, I leave my supervisor Francesca Pasquali for last. I owe her massive thanks for her patience and her tenacity in putting up with me. She has always been generous, open for discussion, willing to help, frank yet tactful when required. If there are halfway decent passages around here, I have to thank entirely prof. Pasquali for getting them out of me. I am also aware that there are not-so decent parts, and they are entirely my fault and my responsibility. She tried hard, and she never gave up on me, even when I was on my worst behaviour as a supervisee. I wish to apologize to her if I've given her a hard time, for my long silences and my half-uttered answers. In the end, I am deeply grateful to her because she stuck with me till the very last minute, despite everything.

TABLE OF CONTENTS

INTRODUCTION

Climate change has undoubtedly become one of the most critical issues that we are facing. It is a complicated matter, which is very difficult to grasp in its entirety, and with potentially catastrophic consequences. Yet, looking around us, it does not look like climate change (and environmental preservation in general) are considered as a proper emergency. Political actors, on their part, push ecological protection to the background of their political agenda. It often happens that we deliberately do not do something that instead we should be doing, like, for example, recycling or paying more attention to how we consume energy at home. We are giving in to the temptation of noncompliance. The problem with climate change is that it is affected by systematic noncompliance that, with time, has transformed a complex yet manageable problem into a catastrophe in the making.

Noncompliance is particularly severe for what concerns nations. Indeed, the political action regarding mitigation, adaptation and compensation policies for the containment of climate change's worst effects has been so far very underwhelming and unsatisfactory. This political inaction continues despite the many warnings issued by climate scientists. Instead of registering an improvement of the situation (e.g. in the temperature's average trends), climate science regularly records worrying trends. The climate system is consistently getting worse, increasing the possibility of potentially nefarious consequences for future generations.

Usually, if it is limited to a small number of agents, noncompliance is considered relatively unproblematic because it almost does not affect the big picture. The clerk jumping the queue at the café will not provoke the implosion of the norms of politeness, and the singleton free-rider is not going to put the public-utility service

out of business. What is striking about climate change is that noncompliance has become the rule. Even though agents (starting from the macro-level of international relations to the micro-level of individuals) know what they should do, they anyway do less. Or, even worse, they do not do anything to implement the necessary policies or to assume certain habits that, instead, would contribute to addressing climate change.

As I will explain in Chapter 1, countries refuse to sign international treaties that encourage a coordinated global action or make insufficient mitigation pledges. Domestically, governments implement only milder or 'placebo' policies instead of the more demanding and efficient ones that an appropriate containment of climate change would require. Individually, we often ignore or choose not to include more 'green' habits in our daily routine to reduce our environmental impact. All these cases of noncompliance occur despite the warnings and the advice coming by climate science. Besides its descriptive role, climate science provides guidelines for identifying areas of intervention (e.g. cutting greenhouse gas emissions, crop management, plastic pollution). It also signals potential policy strategies for countries and governments and provides general advice to reduce individuals' carbon footprint.

Despite being a typical issue for political philosophy, the impact of noncompliance for what concerns climate change has somehow been downsized by philosophical investigation on the matter. Indeed, in the first part of Chapter II, I will explain how political theorists interested in climate change have deflected instead of adequately addressing the issue of noncompliance. The bulk of the literature focuses on delineating principles of justice addressing problems of distributive and intergenerational justice. When dealing with noncompliance, they tend recursively to fall back on matters that can be ascribed to the realm of ideal theory. Still, if fair principles of justice are not translated into effective policies, we would never actually

address climate change[1]. Therefore, it is tantamount to take the bull from the horns and fully tackle noncompliance related to climate change.

This work wants to grasp the bull's horns and look into its eyes. Out of dramatic metaphors, what I mean to say is that I will tackle a genuinely and traditionally political problem such as the one of noncompliance. Still, it will have a very specific slant by focusing on the problem of *individuals*' noncompliance with climate change-related and environmental norms. Choosing to focus on individuals might seem like an inconsequential way to address the problem. Indeed, the major polluters are not individuals, but countries and international corporations – which are also the primary noncompliers, if we want to point fingers. Yet, individuals have a role in contributing to the worsening of climate change, too[2]. It is admittedly a residual role. Still, individuals are political agents whose compliance should be valued and, therefore, should be prompted. As a matter of fact, even among individuals, we can easily register widespread noncompliance – be it for ideological reasons, or conflicting interests or priorities. If we look around us, it is easy to detect that not everyone is well-versed in assuming eco-friendly behaviours.

To complicate matters, there is also the fact that climate change requires a radical change. Whichever policy, norm or prescription would be put into place, it should be designed with a long-term timeline. Doing something about climate change does not mean that it is enough to recycle for two or three months, but rather it means that one must incorporate certain habits and behaviours in one's daily

[1] I refrain to use the expression "solving climate change" because, at this point, it is not possible to reverse the ongoing processes. At most, we can mitigate or avoid making it worse and worse by implementing effective policies and by integrating pro-environmental behaviours in our day-to-day life.

[2] On the mistaken idea that individuals do not have an impact on climate change, we can easily see some data that, for example show that "in the United States individuals and households account for about 40% of the direct energy consumed, through home energy use and transport, and this does not take into account their indirect energy use through the purchase of other consumer goods and services. Thus, climate-relevant individual decisions are at the heart of climate change" (Gifford et al., 2011, p. 802).

routine. For this reason, it is not enough that individuals comply with climate change-related norms and behaviours. Their compliance ought also to be stable over time.

Following all these considerations, in the second part of Chapter II, I will introduce my research question and the connected hypothesis. The research question animating this work asks *how should individuals be motivated to comply with climate change norms over time?* The hypothesis I advance to answer this question is that in order to ensure compliance over time, *individuals should have pertinent reasons for complying.* Pertinent reasons – opposed to non-pertinent reasons – constitute a category that I introduce to reflect the idea that there should be a consistency between the rationale underlying the implementation of a specific policy (e.g. contrasting water pollution) with the motivation that individuals might have to comply with that particular policy (e.g. being concerned about the quality of the water they drink). Pertinent reasons are generated by the coexistence of (a) aptly devised policies, and (b) individuals' environmental concern.

The argument I propose to prompt stable compliance will unfold in two phases. The first one, which will be discussed in Chapter III, will argue that pertinent reasons are more likely to sustain stable compliance than non-pertinent ones. Assuming that individuals either are equipped with an environmental concern or not, I will argue that the political authority should adapt its political means according to what type of individual they are dealing with. With concerned individuals, the political authority can be free to focus on creating effective policies, i.e. devising measures that would hit the target of contrasting climate change. In virtue of their environmental commitment, concerned individuals would indeed comply with it. In this case, considering the convergence between the policy rationale and individuals' concern, individuals would likely have *pertinent* reasons for complying.

Instead, it is necessary to employ a different strategy with unconcerned individuals, playing on their self-interest to make them comply. Without an environmental concern, it may be possible to prompt unconcerned individuals' compliance by establishing an aptly designed incentivisation policy that plays on unconcerned individuals' interests and rewards their compliance by letting them obtain something they consider as worthy or valuable. In this case, the policy rationale and the unconcerned individuals' motivation to comply diverge, thus creating *non-pertinent* reasons for compliance. Once established that concerned individuals would have pertinent reasons to comply and that unconcerned people would have non-pertinent reasons to comply, I will then focus on the core of the problem, which is compliance's stability. I will put both pertinent and non-pertinent reasons to the test. I will argue that only individuals with pertinent reasons would likely maintain their compliance over time as the stability requirement demands.

However, this analysis will enlighten another important consideration: the crucial element for having stable compliance does not lie specifically in having pertinent reasons. Instead, it derives from the fact that pertinent reasons can exist only under the condition of having *an environmental concern*. Therefore, in the second phase of my argument, I will investigate if it is possible to raise in unconcerned individuals such a concern, so as to make it more likely for them to develop pertinent reasons. In Chapter IV, I will precisely focus on this task by using the tool of deliberation. Indeed, I will argue that deliberation is a flexible tool that can be adapted to induce reflection on unconcerned individuals' interests, values, and opinions. To adequately address the problem, I will discern unconcerned individuals into more specific 'ideal-types' who represent the main contrarian stances regarding climate change – tackling both epistemic and normative disagreements.

In conclusion to this introduction, I need to specify that the account I am proposing lies on the non-ideal theory 'side of the spectrum'. Indeed, instead of thinking about noncompliance as the exception to the rule, my account will directly address the claims of climate deniers and sceptics – the worst enemies of climate change. I will try to argue that they are not hopeless cases after all and can be prompted to adopt pro-environmental behaviours. If my argument proves convincing, I will indeed show that it is possible to raise an environmental concern even in them, showing therefore that it is possible to prompt compliance even in traditionally reluctant agents. They would probably not transform into Greta Thunberg overnight, but I will still try to argue that it is indeed possible to prompt their compliance through deliberation.

Additionally, my account will also be functional in testing the limits of the available tools to prompt compliance. I have already revealed in advance that it is indeed possible to convince climate deniers and sceptics, but they are not the only noncompliers around. In fact, there are other categories of unconcerned individuals (which I labelled as 'softly concerned' and 'uncaring individuals') in which we might try to raise an environmental concern, with different success rates.

CHAPTER I

Climate Change in Context

Climate change is a multifaceted physical phenomenon with tentacular consequences extending beyond the environmental realm. This complexity is reflected in the many ways in which this topic can be addressed. It is primarily a matter of scientific inquiry, but with economic, political, and social repercussions: it affects agriculture, food security, development, production, the use of resources, human health, migration, urban planning, and transportation, just to mention a few examples. In addition to its thematic variety, climate change represents at the same time a here-and-now challenge as well as a future one, affecting both the currently living generations and the future ones[3].

Climate change science helps to understand better this phenomenon's extent and the possible future scenarios we might face in the coming years. Knowing what climate change is and its effects on the environment help to grasp a complex and multifaceted phenomenon both in descriptive terms and predictive ones. Still, it also provides a pool of useful information that can guide political action. Indeed, the most important scientific source regarding climate change, the Intergovernmental Panel on Climate Change (IPCC), provides regular and rigorous reports updating the scientific community and the public at large on climate science research developments. These reports are often accompanied by a complementary document, the IPCC's *Summary for Policymakers*, which reformulates the empirical research in

[3] Di Paola, G. Pellegrino, 2014 pp. 4-5; Jamieson, Di Paola, 2016 p. 20; See also: Jamieson, Di Paola, 2014.

terms of areas of intervention. It is drafted with the explicit intention to facilitate the dialogue between science and politics, to help policymakers interpret the available data and create policies that might contain climate change as effectively as possible.

Politics, on its part, has instead struggled to translate scientific information into well-devised policies. Notably, climate change is one of the sore topics for international and domestic politics. Internationally, it took many years to create a multilateral agreement specifically focused on the fight against climate change; domestically, many countries fail to implement the necessary environmental policies. The reason for this failure is only partially connected to the fact that environmental protection needs time in order to be significant. Containing climate change requires a long-term political strategy, with the engagement of many economic resources that not all countries would be able to afford to begin with or devote entirely to environmental issues. In other cases, the reason for not putting into place climate change measures is more ideological than political. Denialist and sceptical narratives regarding climate change have spread within the public opinion. These narratives are also supported by some political leaders, with the consequence that climate change has little or no space in their political agenda.

This initial chapter will provide contextual information regarding climate change, focusing on the science of climate change on the one hand, and on the political strategies that have been so far devised to respond and contain it, on the other hand. The first section will deal with climate science. Besides illustrating the extent and the challenge that climate change represents, in this section I will also talk about the controversial claims connected to climate science – climate change denialism and scepticism – and the ultimate uncertain nature of scientific predictions regarding climate change. The second section will be devoted to reconstructing the tortuous path of climate change policymaking, from the initial acknowledgement of the need

for action regarding climate change to the ratification of the Paris Agreement. The political *status quo* regarding climate change will also provide a background for the introduction of the issue of noncompliance regarding climate change.

1. CLIMATE SCIENCE

In this section, I will deal with the scientific side of climate change. Why should we do something about it? Is it an issue worthy of our interest and, above all, requiring our pre-emptive action? The answers to such questions belong to the broad realm of climate science, which provides data, observations, and forecasts about the many phenomena composing climate change. Indeed, climate science provides substantial evidence regarding the ongoing, far-reaching, human-induced changings in the environment.

The debate regarding climate change is somehow 'bipolar': while the scientific consensus about the causes and the effects of climate change has strengthened, public opinion has instead polarised on the very same topics dismissing the scientific agreement. Indeed, despite this scientific consensus and the mounting hard evidence, there is still a 'contrarian'[4] narrative that refutes the reality of climate change, its anthropogenic causation, the reliability of climate models and, in some cases, the trustworthiness of climate scientists themselves. As we will see, some arguments, especially the denialist ones, are based on a mistaken perception and understanding of the phenomenon. Other objections, especially the ones about climate science's reliability, often come from scientific sources and are based on sound arguments highlighting that climate science involves a high degree of scientific uncertainty. The

[4] I borrow this expression from Parker, 2018.

fear is that predictions that seemed sound in light of a specific set of evidence might be falsified by new evidence or by the occurrence of unexpected by-products that will change the situation for the worse. Once put together, all these issues stem into the well-known scientific controversy about the allegedly excessive alarmism surrounding the climate change debate.

1.1 Facts and Data on Climate Change

The planet Earth underwent many periods of climatic instability, with alternating warming and cooling cycles lasting for millions of years and causing a change in the Earth's climate pattern. There have been both drastic and minor changes during the planet's evolution, including the ones concerning the Earth's overall climate. What distinguishes the environmental changes that we have experienced in the last thirty years (and that we are still experiencing) is the velocity in which they are occurring. Every passing year it is registered an increase in global and local average temperatures, in the sea levels, in the intensity of extreme weather events. Events such as heatwaves, droughts, hurricanes, wildfires, and off-season weather once considered anomalous have lost their exceptionality and are occurring more regularly and with increasing intensity[5]. According to scientists, these changes derive from anthropic activities, especially the ones producing an excessive amount of polluting emissions that are accumulating in the atmosphere and end up with interfering with the planet's natural climate patterns.

The main culprits of the Earth's climate cycle changes are greenhouse gases (GHGs) such as carbon dioxide (CO2), methane, nitrogen oxides, and fluorinated

[5] If we take hurricanes as an example, in 2018 it has been measured that during the last 24 years, hurricanes struck with much more intensity than before and that they last for a longer time. (See: Levitt, Kommenda, 2018).

gases. These heat-trapping gases are naturally present in the Earth's atmosphere. They contribute to the thermoregulation of the planet's surface by producing a natural greenhouse effect important to maintain hospitable conditions for living beings[6]. When GHGs are in excessive quantity, the greenhouse effect is exacerbated and provokes a too high rise in temperatures, disrupting the planet's climate cycles.

The greenhouse effect and global warming were for many years at the centre of the environmental debates regarding the harmful consequences of human-induced pollution, giving the illusion that these two correlated phenomena exhausted the extent of anthropic interference on the environment. We now know that this is only a part of the story. An increase in the planet's overall surface temperature may cause many other environmental and non-environmental consequences that are not just limited to rising temperatures. For example, if temperatures increase, the ocean's surface water would become warmer, facilitating the formation of more intense hurricanes and typhoons – with the subsequent socio-economic implications – as well as affecting the oceans' ecosystems and their biodiversity.

Thus, fighting climate change is not just a matter of adapting to hotter-than-usual summers and more temperate winters, as the name 'global warming' might have suggested. Identifying the environmental crisis that we are experiencing only with global warming leads to misunderstanding and disregarding the issue as a "one-dimensional problem"[7]. It is, instead, a more complex and composite matter: it is a change, a *climate* change indeed[8], producing far-reaching chain reactions which extend much further than the environmental realm.

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[6] The presence of these greenhouse gases facilitates the hospitability of the planet: without these gases, the average temperature on the Earth's surface would be much lower (-18°C, versus the 15°C with the natural greenhouse effect), making the planet unfit for the development of life forms. (See: Gardiner, 2004, p. 557).
[7] Gardiner, 2004, p. 558.
[8] To say it in Gardiner's words, the term climate change "captures the fact that it is interference in the climate system itself, which is the crucial issue, not what the particular effects of that interference turn out to be. The fundamental problem is that it is now possible for humans to alter the underlying dynamics of

Global warming and greenhouse effect are crucial components of climate change, but they are not the only ones. Due to climate change, the Earth's ice sheets are melting, reducing the Arctic's and Antarctic's ice caps and causing the shrinking of many glaciers[9]. Consequently, ice thawing is causing sea levels to rise, putting small islands and coastal areas at risk of flooding[10]. At the same time, other areas are at risk of desertification. The excessive usage of arable land and water supplies together with an increasing scarcity of rainfalls is causing more intense droughts and fast degradation of drylands (which cover the 40% of the planet's land surface), exposing entire populations to the risk of famine[11].

At the time of the writing, the available data show that the rate of carbon dioxide in the atmosphere is at its highest level so far. In July 2019 carbon dioxide has reached 411 parts per million (ppm), whereas in 2005 it was 380 ppm. Since 1880 the Earth's surface temperature grew by 1.7°C, in 2018 the highest average anomaly was of +0.8°C. Moreover, 2016 was the warmest year registered so far, but 2019 will likely beat this record, considering the increasing average temperature registered during the first part of the year. Satellite data show that Earth's polar ice caps are losing mass at the rate of 127 gigatons per year, as measured in 2017. Sea levels are increasing with a

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the planet's climate and so the basic life-support system both for themselves and all other forms of life on Earth. Whether the alteration of these dynamics is most conveniently tracked in terms of increasing, declining, or even stable temperatures is of subsidiary interest in comparison to the actual changes in the climate itself and their consequences for human, and nonhuman, life." (Gardiner, 2004, p. 559). Recently, some environmental activists, scientists, scholars and journalists are advocating for an ulterior terminological shift by using stronger expressions such as 'climate crisis' or 'climate breakdown' as new descriptors in lieu of 'climate change', which is a too lukewarm and neutral label to refer to what has now become indeed an emergency leading to a potential global catastrophe.

[9] The data about ice thawing are many: Antarctic and Greenland's ice caps have been losing mass (respectively an average of 127 and 286 gigatons per year since 2009) (See: NASA Global Climate Change, 2019b) ; in August 2019 there was an ice-loss of an Icelandic glacier; furthermore Iceland is losing about 11 billion tonnes of ice per year (See: Agence France-Presse, 2019). Similarly, many big and small glaciers all over the world are shrinking and progressively losing ice mass.

[10] According to the most recent data, the Mediterranean Sea will rise from 17 to 20 centimetres by 2050. (See: Vecchio et al., 2019).

[11] According to a 2018 research, 4.18 million km^2 of land surface are degrading annually, mostly in Asian (e.g. Uzbekistan and Kazakhstan) and African regions (especially in the Sahel region) which have registered a growth in population. (See: Nunez, 2019; Hutchinson et al., 2018)

change proportion of about 3.3 millimetres per year. According to the measurements made in April 2019, there was a rise of about 94 millimetres[12]. These are the most updated data available, and these growing trends confirm that the planet is undergoing a radical change at a fast speed. According to the IPCC, before the year 2000, the rate of CO_2 emissions grew approximately 1% per year. In contrast, in the last ten years, pollution has increased by 2.2% every year, causing an acceleration of the global warming process[13].

The Intergovernmental Panel on Climate Change is a United Nation-funded panel that regularly dispatches reports updating climate change data. These reports focus specifically on the state of scientific knowledge about climate change. They illustrate the future scenarios considering specific mitigation or adaptation goals. They also provide non-experts with an accessible source of information regarding the state of our planet's climate. The IPCC is considered the most authoritative source for the scientific assessment of climate change. It publishes reports developed thanks to the collaboration of hundreds of scientists contributing to the authoring of the panel's reports which go through an extensive peer-review process that virtually involves the whole scientific community[14]. Among the more technical sections about measurements and future projections, IPCC reports also examine the possible options for preventing dangerous climate change, to encourage a political response through an efficient and climate-aware policy action[15]. To develop efficient policies on climate change mitigation, the supporting information coming from scientific research plays a crucial role for policymakers.

[12] Data from NASA Global Climate Change, 2019a.
[13] IPCC, 2018.
[14] See: Broome, 2012, p. 26.
[15] Indeed the IPCC'S mission statement recites that "the IPCC prepares comprehensive Assessment Reports about the state of scientific, technical and socio-economic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place" (See: https://www.ipcc.ch/index.htm).

The IPCC research outputs are indeed policy-relevant as far as they provide essential background knowledge to help practitioners make informed decisions regarding climate change policymaking[16]. Without knowing the current state-of-affairs and the possible future scenarios, policymakers would not be able to evaluate, compare and select the most efficient policies for the future. Thus, climate change policymaking ought to be supported by a robust scientific groundwork describing the status, the potential future scenarios, and the phenomena that should be either slowed down or entirely avoided.

1.2 Climate Change as a Controversial Matter

Despite the mounting evidence pointing to an unusual change in the climate system and the consensus within the scientific community[17] that this change is causally connected to human activities, climate change remains a divisive topic, at least in the general public's eyes. Many political leaders, journalists, pundits and 'non-mainstream' scientists often voice their contrary views regarding the reality of climate change and its anthropogenic nature. Their statements often cast a shadow on climate science's reliability and trustworthiness, giving a seemingly authoritative platform to stances in the minority within the scientific community and projecting the idea that there is no sure scientific conclusion regarding the dangerousness of climate change.

The effect of this underestimation is that the warnings about the ongoing climate emergency and the appeals to act promptly are systematically dismissed both by political actors and by the populace. The contrarian narrative feeding this disagreement can assume many forms: there are people – usually poorly informed

[16] See: Guston, 1993.
[17] For an overview, see Oreskes, 2004; Oreskes et al., 2010.

laypeople and some short-sighted political leaders – radically denying the existence of anthropogenic climate change; lobbies and corporations "manufacturing doubt"[18] to hamper climate policy that would be against the interest groups they represent; groups of climate 'sceptics' who instead contend the results of scientific research on a 'methodological' basis[19]. The first two groups – denialists and manufactures of doubt – operate respectively outside and borderline of the scientific community; their stance is primarily based on rhetorical, circumstantial, or deliberately misleading arguments. The latter group, instead, occupies a peripherical position in the scientific community. Their criticism targets scientific conclusions – often deemed as insufficiently justified[20] – based on climate modelling's undeniable methodological complexity.

All these contrarian arguments contribute to swerve the climate change debate and to relent attempts to undertake actions to cope with it. If we spend time arguing about whether anthropogenic climate change is actually occurring or not, we will not talk about what we ought to do about it. In a sense, contrarians are 'noncompliance enablers' because they are providing ready-made justifications for inaction: the constant wariness towards scientific statements, the focus on the uncertainty of predictive models and the continuous undermining of scientific expertise have contributed to the idea that, for one, what we know about climate change does not require immediate action, and even if it does, it falls relatively low on the priority list of the problems in need of a solution.

The idea that climate change's uncertainty means that we do not have enough ground for climate action is false. Admittedly, there are grey areas in climate science that need further research, but what we know is more than enough to plan a strategy

[18] See: Oreskes, Conway, 2010.
[19] Parker, 2018.
[20] Parker, 2018.

to contain climate change. Contrarian arguments represent a preliminary roadblock that needs to be overcome by exposing their fallaciousness when possible or at least bracket them to let the 'real' talk – the one about what to do about climate change – begin. In the next two subsections, I will try to do something along this line: I will better explain the essential claims of those who fall into the contrarian category, assess whether their claims are valuable for the climate change debate (do they have a point? Mostly, no) and, finally, appeal to a precautionary approach to deal with the issue of scientific uncertainty and to let the climate action move past the disagreement regarding the existence and the extent of climate change.

1.3 Contrarian Views on Climate Change: Scepticism and Denialism

Even though the majority of the scientific community (to be precise, the 99%, according to a recent study[21]) agrees that climate change is ultimately human-induced, there are still people resisting this conclusion and – more or less openly, more or less rigorously – arguing against 'mainstream' climate science. The theses used by contrarians to dismiss climate change are many (it is a not real problem, it is a hoax, scientists disagree, it is a conspiracy), but they can be summarised into two groups: on the one hand, there are climate *deniers*, who hold that there is no such thing as anthropogenic climate change by appealing to non-scientific arguments (comprising, therefore, the conspiratorial positions and the deniers *tout court*). On the other hand, climate *sceptics* are 'non-aligned' scientists criticising 'mainstream' climate science. They hold that the data used for climate modelling are unreliable, or that

[21] See: Watts, 2019.

climate scientists fail to consider other alternative explanations for the phenomena observed[22].

The various arguments used to support the rejection of anthropogenic climate change cover a wide range. Deniers' opinions are usually based both on a conspiratorial view and on a misconception of the climate change phenomenon and the scientific apparatus investigating it. Sceptics' arguments, instead, draw their conclusions starting from an admittedly problematic point. They cricise the research methods employed by climate science. Moreover, they tend to highlight the uncertainty connected with predicting future phenomena and the difficulty to precisely determine how different phenomena will interact with each other – which is admittedly a grey area for climate research, too. Climate sceptics are actually attacking a criticality of scientific investigation. Yet, their conclusions somehow miss the point and trivialise a complicated matter – climate modelling and uncertainty – which, by contrast, are the matter of very technical methodological debates *within* the 'mainstream' scientific community. However, these internal debates do not affect the overall conclusion regarding the danger of anthropogenic climate change.

Starting from the less rigorous position, let us begin with the deniers' claim that climate change does not exist. This position is held mainly by politicians, pundits, and laypeople who, through public statements, newspaper interviews and social media, express their lack of belief regarding climate change. These drastic claims derive mostly from a misunderstanding of the phenomenon. They usually use arguments conflating weather phenomena or global warming with climate change. This is the case of those arguments taking the observation of extremely cold weather as proof to deny that there is an ongoing global warming process, wrongly thinking

[22] This charge is often used for paleoclimatologists who use proxy data derived from, for example, rock sediments, fossils and corals.to understand the historical climate patterns of the Earth (See: Parker, 2018).

that the climate change phenomenon is identified entirely with higher temperatures[23]. The shifts in the scientific terminology enabled this confusion. Actually, global warming is only one of the many components composing climate change, including various and often opposite phenomena (e.g. droughts and intense precipitations; extremely cold and extremely hot weather). This kind of climate change denialism does not seem difficult to overcome. As far as the climate change denial derives from a misunderstanding of the simplified labels used to communicate otherwise complex phenomena, the solution to beat this naïve objection is easy. It would be enough to set the record straight, define the terminology used in clear terms, and explain the intricacies of climate science in equally clear terms.

Other times, instead, denialist claims are grounded on a more complex view of climate change, which is considered a hoax created on purpose to pursue other hidden interests. These claims usually are supported by conspiracy theories, i.e. "unsubstantiated explanations of events or circumstances that accuse powerful malevolent groups of plotting in secret for their own benefit against the common good"[24]. To make more specific examples, before becoming President of the United States, Donald Trump stated that "the concept of global warming was created by and for the Chinese to make US manufacturing non-competitive"[25]. Similarly, the Foreign Minister of Brazil appointed by the Bolsonaro administration wrote in his personal

[23] The former President of the United States Donald Trump often makes this mistake when expressing his opinions regarding climate change. For example, on the 20th January 2019 he posted the following tweet: "Be careful and try staying in your house. Large parts of the Country are suffering from tremendous amounts of snow and near record setting cold. Amazing how big this system is. Wouldn't be bad to have a little of that good old-fashioned Global Warming right now!" (https://twitter.com/realDonaldTrump/status/1086971499725160448). In a similar tweet a few days later, on the 29th January 2019, he wrote: "In the beautiful Midwest, windchill temperatures are reaching minus 60 degrees [F], the coldest ever recorded. In coming days, expected to get even colder. People can't last outside even for minutes. What the hell is going on with Global Waming [*sic*]? Please come back fast, we need you!" (See: https://twitter.com/realDonaldTrump/status/1090074254010404864).

[24] Uscinski et al., 2017.

[25] Tweet posted by Donald Trump on 6th November 2012, four years before his decision to run for the presidency of the United States: https://twitter.com/realDonaldTrump/status/265895292191248385.

blog that he believes that climate change is a scheme devised "to stifle economic growth in democratic capitalist countries and to promote the growth of China"[26]. These are conspiracy theories accusing a foreign power to undermine its competitors through the invention of a false crisis. As far as conspiracy theories go, this is a fairly prosaic story, but far more convoluted plots are fabricated to dismiss climate change as a hoax. For example, conspiracy theories devised by denialists "suggest the well-publicised [scientific] consensus is either manufactured or illusory and that some nefarious force—be it the United Nations, liberals, communists, or authoritarians—want to use climate change as a cover for exerting massive new controls over the populace"[27]. Denialism and conspiracy theories generally are supported by small cult-like and sectarian groups. Still, climate change denialism has reached a wider audience, especially after people with a public standing openly endorsed these theories contributing to their propagation on mainstream media. To be fair, though, in recent years the presence of the denialist narrative in the public debate has diminished. Due to the increasing interest in climate change and the growing environmental awareness, denialist positions have returned to be marginalised. Also, public and political personalities are more reluctant to openly express such opinions, even though their beliefs seep through their political choices on environmental matters, impacting more than their declarations.

Climate sceptics, who usually are marginalised members of the scientific community, are more systematic in their contention of the human impact on climate change. Compared to the ones advanced by climate change deniers, sceptics' claims

[26] See: Watts, 2018. The anti-climate change stance of both Trump and Bolsonaro have heavily influenced their position in the international arena regarding state cooperation to mitigate climate change. I will speak about this more extensively in section 2 of this chapter. See: Light, Hale, 2018.
[27] See: Uscinski et al., 2017. Alternative theories claim that "climate scientists purposely fake data to receive research funding, or that climate change is a hoax perpetrated by leftist radicals to undermine local sovereignty" (Uscinski et al., 2017).

are less strong: they do not claim that anthropogenic climate change *does not* exist. Instead, they hold that climate change research is biased towards the anthropic causality of environmental changes. When interpreting the data and creating their computer models, mainstream scientists automatically exclude other possible explanations for the observed phenomena – namely the ones excluding or downsizing the contribution of human activities. Moreover, sceptics hold that the processes, the interactions, the causes and the by-products of the Earth's climate variations are too complex to be entirely predicted by computer models. Such models, indeed, cannot reproduce the natural climatic variation which, according to them, thoroughly explains the global warming registered in the last century. Mainstream climate models are intrinsically faulty and biased towards anthropogenic climate change, as they overestimate the contribution of human activity and underestimate the natural climate variability[28].

For this reason, such models do not provide a truthful picture of the Earth's climate patterns. They are unbalanced towards the anthropogenic explanation, interpreting data only according to this paradigm and excluding *a priori* other alternative explanations that do not assume human activity as a crucial causal factor of climate change. An example of the alleged unreliability of computer-generated climate model is the so-called *Tropospheric Temperature Controversy*[29]. According to their computer simulations, climate scientists expect that greenhouse gases will induce warming not only on the Earth's surface but also in the troposphere – i.e. the atmosphere layer extending 8-12 km above the surface. Contrary to what expected, the earliest satellite data showed that there was no warming in the troposphere. This evidence was used – and it is still used – by climate sceptics to deny the anthropogenic

[28] These are in a gist the main arguments proposed in an anti- anthropogenic climate change petition presented to the Italian Parliament and signed by a group of Italian climate scientists (Floder Reitter, 2019).
[29] Parker, 2018.

nature of climate, change even if more recent data show that the troposphere is indeed getting warmer[30].

The claims of climate sceptics are partially valid for what concerns climate science's methodology, especially regarding the complexity of interpreting data and developing climate models. Climate change science indeed needs to grasp and explain complex and composite phenomena. Besides, it should also provide a roadmap to future scenarios trying to predict what different interactions will produce over a long time-span with a certain degree of reliability, especially considering that these model outcomes will most likely become the basis for policy planning.

Climatologists face many methodological difficulties when studying climate change. Some of these methodological issues are the usual problems we face when translating physical phenomena into abstract models, namely the definition of the phenomena[31], the variables' selection and the necessity of creating 'simple' explanatory models for very complex processes[32]. Instead, other issues are more specific to climate change's nature, and they include the difficulty in gathering the necessary data and the obscurity of the causal relationships at work. More specifically, climate models rely on raw data that often "contain errors, are irregularly spaced and are incomplete in various ways"[33]. When direct data are unavailable (for example the ones measuring temperature changes over centuries), scientists use proxy data taken from natural recorders (e.g. ocean sediments) that are not precise and not entirely

[30] The first estimates were made in the 1990s with data collected over a decade. However, "more recent observational estimates agree that the troposphere has been warming and, although observed trends still tend to be somewhat smaller than those in simulations, the mainstream view is that there is "no fundamental discrepancy" between observations and models, given the significant uncertainties involved" (Parker, 2018).
[31] See: Frigg, Thompson, Werndl, 2015a, pp. 953-964; Werndl, 2016.
[32] See: Oreskes, Conway, 2010; Frigg, Thompson, Werndl, 2015b; Bradley, Steele, 2015.
[33] Frigg, Thompson, Werndl, 2015a, p. 956.

reliable. These proxy data are often useful to trace the variables' change over time, especially within a century-long period[34].

Also, climate change models try to cover a long time-span, both in their backwards-looking analysis and especially in their forward-looking forecasts. Depending on the time-span of the forecast (e.g. measuring temperatures oscillation over a year or a decade), on its spatial extension (e.g. forecasting the average temperature on a specific region, on a country, on a continent or worldwide) and on the specificity of the prediction, there will be different models with different rates of reliability[35]. Moreover, scientists often cannot trace precisely the causal chain of interconnected phenomena: as I said before, climate change is an 'umbrella' label that includes many different phenomena. For scientists, it is difficult not only to reconstruct the causal chain which brought about what we are experiencing right now, but it is also difficult for them to predict what this causal chain will bring about in the future – which the core of the problem of uncertainty about climate change.

However, sceptics' claims only sideswipe these very technical methodological disagreements, as they focus more on dismissing climate change's anthropogenic causation. They criticise data collection and computer simulations only to the extent that they do not entirely justify the conclusion that anthropic activities are the main cause of climate change. From this, they derive their claim that there is no need to modify all those human behaviours dangerous for the environment. Often, these dissenting conclusions conceal a very different purpose. As we said before, the findings of climate science have the additional purpose of guiding future policy planning which might negatively affect some interest groups (e.g. the petroleum

[34] For example, the analysis of ancient ice caps can indicate the concentration of methane or carbon dioxide before the Industrial Revolution, when it was first possible to collect data directly (Broome, 2012, p. 23).
[35] Frigg, Thompson, Werndl, 2015b, p. 969. For a summary of the system used in the IPCC reports to rank likelihood statements see Hartzell-Nichols, 2017, p. 10.

industry, for example) which might not benefit from an anti-climate change policy plan. Some scientists are not *just* climate sceptics, but they are also manufacturers of doubt. They deliberately question the findings of mainstream climate science – sometimes even stemming into smearing campaigns against prominent scientists[36] – to purposely block the path towards the next step, namely devising policies to curb climate change[37].

Both climate change denialism and scepticism can be considered noncompliance enablers, even though in different ways. Scepticism – especially in its doubt-manufacturing version – hinders climate action, by creating a block at the governance level. Denialism, instead, fosters distrust among the populace, letting people think that in climate science the last word has not yet been said and that the anthropic responsibilities for the planet's changes have not yet been proven[38], therefore providing a reason for delay any action to mitigate or adapt to climate change. Contrarian views are very dangerous for at least two reasons: more generally, they slander the findings of climate science and the reputation of climate scientists, creating undue distrust towards climate science when instead there is a solidified scientific agreement. In turn, this distrust brings people to dismiss any claim to act for climate change, fostering noncompliance as a result.

[36] Oreskes, Conway, 2010, pp. 1-10.
[37] Oreskes, Conway, 2010.
[38] Denialism in particular introduces another additional complication in the form of opinion formation: denialist arguments are persuasive and even if rebutted by more rational and scientifically sound counterarguments, it is more likely that denialists will stand by their opinion and keep on refusing to believe the scientific truth, especially if their conviction is rooted by their ideologies – political or otherwise. "For example, those who hold "new age" beliefs are more likely to believe in Da Vinci Code theories (e.g., the idea that Jesus's progeny is alive today) while devout Catholics are less likely to accept the idea that Jesus fathered a child with a prostitute" (Uscinski et al., 2017).

1.4 Scientific Disagreement about Climate Change, Uncertainty and the Precautionary Approach

Disagreement pervades the debate about climate change. Some contentious topics, such as the methodological issues of climate modelling, do not represent a hindrance for compliance. These debates develop entirely within the scientific community, which has its procedures to solve (or at least overcome) them. The long and complicated peer-review system adopted by the IPCC is an example of this. Other types of disagreement, such as the denialist and the sceptic ones, are instead more pervasive because they are directed to the populace at large and provide ready-made reasons for noncompliance.

As far as I can see, there are three problems to deal with to smooth the path and create conditions for enabling compliance. First, we need to provide reasons for action to deniers, who might tend to reject even the likelihood of climate change. Second, we need to find common ground with sceptics, who at least accept the minimal fact that there is a change in the Earth's climate (even though according to them it is not due to human activity). Third, we also need to deal with an additional objection regarding acting under conditions of uncertainty[39], which might require to prefer inaction over action[40].

Thanks to climate science, we can say that we have extensive knowledge of climate phenomena. We know past climate trends to make comparisons with current ones. We know what the dangerous gases that can cause pollution are. We also know which scenario to expect in the future given specific emission rates and policy

[39] Knowing what the predictions for the future are is essential for the policy planning. This knowledge is crucial for developing a policy strategy in order to curb climate change, but the intrinsic uncertain nature connected to climate change adds a further level of complexity.
[40] See: Mckinney, 2000, p. 83.

scenarios. Contrarian arguments tend to highlight the uncertainty regarding the causes of climate change. Climate sceptics, particularly, want to debunk the alleged myth of anthropogenic climate change by saying that we cannot affirm with certainty that climate change is ultimately due to human activity. Their arguments insist on highlighting the fact that it is uncertain that there is a specific (anthropic) cause for a process that might be alternatively explained as the ordinary prosecution of the planet's 'life-cycle'. By drawing attention to uncertainty, contrarians raise yet again a fair but misdirected point.

Uncertainty is part of climate science research, but it does not concern the studies reconstructing or understanding the causal chain provoking climate change. Rather it concerns the part of climate research focused on trying to predict the future scenarios we will have to deal with. Indeed, climate science's primary task – beyond studying what happened in the past and what is happening right now – is to provide a roadmap for what will happen. How much will sea levels increase if the average global temperature is 1.5° C or 2° C higher[41]? How will animal species cope with a massive temperature change? What will happen if the surface of tropical forests is reduced by half? Thanks to the observation of current trends and computer simulations, climate scientists can answer these and many other questions regarding the planet's future outlook. The problem is that these predictions are made under the assumption that the planet's climate cycle will remain consistent throughout the future, and that there will not be any drastic changes upsetting the ongoing patterns of human-induced changes. However, many interactions are remaining obscure and unpredictable. Not only directly disrupting physical phenomena, but also the indirect consequences of climate change processes might trigger a causal chain that would

[41] For example, the special IPCC report published in 2018 describes what would be the potential impacts of climate change on natural resources if the temperature rises of 1.5°C or 2°C. (See: IPCC, 2018).

most likely deviate from the computer-generated simulations. So, in climate science, there is indeed an 'uncertainty factor' that needs to be considered when making future plans, as "uncertainty abounds in our understanding of exactly *what* will happen. We know climate change will be bad, but we do not know exactly *how* bad it will be *when* and *for whom*"[42].

What shall we do when facing this uncertainty? In the case of climate change, not intervening is not an option, because one thing that is not uncertain is that the current speed of emissions rate is causing a progressive deterioration of the planets' ecosystems and a depletion of its resources. Letting emissions continue on their increasing trends will only sharpen the dangerous effects of these phenomena, and by consequence, it will also increase the probability of unexpected events[43].

The best solutions to deal with both uncertainty and the not-so-uncertain dangers of climate change is to try to adapt to the inevitable processes[44] (which is the core of adaptation to climate change) and to try to enact prevention strategies whenever possible, to at least contain the worsts effects of climate change (which is the aim of climate change mitigation). Creating a prevention strategy means, in the first place, that we need to know the dangers that we are trying to prevent, and, in the second place, that we need to choose those strategies – i.e. policy plans – that would avoid or minimise such dangers.

Do we know the dangers of climate change? The answer is yes, we do. We know that climate change will cause environmental disruption, force the displacement of both human and non-human beings, and alter entire ecosystems.

[42] Hartzell-Nichols, 2017, p. xvii.
[43] Just to make an example, if we let emissions go up without any curbing policy in place, we can imagine that ice thawing will happen faster, creating a sudden disruption of the Arctic and Antarctic ecosystems as well as provoking a sharp increase in sea level rise. In this way the probability of Venice being submerged by 2030 would become more likely.
[44] For instance, by building sea barriers on areas where an increase in sea level has already been registered.

Considering this threat, precaution seems the obvious choice: we will likely face massive losses due to climate change. The potential costs of dealing with these losses will undoubtedly exceed the costs of taking prevention measures[45]. In order to clarify this aspect, let me make an example: in 2005 Hurricane Katrina[46] caused 1,836 confirmed deaths in Mississippi and Louisiana, with over 700 people reported as missing. Also, it caused damages for approximately $125 billion, and over 15 million people were affected by it in indirect ways (such as by evacuating measures, job loss, rising gas prices and so on)[47]. One of the phenomena climate science predicts is the increase in intensity and frequency of extreme weather phenomena such as hurricanes, indeed. We can imagine a scenario in which, due to climate change, there will be more than one hurricane with Hurricane Katrina's force every year. The economic, social and human costs of dealing with many Hurricanes Katrina yearly would be undoubtedly unbearable. They would most likely exceed the costs of prevention, including, for example, securing households and avoiding the future scenario in which there are two, three or more yearly hurricanes with Katrina's force and intensity.

The same argument can be applied to the many other threats posed by climate change. We may not know in specifics what might be the extent of these threats in the future, but, considering previous experience, we can have an idea of what it might entail. We can easily see that assuming a precautionary approach in the face of these

[45] Some of these arguments are used by Henry Shue to show that we ought to "ignore entirely questions of probability beyond a certain minimal level of likelihood" (Shue, 2014, pp. 147-148) when dealing with threats of harm that entail (i) massive losses (ii) with a significant likelihood even without a precise probability specified and (iii) not so excessive prevention costs compared to the magnitude of the possible losses and other demands on the resource at one's disposal. See also: Shue, 2015.

[46] Hurricane Katrina was one of the most disrupting hurricanes ever hitting the USA. Even though, the causal correlation between Hurricane Katrina and climate change is tenuous, I use it anyway as an example because, as I said before, climate change will increase hurricane's intensity and make them more frequent, so we can imagine that in a future scenario in which climate change has worsened, there will be more hurricanes like Hurricane Katrina during a short period of time.

[47] See: https://www.dosomething.org/us/facts/11-facts-about-hurricane-katrina#fnref6.

potential dangers would diminish the possible future (economic, social and human) costs and losses. So, it would be worth the trouble of creating policy strategies guided by the 'better safe than sorry' rule of thumb, which is the basic intuition behind the precautionary principle[48] invoked to deal with climate change.

We have established that we know enough about climate change's future dangers to approach the issue with a precautionary outlook. But we still have left the second question unanswered: which strategies should we choose to deal with the future threats posed by climate change? The answer to this question depends on many variables. When we talk about 'strategies' we do not mean a binary choice between acting or not acting, but we are introducing an additional level of complexity. Strategies might differ in many substantial ways. For one, they can be adaptive or mitigating strategies: we can wait to know more about what we are fighting against and adapt to these changes or we can work in advance to reduce the extent of such changes through mitigation. Strategies can also be more cautious and slow-burning or more aggressive and abrupt in tackling what is causing climate change.

The selection of which system is the more apt to limit the dangers of climate change also depends on elements not strictly related to the environment, such as the costs of implementing a strategy over another. It will be implausible that a developing country will implement aggressive and abrupt policy plans if these policies require expensive resources that are not at their disposal. This second question seems to fall

[48] The discussion about the precautionary principle is quite vast, and it is even difficult to say that there is such a thing as *the* precautionary principle. Daniel Steel and Hartzell-Nichols (Steel, 2015; Hartzell-Nichols, 2017) provide an extensive discussion both about how to identify such principle (by synthesizing both its weak and strong formulations) and how to apply it to climate change. Other less recent works, instead, focused on defining a specific version of the precautionary principle to cope with climate change. There is a version of the precautionary principle modelled on Rawls's maximin principle (Gardiner, 2006a); alternatively, the precautionary principle can be characterised as a minimax rule, holding that "between courses of action – all with uncertain negative outcomes – the agent should compare only the highest loss scenarios of the courses and choose the course of action that causes the lowest of the highest loss scenarios to come to pass" (Moellendorf, 2014, p. 81); or it can be built in order to address specifically the issue of intergenerational justice (McKinnon, 2012).

beyond the scope of having a precautionary approach to climate change. Planning a strategy involves so many elements that it is challenging to devise a solution suitable for every season. Having a precautionary approach, indeed, provides an initial reason for acting against climate change. Still, it does not specify how we should act, and which specific policy strategy should be implemented. This decision depends on other more contextual factors, but it is a step forward concerning the role played by the precautionary approach. However, a precautionary approach regarding climate change has undoubtedly substantial political implications, because it provides an initial platform to start planning those more specific and contextual environmental policies attempting to reduce both the current risks connected to climate change and the potential ones. Of course, the minimal condition to do so is to seriously consider the reports made by climate scientists and devise policy strategies that are consistent with the research outcomes of climate science.

As said in the previous section, appealing to a precautionary stance regarding climate change has an additional purpose, namely, to bracket the objections of sceptics regarding acting to fight human-induced environmental changes. Recapping their view on the topic, sceptics have issues with (i) the way data are interpreted; (ii) the reliability of climate models, especially for what concerns future predictions; and (iii) the exclusion of alternative explanations for the observed phenomena. The conclusion they reach is that all these problems put together do not give enough ground to affirm that climate change is incontrovertibly and undoubtedly caused by human action. The data are incomplete, and the models have a blind spot for what concerns uncertain events. The scientists are too biased even to test hypotheses excluding anthropic activity as a causal factor. So, we cannot claim that human beings are causing climate change.

Sceptics and 'climate change believers' disagree on what is causing climate change, yet they agree on a very minimal thing: some environmental changes are going on. Also, sceptics are not necessarily anti-environmentalists: even though they deny the human responsibility regarding climate change, they can recognise and condemn behaviours and attitudes that are detrimental to the environment's wellbeing. Think about simple actions, such as reducing pollution from factories, not dumping toxic substances in water basins, and having clean and potable water. These are all actions we can condemn or promote regardless of our specific stance on the climate change debate, as long as it is not essential to agree on what is causing these environmental changes to say that, for instance, drinking water with too high levels of arsenic or chlorine is bad. Therefore, we should avoid the dumping of toxic substances containing arsenic or chlorine nearby water mains or wells used to get hold of drinkable water. Both a sceptic and a climate change believer can agree that whenever there is a foreseeable risk, assuming a precautionary approach makes sense. Additionally, climate sceptics are the ones highlighting the uncertain character of future climate events in the first place, so they can surely see that considering the unexpected, playing it safe is the best approach to face those uncertainties.

Of course, one might object that the two purposes of precaution I have set (i.e., facing uncertainty and finding common ground with sceptics) are very different. The examples we made before to face scientific uncertainty involved 'blind' precaution: we do not know for sure what might happen in the future, but we prefer to play it safe anyway. In this case, instead, the 'worst-case scenario' is foreseeable enough to justify a precautionary stance. However, one might still refuse to accept a risk-averse stance towards unknown future events, even though knowing the potential risks' extent.

My response to this kind of objection leans on the scope of the precautionary approach: playing it safe is a very general attitude that does not commit us to a specific policy strategy. As long as we can agree that there is an environmental change for the worse going on (regardless of its causes) and that it will have negative – albeit uncertain – consequences, then we have reasons enough to assume a precautionary approach to guide us onwards.

Deciding how to deal specifically with uncertainty, given other conditions, is a matter of policy that should be evaluated considering other issues. For example, imagine that after an oil leak in the ocean, we need to decide what to do to deal with this issue. The precautionary approach guides us towards action: so, we know that not doing anything is not an option. Then, if we are more cautious, we might decide to ban and close all oil rigs – just for the potential risk of other leaks. If instead, we are less cautious, we might approve of building new rigs, but only if they implement more robust safety measures. The choice might depend on many factors. For example, we might be willing to renounce to oil wells because we are already transitioning to other energy sources. Alternatively, we might prefer to keep drilling oil because it is the only endeavour supporting our economic system.

Assuming a precautionary stance only means that in light of a severe threat, we should react. Instead, the content, the scope, and the modalities of such action should be decided according to other criteria. We have strong enough evidence to say that environmental changes are happening and that they are human-induced. Contrarian stances denying anthropogenic climate change either misunderstand the extent of the phenomenon or use specific methodological issues to entirely reject mainstream science explanations correlating climate change to human-made activities. Additionally, climate change involves unforeseeable events representing a liability that needs to be dealt with by assuming a precautionary approach to guide our

subsequent policymaking. Indeed, precaution is one of the core concepts of animating the international conventions, treaties, and agreements regarding climate change. Yet, nations have not always respected this guiding principle when deciding what to do about climate change.

2. CLIMATE CHANGE POLITICS

This section will deal with the second significant cluster of questions regarding climate change. Previously we focused on the scientific reality of climate change and how it represents a pressing problem with potentially catastrophic consequences. Once we know the facts, the next step is to do something about these facts regarding the potential harms that climate change will cause. This section will indeed answer another pressing question: what has been done so far to fight climate change? Short answer: not enough.

Despite international policymaking efforts, we are still very far from reaching the targets of mitigation to consider climate change not anymore as a threat for the planet and all the sentient and non-sentient beings living in it. The political dimension of environmentalism and climate change developed parallelly with climate science findings, which provide guidelines for international treaties aimed at mitigation. As I will show, despite the relative novelty of the topic – climate change debuted as a 'hot' political topic almost 30 years ago – there have been already many attempts at creating a multilateral, cooperative strategy to curb dangerous emissions[49]. Among false starts, loose ends and minor successes, there is still a lot to do in terms

[49] See: Okereke, 2010.

of climate change policymaking – especially for what concerns *complying* with such policies.

Once that climate science has provided the necessary facts about climate change, there is the need to translate these facts into norms and laws that, in turn, should serve as guidance for the implementation of specific policies to contain climate change. What have been the political responses to the challenge of dangerous climate change so far? Have these responses been successful in facilitating anti-climate change policy design?

Translating scientific information into achievable goals and implementable policies is very difficult, considering the large-scale and far-reaching effects of climate change. Due to its global-scale consequences, climate change has been addressed primarily in the international arena, where very different countries – in terms of clout, wealth, interests, available resources, exposure to climate change phenomena – are asked to converge on shared strategies to fight climate change and, then, are expected to act accordingly. Climate change indeed requires a coordinated global-wide effort in undertaking the actions needed to effectively avoid (or at least contain) its worst consequences. Yet, few parties are willing to shoulder the costs of coping with climate change, especially if those costs would require reshaping their economic and development targets[50]. These conflicting interests hindered for many years the ratification of an international treaty. Only in 2015, international climate policy reached a turning point with the ratification of the Paris Agreement.

[50] Climate change is often approached as a global-scale collective action problem, in which "decisions about costly actions are made independently but outcomes jointly affect everyone involved. If independent decision makers seek only short-term material benefits, they do not achieve feasible outcomes that yield higher returns for all who are involved regardless of whether they make costly contributions […] Without *externally imposed* regulations at the global scale, the conventional theory predicts that no one will reduce emissions" (Ostrom, 2010,p. 551. Emphasis in the original text).

However, the enthusiasm was quickly dampened by the announced withdrawal of the United States of America after the administrative change from the Obama to the Trump presidency. It is the most prominent example of noncompliance, and not even a new one – as something similar happened with the previous treaty, the Kyoto Protocol – but there are other less evident (but not less worrisome) cases. Besides their legislative role, treaties such as the Paris Agreement and the Kyoto Protocol have a symbolic role in the international arena. It might happen that certain countries – for example, the ones in need of international recognition – pay lip service to mitigating climate change by signing an international agreement without following up with the appropriate domestic measures[51].

2.1 From the Early Developments to the Kyoto Protocol

In the public debate, the interest in environmental issues began during the 1960s, when politically engaged intellectuals denounced the use of plant protection products[52], attracting the interest among American citizens, and also their uproar. Eventually, the US government promulgated a law forbidding the use of poisonous DDTs. It is no coincidence that the early concerns of the Environmental Protection Agency (EPA) – created by President Richard Nixon in 1970 – focused on regulating the usage of pesticides and fungicides. In the following decade, many environmental movements were founded. In the beginning, on the blueprint of the protest movements during the late 60s and early 70s, they were mainly apolitical organisations that wanted to raise awareness on environmental issues. During the

[51] This is the case of China, whose pledges are rated 'highly insufficient' regarding the overall goals set by the Paris Agreement. See https://climateactiontracker.org/countries/china/.
[52] See: Lear, 1993.

1970s, many 'green' political parties were also founded, whose intention was to introduce environmentalism as a flagship theme in the political arena. The first one was the Australian green party in 1972; one year later, the English green party was created, and ten years after, it was formed the first environmentalist party in Italy as well.

In the international arena, climate change garnered attention a little bit later. In line with scientific research, one of the concepts underpinning the early negotiations towards an international climate treaty was the idea that we needed to contain the dangerous consequences due to global warming, excessive greenhouse gas emissions, and pollution.

In 1990 IPCC released its First Assessment Report, stating the increase in polluting gases in the Earth's atmosphere and other worrying data on the state of the planet's climate. The IPCC experts' report was the ultimate motivation for policymakers to commit to developing a stable and authoritative institutional framework that could eventually create a set of shared climate-oriented policies.

In these early years, the key concepts characterising the subsequent years of negotiation were defined. In addition to the precautionary approach and the consolidation of IPCC as a source of information, in this early phase, the strategies to prevent climate change (namely, mitigation, adaptation and compensation[53]) were elaborated, and the participating members were divided into developed (Annex I) and developing (non-Annex I) countries. Considering this division, the emission requirements had to be assigned according to each country's development rate[54].

The 1992 Rio Declaration provided a more precise theoretical framework. All the values, intentions and beliefs of the early years are merged into a systematic

[53] See: Moellendorf, 2014.
[54] Gupta, 2010,

document composed by 27 principles highlighting the importance of sustainable development[55]. The same year it was also established the *United Nations Framework on Climate Change Convention* (UNFCCC), which focuses on the organisational structure for climate change negotiations. More specifically, it stated that every country's mitigation commitments should be legally binding, emphasising the difference between developed and developing countries[56].

This institutional path led to the drafting of the Kyoto Protocol in 1997. Before being replaced by the Paris Agreement, The Kyoto Protocol was the most important pact stating the necessary measures for mitigating climate change and certifying countries' willingness to engage in climate change mitigation. The Protocol was built on the blueprint of the UNFCCC, stating legally binding policies targeted to reduce by 5.2% GHGs emissions for the 2008-2012 period.

Initially, the Kyoto Protocol was celebrated as "a flexible, broad-based, international mechanism that provides a valuable starting point for shaping efficient climate policies"[57]. It was praised mainly because, after many unsuccessful negotiations, meeting and conventions, there was finally a broad agreement among countries on measures to contain GHG emissions. Following the well-established distinction between developed and developing countries, the Protocol imposed binding emission targets only on the former. Still, the fast development rate (and subsequent emissions' increase) in developing countries such as China, India, and Brazil revealed that limiting emissions was not enough to respect the ambitious targets set by the Kyoto Protocol itself. Progressively, the convergence towards the pact faltered, and many important actors shirked from the Kyoto Protocol[58]. In 2001

[55] Rio Declaration, 1992, http://www.unesco.org/education/information/nfsunesco/pdf/RIO_E.PDF.
[56] See: Gupta, 2010, p. 639.
[57] Böhringer, 2003, p. 451.
[58] See: Savaresi, 2016,

the Bush administration decided to withdraw the US from the Kyoto Protocol for economic reasons: they held that the reduction demands were too high, and they would negatively affect the American economy[59]. Other countries shirked from the Protocol in the following years, especially after the 2008-target mark when negotiations were again blocked. Many players, including Japan and Russia, refused to settle on new targets[60].

Meanwhile, the IPCC kept publishing its regular Assessment Reports that reiterated the urgency of timely and efficient measures to avoid the catastrophic consequences of climate change. The Kyoto Protocol was the result of such warnings, as it required that developed countries apply a significant and specific cut in their GHGs emissions. For this reason, the measures devised by the Kyoto protocol were considered high-reaching and ultimately a burden on a country's economy, as it happened with the US. The events related to the Kyoto Protocol were the first signal that there is an imbalance between the elaboration of efficient mitigating policies and states' compliance in implementing them. In the end, national interests had the upper hand, and only a few countries continued to abide by the pact.

After the Kyoto Protocol collapsed, international negotiations started again intending to promote "a shared vision, adaptation measures, mitigation measures, technology development […] to be adopted in Copenhagen 2009"[61]. Progressively, the Kyoto Protocol's top-down structure[62] and 'legally binding commitments' were replaced by 'nationally appropriate mitigation actions', giving more flexibility and freedom to model climate change policies to each country's needs.

[59] Böhringer, 2003; Gupta, 2010.
[60] Savaresi, 2016, p. 2.
[61] Gupta, 2010, p. 646.
[62] Savaresi, 2016.

The Copenhagen negotiations began with the expectation of building a bottom-up agreement rooted in international cooperation and national participation, focusing on "specific opportunities to cut emissions"[63] in domestic policies. The Copenhagen Accord in 2009 shut down any hope for a functioning and specific agreement: negotiations were difficult, many countries vetoed the proposed measures (namely GHGs emissions' cuts[64]), and there was general dissatisfaction with the results of the meeting. The participating countries could only agree on maintaining the average global temperatures below 2° C below pre-industrial levels[65], without stating any more specific short/medium-term targets. Besides the diplomatic setbacks for a new agreement, climate action's urgency became lower and lower due to a lack of trust in scientific research[66] and the economic recession.

In the end, due to the countries' reluctance in accepting binding but efficient short/medium-term targets, the Copenhagen Accord was just a *pro forma* agreement, lacking any consensus or policy efficacy necessary to mitigate climate change successfully.

2.2 THE PARIS AGREEMENT

[63] Levi, 2010.
[64] In fact, in the first draft of the Copenhagen Accord it was proposed an 80% emissions' cut, lowered to 50% during negotiation and, eventually, there were no cuts at all.
[65] For a history of how the 2°C target was developed see: Randalls, 2010.
[66] Indeed, another controversy that contributed to create a wariness towards climate research was the so-called *Climategate*: after Copenhagen, some IPCC members' e-mail correspondence was leaked, and it was brought to attention some mistakes in their data analysis. These mistakes were used by contrarians to claim "that the emails revealed that climate scientists had manipulated data to support the consensus position on anthropogenic climate change and had suppressed legitimate dissenting research in various ways (e.g., by preventing its publication or by refusing to share data)" (Parker, 2018). Despite climate scientists were exonerated of all allegations of fraud and misconduct, this scandal undermined the credibility of the IPCC and it reduced the trust towards climate scientists. (Parker, 2018).

The Paris Agreement[67] was developed in 2015. The urgency of tackling climate change did not relent. After the Copenhagen Accord's staggering failure, it became evident that the old recipes of top down-strategies and diplomatic efforts were not useful to deal with climate change. Indeed, diplomats and politicians had to concoct a new recipe that allowed at the same time to garner the support of as many parties as possible and to find *any* ground for agreement that required to set some common mitigation goals, but at each country's terms.

The solution to this quandary was to develop a binding treaty with mandatory provisions on the mitigation processes whose content was adaptable to each country's needs[68]. Kyoto's 'legally binding contributions' became 'nationally determined contributions' (NDCs), meaning that developed and developing countries could model their goals to their own needs, provided that they stayed on track with the overall (mandatory) goals of the Agreement[69].

Flexibility was the operative concept for the Paris Agreement: flexible domestic policies, that also translated into respecting national sovereignty and encouraging international cooperation without vexing governments or putting too much pressure on them. A major fault of the accommodating nature of the Paris Agreement is its non-punitive mechanism. As a matter of fact, the Agreement does not include any disciplinary procedure when the overall goals are not met[70]. Moreover, the only form of control devised is a yet to be specified 'expert committee'

[67] Delving into the technicalities of the Paris Agreement and its specific policy requirements goes beyond the scope of this section. However, for a technical yet accessible explanation of the Agreement's architecture, of its strengths and its weakness, see Falkner, 2016; Victor, 2016, pp. 13-19; Dimitrov et al., 2019.
[68] See: Höhne et al., 2016.
[69] Streck et al., 2016.
[70] Streck et al., 2016 p. 22. For more on the controversy around the Paris Agreement, see also: Geden, 2016.

that will be "non-adversarial and non-punitive, which means that it has no teeth and can do nothing about non-compliance"[71].

The Paris Agreement's non-punitive nature does not prevent a country's withdrawal: once again, less than a year after its ratification, the Trump administration decided to withdraw the US from the pact, despite all the efforts and the contribution of the previous administration to ratify a successful international climate agreement. At the time of the writing, the United States is the only country officially stating their intention to withdraw from the Paris Agreement. Still, the rise of populist and anti-environmentalist governments in other countries – for example, in Brazil – sharpened the worry that climate change policymaking is slowing down once again.

The Paris Accord is the result of years of difficult negotiations, a compromise between the urgency of effective policies and the necessary agreement to achieve the primary goal of climate change mitigation[72]. Aware of the past mistakes, its promoters decided to renounce to efficient policies, settling for country-related contributions, in favour of gathering a widespread consensus on the agreement itself[73]. This endeavour was successful, but the US situation and openly anti-environmental politicians' appointment remind us that environmental policymaking, particularly the one

[71] Spash, 2016, p. 3.
[72] Clemençon, 2016.
[73] Even though David Victor's analysis was developed in light of the Kyoto Protocol's proceedings, his core observations also apply to the strategy used to achieve agreement for the Paris Agreement. Victor holds that climate change policymaking has a tendency to end up in a gridlock because, basically, it uses old strategies for a new problem. Indeed, he states that "The UN process has not worked because it involves too many countries and issues; it aims for progress too quickly. The result is a style of diplomacy that concentrates on getting agreement where agreement is possible rather than on crafting deals that actually make a difference. Diplomats concentrate their energies on symbolic goals, such as limiting warming to 2 degrees, while largely ignoring the more important practical need to set goals that governments can actually honor" (Victor, 2011, p. xxviii). The solution he proposed to overcome the gridlock is to tackle big issues by beginning with "smaller groups, clubs […] to start with small, practical efforts by the few countries that matter most. Small approaches matter not just because they are more tractable but also because they make it easier for club members to concentrate the benefits of cooperation" (Victor, 2011, p. xxx).

connected to climate change, is not stable. Therefore, compliance is an essential requirement to bring about the necessary climate change mitigating policies.

The brief overview I have proposed emphasises precisely this point: all climate negotiations, despite their flawed content, their setbacks and the political subtexts affecting them, are all void without the participants' compliance. Even when there is a convergence on implementing and making operative a pact (e.g. Kyoto Protocol or the Paris Agreement), there are always other interests trumping the necessary policymaking on climate change. We have seen that finding an agreement on a set of measures, principles, or regulation is difficult but not impossible, provided that nations do comply with these pacts. So far, climate change international policymaking has been quite deluding in acting to contain climate change. Additionally, if we try to track the progress of each signatory of the Paris Agreement[74], we see that many countries are way below the target they set for themselves.

Once established that the issue of climate change is pressing and that political proceedings are failing to tackle it, the next order of question is: what should we do to solve climate change? Political philosophy can guide us in understanding what the problems connected with climate justice and intergenerational justice are. However, for what concerns the issue of compliance with climate change policies, the contributions are increasing, but they are relatively scant. In the next chapter, I will turn the discussion on the philosophical literature about climate change, the emerging concern about noncompliance connected to climate change and my specific proposal that I am advancing in the remainder of this work.

[74] https://climateactiontracker.org/.

CHAPTER II

Noncompliance and Climate Change

Noncompliance, which is a ubiquitous issue, is significant in connection with climate change mitigation. Tackling noncompliance is the last of a long string of problems that we need to face when dealing with climate change, especially if we want to effectively achieve mitigation goals and slow down environmental disruption. Indeed, the problem of noncompliance is an open front that, if not properly tackled, might cause all the efforts in devising fair distributive schemes, effective policies and allocating resources for implementation to be fruitless because agents are not willing to comply with climate change policies and climate change-related behaviours.

In this chapter, and more generally in this thesis, I will focus precisely on finding a way to prompt compliance and propose a solution to block – or at least band-aid – what I consider as the primary issue that hinders effective climate change mitigation. In my opinion, matters of climate justice have reached a stagnant point, in which there are valid and well-argued principles of justice proposing a fair distribution of climate burdens. Yet, especially in the years after the Paris Agreement's ratification, it has become more and more apparent that distributing climate burdens is not the main problem anymore. As far as I can see, at the moment, the real challenge is to find a way to make agents (nations, corporations and individuals) put their money where their mouth is, and turn pledges, dispositions and intentions into actions. As countries should follow up their international commitments with domestic implementation, individuals should be encouraged to comply with environmentally

related policies to do their part in contrasting climate change, which is a task that requires some effort over time.

I will focus on the philosophical debate about climate change, by illustrating the state of the art regarding climate change in the political philosophy debate, on the one hand, and by presenting my proposal for prompting compliance in individuals, on the other hand. More specifically, the first section will be devoted to the literature review regarding climate change philosophy. From general to specific, the first section will provide a picture of the debate regarding climate change and noncompliance. Furthermore, it will point to a gap in how noncompliance is treated in connection with environmental issues. First, I will deal with the 'ideal-theory' regarding climate change. Indeed, in the early phase of the discussion, climate ethicists and theorists developed their principles of justice by applying (I don't know how much consciously) the Rawlsian method of thinking about what principles of justice would apply in an ideal situation – characterised by favourable conditions and full compliance. Secondly, I will illustrate what I called 'the non-ideal turn', a nice label to indicate the progressive shift towards asking what principles should be appropriate when dealing with *in*justice – that is to say when neither favourable conditions nor full compliance are occurring. Thirdly, I will focus more specifically on noncompliance regarding climate change, which has recently gained overdue space in the philosophical enquiry. However, it is an investigation still at its nascent stage. I will try to show at the same time how the debate is evolving and pointing out some gaps in the literature.

The second section will take over from this, and it will illustrate my own proposal for dealing with noncompliance. First, I will state my research question, which focuses on motivating individuals to comply with climate measures, then I will advance the research hypothesis to answer this question. In the third section, instead,

I will devote some space to clarify some of the operational concepts that I will use in the remainder of the discussion and delimit this work's scope. I will focus on the definition of noncompliance as a motivational problem (Section 3.1), on the reason why I restrict my analysis on individuals (Section 3.2), and on the definition of pertinent and non-pertinent reasons (Section 3.3), which are central to my research hypothesis.

1. Climate Change and Political Philosophy

This first section reconstructs how political philosophy has dealt with climate change so far. The vast literature about climate change is organised by following a 'methodological' criterion, starting from works operating under ideal theory assumptions to the ones assuming a non-ideal theory perspective. Ideal and non-ideal theory are two ways to approach issues in political philosophy[1]. Roughly said, ideal theory's concern is to identify principles for the institutional design or individuals' conduct in an ideal order. By contrast, non-ideal approaches try to develop or adapt the appropriate principles under "less perfect conditions"[2].

For what concerns climate ethics and climate justice, this distinction has emerged only when the interest about issues pertaining to the non-ideal domain has spread within the climate change debate. This new focus on non-ideal theory has made explicit the 'ideal undercurrent' of earlier works. Indeed, the 'canon' of the literature about climate change tacitly assumes ideal theory as its methodological backdrop, developing principles of justice under ideal conditions. According to Rawls's original formulation[3], ideal theory's assumptions include (i) agents' full compliance with the

[1] See, for example: Phillips, 1985; Sen, 2006; Simmons, 2010; Hamlin, Stemplowska, 2012; Valentini, 2012; Zuolo, 2012b.
[2] Phillips, 1985, p. 551.
[3] Rawls, 1971, p. 8, 215; Rawls, 1999, pp. 4-6.

demands of justice applied to them and (ii) favourable natural and historical conditions for the realization of justice[4]. However, following a general dissatisfaction with the Rawlsian blueprint regarding the priority of ideal theory over non-ideal theory, the philosophical enquiry on climate change shifted its attention towards non-ideal issues, illustrating how we ought to act in cases of injustice.

The non-ideal turn of climate change philosophy is yet in its budding stage. Still, it roughly reflects the tripartite distinction proposed by Laura Valentini[5], who systematizes how ideal and non-ideal theory can be interpreted. According to Valentini, ideal versus non-ideal are two placeholders that can mean either compliance versus non-compliance, utopianism versus realism, or end-state versus transitional theory[6]. Indeed, in the literature about climate justice, we can identify these three strands of the non-ideal turn, with works taking on board concerns about realism, the transition from less to more ideal states of affairs, and about responding to noncompliance. Considering that this work is concerned explicitly with noncompliance, the final paragraph will be devoted entirely to reviewing the non-ideal literature focusing on noncompliance and climate change.

1.1 (IDEAL) CLIMATE CHANGE PHILOSOPHY

The philosophical inquiry regarding climate change goes beyond asking what we should do regarding climate change. Besides damaging the natural environment through human action, climate change is a cause of injustice. Climate change injustice may derive from an imbalance involving, on the one hand, the rich/poor divide and, on the other hand, a discrepancy between the current generation, who is

[4] Valentini, 2012, p. 655.
[5] Valentini, 2012.
[6] Valentini, 2012.

producing the harmful emissions, and the future ones, who will suffer the effects of climate change.

These two divides are reflected in the two central debates animating environmental political philosophy. On the one hand, if the attention is focused on the injustice derived from inequalities at the global level[7] – in direct continuity with global justice issues – then climate change is addressed mainly as a problem of (global) distributive justice[8]. On the other hand, climate change will affect future generations. Courses of action taken (or not taken) right now will affect mostly generations living in the future. Therefore, climate change poses a pressing problem regarding intergenerational justice. To make it more complicated, distributive justice questions often intertwine with intergenerational issues, and conversely, intergenerational justice matters fall back on solving questions of distributive justice[9].

The debate focuses on many different types of normative questions. It may ask how societies should respond to climate change. It may analyse the demands of intergenerational justice or argue for different distributional sets of duties and responsibilities at the global, local, and individual levels. All these questions highlight how climate change represents a radical challenge for philosophy. Secondly, climate ethicists and theorists should have a crucial role in contributing to the debate, which was initially understandably influenced by scientific and economic analysis. For example, Gardiner vindicates the need for an ethical analysis of climate change and

[7] Climate change will mostly strike people who are already living situations of severe poverty. People living in Third World countries are the sitting ducks of this scenario. They will be exposed to the worst consequences of climate change, which will increase their already vulnerable condition of living in extreme poverty. Indeed, the key regions which will particularly struck by climate change belong to very poor countries: among them, Bangladesh (increasing extreme weather phenomena), Malawi (famine), the Amazon region (deforestation, increasing heat waves and extended dry seasons), South-Asian countries (more violent typhoons). (See: Vidal, 2017).

[8] This strand develops from a cosmopolitan framework, both in its relational and non-relational versions (See: Valentini, 2011).

[9] According to Gardiner's famous definition (Gardiner, 2011), climate change is the 'perfect moral storm' due to the combination of its global and intergenerational challenges.

the importance of the philosophers' contribution[10]. Indeed, he argued that, due to the topic's interdisciplinary nature, scholars interested in climate change ethics often tended to approach and discuss the issue by using the categories and the analyses of other disciplines – economics, for example – rather than applying their peculiar methodology. Gardiner encouraged philosophers to see climate change as a "call to arms"[11], considering that "the public and political debate surrounding climate change is often simplistic, misleading, and awash with conceptual confusion"[12]. Later, Gardiner aptly described climate change as "the perfect moral storm"[13], due to its encompassing nature: climate change is a spatial, temporal and theoretical issue, which he respectively dubs global, intergenerational and theoretical storms, which, all added together, form the perfect moral storm indeed. Gardiner highlighted that, at the time, philosophy was worryingly "inept […] lacking the skills and basic competence for the task"[14] of tackling the global, intergenerational and theoretical challenges posed by climate change. Gardiner's 'call to arms' resonated among philosophers. Since then, the inquiry on climate change has become more specific and independent from other non-philosophical disciplines. It expanded exponentially, for example, analysing both its practical ramifications[15] and the epistemological issues connected to it[16].

Before the development of climate science and the rise of climate change as a political issue that needed to be solved in the international arena, climate change was

[10] Gardiner, 2004.
[11] Gardiner, 2004, p. 595.
[12] Gardiner, 2004, p. 595.
[13] Gardiner, 2011.
[14] Gardiner, 2011, p. 41.
[15] Some example of applied ethics for what concerns climate change include: migration (See: Wymans, 2013; Marshall, 2015); food security (See: Watson 2014; Kaplan, 2016); technological application to modify the environment (See: Gardiner, 2010; Gardiner 2016).
[16] See: Werndl, 2010; Frigg, Thompson, Werndl, 2015a, 2015b; Oreskes, 2004; Oreskes, Stainforth, Smith, 2010.

considered one example among many of the problematic relationship between humanity and the environment. The environmental movements in the 1970s inspired a newfound awareness regarding the human role within nature – not a dominating position, but rather a part of a complex system which put sentient, non-sentient and human beings at the same level.

In that context, philosophers started debating whether nature had its intrinsic value or had only instrumental value for the human and non-human beings living in it. Ecocentric theories are an example of the former view. Aldo Leopold's *Land Ethic* and Arne Naess' *Deep Ecology*[17], for instance, hold that the environment is an end in itself and it has its intrinsic value, considering nature as a moral subject. Instead, the latter view, typical of anthropocentric theories, holds that nature is just a means to further some other ends, not necessarily human-related. According to anthropocentric approaches, human beings are the relevant moral subjects, and the environment has only an instrumental value because it provides the necessary conditions for human life[18]. The contrast between anthropocentrism and ecocentrism, however, is not clear-cut. Indeed, there are theories which are not ecocentric, but they are neither strictly anthropocentric. One example is Singer's take on environmental ethics: according to him, we should preserve the natural environment in light of the instrumental value it has for animal wildlife. Ecosystems should be preserved because their destruction otherwise would gravely affect the animals living in it. Singer grounds its environmental stance exclusively on nature as a habitat for the wildlife, downplaying the environment's role on human life[19].

The debate around the moral value of nature soon developed into a concern about our obligations towards it, especially considering the human influence on the

[17] See: Baird-Callicott, 2001; Naess, 1973.
[18] See: Passmore, 1974.
[19] See: Singer, 2000.

environment. In this sense, climate change was the prime example of how deeply human action influenced the natural world and its complex processes[20]. However, climate change was perceived not only as a problem about the relationship between humanity and the natural environment. It was also conceived as a problem of justice. The consequences of climate change will mostly affect people living in severe poverty, therefore worsening the global poor's already critical condition[21].

From this connection, it began the enquiry about the extent of the rich countries' duties towards the worse-off, who are the most threatened by climate change. As mentioned, this investigation lines can both be analysed from a synchronic or a diachronic standpoint. That is to say, respectively, as a global distributive justice or intergenerational justice problem – two of the 'moral storms' highlighted by Gardiner.

From the perspective of global justice, climate change is considered a here-and-now problem of global and distributive justice, as pollution and greenhouse gas emissions contribute to increasing global poverty. In fact, the worst effects of climate change will strike countries that are already affected by severe poverty[22]. The main issue for philosophers was finding a fair guideline principle for assigning the burdens

[20] Indeed, the complex relationship between humanity and the environment has brought many authors to talk about a new era, the Anthropocene. It is the era in which the distinction between the natural and the artificial is blurring. In the Anthropocene, human agency dominates nature by becoming one of the main environmental forces – if not the primary environmental force. As I see it, the debate about the Anthropocene is an attempt to do what Jamieson, Gardiner and all the environmental ethicists are encouraging to do when they affirm that we need a paradigm change in order to deal with climate change appropriately. The Anthropocene is precisely this new paradigm through which we should frame our inquiries in the era in which humanity has substituted natural forces. Yet, for the scope of this thesis – which is on a very practical and political issue such as individual noncompliance with climate provisions – this perspective would bring us too far away from the discussion at stake. For an introduction as well as a discussion of the ethical and political upshots of the Anthropocene, see: Pellegrino, Di Paola, 2019; for a discussion of the Anthropocene in connection with development, see: Moellendorf, 2017; for a definition from the perspective of natural sciences, see: Crutzen, 2002, Steffen et al., 2011; for an analysis on the political consequences of the Anthropocene, see: Dryzek, Pickering, 2019.

[21] See: Caney, 2010; Moellendorf, 2012.

[22] On the responsibilities' allocation for climate change, see: Harris, 2003; Caney, 2005; Miller, 2008; Jamieson, 2010; Hayward, 2012; Moellendorf, 2014.

of mitigation or adaptation to balance between developed countries' energy necessities and the right to economic growth for the developing ones[23]. The fair distribution of responsibilities and duties regarding climate mitigation can be analysed at the individual level[24], as a collective action problem[25] and from a human rights perspective[26]. Instead, the diachronic analysis of climate change focuses on investigating climate change's moral implication across generations, with particular attention to future ones. From the intergenerational perspective, the philosophical research focuses on assessing whether current generations have (any) moral obligations towards future people and if they do, to what extent current citizens do owe to future generations[27].

All the aforementioned lines of research tend to adopt an ideal-theory perspective. Using this Rawlsian category[28], climate change theories – some more explicitly than others – develop their different accounts by assuming full compliance and designing various distributive principles on a morally and politically ideal order. Principles of distributive and intergenerational justice are devised under the binary assumption that (i) agents will comply with the demands of justice and (ii) there will be favourable conditions for the principle's application. The 'ideal-theoretical' analysis of climate justice has provided many competing distributive principles of justice regarding justice among states and generations. As Shue states, the competing distributional schemes discussed in the 'ideal' climate change literature "converge upon the same practical conclusion: whatever needs to be done by wealthy industrialized states or by

[23] Moellendorf, 2014. See also, Shue, 1993.
[24] See: Sinnott-Armstrong, 2010; Hiller, 2011; Cripps, 2013; Lawford-Smith, 2016.
[25] See: Vanderheiden, 2011.
[26] See: Hayward, 2007; Humphreys, 2010; Bell, 2011.
[27] See: Parfit, 1984; Hiskes, 2005; Jamieson, 2008; Moellendorf, 2009; McKinnon 2012.
[28] In Rawls's definition, ideal theory "assumes strict compliance and works out the principles that characterise a well-ordered society under favourable circumstances" (Rawls, 1971, p. 216; see also: Rawls, 1999).

poor non-industrialized states about global environmental problems such as ozone destruction and global warming, the costs should initially be borne by wealthy industrialized states"[29]. Indeed, the mainstream inquiry regarding climate change has become relatively stagnant in discussing and perfecting distributional schemes to tackle climate change fairly.

1.2 The Non-Ideal Turn

The climate change debate focused entirely on the ideal principles granting a fair distribution among countries and generations for much time. However, as I highlighted in the first chapter, there is an evident gap between the ideal principles and the actual, real-world environmental policies. This gap derives mainly from the initial 'ideal purview' which philosopher applied to their enquiry. Indeed, political philosophy has primarily focused on fine-tuning ideal principles instead of responding to the challenges of applying these principles to non-ideal, 'real-world' conditions[30].

Recently, this tendency has changed, and scholars have started to ask questions not about what we should do, and the demands of justice advanced by climate change, but rather about what should be done when these demands are not met. With the 'non-ideal turn', philosophy of climate change changed direction, focusing precisely on adapting ideal principles to non-ideal conditions: principles should be able to guide actions under unfavourable conditions and with reluctant agents. In a sense, the philosophical inquiry on climate change has taken an overdue reality-check, acknowledging the issues raised by actual environmental policymaking and, therefore, shifting the attention from ideal to non-ideal theory.

[29] Shue, 2014, p. 194.
[30] Maltais, 2016, p. 45.

As said before, the contrast between ideal and non-ideal theory might assume different understandings. For starters, ideal and non-ideal may be understood as a matter of determining "whether a normative political theory should aim at identifying an ideal of societal perfection, or whether it should focus on transitional improvements without necessarily determining what the 'optimum' is"[31]. In this sense, non-ideal theory is understood as a question of transitional justice. An example is provided by Henry Shue[32], who argues in favour of a transitional account of climate justice. According to Shue, to unblock the political stalemate regarding climate politics, we should incrementally improve the *status quo* by providing principles of justice serving as "guidelines for transitions"[33], instead of devising "ultimate goals"[34].

Another reading of the ideal/non-ideal duality sees it as a contrast between idealistic and realistic theories. According to this reading, when analysing how to apply principles of justice, non-ideal theory should take on board considerations of political realism by considering feasibility constraints[35], "the darker elements of human psychology"[36] and politics' internal standards. The realist interpretation of non-ideal theories applied to climate justice appeals to the necessity of "start[ing] with an accurate description of people, politics and policies and then evaluate and make normative proposals"[37]. The challenge here is to balance the realist penchant for the importance of existing power-structures with the normative scope of political philosophy.

[31] Valentini, 2012, p. 654.
[32] Shue, 2014.
[33] Shue, 2014, p. 54.
[34] Shue, 2014, p. 54. On the relation between transitional and end-state theory see also Sen 2006 and Simmons, 2010.
[35] Valentini, 2012. See also: Cowen, 2007; Wiens, 2013.
[36] Heyward, Roser, 2016, p. 9.
[37] Brandstedt, 2019, p. 6.

Contrarily to other realist approaches to political philosophy[38], climate change philosophers make an effort to avoid being too biased towards the *status quo* and, at the same time, to take seriously the issues arising with climate policy. Alexandre Gajevic Sayegh, for example, argues for a moderate realism to devise action-guiding principles. According to him, it is necessary to seek a reflective equilibrium between the ideal and non-ideal levels, with real-world considerations that should inform principles of justice[39]. Gajevic Sayegh's account proposes a conciliatory approach between utopianism and realism without committing too much to the realist side of the debate.

Another example of a realist account of climate justice focuses on devising "a policy-relevant approach to climate ethics"[40]. In this sense, Darrel Moellendorf suggests that the threats posed by climate change are so urgent that they need to be tackled as soon as possible. For now, without a complete ideal theory[41], the only viable normative guidance may be found in the UNFCCC norms, which have already been endorsed by a large number of nation-states[42]. Moellendorf's attempt to consider the international norms as a second-best for acting on climate change is only a half-hearted realism. Of course, the UNFCCC provides useful normative guidance (for example, it mentions the precautionary principle as one of the pillars for climate change mitigation and adaptation). It is already there, ready to be applied. Yet, the UNFCCC norms have been established and ratified for almost 25 years (and counting), but countries do not seem particularly compelled to recognise the normative guidance of the UNFCCC principles.

[38] Galston, 2010.
[39] Gajevic Sayegh, 2016, p. 1. See also: Gajevic Sayegh, 2017.
[40] Brandstedt, 2019, p. 9.
[41] The idea that a 'complete ideal theory' regarding climate change is still not available is debatable, as I already explained some pages before.
[42] Moellendorf, 2016; Brandstedt, 2019.

In this sense, this kind of approach, on the one hand, highlights that the instruments to do something – which are far from the ideal standards of justice – about climate change are already present and available. On the other hand, it ignores that there is a history of failing climate negotiations despite the presence of such inspiring principles. On this point, it is interesting to note that there is not yet a fully-fledged realist account for climate change, one that applies the core concepts of political realism (namely, considerations of moral psychology; rejection of utopian assumptions; attention to political conflict; autonomy of politics from morality; attention towards already existing institutions[43]) without any reference to an ideal state of affairs. All the examples above share the intuition that climate ethicists should be more aware of politics and policies, but for now, nobody seems to be ready to fully commit to a truly realist approach to climate change.

1.3 Non-Ideal Theory as Noncompliance

The third interpretation of the contrast between ideal and non-ideal theory concerns compliance, which is the central issue for this work. According to this reading, ideal theory means that principles are devised by assuming that all agents would strictly observe the prescriptions applied to them. In non-ideal theory, instead, this assumption is dropped, and principles of justice should be adapted to a situation of partial compliance, in which some agents do not act as they should. Indeed, in ideal theory, it is assumed that agents will respect and 'religiously' apply the principles of justice.

Still, often agents are unwilling to act upon their duties (e.g. regarding global poverty). This partial compliance – that sometimes stems into *full* noncompliance –

[43] Galston, 2010.

is something we can easily observe by the many attempts to devise an international treaty on climate change. For example, Henry Shue identifies the problem of partial compliance as a problem of political paralysis due to the conflict between doing what is right (and overdue) – reducing emissions, for instance – and doing what is convenient for an economic gain (e.g. continuing to invest in fossil fuels[44]). To overcome this impasse, he suggests that a virtuous agent, clearly a nation-state, should set a positive example and "break the paralysis by unilaterally (if necessary) taking action in the hope that the others will respond to its example"[45].

Despite being the most evident one, countries' noncompliance is not the only form in which this issue appears. There are many ways in which agents can be noncompliant. For example, industries may avoid engaging in a more sustainable reorganisation of their production processes[46], or individuals may ignore or refuse to assume more environmental-friendly habits in their lifestyles[47]. Noncompliance is a crucial and complex issue that may appear in different forms and may entail various duties, according to the type of agent we are dealing with. For now, the most comprehensive take on noncompliance is given by Simon Caney, whose analysis focuses on how to respond to noncompliance by creating a taxonomy of the possible course of actions agents can choose when they face a case of agents not doing what they should[48]. Caney's broad take on noncompliance may be applied to "individuals, firms, civil society actors (such as trade unions, NGOs, and churches), governments, and international organizations"[49].

[44] Also David Victor stresses this gridlock in international climate change negotiations. (Victor, 2011).
[45] Shue, 2014, p. 293.
[46] On this see Grasso, Vladimirova, 2020.
[47] On this see Pongiglione, 2011; 2014.
[48] Caney, 2016a.
[49] Caney, 2016a, p. 22.

Thanks to a three-stage methodology, Caney tries to build a non-ideal theory for climate justice to respond to noncompliance. Firstly, he lists the possible responses to noncompliance, which may involve modifying the demandingness of climate policies' goals; redistributing responsibilities (i.e. compliers should 'take up the slack' for noncompliers[50]); inducing greater compliance by lowering the costs of clean energy; engaging citizens through civil disobedience. Once the possible options are listed, the second step involves selecting the most appropriate strategies for the particular case of noncompliance we are facing. For example, when dealing with a non-compliant firm, it would probably be more useful to establish incentives on clean energy than reallocating the responsibility to another agent. This second evaluation helps to create a shortlist of possible actions. Finally, the third step is to evaluate what is feasible from the point of view of agents: an affluent country, for example, could be asked to shoulder extra mitigation burdens, whereas a farmer in a developing country might be allowed to use low-carbon technologies[51].

The merit of Caney's work is that it provides a very comprehensive account of noncompliance that can be applied to any agent, from individuals to collective ones. Moreover, he also provides a universal strategy which is also context-sensitive. Caney proposes a procedural-like method to identify which way to respond to noncompliance applies better to a particular case. Caney's contribution to the debate on climate change and noncompliance is the only one that considers that there is no univocal way to respond to noncompliance: the point of his work is precisely to stress that there is not a unilateral strategy to overcome noncompliance. Yet, as Brandstedt notes, many of these responses can be reduced to whether it is fair to distribute extra duties to compliers to make up for the non-compliers[52]. Similarly, in other works

[50] On this see: Miller, 2011; Tan, 2015.
[51] Brandstedt, 2019, p. 5.
[52] Brandstedt, 2019, p. 4.

about noncompliance with climate change duties, the discussion revolves around whether it is fair to redistribute noncompliers' residual duties to compliers[53], falling back on distributive questions typical of ideal-theory.

Even though it focuses on a non-ideal theory of climate change regarding noncompliance, Caney's proposal might be considered lacking in at least two aspects. First, he proposes a series of separated and not systematized strategies that eventually tend to fall back on the original 'ideal' matters. Indeed, all the strategies that Caney proposes are dependent on the fact that, before pinpointing responses to noncompliance, "it is helpful to have before us an analysis of all the different types of claims that a normative account of climate change should comprise"[54]. To answer non-ideal questions, Caney, in an orthodox interpretation of the relationship between ideal and non-ideal theory, holds that it is necessary first to know what ideal theory should require – prioritising ideal principles over the non-ideal ones.

Secondly, Caney's proposal basically bypasses the problem of making people comply. His solution is to deal with noncompliance *ex-post*, instead of creating strategies that prevent noncompliance. Indeed, his six responses to noncompliance should be employed when the number of agents not doing their part has already become a problem for the targets' achievement. Noncompliance surely implies redistributive questions – at some point, someone has to take up the slack for someone else – but, if we recall the 'realist' suggestion to analyse the political context in which we experience noncompliance, we realize that it depends on multiple factors. For one, it depends on what we should comply with, e.g. different climate policy strategies imply a different effort for their implementation. Second, it also relies on the agent's

[53] Hohl, Roser, 2011; Roser, Seidel, 2017.
[54] Caney, 2016a, p. 23.

motivations for complying or not, so an intentional and motivational factor is involved.

On this last point, some scholars have focused on the motivational component causing noncompliance. Recent works have described noncompliance as the result of a 'moral disengagement'[55], i.e. a psychological mechanism "which enables emitters to dissociate self-condemnation from harmful conduct. In this way, emitters can maintain their profligate, consumptive lifestyle, even though it conflicts with their moral standards concerning climate change" [56]. The proposed solution to prevent this motivational gap is a mix of communicative strategies (e.g. making it more salient for people's everyday life) and debunk the myth that individual contributions do not make a difference in pollution and climate change. By analysing the motivational gap with climate change, it is highlighted one aspect that is crucial for compliance: agents should have reasons motivating their action. This point has also been raised by Dominic Roser[57], who indeed points out that theories of (climate) justice should take more seriously the boundaries of human motivation. We should not devise provisions by assuming overly virtuous agents, but instead, we should integrate climate change provisions with other existing interests. For example, we should pair climate protection with other issues that share some co-benefits with the application of climate-related provisions ("e.g. reducing fossil fuels in order to have cleaner air and fewer respiratory diseases"[58]). In this way, compliance is promoted by playing on the additional non-climate related benefits connected to the implementation of climate measures.

[55] Peeters et al., 2019.
[56] Peeters et al., 2019.
[57] Roser, 2016.
[58] Brandstedt, 2019, p. 7.

Roser's idea is that dealing with climate change inevitably requires some trade-offs such as balancing intergenerational and intragenerational considerations, thus leading agents to be bound to choose among unjust options. Among these unjust options, the point is to exploit agents' willingness to act and direct them towards the "least unjust option within the bounds of motivation, however insufficient motivation may currently be"[59]. So, the point is to identify a "motivation-compatible set of options"[60] which includes "all options that the agent would be willing to trade in for the *status quo* if presented with the choice"[61]. According to Roser, we should take individuals' motivations as they are, composed by "an agent's goals, norms, whims" and we should work within these boundaries to "exploit [one's] available motivation more wisely"[62]. Roser does not consider the possibility to change one's motivation[63]. Still, he focuses on maximising available motivation because it is a "more practically relevant"[64] endeavour, especially in this stage of failure in observing climate provisions. Yet, he acknowledges that "typical agents are neither *homines oeconomici* nor saints: self-interest plays some—but neither an exclusive nor uniform—role, and a concern for justice plays some—but neither a sufficient nor uniform— role in shaping an agent's motivational landscape"[65].

The role of individuals' motivation in assuming pro-environmental behaviour has also been investigated from the perspective of decision-making. Francesca Pongiglione, on this point, focuses on the role that knowledge, risk perception and self-interest play in encouraging or discouraging eco-friendly behaviours in

[59] Roser, 2017, p. 84.
[60] Roser, 2017, p. 86.
[61] Roser, 2017, p. 86.
[62] Roser, 2017, p. 84.
[63] In this dissertation, instead, I will discuss this possibility extensively in the fourth chapter.
[64] Roser, 2017, p. 100.
[65] Roser, 2017, p. 86.

individuals[66]. Indeed, pro-environmental behaviour may first depend on the scientific understanding of environmental matters, which ranges from being aware of what is going on, knowing basic facts about climate change, and being trained in climate science. However, a scientific understanding of climate change is not enough to produce a behavioural change because "too many other countervailing factors are in play"[67], including emotional processes, cognitive responses, personal interests, individual beliefs, and the social dimension[68]. Another motivating factor is individuals' risk perception, prompting people to change their behaviour if they perceive the urgency and the alarm connected to a specific issue. However, Pongiglione rightly notes that proper risk perception is difficult to obtain because there might be psychological processes hindering a clear perception of risks[69]. Moreover, there is the matter that it is difficult to envisage what a failure in addressing climate change might entail, even though a scientific understanding might fill this cognitive gap.

Thirdly, individuals might be willing to change their behaviour in light of self-interest, driven by monetary gain, sanctions and peer pressure[70]. Yet, also self-interest might fail as a driver of behavioural change because of individuals' cognitive fallacies. On the one hand, individuals tend to be biased towards the *status quo* and prefer preserving their current (and well-known) state of affairs. On the other hand, individuals often do not have complete information to properly evaluate the pros and cons of their decisions, leading them to make economically disadvantageous decisions[71]. So, to prompt individuals to engage in pro-environmental behaviours,

[66] Pongiglione, 2011, p. 1.
[67] Pongiglione, 2011, p. 8.
[68] On this see also Pongiglione, 2014, where it is investigated the role of the social context in promoting pro-environmental behaviours. For an empirical study on this, see Tasquier, Pongiglione, 2017.
[69] Pongiglione, 2011, pp. 11-16.
[70] I will consider these options in the third chapter.
[71] Pongiglione, 2011, p. 17-21.

Pongiglione argues that knowledge, risk perception and self-interest should be integrated by procedural knowledge, a form of practical knowledge that "provides locally contextualised information on how to translate an environmental concern into action"[72].

Pongiglione's account presents many similarities with my proposal. Among the points of convergence, we share some of the core concepts – the role of knowledge, the presence of an environmental concern, the role of self-interest for individuals' motivation – but, at the same time, we part in the context of our analysis. Indeed, Pongiglione's proposal is grounded by substantial empirical evidence provided mostly by psychological studies investigating individuals' cognitive processes and how they influence decision making and behavioural change. This focus on individuals' cognitive processes leaves to the background the fact that individuals do not live in a vacuum. They are immersed in a social and, most importantly, a *political* context which can direct (or misdirect) people's behaviours through norms. That is why I prefer speaking of compliance – connected to the existence of written and unwritten rules that do not entirely depend on individuals' decision-making. The psychological factors explained by Pongiglione are undoubtedly essential in determining individuals' willingness to comply[73], but if taken alone, they are not enough to prompt people to change their lifestyles. Pongiglione holds that the key to promoting behavioural change is procedural knowledge, that is to say, showing to individuals that climate change would directly affect them. In contrast, I propose that the key to prompt compliance is in having an environmental concern, as I will explain in the next section. Pongiglione's procedural

[72] Pongiglione, 2011, p. 6.
[73] In the next section I will indeed focus on the motivational factor involved in noncompliance.

knowledge can contribute to elicit an environmental concern, but it is not the only relevant factor.

As a concluding remark to this part of the chapter, I would like to stress that noncompliance is only one of the many pressing problems connected the failure to address climate change adequately. Yet, noncompliance is itself a complicated matter, as it may be due to multiple causes. According to how we understand it, a refusal to do something that agents ought to do may be linked to an inability to comply, due to a lack of resources for example, or it may be caused by an unwillingness to act. Moreover, noncompliance embraces a wide variety of agents. In the first chapter, we have seen how countries systematically fail to comply with the measures – aggravated by the fact that each country decides on its own what measures should be implemented. Countries' noncompliance is probably more evident and more significant in the bigger picture. Still, the fact that the lack of climate action is all-encompassing, from agents at the macro to those at the micro-level, indicates that it is an issue worth exploring, as climate theorists have started to do. By framing the problem as individuals' motivational gap, we are just shrinking the problem's scope – individuals instead of nations – but the core of the matter, noncompliance regarding climate change, remains the same.

2. INDIVIDUALS' MOTIVATION AND (NON)COMPLIANCE

This section introduces the main topic of the remainder of this work, which is about providing individuals with reasons for complying with climate-related measures. More specifically, I will first state my research question and its connected research hypothesis. Then I will follow with some clarifications delimiting the scope of my

work – which concerns individuals' voluntary noncompliance – and with the definition of the core concepts that will guide the following discussion.

We have seen how noncompliance might be connected to different factors and it is an all-encompassing issue. Overall, we already have a general idea of the appropriate behaviours conducive to reduce our environmental impact. In general terms, we are aware that we should limit the use of plastic, that we should prefer public transportation to driving cars and avoid travelling by plane, that we should recycle, that we should pick seasonal and local food or that we should pay more attention to how much electricity we consume. Yet, many people also think that the scope of our individual and private behaviours has a limited reach. Instead, countries, private corporations and international organizations shoulder the responsibility of reducing carbon emissions, promoting green policies, and eventually implementing them.

This matter-of-factly reality leaves individuals with the impression of being inconsequential for what concerns mitigating climate change, and that individual actions are at best supererogatory and at worst irrelevant for addressing climate change, thus letting fertile terrain for developing habits of noncompliance. In addition to the impression of not making a difference in the big scheme of things, individuals are often influenced by the sceptic and denialist narratives (which I presented in the first chapter) spread by new and old media, that further push individuals to adopt noncompliant behaviours. More often than not, noncompliance is a matter of willingness. Acting on some ready-made decisions is a question of being motivated to do so. If we recall the political context of climate change agreements, we have seen that countries are willing to sign an accord in which they chose by themselves what measures should be implemented, even if in the end they are not ready to implement them, so the motivation that sustains agreement does not equally

support implementation[74]. For individuals, this twofold dynamic of agreement and implementation does not hold. Often individuals are at the ending of a decision chain about what to implement, and the changes they are asked to make to their daily life might require a great deal of sacrifice. Connected to their residual role in the climate change mitigation process, individuals are seen as patients rather than agents. They are seen as the receivers who should comply with measures generated above them in matters of power and political influence.

This work, instead, will try to refocus on the idea that individuals' contribution, albeit non-resolutive, may have the potential to turn around the current attitude towards climate change, by pushing their governments for more impactful climate action, by making environmental issues more relevant in the political agenda, and by progressively pruning away sceptic and denialist claims held by their peers. If properly motivated, individuals may have a significant influence that might change the 'decision chain' regarding climate action from the top-down to the bottom-up. The crucial point is that we need individuals who are motivated to comply with climate measures. The research question animating this work can be stated as follows: *how should individuals be motivated to comply with climate change norms over time*?

I assume that compliance can be either for pertinent or non-pertinent reasons for compliance. I will define more precisely pertinent and non-pertinent reasons in a section below. Provisionally, we can think about them as reasons that, respectively, play or do not play on the link between one's own environmental concern and the specific topic at hand, in this case, climate change. If one's reason to comply with a norm is justified in light of a concern regarding climate change or environmental matters, then it can be considered a pertinent reason for compliance. If not, then it is

[74] On this see: Bacchetta, 2020.

a non-pertinent reason to comply. So, pertinent reasons are generated by the coexistence of (a) policies to address climate change and (b) individuals' having an environmental concern. I hypothesise that to ensure compliance over time, individuals should have *pertinent* reasons for compliance.

Moreover, *stability* in complying with the norms and the behaviours required is crucial to grant some progress in effectively contrasting climate change. The importance of stability is more noticeable when considering countries. Effective policymaking is characterised by planning reforms and policies designed with a long-term goal, such as reducing emissions of 30% by 2030, to make an example. This long-term goal requires surely a gradual policy plan, but it also requires that governors and political administrators consistently maintain such measures. So, it is not sufficient to comply, but it is necessary to comply throughout time steadily. The same reasoning may be applied to individual agents. If they are motivated by the right reasons, to use a Rawlsian terminology[75], individuals would be motivated to comply constantly with environmental-friendly measures, norms and behaviours. According to my research hypothesis, I will argue that only pertinent reasons can fulfil this stability requirement that is necessary for effectively contrasting climate change.

John Rawls has already highlighted the importance of a stability for the right reasons. In *Political Liberalism*[76], he asks how a just and free society can persist over time despite the rifts dividing citizens' religious, moral and philosophical views[77]. Indeed, according to Rawls, "a modern democratic society is characterized not simply by a pluralism of comprehensive religious, philosophical, and moral doctrines but by a pluralism of incompatible yet reasonable comprehensive doctrines"[78]. The answer

[75] Rawls, 1993.
[76] Rawls, 1993. On the problem of stability in Rawls, see also Barry, 1995; Chung, 2019.
[77] Rawls, 1993, p. xxvii.
[78] Rawls, 1993, p. xviii.

Rawls provides is that a society can persist over time only if citizens' own reasons for supporting it are "compatible for the right reasons with a liberal political conception"[79], which, in turn, "can be the focus of an overlapping consensus", which consists "of reasonable comprehensive doctrines likely to persist and gain adherents over time within a just basic structure"[80]. In an overlapping consensus, "each citizen supports a political conception of justice for reasons internal to her own comprehensive doctrine"[81] and reasonable citizens "will have sufficient reason to comply with liberal principles of justice for the comprehensive reasons that are specific to their comprehensive doctrines. Kantians, utilitarians, pluralists, Catholics, Protestants, Jews, Muslims, cultural relativists, moral skeptics, and so on will all accept and endorse a liberal conception of justice for reasons peculiar to each of their comprehensive doctrines"[82]. So, the right reasons ensuring stability include only those reasons derived from reasonable comprehensive doctrines – which are basically of moral nature. Otherwise, if the stability is due solely to certain "historical circumstances"[83] turning out to keep for the time being a "balance of forces"[84] among all parties supporting the ongoing arrangements, then there is what Rawls calls a 'mere *modus vivendi*'. In a *modus vivendi*, "social consensus [is] founded on self- or group interests, or on the outcome of political bargaining: social unity is only apparent, as its stability is contingent on circumstances remaining such as not to upset the fortunate convergence of interests"[85].

[79] Rawls, 1993, p. xxxix.
[80] Rawls, 1993, p. 141.
[81] Wenar, 2017; Rawls, 1993.
[82] Freeman, 2010, p. 368. I will deal more extensively with the problem of dividing citizens into reasonable and unreasonable individuals in chapter 4.
[83] Rawls, 1993, p. xlii.
[84] Rawls, 1993, p. xliii.
[85] Rawls, 1993, p. 147. *Contra* Rawls, in the political realist debate, *modus vivendi* has been proposed a viable solution to solve the problem of pluralism in a liberal society (See: Gray, 2002; Horton, 2006; 2010; Sala, 2015; Horton et al., 2018).

According to this definition, Rawls draws a clear distinction between the right reasons – which are ultimately of moral nature – and prudential, self-interested considerations that, instead, do not qualify as the 'right' reasons to have a stable political regime. His argument about stability for the right reasons shows indeed that only a specific group of reasons can ensure stability. In my argument, I will assume Rawls's conception of stability for the right reasons only partially. I agree with his account to the extent that only a specific type of reasons can ensure stability. Indeed, in my specific view, the 'right' reasons can be only of pertinent nature. Yet, *contra* Rawls, I will hold that also prudential and self-interested considerations can qualify as pertinent reasons.

Overall, my argument will try to prove that in order to obtain stable compliance with climate change measures, we need to raise pertinent reasons in individuals. Pertinent reasons depend on individuals having an environmental concern and the presence of aptly devised policies. First, in Chapter III, I will focus on the political means that an authority has at its disposal to induce individuals to comply. Dividing the citizens into concerned and unconcerned individuals, I will show that concerned individuals are more likely to have pertinent reasons and to maintain their compliance over time. In contrast, unconcerned individuals are more likely to fall back on noncompliance if the conditions ensuring their observance of norms and rules do not obtain anymore.

Once proven that only pertinent reasons can ensure stability over time, I will turn my attention towards the presence of an environmental concern in Chapter IV. Instead of conceiving it as a given fact, I will hypothesise that through deliberation it is possible to elicit such a concern even in those who are uninterested about climate change matters, so as to increase the number of concerned individuals and, therefore, of those who would potentially have pertinent reasons for complying. In this sense, I

will further part from Rawls's theory by trying to address the problem of motivating individuals who Rawls would likely qualify as unreasonable – deniers and sceptics, but also people only softly concerned about the environment and individuals entirely indifferent to the topic.

3. DELIMITING THE SCOPE: SOME CLARIFICATIONS AND SOME DEFINITIONS

Before starting with the actual argument of this thesis, some clarifications are due. First of all, considering that my enquiry focuses on individual motivation, it is necessary to delimit the scope of noncompliance only to the one due to matters of unwillingness. To do so, in Section 3.1, I will precisely define and delimit what I mean when I speak about noncompliance, which, in sum, should be seen as "a case of we 'won't', rather than of 'we can't'"[86]. In Section 3.2, instead, I will explain why I focus on individuals, and I will clarify the role they play for what concerns climate change. In fact, it is true that, if our main concern is contrasting climate change, then focusing on individuals as the agents of change might seem redundant, as the most impacting and influencing agents are at the macro level – they are countries, international organizations, industrial corporations. Yet, individuals as political agents might be agents of change as well, especially within their political community. Thirdly, in Section 3.3, I will define pertinent and non-pertinent reasons, comparing and contrasting them with moral and prudential reasons. As I will explain, the distinction between pertinent and non-pertinent reasons cuts across the prudential/moral divide, highlighting that, for what concerns motivation, both moral and prudential reasons can be equally worthy catalysts for motivating individuals to comply for pertinent reasons.

[86] Roser, 2016, p. 83.

3.1 Noncompliance as a Motivational Fallacy

Noncompliance is basically a failure to act in conformity with a given norm. This failure may be due to multiple factors: it is sometimes rooted in unfavourable economic conditions due to a production crisis, for example. Other times, it is due to a deliberate decision grounded on a contrarian stance towards climate change. The fact that there is a problem of noncompliance with climate change provisions crisscrosses both the individual and the international levels. Of course, noncompliance manifests itself differently according to the context. If we consider nations as our unit of interest, noncompliance is displayed by the reluctance to implement significant and effective environmental policy plans. If instead, we regard individual action as the primary concern, it assumes the form of a motivational gap between the measures imposed by the gravity of climate change and "the lack of motivation to adequately abate the threat"[87].

In some cases, both individual and state noncompliance may be due to the lack of means to respect the required provisions, limiting the set of options available. So individual noncompliance sometimes might be not entirely due to a lack of motivation. Instead, it might be the result of a forced choice due to the unavailability of certain options[88] (e.g. taking the train is not a viable option for me if the railway service does not serve my hometown). As I showed before, this reluctance to act persists even though we have both epistemic and moral elements to spur action. Climate science provides us with all the knowledge we need to understand the severity of the problem and the importance of acting. At the same time, the

[87] Peeters et al., 2019, p. 2.
[88] See: Lawford-Smith, 2016, p. 79.

philosophical investigation equips us with different principles to justify action and distribute the burdens of mitigation.

Moreover, addressing noncompliance is crucial in another sense: climate science often warns that timing is the key to contain climate change. The delays due to noncompliance create a vicious cycle that is seriously damaging our planet and will cause significant harm to future generations. Noncompliance is one – if not *the* – key reasons for our failure to deal successfully with climate change.

But, what do we mean by compliance, and its flipside of noncompliance[89]? Unpacking such an intuitive and common-sensical concept might seem an exercise in splitting hairs. Still, in this case, it is important to specify the nuances of compliance to trace clearly the scope of this work, which concerns only one kind of (non)compliance – the voluntary one. The common-sense meaning of compliance (or noncompliance) is very straightforward: complying or not means to observe or not observe a rule or norm. So, very straightforwardly, when there is a rule prescribing to wear a face mask in public spaces, if I do it, then I am complying. If I do not wear a mask, instead, I am a noncomplier. What we label as compliance or noncompliance is the result of a certain behaviour which is or is not consistent with a rule, a norm or more generally with a prescription. But sometimes the matter is slightly more complicated than this, especially if we consider the reasons underlying the fact that we followed a rule or not. Indeed, one's noncompliance can have different explanations that, if taken into consideration, can lead to a radically different evaluation of the very same noncompliant behaviour.

[89] I will analyse (non)compliance according to the scope of this work, so this section should not be considered an exhaustive analysis of this concept. However, let me mention that political science provides a vast literature investigating, for example, compliance in the provision of public goods (Olson, 1965), regarding the commons (Ostrom, 1990); compliance with EU norms and regulations (See: Tallberg, 2002) or towards international treaties (Chayes et al., 1993; Simmons, 1998).

To clarify this, imagine that in a country there is a new rule: starting from next week, the only cars allowed to circulate will be hybrid or electric vehicles, no more petrol or diesel cars. Time passes, the rule is enforced, and everybody is complying except for two persons. If we stop here, there are no doubts in saying that the two people not respecting the rule are both similarly noncompliers, and therefore they should be treated in the same way (e.g. their car should be seized, they should pay a hefty fine and so on).

By digging a little deeper, we discover that the first noncomplier owns a gas-guzzling Ferrari. Even though she could afford to replace her supercar for a hybrid model, she decided not to do so because her favourite activity is driving her Ferrari at top speed. She could have complied, but that would have meant to renounce to do what she enjoys most. Instead, the other noncomplier is a low-wage worker owning an old diesel car, which she uses mainly for her commute to work. She would have respected the new regulation, but she could not afford to buy a new vehicle, at least not as fast as complying with the new rule would have required.

Knowing this additional information, I think it would be challenging to evaluate and treat the two cases in the same way, even though the result (i.e. driving a polluting car when it is instead forbidden) is exactly the same. In one case, noncompliance was avoidable; on the other, it was (to a certain extent) unavoidable[90]. Indeed, in one case there is an agent *unwilling* to respect a rule, whereas in the other

[90] The example wants only to show more clearly that for the evaluation of noncompliance, there are nuances that matter and that should change – or at least should influence – how we judge noncompliance. However, one might contend that the low-wage person's noncompliance is not really unavoidable, as she knew about the rule in advance and could have found other means to comply (e.g. by using public transport) or at least to avoid noncompliance (e.g. by staying at home until she could afford a new car). For the argument's sake let us assume that public transportation is not an option for her (e.g. because she lives in a rural area not served by the railway system) and that she needs to go to work because she needs to earn money to survive and, with some judicious budgeting, to save in order to buy a hybrid car in the future. Her action is unavoidable in the sense that this situation is brought about by unfavourable circumstances. In other circumstances, for example, with a more profitable job, she would have complied immediately. But in her situation, compliance is not an option, so she can be ultimately considered *unable* to comply. (On the different ways to conceive noncompliance see: Chahboun, 2015).

case the agent is *not able* to follow the rules; on this basis, we can distinguish between voluntary and non-voluntary noncompliance[91]. This distinction is not far from the reality of implementing climate change provisions both at the national and at the individual level. The example I just provided can easily be a real-world case of noncompliance – with an added flair for dramatization – with individual agents, but we could also make a very similar example with nations. The United States' (or China's, or Russia's) noncompliance in doing a lot less than they could for climate change mitigation is not comparable to, say, Costa Rica not doing enough.

Both voluntary and non-voluntary noncompliance are problematic, though in different ways. On the one hand, non-voluntary noncompliance, i.e. not being able or not being in the condition to comply with a rule, can be tackled as a problem of justice. Third-World countries, or disadvantaged individuals, are not in the condition to comply because of an unjust scheme barring them from compliance. So, in order to solve the situation, we should bring about a fairer scheme of distribution of burdens, wealth and so on – which goes beyond the scope of this work.

On the other hand, voluntary noncompliance, i.e. being unwilling to comply with a rule, cannot be solved by adjusting the conditions that would enable compliance. It does not depend on the external, contextual or circumstantial conditions. Rather, it depends on the agent's attitude that might not alter in light of

[91] Alternatively, we could reframe the two cases of noncompliance by saying that they depend on different feasibility constraints, and more specifically either on hard or soft constraints. Hard constraints' role is to exclude all those option that would be impossible to realize because they "include facts about what is logically, conceptually, metaphysically, and nomologically impossible" (Lawford-Smith, 2013, p. 252), so they would include not being able to comply – because there are condition that make unavailable the option of complying with a rule – as in the case of the low-wage worker. On the other hand, soft constraints include "facts that make an outcome conditionally less likely to obtain, rather than facts establishing that it cannot obtain" (Lawford-Smith, 2013, p. 254), so they might include unwillingness to comply. Hard constraints justify and somehow excuse noncompliance, mainly because they make compliance unfeasible in a strong sense. On the other hand, soft constraints might justify or excuse noncompliance, but if they are related exclusively to a motivational factor (as in the case of the Ferrari owner) and it does not depend on any other kind of constraints, then this kind of noncompliance is not justifiable nor excusable. (On feasibility see: Räikkä, 1998; Gilabert, Lawford-Smith, 2012; Pasquali, 2012; Lawford-Smith, 2013).

different circumstances. If what I value most is driving a Ferrari across country roads, my preference for racing on board of my supercar will remain the same if I live in an environmentally aware country or in a nation that does not care about pollution and climate change. In the case of the gas-guzzling driver and, say, of China pledging far less than it could, there are not many strategies available to reverse agents' unwillingness to comply, unless we try to elicit some forms of motivational push to comply. So, if the problem with a certain type of (non)compliance is its motivational component, the way to solve it is to provide agents with reasons for action to mend the lack in motivation that is causing noncompliance.

3.2 Individuals' Role with Climate Change

In many parts of the previous discussion, I have reiterated that, for what concerns climate change, individuals do not play a crucial role. Climate change is a global phenomenon. Thus, it should be contrasted with a strategy that coordinates different nations to devise effective policies and facilitate their implementation. Climate change is mostly a matter of international diplomacy and national policy, and these are the *loci* where mitigation must take place. Individual action, instead, is not seen as a decisive contribution to the fight against climate change, considering that big polluters are nations and industries, who emit exponentially more than what an individual can pollute in his or her life. Yet, this work challenges the idea that individuals are not relevant agents for what concerns climate change.

First of all, it is true that individuals' contribution to climate change is not as decisive as the one of collective agents (such as state and non-state actors). Yet we can say that two features characterise individual contribution to climate change: it is at

the same time non-causal and cumulative[92]. It is non-causal in the sense that a person's single action does not affect in any way the progression of climate change. For example, for one person refusing to travel by plane to diminish dangerous emissions, many people continue to take flights when travelling. The fact that that one person did not pollute does not impact the overall 'mitigation score'. To say it in a matter-of-factly way, her choice to not take the plane has made no difference for what concerns climate change. At the same time, individual actions are cumulative, in the sense that the sum of every single action which causes pollution still contributes to the worsening of climate change. Greta Thunberg's choice to sail instead of flying to Chile to attend the Conference of The Parties in 2019 did not make a difference. Still, every single time an aircraft takes off, there is a plane full of people who cumulatively contribute to pollute and emit dangerous gases[93].

The coexistence of the non-causal and the cumulative features of individual contribution to climate change creates a tension. Indeed, on the one hand, it could be argued that in light of the non-causal nature of their contribution, individuals should have no duties for what concerns climate change mitigation, as individual actions are irrelevant in the complex chain of processes causing climate change[94]. Yet, on the other hand, individuals' aggregate actions do contribute to pollution. So, it could also be argued the opposite, that is to say, that individuals ought to act against climate change, and therefore they have a rightful place as relevant agents for contrasting it.

For what concerns this work, I assume the second stance. One reason for considering individuals as relevant agents is that they play an important role in contrasting climate change. In fact, we often think about individuals as the bottom

[92] Pellegrino, 2018, p. 812.
[93] See: Pellegrino, 2018.
[94] See, for example, Sinnott-Armstrong, 2010, pp. 332-346.

of the barrel for what concerns climate action. Climate change is a topic for international diplomacy, which tries to balance national interests with mitigation objectives. Individuals are thought to be residual, but it is often forgotten that national interests are influenced and guided by the search for consensus on the one hand, and by a power figure who embodies certain valence issues, on the other hand. So, the chain does not end with nations who should implement certain policies, but it ends with individuals who should comply with the policies their government has devised. If we think about this chain as continuative, then it is entirely possible that as it goes top-down, it can go bottom-up. Individuals could potentially trigger a chain of climate action by signalling that environmental matters are relevant and make them a priority in their country's political agenda. So, individuals who comply and raise the attention towards climate change-related issues could be able to influence their country's stance on climate change, which, in turn, will bring these claims in the international arena.

Moreover, the fact that I characterise the issue of noncompliance as a motivational problem contributes to selecting individuals as the 'testing ground' for my research question and hypothesis. Indeed, the focus on motivation is more straightforwardly testable with individuals whose motivation can be envisaged more easily. Speaking about motivation in countries' case would be more complicated, as they include an array of interests, such as economic power, geopolitical relations, convenience, etc. It would entail employing idealisations that would personify countries with features that do not belong to them[95].

3.3 Pertinent and Non-Pertinent Reasons

[95] On the difference between idealisation and abstraction, see: O'Neill, 1987; 1997.

In this chapter's final section, I will properly define the two categories I introduced in my hypothesis statement, namely pertinent and non-pertinent reasons. As I provisionally said earlier, pertinence requires a connection between what motivates an agent to act and the issue at stake. The criterion making a reason pertinent or non-pertinent is context-dependent. Imagine that someone states something as follows:

I comply with P because of reason R,

where P is a norm or a policy, and R is the individual's motivation. We have two elements: the content of the policy or the norm, and the other is the individual's reason that motivates her to comply. To make an example, the elements I shortened with P and R could be substituted as follows:

I comply with P *because of reason R;*
P= People must wear face masks;
I wear a mask *because I don't want to be sick.*

However, policies are not over-imposed on individuals on a whim, they are usually (and hopefully) devised to achieve a more or less specific end. For example, taxes can be thought as a redistribution device and for the provision of public goods, such as public transport, healthcare system and so on. Similarly, the obligation to wear a face mask is designed to contain the spread of a highly infective and mostly unknown disease.

For this reason, policies might be thought as justified by unexpressed reasons that motivate their implementation. Now, we can say that individuals have pertinent reasons when their own reason to comply (reason R) is consistent with what justifies

the implementation of P. Whenever the motivation one individual has to comply with something is consistent, compatible or even the same as the reasons that ultimately justify the implementation of P, then we can speak of having a pertinent reason to comply. If the norm obliging people to wear face masks is ultimately motivated by healthcare reasons, and my motivation to wear a face mask is a self-regarding reason that I do not want to catch Covid-19 and therefore be sick, or that I do not want to infect my beloved ones. Then, my motivation to comply aligns with the reason for which that specific policy was created for. In this sense, I have a pertinent reason to comply.

Conversely, if this link of compatibleness does not obtain, we have non-pertinent reasons to comply. Think about the following example:

I comply with P *because of reason R*

P= People must wear face masks

I wear a mask *to hide my crooked nose.*

In this case, the rationale behind the policy that requires compliance is the same, namely asking citizens to take measures to avoid the spread of Covid-19, but my own motivation to comply with it has nothing to do with health reasons. For me, wearing a mask is convenient because I can easily hide my ugly nose when I am out and about. In this case, my compliance is only coincidental. If someone invented a device that hides my nose by adding to eyewear a curtain falling on the nose, I would then use that instead of a face mask, and then I would be a noncomplier. So, when the individuals' motivation for compliance does not align with the reasons for creating a certain measure, we have non-pertinent reasons to comply.

One might ask whether using pertinent and non-pertinent reasons is only a way to give different names to what in the end, end up being instances of moral reasons on the one hand, and prudential reasons on the other. *Prima facie*, pertinent reasons have something to do with moral considerations, as someone might do something because it is right to do so, and non-pertinent reasons are reducible to motivation connected to self-interest. As far as I can see, pertinent and non-pertinent can each include either moral or non-moral reasons, according to what is ultimately motivating an individual. Indeed, as I said before, the categories of pertinent and non-pertinent reasons cut across the moral/prudential distinction, as we can envisage moral or prudential pertinent reasons and moral or prudential non-pertinent reasons for action. To clarify this idea, consider the following chart.

I comply with P *because of Reason R*

P= You must wear a mask

Individual: "I wear a mask because of [Reason R]"

	Moral	*Prudential*
Pertinent	R= e.g. Civic Duty	R= e.g. Self-Regarding Health Concerns
Non-Pertinent	R= e.g. Religious Precept	R= e.g. Aesthetic Reasons

If we go back to the example of wearing masks, we can picture different types of motivation that justify the action. For instance, if someone says: "I wear a mask

because it is a civic duty", then we have a moral pertinent reason. Indeed, among the reasons that motivate the policy's implementation, there is certainly the idea that it is a civic duty towards other citizens to protect them from potentially dangerous diseases. Suppose the individual firmly believes that wearing a mask is an expression of her being a good citizen and stands by the idea that wearing a mask is her civic duty. In that case, she has a moral reason for complying that is pertinent with the policy's aims.

A second citizen instead could say: "I wear a mask to obey the law". In this case, the individual's reason to wear a mask has to do with the fact that it is part of the law and therefore, it should be obeyed, no matter what. It is a moral reason, but of non-pertinent nature, because policies are not made with the ultimate aim of being obeyed. Policies and norms try to further some end-goal; otherwise, they would be only an exercise in pointless power. Legislators indeed devise laws, norms and policies with the expectation that citizens will obey them, but they are not made just for obedience's sake. So, this kind of reason would be moral but non-pertinent reason.

Thirdly, we can imagine another citizen saying: "I wear a mask because I don't want to get sick", or "because I don't want to infect my family". These are reasons of prudential nature, but they are consistent with the aims for which the mask-wearing policy has been created. Its purpose is to contain the disease and avoid that individuals at risk, such as older people, are infected. So, even though they are prudential reasons for compliance, they nevertheless fall into the pertinent category.

Finally, someone could also say: "I wear a mask because I don't want to get a fine" or, "because I want to hide my crooked nose" or, "because I want to keep my nose warm". These are also prudential reasons, but they are of non-pertinent nature. Indeed, the legislators' aim is neither to deliver fine to citizens, which are used only

as a deterrent to encourage mask-wearing or provide comfort to those who suffer the winter's cold.

Prudential and moral considerations are two ways in which reasons can be expressed, but they could be both consistent with the aims of a policy, without making one or the other a stronger motivation for compliance. The fact that someone has a moral pertinent reason for complying or a prudential one does not confer more strength to their motivation for complying.

One instead could follow Bernard Williams' insight and argue that reasons' motivating strength is connected to their source. Indeed, Williams distinguishes between external and internal reasons. According to him, "the internalist view of reasons for action is that A has a reason to Φ only if he could reach the conclusion to Φ by a sound deliberative route from the motivations he already has [that is, from his actual present subjective motivational set, S]"[96]. The externalist view, on the contrary, holds that "this is not a necessary condition, and that it can be true of A that he has a [normative] reason to Φ even though A has no motivation in his [S] that could, either directly or by some extension through sound deliberation, lead him to Φ"[97]. While this distinction has already been applied to climate change[98], I do not use it in this work because, as far as I can see, motivating compliance can have both internal and external sources. Pinpointing the source of the normative force of reasons in the case I investigate in this thesis is not relevant. The important thing is that agents have motivating reasons and these reasons bring them to comply or not, wherever they are coming from.

[96] Williams, 1995, p. 35.
[97] Williams, 1995, p. 35; See also: Williams, 1981; Paakkunainen, 2018.
[98] For an internalist argument, Jamieson, 2013; for an externalist one, Gardiner, 2013.

CHAPTER III

Pertinent vs Non-Pertinent Reasons and the Stability Requirement

This chapter will be devoted to testing whether my research hypothesis holds. The research question animating this work asks how individuals should be motivated in order to expect their compliance with climate change norms. The hypothesis I advanced to answer this question states that individuals need to have reasons to comply and that reasons for complying can assume two forms, pertinent and non-pertinent reasons. Only the former – created by the coexistence of individuals' environmental concern and aptly-devised policies – are able to foster compliance steadily. The requirement of obtaining a stability in maintaining compliance or pro-environmental behaviours is crucial for what concerns climate change. Indeed, obtaining a continuative stable compliance with norms oriented towards mitigation and/or adaptation would allow to dampen the worst effects of pollution, environmental exploitation and resources depletion. Furthermore, it would also be consistent with the long-term nature of climate change – which rather than a 'blitz' intervention, it requires a permanent mitigation effort.

We have said that pertinent reasons – which I hypothesise are the only ones which can meet the stability requirement – depend on the interconnection of two elements. On the one hand, pertinent reasons depend on the policies that are implemented by the political authority. They are pertinent precisely because the reason that individuals have for complying (e.g. comply with a mask-wearing prescription to avoid catching Covid-19) are consistent with the goals that that specific policy wants to pursue (e.g. imposing a mask-wearing policy to contain the spread of Covid-19).

On the other hand, pertinent reasons depend on the fact that individuals may have a concern that prompts them to consider a certain issue as worthy (both in a prudential and in a moral sense) and that stems into a motivation to comply with the appropriate policies and norms. In this sense, if I care about staying healthy (that is to say, I have a concern about health matters), I would be motivated to comply with a policy whose aim is to preserve people's good health.

Determining whether individuals have pertinent or non-pertinent reasons, therefore, depends on the one hand on the type of policies that are implemented (and that require compliance), and, on the other hand, on the presence of a concern about the subject matter – the environment in the specific case of climate change – in individuals' motivational set. In this chapter, I will assume the presence of an (environmental) concern as a given fact. That is to say, here I will treat the problem of compliance assuming that we cannot modify individuals' motivational set. Basically, we need to obtain compliance by working around the fact that someone has or has not an environmental concern. This means that we need to think about which kinds of policies would successfully obtain both concerned individuals' and unconcerned individuals' compliance and that we would need to adapt the political strategy according to the type of individual we are dealing with. What should characterise climate change related policymaking when it seeks concerned individuals' compliance? And what should change when seeking unconcerned individuals' compliance, instead?

In the first section, I will argue that the primary goal that a climate change-related policy should seek is to try producing effective results. This means that policies should be devised with the goal of producing results that successfully address climate change and that hit the target of mitigation or adaptation to climate change. This kind of strategy can work only if we are dealing with concerned individuals. Indeed, when

dealing with concerned individuals, effective policies would likely produce pertinent reasons for compliance, because they would allow individuals to translate their pre-existing concern into effective action, thus motivating their compliance for pertinent reasons (as there is a convergence between the policies' rationale and the individual's concern). So, I will argue that, when there are effective policies in place, concerned individuals would likely comply for pertinent reasons.

The second section, instead, will be devoted to show how to prompt unconcerned individuals' compliance. Contrarily to concerned individuals', unconcerned people are indifferent regarding the effectiveness of a policy, and their compliance is connected only to the presence of a punitive system that would sanction their compliance. So, playing on their self-interest, I will argue that in order to obtain unconcerned individuals' compliance the political authority should use incentives as a leverage and, on the flipside, sanctions as deterrents to make individuals comply. In this case, individuals would comply with climate change-related measures for non-pertinent reasons.

Once established that concerned individuals would comply for pertinent reasons and unconcerned individuals would end up complying for non-pertinent reasons, in the third section I will focus on the problem of prompting a *stable* compliance, trying to assess if either pertinent or non-pertinent reasons (or both) can successfully sustain compliance over time – even in unfavourable conditions. As I have already stated, I expect that only pertinent reasons would be able to meet the stability requirement. The fourth and final section will reconstruct the argument I proposed in this chapter and it will introduce the topic of the fourth chapter.

Before starting with the discussion, I would like to stress the fact that, contrarily to other works dealing with the problem of motivating individuals on the backdrop of climate change-related behaviours, I conceive individuals as immersed in a political

community, and for this reason they should not be considered as monistic agents whose action can be isolated and studied separately. They are to the same degree part of a political community and subjected to political authority, and both these dimensions can influence individuals' actions, and, consequently, their compliance. On the one hand, the political community is made up by citizens and, through interaction, fellow citizens can reciprocally influence one another's behaviour. On the other hand, being subjected to a political authority means that individuals' actions can also be affected, guided and constrained by the exercise of the authority's legitimate power. In the fourth chapter I will focus on how interaction among peers can possibly influence individuals' behaviours, while in this chapter I basically focus on the means that a political authority has at its disposal to get people's compliance. According to what means are used to get people to comply, such methods can directly or indirectly motivate individuals with different reasons for action.

1. PROMPTING COMPLIANCE THROUGH EFFICACY

Effectiveness is the first virtue of climate change policymaking. Rawlsian calembours aside, climate change policymaking should be driven by efficacy[1]. The whole point of drafting policy strategies, to create international treaties, to read the experts' reports and to raise citizens' awareness towards environmental matters is to obtain results that actually address climate change. Devising policies able to successfully achieve mitigation or adaptation goals is not an easy task. It means that it is necessary to assess the current situation with the available data, analyse and forecast the possible ways in which this situation would evolve and choose what aspect should be tackled first in order to stop or slow down the ongoing environmental processes of deterioration.

[1] For a definition of efficacy in political philosophy see: Zuolo, 2012a.

The task of creating effective climate change-related policies is difficult in at least two aspects. The first one is that it involves many – maybe too many – potential areas of intervention. Intervening on climate change might mean mitigate or adapt to climate change, for starters. But it may also involve dealing with different kinds of pollution (from water, to air, to soil pollution), and climate change could be faced through large scale measure as well as small scale interventions. An example of large-scale measures is for instance keeping the average temperatures' increase below 2°C by 2050. To do so, a country's political agenda might include measures trying to neutralize the emissions of dangerous greenhouse gases, tackling therefore the emissions coming from industrial sites, requiring, for instance, a transition from fossil fuels to renewable sources of energy. In turn, energy transition requires basically reconfiguring the way in which energy is produced. The potential by-products might have deep and far-reaching impacts, potentially changing the economic landscape of a country. Even though less impactful than large-scale measures, small-scale policies – the ones targeting individuals' day-to-day behaviour – require a certain degree of sacrifice from the individuals' part. Indeed, such measures might seem inconsequential in the big picture of climate change, yet, from individuals' point of view, they are not so. Indeed, apparently low impact and micro-measures hid a high grade of invasiveness in people's day to day life, which may not deeply affect the economy of a country but may potentially change individuals' life. Taking a wrong turn in climate change policymaking is very easy. For this reason, it is important that policies are designed knowingly, by people who know the relevant facts.

The second aspect that makes developing effective policies a difficult task has to do with the uncertainty connected to climate change. How it is possible to be sure that the policies we are implementing right now will produce the desired results? How can a political authority (which normally is not composed by climate scientists)

be able to choose the correct measures to fight climate change? Experience with climate change policymaking tells us that a government could easily decide to implement measures that are insufficient in mitigating climate change, perhaps by targeting non-crucial areas of intervention or by establishing subpar policies than the ones suggested by climate science. For example, a country with high air pollution might decide to regulate water pollution instead of intervening on its emission rate. Moreover, there is another sense in which uncertainty plays a role. Think about the Covid-19 pandemic. We know that wearing a face mask and respecting social distancing are effective ways to contain the infection because we can see the results (namely, that the number of sick people diminishes) in a relatively short time. With climate change, instead, results are not immediate. In fact, if we consider large scale mitigation policies, we might never be able to see the fruits of our mitigation efforts, as the results will probably be enjoyed by future generations. Even from the synchronic point of view, an action happening in a certain place might produce effects in another part of the world (e.g. not throwing plastic from American shores might positively affect the coral reef in Australia).

These two difficulties can be bracketed if we defer to experts the task of creating policies that would deal effectively with climate change. And if it is assumed that experts are able to get the right receipt in order to come up with a set of policies that (if complied with) would successfully bring about mitigation and adaptation goals, such as reducing dangerous emissions, improving the water quality or avoiding resource depletion.

1.1 An Epistocracy for Climate Change

We know that mitigating climate change is very difficult. There are many areas of intervention, there is the need to balance environmental needs with the economic situation, it needs to be decided what can be implemented and what not, what is more urgent to do and what can wait. But the problem is that nobody has the right receipt. Policies usually are devised with an overall goal in mind (e.g. cut GHGs emissions in a certain country), which can be pursued through more or less efficient means. For instance, to preserve flood-endangered areas one might decide whether it is more feasible to build flood protection barriers or to relocate the inhabitants to a less at-risk area. Creating the 'perfect' receipt involves not only selecting what end-goals should be pursued, but it is also a matter of choosing the most efficient means to reach the desired end-goals.

To get the right receipt to contain climate change, we need experts[2]. Indeed, considering the complexity of the matter at stake, policy design should be left in the hands of people who have the right knowledge to decide what would be the best way to create the perfect receipt to mitigate climate change. This kind of government is usually called and 'epistocracy', i.e. a rule of the experts[3].

To properly deal with climate change, there are many kinds of expertise at play. Firstly, there is the need to have a clear picture of the phenomena, the ongoing processes, the future scenarios, and their corresponding consequences. This is a descriptive task that is usually fulfilled by environmental scientists – climatologists, oceanographers and the like – who provide the background information to guide the subsequent stages of policymaking. Therefore, the group of experts in charge of the design of efficacious prescription should include scientific experts who provide the

[2] On the issues connected with experts, see: Goldman, 2001; Anderson, 2011.
[3] Here I will not deal with the problems connected to the legitimacy of the experts' rule, or with its confrontation with democracy (for accounts arguing in favour of forms of epistocracy, see: Mill, [1859]; Caplan, 2007; Somin, 2013; Brennan, 2016. For accounts defending democracy, see Estlund, 2008; Lippert-Rasmussen, 2012; Landemore, 2013.

scientific information which would constitute the foundation to build the subsequent policy planning.

Secondly, we need to set long-term goals. This is primarily a prescriptive phase, in which the information coming from scientific experts is evaluated, compared and balanced with other considerations (e.g. the feasibility rate of different solutions) and stems into the selection of which long-term goals should be pursued. This task is a prerogative of political experts, who oversee this phase by making an overall assessment of the scientific information balanced with other considerations that might interfere with the selection of the most viable course of action (e.g. socioeconomic considerations). For instance, when selecting an adaptation strategy, experts may take into account economic considerations that might affect the selection of one adaptation policy over the other (e.g. the costs of building sea barriers versus the costs of relocation).

Thirdly, there is the need to devise specific policies, so political experts need to be assisted by technical experts, who would help with the more specific and technical aspects of policy planning. Depending on the specific topic, this group may include a heterogeneous array of experts, such as economists, engineers or agricultural experts, to mention only a few. For example, if we choose to build sea barriers, we would need to consult engineers, whereas if we select a policy that intervenes on the crops – for example in areas at risk of desertification – we would not need engineers, but rather agricultural experts.

If we put the knowledge of scientific, political and technical experts together, we would obtain efficacious provisions to contain climate change. So, to make an example of how this pool of experts would work, imagine a possible process of devising efficacious provisions. First, scientific experts state that due to global warming the sea level will significantly rise in the next twenty years, causing the

submersion of the most part of the city of Venice[4] (descriptive phase). Following this scientific report, political experts have to opt either for mitigation or for an adaptation strategy. In this case, the most viable solution is to adapt to the sea level rise, because, even if they implement a mitigation policy, it would not be enough to stop the sea level rise in time and save Venice – at this point of climate change progression, the damage has already been done. So, our pool of experts sets a long-term goal of adaptation to avoid the submersion of Venice (in other words, they determine the end-goal to be pursued). Lastly, they need to plan how in practice this goal should be reached. In this phase, technical experts devise different methods to adapt to the sea-level rise. Among the many different options (e.g. displacement, elevating the city surface, creating sea barriers) the experts select the one which is the most feasible and the most efficient in terms of, say, cost/benefit analysis or fairness.

In this way, thanks to the experts' contribution, we would end up with a policy design that – if complied with – would produce effective results in addressing climate change. The intervention of expert would, in fact, solve the difficulties that we generally face when dealing with climate change by devising policies that would be more likely to bring about the desired results. Once that such a system is in place, we can focus more specifically on what having effective policies means from the point of view of individuals.

1.2 Cognitive and Motivational Dimension of Efficacy

Bracketing all questions about the legitimacy of an epistocratic government, imagine that this kind of institutional asset serves only to devise the correct policies, the ones that would ensure to mitigate climate change. Experts would be able to indicate to

[4]A similar example about experts versus laypeople dealing with flooding can be found in Arneson, 2004.

individuals exactly how much water they should save, for how long they could keep their radiators on, and give them guidelines on other behaviours that might have an environmental impact.

Shifting the perspective from the point of view of individuals, we face two problems, one cognitive and the other of motivational nature. The cognitive problem has to do with the fact that individuals – no matter how much concerned they are – do not precisely know what to do about climate change. Indeed, they might have an idea that, for instance, overall recycling is better than not recycling or that travelling by train is better than travelling by plane. Yet, they do not exactly know whether a certain action would effectively produce the desired results and they do not know what the most effective courses of action are. Considering the cognitive limits of individuals, experts would have an additional role in bridging their cognitive gap.

To clarify this idea let us make an example. Imagine a person who cares about the environment. She tries to keep up with the latest developments regarding climate change by regularly reading newspapers, she understands the importance and the urgency of doing something, but the matter is so complex that she is not sure what is the best thing to do and what kind of actions would be more conducive to protect the environment (that is to say, she has a cognitive gap). Luckily for her, the ruling epistocracy has established a set of effective policies that, if correctly observed, would indeed be able to obtain the desired results and contain climate change. The experts' role is to direct individuals towards the right course of actions, and if individuals recognise the authoritativeness of those in charge of designing the policies to-be-complied-with, then individuals' cognitive gap would be filled.

One might object that it is not enough that individuals trust what the experts say and comply with what they decide to implement. Individuals would need proof that what they are asked to do actually works, so they would have to see some

improvement in the situation so as to have proof that the experts have taken the correct decisions. With the case of mask wearing to contain the spread of Covid-19, we can rely on evidence showing that the implemented measures do produce results, because the effects of the containment measures appear in a short period of time. By contrast, it is very difficult to rely on evidence about the effectiveness of climate change policies. Climate change, as I explained in the first chapter, encompasses time and space. Not only actions taken right now could start to show its results in a 50 years' time, but an action taken in a certain area might have positive effects in a very faraway location. With mitigation policies, the compliers and the beneficiaries of a certain policy or provision belong mostly to two separated generational sets, as the latter will be composed by people living in the future. Therefore, those whose compliance matters would not be able to see the fruits of their behaviour, for example that thanks to their compliance, a certain end (e.g. keeping temperatures below 2°C raise) has been reached and people are better off. Adaptation policies, instead, might produce some results that can be enjoyed by the compliers themselves: the kind of policies are usually very specific, tailored to a certain location or a certain group, and they have usually a narrow scope[5]. People would be able to assess and see for themselves the results obtained by adaptation policies' implementation within their own life span. A way to overcome the problem of policies' delayed effects would be to show to agents that the policies pursued by the epistocracy are desirable because they try to achieve an intrinsically worthy aim, or to convince individuals that they just need to trust the experts, and comply with what they are suggesting to do.

However, there is also a motivational dimension that should be considered. We have said that the experts guide individuals towards the 'right' course of action.

[5] On the difference between adaptation and mitigation policies, see Moellendorf 2014; 2015.

Yet, we have to admit that doing 'the right' thing (and, therefore complying with the experts' policies) can sometimes be an inconvenience or a hassle. For example, recycling might be a nuisance – because of one's laziness or because the bins occupy too much space in a small kitchen. Or, on a similar note, wearing face masks is very uncomfortable: you easily start panting and you don't see where you are going because your glasses get constantly fogged. Yet, on the one hand, we know that complying with the policy prescribing to wear a face mask is effective in producing the desired result of protecting oneself and others from catching a dangerous disease (cognitive dimension). On the other hand, if individuals are concerned with their health, they would be willing to comply with measures that are conducive to obtain that particular goal, no matter how uncomfortable or inconvenient is for them to comply with that policy (motivational dimension). In other words, if I care about my own health or my beloved ones' (that is to say, I have a certain concern) and I know that wearing a face mask is effective in protecting mine or my beloved ones' health (cognitive dimension), then I will comply with the mask-wearing policy, even if I hate every second of it (especially when I walk with fogged glasses).

The crucial fact to stress is that if the individuals' concern is coherent with the policy's rationale, then they would likely be willing to comply with such measures. To make an example more in line with environmental issues, we can imagine the same argument applied, for instance, to behaviours connected to climate change issues. If I know that saving water has an effect in diminishing resource depletion and, albeit in a small part, contributes to address climate change (cognitive dimension), and I am concerned about environmental matters (motivational dimension), I would be motivated to comply with a policy prescribing to save water and I would adopt in my daily routine water-saving habits (e.g. by having shorter showers or closing the tap while brushing my teeth).

We have said that appeals to efficacy can work only with individuals who already are concerned about the environment. If individuals do have a pre-existing environmental concern and if effective policies are in place, then we would have compliance for pertinent reasons, as the policy's rationale is consistent with the motivation for individuals' own compliance. So, if the policy's goal is to save water, and I also think that saving water is important and that my compliance would help in producing this result, then I have a pertinent reason for compliance.

In sum, my argument regarding the ability that efficacy-driven policymaking can produce pertinent reasons can be sketched as follows:

Experts design a policy *P* (*P* = You must wear a mask)

Policy *P* aims to pursue a goal *G* (*G* = preserve individuals' health)
Individual Agent *A* knows that *P* is effective (Cognitive dimension)
A has a health concern *C* (Motivational dimension)

If $C \simeq G$,
then *A* has a pertinent reason for compliance.

Efficacy is able to pinpoint the right path to obtain a result to those who already have a concern about climate change. The role of efficacy is to fill this cognitive limit of individuals who, considering the complexity of climate change, might not have an idea of what kind of measures are effective or not in containing climate change. Efficacy-driven policymaking is able to say to these individuals that, in order to do something about climate change, they should comply with a certain set of measures, therefore providing guidance for compliance. So, if we consider the limited group of

individuals who already care about the environment – the portion of individuals who already has an environmental concern – efficacy's role is to translate a willingness to comply into effective action.

The efficacy-driven strategy I proposed here works only on the condition that individuals are already equipped with an environmental concern, be it of moral nature (e.g. respecting and saving the environment), or non-moral nature (e.g. wanting to live without health risks, for example). Yet, we have to note that not all individuals share this kind of concerns. Indeed, people who care about environmental matters are probably outnumbered by those who instead do not have such a concern regarding climate change. Unconcerned individuals would probably be indifferent to efficacy-driven policies, and therefore, we would need to devise a different strategy to prompt their compliance with climate change-related norms.

In this discussion about the role of efficacy we have focused only on individuals with pertinent reasons, the ones who share a concern about the environment, be it of moral or self-interested nature. Still, according to the classification I provided in the second chapter, there is also another group of individuals (which very likely represents the majority) which does not have any concern whatsoever about the environment. This group involves the usual suspects – climate change deniers and sceptics, namely those individuals who respectively deny and doubt the scientific facts about climate change – but it is also composed by a large group of individuals who, on the one hand, do not see the environment as a primary area of political intervention (i.e. softly concerned individuals) and who, on the other hand, simply do not care about the environment (i.e. uncaring individuals). All these people do not have an environmental concern, so, to obtain their compliance with environmental measures, it would be necessary to devise an alternative strategy to the efficacy-driven

one that does not play on the pre-existence of a concern towards the environment (which is already present in individuals with pertinent reasons).

2. Prompting Compliance through Sanctions and Incentives

In the previous section we concluded that for an efficacy-driven strategy to work, it is necessary that individuals have an environmental concern that motivates them to comply with a certain policy. But in a society not everybody has an environmental concern. Indeed, deniers, sceptics and other people who do not think that climate change is a worthy issue, would not find an efficacy-driven strategy appealing, and therefore they would not comply with the policies at work unless they are in some way forced to comply. Even though they are a tough crowd, unconcerned individuals cannot be ignored. There are too many unconcerned individuals around to give their noncompliance a free pass. For this reason, it is important to find a strategy that, if implemented, could bring also unconcerned individuals to comply with climate change-related policies.

In this section I will argue that the best way to prompt unconcerned individuals' compliance is to use punitive and reward-based methods. These methods are one the flipside of the other, as on the one hand, compliance is enforced though the threat of sanctions or punishments, whereas, on the other hand, the political authority tries to obtain compliance by providing unconcerned individuals with some incentives or benefits. This section will develop as follows: first, I will list some examples of what I mean by deterrents and incentives, listing a few measures that could be implemented. Then, I will analyse what type of reasons these measures would be able to make emerge in individuals. More precisely, the main questions will be: What kind of reasons for compliance would have individuals whose

noncompliance is sanctioned? And, on the other hand, what reasons could be stimulated by the presence of incentives? I will argue that both sanctions and incentives would be more likely to raise mainly reasons of non-pertinent nature in individuals.

2.1 Sanctions and Incentives: Some Examples

Sanctions and rewards are two sides of the same medal. If applied to the topic of compliance, they are used to deter noncompliance and encourage compliance respectively. Both are, at least in theory, easily implementable, as the political authority 'just' needs to determine the measure that should be complied with, and, according to its importance or its impact on the matter at stake, set a commensurable sanction to discourage noncompliance or an incentive to encourage compliance. Indeed, both sanctions and incentives can be fine-tuned and adapted to the gravity of the issue and the importance we give to (non)compliance. If it is not a vital matter requiring immediate compliance – in other words, if it is possible to allow some building up of compliance – and a certain degree of noncompliance can be tolerated, then it is more likely that the authority would rather set incentivising measures rather than sanctioning ones. Instead, if it is important and urgent to make most individuals comply with a certain measure, then punishing noncompliance would be more effective than creating a rewarding system.

Again, the current situation of pandemic can help us clarify this idea. When governments decided to prevent the spread of Covid-19 by imposing local or national lockdowns, it was required an immediate, widespread compliance with such measures to lower the infection rates as fast as possible. Many governments decided to impose compliance by setting very expensive fines or severe punishments for those

who were caught not respecting the dispositions. The same reasoning could be used for climate change. According to the perceived urgency of the issue and the cruciality of compliance, governments could decide on more or less impacting policies and accordingly they could decide to impose sanctions on those who do not respect such environmental policies or to incentivise compliance by providing some benefits to those who instead respect them. Of course, in a complex system the two strategy can easily coexist, but for clarity, let's just assume that sanctions and incentives are two entirely separated strategies to be implemented in order to get compliance.

The first way through which it is possible to make people comply with climate measures is to use punitive means that basically enforce compliance on individuals. Punitive methods play on the fact that rather than incurring in potentially costly sanctions, individuals would rather comply with a norm, even if reluctantly. By determining sanctions, an authority basically promotes compliance by making noncompliance an undesirable and unappealing option for individuals. Additionally, sanctions might assume many forms and can be calibrated according to what value it is given to the norms with which compliance is required. If the authority decides that its priority is to reduce plastic pollution, then the sanctions punishing the production of plastic waste would be more severe than the ones punishing, say, poisonous emissions. With this premise, we can imagine many ways in which noncompliance with climate measures can be discouraged.

The first example I propose to show how sanctions might work is the *Boilers' Overuse*. In short, the measure to be complied with involves limiting the usage of households' boilers to reduce pollution, which is one of the crucial areas of intervention regarding climate change[6]. Households' heating systems are indeed one

[6] This is actually a measure that it is largely implemented in some cities and small towns. For example, some local laws determine the months in which people can start to turn on their heating systems and the hours of activity. For example, in Milan, it goes from October to April and it allows to heat households for

of the elements affecting the rate of poisonous particles present in the air we breathe[7]. Imagine that the government receives a report stating that the primary cause of pollution in urban areas is the over-usage of heating systems, especially when they are turned on for a very long time and set on high temperatures. So, the government decides to do something in order to curb the continuative usage of boilers. It implements a policy imposing that house boilers can be used only for a limited time and they are allowed to be set on no more than 20° C. We have said that boilers' overuse contributes the most to urban pollution, so putting limits on the allotted time to turn radiators on and putting a maximum temperature setting would actively contribute in diminishing pollution. In other words, such measures would make a difference and improve the quality of the air. So, the government wants people to comply with such measures, and therefore it devises very onerous sanctions for those who do not comply with them. We can imagine that infringements are sanctioned with very expensive fines – like the ones punishing those who do not respect lockdown measures during the pandemic – or with the deactivation of one's heating system for a week. A similar measure would impose on individuals a certain strain on their day-to-day lives, especially for those who are always cold or are particularly sensitive to lower temperatures. For them, a little bit of heat is better than living with no heating system, as it would happen if the sanction is applied. So, they would comply with such measure just to avoid living in a cold house for a week. The example I proposed here represents an extreme measure determined by the fact that there is the urgency to reduce pollution, and to tackle head on the first and most impactful cause of pollution.

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no more than 14 hours per day. (See: Comune di Milano, 2020). In other cases, especially for what concerns block of flats with centralised heating systems, some cities set a maximum temperature for households radiators (See, for example: Comune di Lacchiarella, 2020).

[7] See: Gardner, Stern, 2008.

However, as experience teaches us, governments do not always take the bull from the horns and implement measures that directly address the main cause of a certain matter, and climate change is no exception. Many times, a political authority prefers to tackle a secondary issue with less abrupt measures in order to do something regarding climate change, without committing to more onerous measures. However, even if the implemented measures are less draconian than the situation of emergency would require, such measures would be nevertheless very impactful on individuals' lifestyle.

One of the classic examples of 'palliative' measures to contain pollution, both in rural and urban areas, is to ban the circulation of diesel-fuelled cars. The idea behind *Car Bans* is that a weekend of limited circulation, or permanent traffic-restricted areas, would put a dent in the CO_2 emission rate of a particular area[8]. We can imagine that a government which cares about climate change, but does not want to be draconian and force its citizens to live in a cold home, would decide to tackle the issue of pollution due to excessive traffic and try to discourage those people who use too frequently their cars or those who are still using old cars (therefore, with a higher polluting rate than the newer models on the market). To do so, a political authority could decide to impose pricey annual taxes on older cars – e.g. a progressive tax proportional to the age of the vehicle – and fees to circulate in certain areas of the city. In this case, people who do not respect the solicitation to avoid using cars or to buy a new, more environment-friendly vehicle[9], would be forced to pay additional taxes and fees to maintain their noncompliant behaviour.

[8] These measures are also quite widespread, for example, see: Il Post, 2020. However, they are not definitive bans as the one I have envisaged in my discussion, but they are mostly temporary measures lasting for a weekend or for a very brief period, and, once that the usual number of cars returns to circulate, the positive effects of a car ban are not lasting (On this, see: Il Post, 2018).

[9] This kind of measure is one of the cases in which there could be a balancing of sanctions and incentives in order to obtain more easily a widespread compliance. For example, to encourage those who own an older

The sanctions' heftiness is crucial because, on the one hand, it signals the importance that a political authority assign to a certain issue, but, on the other hand, it also signals something about the person who is asked to comply. We have said that sanctions can be calibrated, and there is a qualitative divide between paying one hundred euros of fees to drive your 2006 Toyota in the city centre of Milan and paying one thousand euros to do the same thing. Similarly, paying a fine is very different from going into jail because you do not respect a certain norm. In some cases, noncompliers would be willing to risk a fine to maintain their behaviour, especially if attached to some strongly held beliefs – again, the most evident example at the time of the writing are people refusing to wear face masks during a viral, mostly airborne pandemic. With climate change, these behaviours are probably less noticeable, but they are quite common. Those who deny or are sceptic about climate change, as described in the first chapter, might probably be ascribed to the group of those who would rather incur in a fine – especially if not too much expensive – to maintain their noncompliant behaviour, which is not simply an oversight or a matter of ignorance, but it is more a matter of principle. A climate denier, for instance, might be willing to pay a fine every time she is caught littering or not recycling, but if she risks to be put into jail for a week because of littering, probably she would be less willing to hold on to her 'principled' noncompliance. So, the point is that calibrating sanctions could contribute into shifting individuals from noncomplying to complying.

Incentives are a second strategy that a political authority can use to get its citizens to comply with climate change-related measures. Contrarily to sanctions, incentives aim to push individuals to comply by granting them a side benefit, an advantage or a gain that makes compliance seem more palatable. Another point of contrast with

vehicle to buy a new one, the government could organise a system of tax reduction or subsidy for the acquisition of a hybrid or electric vehicle.

sanctions is that using a reward strategy is not fit for solving pressing matters that require immediate compliance. As I will show, incentives work more slowly in motivating individuals, and therefore are fit for less severe matters. As for the similarities between the two, besides the fact that both are over-imposed on individuals and depend entirely on top-down decision-making, there is the fact that also incentives can be calibrated and fine-tuned as sanctions are. Incentives are the proverbial carrot to dangle in front of noncompliers to make them comply. The important thing, however, is to dangle the right carrot to obtain the observance of a policy. Moreover, there are many ways in which incentives can be designed to encourage compliance. Here, I will describe two methods that are exemplificatory of how benefits could bring people to comply.

The first example of incentives I propose is the *Plastic Bonus*. It is not far from something that has already been implemented in some countries (e.g. Germany[10]), and it tackles another critical topic for environmental protection, that is to say the abuse of plastic. Indeed, plastic chemicals if not recycled correctly can cause very serious damage to water basins (e.g. through so-called microplastics), to biodiversity, and more generally contributing to the worsening of climate change[11]. Every day we produce a lot of plastic waste, both at home and outdoors. Not everyone pays attention to these little actions – such as having separate bins at home, not littering, or disposing garbage in the correct bin when we are out and about. For this reason, a small incentive might make people pay more attention to how and where they throw out their garbage.

[10] In Germany this policy is more systematized, but also in some Italian towns there have been some attempts to promote eco-friendly behaviours by installing plastic compactors that distribute discounts to be used in the local stores, see for example: Sgarella, 2016; Bressani, 2018.
[11] See: Ivar do Sul, Costa, 2014.

We can imagine that a government launches a campaign in which discount coupons are given away for each recycled bottle. For example, as it happens in Germany, in every supermarket it is installed a trash compactor. The customers who bring their plastic bottles to the supermarket and throw them in the compactor, would receive in exchange of the used bottle a coupon to have a discount on their shopping check. In this way people would contribute to recycling the bottles with the additional benefit of having some kind of gain – in this case, saving money. Something on the same line – getting a monetary benefit for complying with a certain measure – might work also for other aspects of day to day life. For example, going back to the issue of overheating in household, the political authority could use the incentivising method instead of the punitive one. Instead of handing out fines or punishments for noncompliance, it could encourage people to save energy by awarding a bonus in the heating bill whenever someone reduces its use of the heating system over a certain period of time. Similarly, this method might be applied for water and electric consume. Whenever there is an effort at reducing one's carbon footprint, or environmental impact, a bonus is awarded in the form of discounts, vouchers or, for more complex matters, fiscal advantages.

Incentives may not be only of pecuniary nature, but they can be devised in the form of other kind of benefits that are not connected to monetary rewards such as getting a discount, saving money, having a reimbursement, or more generally by gaining money as a reward for having complied. Compliance can also be encouraged and rewarded by creating a system in which the advantage of complying is less venial and more connected to one's place in one's political and social community. Complying with a certain measure might ensure the access to certain 'club goods', i.e. non-rivalrous but 'artificially' exclusive goods, which can be accessed through payment of a fee (e.g. cinemas, satellite television) or through membership (e.g. golf

clubs, private clubs, private universities)[12]. So, a second way to incentivise compliance is to use a *Club Strategy*, that is to say to attach to a compliant behaviour an award, or a distinguishing feature that signals that a person is part of a club. A club strategy for promoting climate change action would exploit the leverage of exclusivity in order to promote a certain behaviour consistent with the goals of climate change containment. The idea behind a club strategy is precisely to use the allure of being part of an exclusive group in order to attract more people in the club and, at the same time, promote the diffusion of certain behaviour. How might such a strategy work? Imagine that in a city, the government wants to promote compliance with environmental norms by creating an exclusive club for those who distinguish themselves for their virtuous behaviour. For example, a green pin is awarded to everyone who uses a refillable water bottle instead of the disposable plastic ones.

Moreover, through persuasive means, such as media coverage and ad campaign, this item – e.g. a green pin – is promoted as a must-have. So, the government frames this initiative as both exclusionary (i.e. only those who have this item are part of our club) and yet inclusionary (i.e. if people want to be part of the club, they just have to perform a certain action to do so). By doing so, the promoters create a double dynamic with which, on the one hand, they try to make appealing being part of the 'green-pin' club and, at the same time, they open the club to new members. Prompted by the appeal of being part of an exclusive club, people would begin to perform the required action in order to get into the club, meanwhile expanding the number of people who are giving their individual contribution in coping with climate change. Once that having the symbol of the club (e.g. going around the city with a fashionable tote bag or a green pin) becomes a trend, even more people would covet to have that status

[12] See: Buchanan, 1965. On club goods applied to international relations, see: Victor, 2011, pp. 22-29, pp. 242-245; Nordhaus, 2015.

symbol, and in order to get it, they would have to comply with the requirements of the club, which corresponds to complying with environmental provisions.

There is the possibility that once people have obtained the coveted status symbol, they would go back to not performing the required action, but we can avoid this situation by assuming that the possession of the status symbol is strictly related to the action performance: for example, if the condition to get a green pin (i.e. the status symbol) is to use refillable bottles instead of plastic ones, we could imagine that if you stop using refillable bottles and go back to use the plastic ones, your green pin would be seized. This strategy would work in two different ways. On the one hand, it is a top-down strategy because it is the authority who determines what kind of achievement one must obtain to get into the club, but on the other hand, it plays also on the horizontal dynamic of playing with trends, status symbols, imitation of successful – or perceived as successful – models. In other words, it plays also on individuals' social interaction and the tendency to imitate the others.

These are only examples of how sanctions and incentives can be doled out to inhibit noncompliance or to encourage compliance. To sum up, on the one hand, I presented two examples of sanctions, one in which noncompliance is severely punished and compliance is enforced, and the other in which noncompliance is tolerated, but with monetary deterrents making it less palatable. The two examples of incentives, on the other hand, show how compliance might be promoted by establishing a system of benefits, in the first case, and a reward system based on exclusivity, on the other. In the next section, I will analyse which reasons sanctions and incentives would be more likely to raise in individuals.

2.2 Sanctions, Incentives and Non-Pertinent Reasons

Once having provided some examples of punitive and rewarding methods to obtain compliance or to hinder noncompliance, in this section I will analyse what kind of reasons such methods would provide to individuals. As said in the previous chapter, individuals' reasons for action might be distinguished on different grounds. To recall the distinction I proposed, I distinguished between pertinent and non-pertinent reasons. Pertinent reasons are context-dependent reasons that are based on a link between what specifically motivates and agent to act and the rationale behind the establishment of a policy P. If the former is consistent or compatible with the latter, then there is a pertinent reason for action. By contrast, if there is no consistency or compatibility between what motivates my action and the reasons that ultimately justify the implementation of a policy P, then I have non-pertinent reasons for compliance. Additionally, I also discussed the fact that pertinent/non-pertinent category criss-crosses the traditional distinction between moral and prudential reasons. To sum up briefly, I argued that pertinent reasons can be of either moral or prudential nature, and the same goes for non-pertinent reasons, as showed in the following matrix:

I comply with P because of Reason R

P= You must wear a mask

Individual: "I wear a mask because of [Reason R]"

	Moral	*Prudential*
Pertinent	R= e.g. Civic Duty	R= e.g. Self-Regarding Health Concerns

Non-Pertinent	R= e.g. Religious Precept	R= e.g. Aesthetic Reasons

Following this distinction, I will now elaborate on what reasons would be generated by implementing either sanctions or incentives. What reasons would such methods elicit in unconcerned individuals?

Starting with punitive methods, we have seen that noncompliance is hindered by establishing forms of punishment and coercion to make individuals comply. Why would someone comply with measures that involve some form of sanction? Sanctions generally play on individuals' prudential reasons. If someone wants to avoid paying for a fine, getting into jail and so on, then the only viable option is complying with the measure, even just to save money, maintaining one's freedom instead of being imprisoned and whatever punishment the authority comes up with in order to make the option of noncompliance undesirable. So, the strategy of sanctioning misbehaviours basically plays on individuals' non-pertinent prudential reasons.

The reasons motivating compliance would be non-pertinent because individuals' reason for compliance and the policy's rationale diverge. For example, in the *Boilers' Overuse* scenario, saying that one complies with the disposition about household heating to avoid being forced to live in the cold, is not consistent with the rationale behind the policy, which is to cut the emissions provoked by heating systems. So, these methods, whose aim is to cut noncompliance, makes individual comply by eliciting motivation of non-pertinent nature. Who has pertinent reasons to comply (e.g. someone who already tries to save energy and has already tried to cut the use of boilers) probably would not be affected by the presence of the sanctions, and the threat of being without heating is, from their point of view, an empty one. Even if it is not a literal enforcement, the option of continuing with one's noncompliant

behaviour is made very onerous to choose. Going back to the *Boilers' Overuse* example, if someone chooses to not comply with the restricting measures, then this noncompliant agent would be forced to live without heating for a long period, which is indeed a difficult option to choose. Generally speaking, sanctions mostly play on individuals' non-pertinent motivation in order to obtain their compliance.

Incentives play on the fact that compliance is a means to obtain a benefit, a reward or to gain something. Incentives basically try to prompt individuals' compliance by giving them something that they find valuable, or useful (e.g. discount and coupons to save money during the shopping) or which is very sought after, such as the membership or the status symbol for those who are in the exclusive club of the compliers. Working on the opposite direction of sanctions, also incentives try to get compliance by providing to individuals non-pertinent reasons for complying. The appeal of obtaining a price or a reward is indeed not related with the goals that a climate-change related policy tries to pursue. Indeed, the point of a policy such as the one of the *Plastic Bonus* is not to distribute benefits to individuals, or to help the worse off with welfare benefits, but rather is to reduce the plastic waste. However, if individuals comply only to get a discount on their shopping, or to obtain a coveted pin, they are clearly motivated by non-pertinent reasons.

One might object that not all individuals care about getting a prize or an incentive. Individuals who do not care about getting a coupon, would be insensitive to this kind of reward, and they would likely remain noncompliers. However, as I said before, the authority could calibrate the benefits according to what is valuable for individuals. For example, someone might not care about having coupons for her shopping, but if the benefit concerns something which is more relevant for that person, then aptly calibrated incentives would be successful in obtaining a compliance that will still be for non-pertinent reasons.

Sanctions and incentives do induce compliance, but they do so only in light of non-pertinent reasons. These methods would not be able to induce pertinent reasons in individuals. Indeed, if a person complies with one of such policies for a pertinent reason (e.g. because she is aware of the damages caused by plastic waste in the ocean), the presence of a bonus promoting compliance would be, I suppose, well-received but inconsequential with the motivation to comply. The fact that an individual motivated by pertinent reasons gets for her compliance a coupon, would be seen as a side-benefits that, however, does not really play a role in this individual's decision to comply.

To sum up, so far I have tried to argue that, on the one hand, concerned individuals' compliance with climate change-related norms would be for pertinent reasons thanks to the presence of an environmental concern (giving them proper motivation) and of aptly-devised policy whose rationale would be consistent with such a concern. On the other hand, unconcerned individuals would be motivated by the presence of incentives and deterrents that lead them to comply (and, therefore, they comply for non-pertinent reasons). To conclude this section, we have seen that sanctions and incentive have the potentiality to foster compliance by appealing to individuals' non-pertinent reasons, and by doing so they are able to obtain the compliance of a group of individuals that otherwise would not comply. The compliance of people motivated by pertinent reasons, instead, would not be heavily affected by the presence of sanctions and incentives, which represent an additional push to perform an action or follow a norm, but are not the primary factor motivating their compliance.

However, my hypothesis is not simply about individuals being motivated to comply. The crucial matter, especially in correlation with climate change, is that the reasons motivating compliance should be strong enough to allow a *stable* compliance,

that is to say that they should support individuals' compliance consistently throughout time. In the next section I will explore whether pertinent and/or non-pertinent reasons would be successful for fulfilling this stability requirement.

3. THE STABILITY PROBLEM

Once having established that concerned individuals would be more likely to develop pertinent reasons and that unconcerned individuals instead would comply mostly for non-pertinent reasons, in this section I will focus more specifically on the problem of stability. Indeed, as I have already mentioned several times, in order to address climate change properly, it is crucial to maintain pro-environmental policies and behaviours over time. So, it is important that individuals, on their part, consistently maintain the behavioural change required by environmental protection and, therefore, that they maintain their compliance over time. I hypothesise that only pertinent reasons would be able to meet such stability requirement and, therefore, only individuals who comply for pertinent reasons would maintain compliance in a stable way.

To test my hypothesis, in what follows I will propose a counter-reasoning, in which I will imagine that policies 'obligating' individuals to comply would be dismantled, so as to isolate the motivational dimension of individuals. In this way, I will assess whether non-pertinent reasons and/or pertinent reasons would have enough motivational strength to foster compliance over time, as the stability requirement demands.

3.1 A TEST FOR STABLE COMPLIANCE WITH NON-PERTINENT REASONS

We have already seen how incentives and sanctions tend to foster compliance for non-pertinent reasons. The world I described Section 2, would be a place in which – if

sanctions and incentives are fine-tuned and well calibrated - there might be full compliance. Individuals who have pertinent reasons to comply, would keep on complying; noncompliers would develop non-pertinent reasons for action in light of the fact that they would be getting a sanction for their noncompliance or a reward for complying. It is a world in which compliance might be fully obtained as individuals comply for whatever reason they deem as motivating. This is not an achievement to be dismissed, because, both sanctions and incentives are successful in making individuals comply by giving them reasons to motivate their compliance, and if we observe this world from the outside, compliance would be fully achieved. So, a partial answer to my research question is that non-pertinent reasons are indeed able to motivate individuals to comply.

However, I do not simply wish to investigate when compliance does obtain, but rather I wish to explore the conditions in which compliance does obtain over time. Here, we are not just seeking compliance *simpliciter*, but rather we are trying to see how it should be possible to obtain a *qualified* compliance, one that is supported by reasons that make individuals comply in a stable way. So, the point of this section is to assess whether non-pertinent reasons generated by the establishment of a punitive and rewarding system would be able to support stable compliance. To do so, I will propose some hypothetical cases whose aim is to test how lasting would be a compliance induced by sanctions and incentives and mainly supported and motivated by non-pertinent reasons.

The argument I advance will develop into two stages. First, I will assess if non-pertinent reasons keep motivating individuals even if we remove the motivating element (sanctions and incentives); secondly, I will investigate what would happen if the normal workings of a political authority are reversed. Imagine that the political authority which has implemented sanctions and incentives in order to make

individuals comply, has achieved its goal of reducing pollution. With all individuals complying, on the one hand, incentives helped reduce plastic waste and promoted the substitution of disposable item with reusable ones and, on the other hand, sanctions determined a cut in dangerous GHG emissions by impeding the circulation of highly polluting vehicles and the abuse of heating systems. So, the initial goal that propelled the government's decision to introduce sanctions and incentives to make individuals comply has been reached. Plastic pollution is reduced, and poisonous emissions are curbed. Once the authority has obtained the desired results, and environmental issues are no more a pressing matter, the government decides that there is no more need for keeping up the punitive and reward system enforcing compliance. Consequently, the norm remains, but all sanctions and incentives are revoked, and compliance goes back to being entirely a matter in the hands of individuals' own willingness to comply. From the point of view of the government, keeping up sanctions and incentives is a costly endeavour, and if the goal that justified the establishment and the implementation of sanctions and incentives has been achieved, then we could think that the resources used to build and maintain this system might be redirected to other issues.

What would this decision entail for individuals' compliance? The compliance of the fewer ones motivated by pertinent reasons would probably be the least affected by this decision. Pertinent reasons, in fact, motivate individuals to act regardless of any sanctions or incentives, which at most represent an additional push to comply. If someone has always recycled, either for moral reasons (e.g. saving the environment) or for prudential reasons, the presence of an incentive or of a sanction does not influence that individuals' compliance. Even if compliance is for the pertinent prudential reasons, the incentives or the sanctions still play a secondary role in motivating compliance. Going back to the example I proposed to define pertinent

and non-pertinent reasons, we can imagine someone who always wears a mask because she is very allergic. It is a prudential reason, because it has to do with that person's interest to avoid being constantly bothered by repetitive sneezing, and it is also pertinent reason because the mask-wearing is connected to a matter of health. The fact that are in place sanctions or incentives connected to one's compliance with the mask-wearing disposition affects only marginally this person's compliance. The fear of incurring in a hefty fine, on the one hand, does not play any leverage – because she is wearing the mask regardless of it. On the other hand, the perspective of getting a reward is something that she might enjoy, but it does not influence her compliance, which would be obtained just the same. Therefore, we can say that incentives and sanctions do not affect compliance when it is motivated by pertinent reasons.

Sanctions and incentives, however, are not put into place to make already-motivated individuals comply. Rather, they are directed towards all those agents who are reluctant to comply. Punitive and rewarding methods, we have seen, exploit individuals' fear of threat or their desire to obtain something they might covet, providing therefore people with non-pertinent reasons to comply. If someone's reason for compliance is connected to the threat of a sanction, then once that this threat is removed, that person would have no more reason to keep on complying. Similarly, if one is complying only to obtain a prize, a bonus or whatever else deemed as worthy, once that there are not any more rewards to be obtained, then this person would not have a reason for complying anymore. Non-pertinent reasons, depending directly on rewards and sanctions, would not continue to motivate individuals to comply. Indeed, if someone is complying only because she does not want to incur into a sanction, or because she wants to get a reward, when the possibility of getting a sanction or a reward does not obtain anymore, then that person would not have any

reason for compliance. Therefore, we can say that non-pertinent reasons are not able to continuatively motivate compliance, as the stability requirement calls for.

Moreover, the previous analysis suggests that maintaining a system of sanctions and incentives can be onerous for the political authority, and that they are able to foster compliance only temporarily. Therefore, it seems necessary to think about another strategy that tries to foster stable reasons for compliance – i.e. by trying to elicit pertinent reasons for action in individuals. In this sense, as suggested in Chapter IV, deliberation might be a viable alternative to prompt compliance in individuals who tend to be noncompliers by using instead of incentive and sanctions, the transformative power of a reason-exchange between individuals motivated by different reasons.

3.2 A Test for Stable Compliance with Pertinent Reasons

Even though with an admittedly limited reach involving only individuals with a pre-existing concern about climate change (be it of moral or prudential nature) we have seen that efficacy is able to prompt compliance by bridging the cognitive gap of concerned individuals that do not know what exactly they should do regarding the environment and that, precisely in light of their concern, individuals would comply for pertinent reasons.

Now, we need to test if pertinent reasons could maintain and sustain compliance over time. To do so, I will propose two arguments to see whether individuals who have pertinent reasons would keep complying with effective measures. The first one wants to test if, once that the measures are not in place anymore, individuals would continue to maintain appropriate behaviours once that

they know how they should behave in order to do something about what concerns them. The second one, goes a step further and it will try to test if pertinent reasons have enough motivational strength to prompt appropriate behaviours, i.e. behaviours that are in accordance with a pro-environmental attitude, even when the authority tries to pursue goals of pollution instead of ones of mitigation or adaptation to climate change.

The first argument I propose to assess is whether pertinent reasons are able to sustain appropriate behaviours over time consists in envisaging what might happen once that the epistocratic efficacy-driven authority has reached its objective and, therefore, individuals are not required to respect the hyper-efficient measures anymore.

Imagine that the political authority has expertly and carefully implemented a policy plan to reduce plastic pollution in an area rich of water basins. The planned strategy (thanks to individuals' compliance) has brought about the desired result and now, the water basins are clean, the water is again safe to use for both crops irrigation and for household use. To obtain this goal, individuals' contribution was crucial. Following the experts' indications, environmentally-concerned individuals started paying more attention to their daily use of plastic – buying less disposable plastic item and therefore reducing the amount of plastic waste, for example – and thanks to their effort in respecting the experts' dispositions, the policies were actually successful. Once that the experts have obtained their goal, their help in devising policies is no more necessary, so the policies guiding individuals' behaviour cease to exist.

We have seen that efficacy-driven measures are able to prompt compliance if individuals have pertinent reasons. If there is the assurance that a policy would work, individuals who are concerned but do not have the necessary knowledge to choose the right course of action, thanks to the suggestions coming from experts, would

know what should be done and they would act accordingly. Others, that maybe are not concerned with the environment in a strong sense, but have other concerns related with the environment (e.g. not really being concerned about ice caps melting, but being concerned about the quality of the water that comes out of one's own kitchen faucet), would be informed about what to do in order to keep having potable water on tap. In both cases, it is a matter of pertinent reasons, moral in one case, and prudential in the other.

We have said that the experts have done their job. The water basins are free of microplastics, on the riverbanks there are no more throwaway plastic bottles, and people can drink water on tap without any health concern. The goal has been reached, the experts' policies cease to exist, so individuals' compliance with the experts' measure is no more needed. However, individuals know that if they entirely stop behaving as previously prescribed, they will soon face the same situation that called for the experts' intervention. If they suddenly stop recycling, plastic waste will soon begin to pile up again, polluting the water and soon making tap water unsafe again. Thanks to experts' involvement in bridging the gap between individuals' cognitive limits and their willingness to do something about the environment (individuals' concern about the environment), people now know what they should do in order to have a clean and safe water supply, regardless of the presence of a set of policies prescribing them certain actions. In light of their pertinent reasons, they would maintain an appropriate behaviour even when there are no measures in place. In this sense, pertinent reasons are able to motivate individuals to maintain their appropriate behaviour over time. Therefore, pertinent reasons have enough motivating power so as to guarantee a stable appropriate behaviour.

This is the case if the authority's purpose is to produce certain results that are consistent with climate change mitigation. Efficacy works in prompting a stable

compliance only if there is a convergence of the government's intention to tackle environmental issues, even for a limited time, and individuals' initial concern about such issues that motivates them to keep behaving in conformity with efficient policies even when these are not implemented anymore. On the flipside, the lack of efficacy might also give a push in the opposite sense, as it would prompt individuals, even concerned ones, to be noncompliers if they doubt about the measures' actual efficacy or their lack of results. Indeed, the presence of a concern about climate change in individuals' does not automatically follow that everyone would respect and comply with a measure such as the one prescribing to save water. It is a matter regarding the more general problem of collective action and free riding, but on the other hand, it is also a double-edged facet of a reasoning that connects policies' efficacy, compliance and individuals' concern about a certain problematic topic.

For what concerns the more general issue of the logic of collective action and free-riding, climate change, especially when explored from the point of view of individual action, represents an exemplary case[13]. Generally speaking, free riding means receiving a benefit without contributing to its production. Pollution is a typical case in which free riding is very tempting because of the residual contribution that individuals have in the big picture of climate change[14]. My own decision to pollute less does not significantly impact on climate change, at least not in a noticeable way. So, I might decide to not do my part in polluting less, even though I would nevertheless benefit from others' efforts to pollute less by living in a cleaner and healthier environment.

[13] On the logic of collective action: Olson, 1965; Ostrom, 1990. On free riding: Pettit, 1986; Cullity, 1995; Tuck, 2008; Hardin, Cullity, 2020. On the free-rider problem in connection with climate change see: Hourdequin, 2010; Armstrong, 2016; Vanderheiden, 2016. For the free-rider problem with a transgenerational perspective see: Gosseries, 2004; Gardiner, 2006b.
[14] Hardin, Cullity, 2020.

The problem of free riding affects especially individuals motivated by prudential reasons. Let us take as an example someone whose concern is about having potable water on tap. If she knows that all the other residents of that area, or at least a consistent number of them, respects the rule prescribing to recycle plastic, she might as well free ride on her neighbours' compliance and obtaining what she values, namely having clean water on tap, without making the effort to recycle plastic. This individuals' concern (of prudential and pertinent nature) is not enough to motivate her to comply, and even the measures' efficacy does not prompt her towards compliance, as long as she knows that her compliance is not necessary for getting what she considers relevant.

Free riding is tolerated and does not disrupt the provision of collective goods as long as it involves a limited number of individuals, but if everyone behaves in the same way and prefers to live off the efforts' made by others members of society, then the goal of having clean water, for example, would not be achieved. Solving free riding problems depends on the nature of the action that individuals should perform. If we deal with institutionalized norms, laws and policies, then the threat of sanctions or the establishment of incentives might help to contain and potentially entirely avoid free riding. If instead there are actions that are not institutionalizes into norms, such as when the prescription to recycle plastic stops being in place, the way for containing free riding consists in signalling that that action continues to be socially endorsed even without a policy formally prescribing to comply with it. If we think to this second case, individuals motivated by moral pertinent reasons might be the propellers to push prudentially motivated individuals to keep complying by showing them that

the general interest may be reconciled with prudential reasons and that cooperation, rather than non-cooperation, is the rational and prudential thing to do[15].

The second problematic point is that, as the production of effective results prompts compliance, on the flipside, the absence of positive effects of a certain policy might bring individuals (even concerned ones) to not comply with the measures whose efficacy is in doubt. This is actually a crucial issue for what concerns climate change. Indeed, the efficacy of certain policies might become evident only years after their implementation – especially if we think about mitigation strategies. Moreover, as I have showed in the first chapter, many climate change related policies that are put into place by governments only do a half-hearted effort for what concerns efficacy. So, individuals might be led to think that their efforts in reducing their impact on the environment is pointless not because of its residual contribution (as it happens within the logic of collective action), but because the measure in place are not able to obtain the results that concerned individuals would wish for.

If we push a little bit further this reasoning, we can test the motivational strength of pertinent reasons under an unfavourable political authority. Imagine that instead of establishing an efficacy-driven policy plan to mitigate climate change, the political authority instead wants to worsen environmental conditions and therefore, instead of fostering anti-climate change measures, it devises policies whose aim is to produce more pollution. If we go back to the previous example about water pollution, we may imagine that this anti-environment authority instead of promoting recycling and discouraging littering does the opposite. It encourages individuals to litter when they spend time on the riverbanks, it encourages people to buy plastic bottles and dispose them as much as possible. They even create a law forcing people to use plastic bits and

[15] See: Gauthier, 1986; Vallentyne, 1991.

pieces only once, with severe punishments for those who are caught reusing plastic items. This kind of 'twisted' anti-environment authority devises efficacy-driven policies – norms that would obtain the fixed goal – but their goal is an undesirable one. What would individuals concerned with the environment do under such a regime? Individuals concerned with environmental matters, who therefore have pertinent reasons to endorse pro-environmental behaviours, are in a difficult situation. On the one hand, if individuals with moral pertinent reasons comply with the authority's measures, they would contribute to environmental disruption instead of environmental protection, doing exactly the opposite of what they value and consider important. On the other hand, individuals with prudential pertinent reasons by complying with the authority's pro-pollution policies would act against their own interest.

Individuals with pertinent moral reasons are those individuals who, for example, think about the environment's intrinsic value, and consider the natural world as worthy of respect. Respecting the environment is the right thing to do, so, even if they are supposed to litter and pollute, we could imagine that they would find a way to do it in the less impactful way, so as not to create permanent damage to the environment, and so as to be true to their beliefs without openly antagonising the anti-environmental authority. In some cases, individuals with strong motivations, may also decide to take further action to oppose to a law that they find is wrong – resorting to actions of civil disobedience to express their concern for the environment even in an unfavourable context, for example[16]. So, if one has pertinent moral reasons, there are ways to maintain pro-environmental behaviours even when such behaviours are discouraged by the authority.

[16] On civil disobedience related to environmental issue see: Welchman, 2001; Hettinger, 2001; Humphrey, 2006.

The strategies that this type of individual has at her disposal to go against the twisted authority's prescriptions are several and depend on the force on the individuals' commitment about a certain cause and the costs of expressing her dissent. If recycling is punished with imprisonment, then the individual might choose to stand by her conviction by avoiding consuming too much so as to produce less garbage. If her commitment to the cause of environmental protection is very strong, she instead might choose to resort to more radical actions to express her dissent with the authority's stance about environmental matters. Pertinent reasons of moral nature might have the motivational power to push individuals to maintain environmental-friendly behaviours even under unfavourable circumstances. On the other hand, individuals with pertinent prudential reasons are those individuals whose concern for the environment is mostly self-related, as was the case for someone who cares about the condition of the city's water supply because she is concerned only about what she drinks. Under a regime that promotes water pollution, this individual's concern becomes a further reason to find a method to have clean water despite what the experts dictate, so also individuals motivated by pertinent prudential reasons would be motivated to maintain behaviours that protect the environment.

4. Environmental Concern

In this final section, I will draw some conclusions and I will recap the argument that I have proposed. From the previous discussion, I argued that pertinent reasons are indeed the relevant reasons for a stable compliance. Their strength is due to the fact that they do not depend only on external circumstances to motivate individuals to act, rather they are the result of a pre-existing concern about a certain matter (be it of moral or prudential nature) that can be translated into action and compliance

whenever there are aptly devised policies in place. If individuals do not have such a concern, then compliance would be directly connected to the presence of policies prescribing some behaviours and imposing them through incentives and sanctions – playing on individuals' non-pertinent reasons for compliance. Non-pertinent reasons, which are not tethered to any kind of environmental concern, depend entirely on policies and the connected incentives and/or punishments. If there are neither sanctions nor incentives making people comply, individuals with non-pertinent reasons would not have any motivational ground that would make them maintain a pro-environmental behaviour. Moreover, compliance connected with incentives and sanctions as I have envisaged in this chapter, relies on a very specific balance between the individuals' interests and the calibration of incentives or sanctions, so as to perfectly create an incentive X that would push individual agent A to comply. If this balanced scheme collapses, then also unconcerned individuals' compliance would most likely falter.

Instead, individuals with pertinent reasons can maintain their compliance in light of their pre-existing concern for the environment. Policies are just a means that institutionalize or point out the correct behaviours, so, once that individuals know what they should do to protect the environment, if they are concerned, they would not need a policy imposing them certain behaviours to keep up with recycling, saving water and other day-to-day actions that help protecting the environment. So, if there is a concern for the environment, it is possible to obtain compliance for pertinent reasons and that this compliance would be maintained over time. What has emerged from this argument is that having an environmental concern is the crucial and fundamental factor that determines whether it is possible to have pertinent reasons, and therefore to potentially be willing to maintain pro-environmental behaviours

over time. To use a Rawlsian terminology, the 'right reasons' that grant stability derive from the presence of an environmental concern in individuals.

In this chapter I argued that, on the one hand, concerned individuals comply for pertinent reasons because they have an environmental concern which shares the rationale behind the implemented policies. Even if such policies were not at work, once concerned individuals know, recognise or acknowledge that certain dispositions are effective, they would likely endorse pro-environmental behaviours even when similar behaviours are not 'institutionalised' through proper laws and rules. On the other hand, unconcerned individuals would comply for non-pertinent reasons. Their compliance would depend on the presence of incentives or sanctions that would induce them to comply. Incentives and sanctions, however, can grant compliance over time only if they are well-calibrated in order to appeal to individuals' interests properly, otherwise the incentivisation would not work anymore and unconcerned individuals' compliance would likely collapse.

From the political authority's point of view, maintaining the incentivising system so as to prompt all unconcerned individuals' compliance is firstly very onerous, and second, it is still a weak solution, because incentives should always be perfectly balanced to match individuals' interests. To ensure a stable compliance it is necessary that individuals have pertinent reasons, and we have discovered that the crucial factor to generate such reasons lies in the fact that individuals should have an environmental concern, which, motivates them and, therefore, prompts compliance. Here, we assumed that having or not having an environmental concern is a given fact, and that we can do nothing to change someone's stance regarding climate change and environmental issues.

But if we were able find a method to bring out or raise in unconcerned individuals an environmental concern, then we would create the condition in order

to make them develop pertinent reasons and, therefore, create the condition to have a stable compliance with climate change matters. The next chapter will take on this challenge.

CHAPTER IV

The Motivating Power of Deliberation

This final chapter aims to show how it would be possible to make compliance for pertinent reasons more widespread and, therefore, opening up to the possibility of obtaining stable compliance over time. To do so, I will argue, it is necessary to intervene on individuals' own motivation for compliance and try to raise in them some kind of environmental concern (be it of moral or prudential nature) from which can stem out pertinent reasons for compliance. Unconcerned individuals, i.e. people who do not care about environmental issues for different reasons, are the main target of this procedure.

The conclusion that has emerged from the previous chapter is that we can distinguish between two groups of people. On the one hand, some individuals are concerned about environmental matters. Either for moral or prudential reasons, concerned individuals recognize the importance of containing climate change or preserving the environment. When there are aptly devised environmental policies at play, they are ready to comply with them precisely in light of their environmental-oriented concern, having, therefore, pertinent reasons for compliance. In this scenario, the role of environmental policies, besides their proper aims, is to bridge the gap between concerned individuals' predisposition to do something about the environment and the uncertainty regarding which course of action is the more appropriate for climate action and environmental preservation.

Policies are useful in directing individuals' behaviours towards an eco-friendlier routine. Once those behaviours are signalled, concerned individuals would likely continue to integrate such pro-environment habits in their day-to-day life even if environmental policies are dismantled. So, even if environmental policies may change or be interrupted, individuals concerned about climate change would be motivated to maintain the acquired eco-friendly behaviours even without explicit policies prescribing them to do so. In this sense, individuals' motivation grounded on a concern for the environment can ensure stable compliance with climate change norms.

On the other hand, many people are not concerned about environmental matters. The category of unconcerned individuals includes a vast array of stances regarding climate change, from those who reject or doubt the scientific evidence (i.e. deniers and sceptics[1]) to those who do not consider environmental protection a primary issue to be dealt with. To obtain unconcerned individuals' compliance on climate change policies, we have seen that it is necessary to build up a system of incentives and sanctions to make them comply. If there is the possibility to obtain an advantage (e.g. a discount, or a prize) or the threat to get a disadvantage (e.g. a fine or a punishment), unconcerned individuals would be more likely to adopt eco-friendly behaviours prescribed by the policies at play. In this case, individuals' compliance is motivated by incentives and sanctions, and therefore they would have non-pertinent reasons for compliance. Contrarily to what would happen for concerned individuals, unconcerned individuals' compliance is strictly connected to the presence of incentives and sanctions. If incentives and sanctions are abolished, this group of

[1] I have already dealt with sceptics and deniers in the first chapter, particularly for what concerns their role in climate change science. While in the previous discussion I focused on the role that prominent sceptics and deniers (e.g. non-mainstream scientists and politicians) play in spreading such narratives, in this section I will instead deal with 'next door' sceptics and deniers. That is to say, my main focus here will be to engage through deliberation epistemic peers who disagree on environmental matters.

individuals will not be motivated to maintain pro-environmental behaviours anymore.

Regarding unconcerned individuals, compliance can be stable and kept up over time only as long as the political authority is willing to prioritise climate change mitigation over other issues and can carry on with deploying resources (e.g. funds for incentives or enforcement) to support the implementation of incentives and sanctions ensuring individuals' compliance. Considering the relative scarcity of resources, the multiple areas of intervention connected to climate change mitigation and environmental protection and the long-term nature of the problem, keeping up incentives and sanctions (especially targeted ones) can become soon very costly and very onerous. For this reason, sanctions and incentives cannot be kept up for a long time, surely not as long as mitigating climate change would require. We concluded that unconcerned individuals' compliance could not fulfil the stability requirement when motivated by non-pertinent reasons.

This reasoning relies on the implicit idea that in the equation connecting the presence in individuals of an environmental concern, the establishment of climate change policies, and pertinent/non-pertinent reasons for compliance, the only variable on which it is possible to intervene is the political one, regarding which policies are implemented, how they are implemented and what means are used to obtain individuals' compliance. The assumption is that the presence of an environmental concern is a given fact. Either individuals are equipped with it or not, and policies should be designed accordingly to ensure both concerned and unconcerned individuals' compliance. In other words, if we consider being concerned about the environment as an endowment, inducing compliance is more of a matter of assessing individuals' responsiveness to certain political means and then choosing the most befitting ones in order to make both concerned and unconcerned

individuals comply, without intervening on their peculiar stance about climate change.

In this chapter, instead, I will drop this assumption. I will try to argue that individuals' stance on climate change might change, and unconcerned individuals may become concerned ones by making them see potential reasons in favour of climate action. The working hypothesis I am advancing in this chapter is that through deliberation, (meant as a mutual exchange of arguments, reasons and opinions) unconcerned individuals can develop a concern about the environment. Therefore, they would comply for pertinent reasons and be motivated to maintain their compliance over time.

The chapter will unfold as follows: I will begin by delineating the features necessary to set up a deliberative context fit for dealing with climate change issues. By discussing the many options provided by the vast literature on deliberative democracy (Section 1), I will try to build up an original deliberative model which takes bits and pieces from the different well-established models already present in the literature and that hopefully can respond to the many facets characterising the debate about climate change (Section 2). Then, in Section 3, I will apply this model of environmental deliberation to different prototypes of unconcerned individuals, a category which can be split into deniers and sceptics – who disagree with concerned individuals on an epistemic level (Sections 3.1 to 3.3) – and softly concerned and uncaring individuals – who instead disagree on the value attached to environmental matters over other political issues (Sections 3.4 to 3.6). For each of these categories, I will try to apply the deliberative model I devised to assess if there is a way to raise in them a concern (be it moral or prudential) about climate change. I will show that deliberation could potentially elicit a concern for environmental matters for all individuals, yet with different conditions for each one of them – some more attainable than the others.

1. MODELS OF DELIBERATION

In this section, I will delineate some possible ways to characterise deliberation. Models of deliberation come in many forms, with many parameters that determine how the discussion should develop, what reasons should be admitted into the debate and who should be part of the deliberative exchange. Generally speaking, deliberation is a dialogical process inducing individuals to reflect on their preferences, values and interests in a non-coercive way. Deliberation usually appears in correlation to theories of deliberative democracy[2], which broadly form "a family of views according to which the public deliberation of free and equal citizens is the core of legitimate political decision making and self-government"[3].

In theories of deliberative democracy, deliberation plays a crucial role in helping decision-making through a dialogical exchange which non-coercively encourages reflection on one's own beliefs, values, preferences and interests. In this sense, deliberation is a form of "mutual communication that involves weighing and reflecting on preferences, values, and interests regarding matters of common concern"[4]. This dialogical exchange does not aim to track whether individuals' beliefs and opinions are true or false[5]. Instead, it seeks to discern between good and bad arguments, leading individuals to form their own considered judgements on the

[2] See, for example: Bohman, Rehg, 1997; Bohman, 1998; Chambers, 2003; Besson, Martì, 2006; Thompson, 2008; Girard, Le Goff, 2011; Owen, Smith, 2015; Floridia, 2017; Bächtiger et al., 2018.
[2] See: Rawls, 1993; Larmore, 2002; Quong, 2013.
[3] Bohman, 1998, p. 401.
[4] Bächtiger et al., 2018, p. 3.
[5] Even though tracking the truth is not one of the aims of deliberation, according to certain accounts, deliberation can have a potentially epistemic value in getting the 'right' answer (Cohen, 1986; Estlund, 2008; Landemore, 2013; Estlund, Landemore, 2018). However, considering that the focus here is not on developing a policy plan – in which the correctness of the policies plays a larger role – but rather on providing reasons for compliance to individuals, the epistemic value of deliberation can be left aside.

matter at stake[6]. More generally, deliberative democracy "is grounded in an ideal in which people come together, on the basis of equal status and mutual respect, to discuss the political issues they face and, on the basis of those discussions, decide on the policies that will then affect their lives"[7]. There are many theories of deliberative democracy under the sun (just to mention a few, theories of deliberation drawn by Habermas's theory of communicative action and public sphere[8], public reason-inspired accounts[9], and pragmatists accounts[10]). Still, all of them share certain core features that form the backbone for any kind of deliberation model. In a genuinely deliberative fashion, some core features have been redefined in response to criticisms and in light of new concerns that arose over time[11].

In this first section, I will illustrate the different features that deliberation can assume, filtering them in order to end up with a deliberative model suitable to deal with the issues connected to climate change specifically[12]. Are there any preconditions to make deliberation work? How should deliberation take place? What kinds of views can deliberators express, and *how* can they express them? Should the participation of people who hold outlandish views be allowed? Does deliberation necessarily need to end with agreement or not? These questions can have different and sometimes even contrasting answers, depending on what we are using deliberation for.

Instead of proposing a chronological account of how deliberation has evolved, I will group the main features in three categories. The first group of features includes the preconditions for deliberation: mutual respect and non-coercion, which are

[6] Floridia, 2017, p. 12.
[7] Bächtiger et al., 2018, p. 3.
[8] Benhabib, 1996; Chambers, 1996; Steiner, 2012.
[9] See: Cohen, 1986; Gutmann, Thompson, 1996; Sunstein, 1995; Gutmann, 2004; Dryzek, Niemeyer, 2006.
[10] Bohman, 1996, 2007.
[11] Bächtiger et al., 2018, pp. 3-9.
[12] I reiterate the fact that despite being closely tied to theories of deliberative democracy, I will treat deliberation as an independent tool whose aim is to induce reflection on one's preferences, opinions and interests through dialogical exchange.

essential features to let the discussion take place and are largely uncontested in the accounts using the deliberative tool.

Secondly, I will deal with the modalities in which deliberation can take place and its contents. Traditionally, deliberation is a reason-centred endeavour. Yet, there are many ways to describe what represents a reason (e.g. rational arguments versus anecdotal references) and which substantive views can be raised during a public and mutually respectful discussion (can people defend racist views or hold "crackpot theories"[13]? Can they advance reasons based purely on self-interest?).

Thirdly, I will focus on what should deliberation aim to. Generally, the purpose of deliberation is to reach a convincing conclusion for all participants, so the natural outcome of deliberation should be consensus. However, consensus can be conceptualised in different ways (e.g. unanimous versus overlapping consensus). According to the task that deliberation is used for, it might not even be the best conclusion. When deliberation does not aim to decision-taking or problem solving, but it is used instead for purely 'reflective' or 'opinion-forming' purposes – e.g. making individuals reflect more profoundly on public issues. According to these parameters, I will then delineate the relevant ones for deliberation regarding climate change matters.

1.1 Prerequisites for Deliberation

The prerequisites for deliberation are those features that are necessary in order to let a fruitful discussion take place. The two main conditions for deliberation are mutual respect, on the one hand, and non-coercion, on the other hand. They are indeed essential features in order to let a fruitful, open and enriching discussion take place.

[13] I borrow this expression from Anderson, 2011, p. 148.

Both mutual respect and the absence of coercion guarantee that everyone is free to share its own ideas and opinions without fear of being dismissed, overlooked, demeaned or forced to change views.

For what concerns mutual respect, from a deliberative point of view, it is essential that all participants contribute to the discussion, i.e. having an equal say. To do so, they should feel comfortable in expressing their point of view. Mutual respect in deliberation basically "enhances the frank and free flow of ideas"[14]. In a dialogical context, it mainly means that individuals come to the discussion with their own set of interests, preference, opinions derived from their own experience. Individuals participating in the debate should all have a 'fair' hearing, in the sense that whatever argument they bring to the discussion should be understood from the speaker's point of view[15]. If the speaker's argument fails to be convincing (maybe because it builds upon ill-informed, irrational or outlandish considerations, or, more simply, because there are other arguments better suited to the task at hand), his or her views should not be dismissed or demeaned. Ill-advised, unsound or invalid arguments, instead, should be debunked without disrespecting who is expressing such opinions.

Mutual respect goes hand in hand with the need to exclude coercion from the deliberative process. In deliberative contexts, participants should not come to the discussion with a drawn sword and a competitive attitude, ready to make their argument prevail over others. Using coercion, threats, or other forms of power exertion[16] (including attitudes such as dismissal, demeaning or shaming peoples for their views) defeats the point of deliberation. Indeed, deliberation should induce individuals to reflect on their ideas through an exchange of arguments and opinions.

[14] Bächtiger et al., 2018, p. 6.
[15] Bächtiger et al., 2018, p. 5.
[16] Mansbridge et al., 2010, pp. 80-82.

People are supposed to revise their opinions only when they are inconsistent, unsound or incomplete, and not because they are forced to change their perspective.

As I said before, both mutual respect and non-coercion appear as crucial features for deliberation in every account because of their role in creating the ideal ecosystem for an open discussion. Indeed, on the one hand, each participant should feel free to express his or her views without fear of being censored or dismissed, and all views should be equally evaluated for what ideas they advance. On the other hand, one of the points of participating in a deliberative exercise is that it might lead to a reassessment of one's views, interests and opinions. It is crucial that such reassessment results from a genuine reflection and evaluation stimulated by mutual communication but developed within each participant's perspective. Hence, the non-coercion proviso is essential in excluding any exertion of power that might derail individuals' reflection.

1.2 Modalities of Deliberation

By modality of deliberation, I mean all those features that help set the rules of the deliberative 'game'. On the one hand, they include features determining the formal standards according to which the discussion should be developed, and, on the other hand, whether there should be constraints on the substantial contents that individuals are allowed to advance during deliberation. In other words, the former concerns the duality between reason-giving versus emotional forms of expression; the latter, instead, focuses on the content of individuals' views. Some models constrain the kind of arguments that can be brought to the fore by prescribing standards of reasonableness (e.g. in model inspired by the public reason paradigm). In contrast, other deliberative models are open to all kinds of view, including racist, intolerant

and irrational ones. Moreover, the inclusion of self-interested considerations is equally contested, going from models which exclude self-interest at all, to the ones which instead admit self-regarding arguments in deliberative contexts.

The first cluster concerns whether there should be any formal constraints on how individuals can express their point of view during deliberation. Should they provide reasons only in the form of argumentation, or other forms of expression should be accepted? According to traditional models, deliberation is exclusively an exercise in reason-giving, which is seen as an act of "pure argumentation"[17]. Individuals should exchange only rational and well-construed arguments. According to this view, deliberation is modulated as an exchange of reasons, where only logical arguments have space during the discussion. Therefore, participants should contribute to the debate by delineating sound, valid and internally consistent arguments to advance their views.

This idea of deliberation as a form of academic-like discussion has been contested because it implies excluding other forms of communication that can deliver the same point without necessarily using the structure and the language of (mostly academic) argumentation. Indeed, if we want to make the process more inclusive, we have to consider that not everybody is well-versed or trained in building up a rational, logical and sound argument to support one's point of view. People might not be able to express their opinions according to standards of formal argumentation. Still, they can nevertheless deliver the same points through less formal forms of expression, such as testimony, storytelling or anecdotal references[18].

According to those who reject formal constraints, deliberation, instead of being modelled as a mutual exchange of reasons, should instead be modelled as a

[17] Chambers, 2018, p. 67.
[18] Bächtiger et al., 2018, p. 8.

mutual exchange of *relevant considerations*, so as to include other forms of communications that would deliver a motive for holding a certain point of view without the necessity to translate it into more rigorous arguments[19]. Speaking of relevant considerations, instead of reasons, can make the deliberation more inclusive, facilitating the participation of minorities or less educated people, and more informative, adding information and personal experiences to the plethora of considerations that should weigh on the discussion.

Moreover, deciding if deliberation is an act of reason-giving or an exchange of relevant considerations might also influence how people respond to those arguments and affect the persuasive scope of deliberation. Indeed, the bottom line of deliberation is to convince individuals about something, providing them with a (broadly meant) reason to hold a certain view. Some forms of expression might be more effective than others in making people ponder and reconsider their stance. In other words, arguments need to be convincing. In some cases, playing on individuals' emotions (e.g. empathy or compassion[20]) can be more compelling than reason-giving. Vice-versa, other individuals might be indifferent towards emotional forms of communication and can be convinced only through a well-construed rational argument.

In order to guarantee a mutually respectful exchange, participants must lay their cards on the table. Allowing for various forms of persuasion is consistent with the requirement of mutual respect as long as the deliberators are sincere about the persuasive means one might use to play on people's emotional reaction. For example, we might allow the use of doctored pictures in order to make a point (and elicit an emotional reaction in our interlocutor) only if it is openly stated that the images do

[19] Mansbridge, 2015.
[20] Nussbaum, 2001.

not reflect reality and they have been manipulated to show, say, the effects of ice caps melting over time.

The second cluster, instead, is about what substantive views can be expressed during deliberation. Should be there a limit on what views can be expressed? Should controversial or intolerant stances have space? Should people be allowed to advance considerations rooted in self-interest? These are distinct, yet related features. On the one hand, they refer to deliberative models based on the idea of public reason versus theories inspired by Jürgen Habermas's communicative action and public sphere theory. On the one hand, it refers to the more recent debate about the inclusion of self-interest in deliberative approaches.

Public reason views draw mainly from Rawls's work on the matter and apply the idea of public reason to the deliberative context. According to such views, public reason belongs to the political domain. It provides a public justification that is free-standing from individuals' peculiar religious or moral beliefs – the so-called *comprehensive doctrines* – which are object of disagreement. Public reason brings together free and equal individuals who have different comprehensive doctrines, making them agree on constitutional essentials and the matters of basic justice through a public procedure of reason-giving, in which each citizen publicly justifies values that are free-standing from each individual's comprehensive views, but nevertheless are compatible with them[21].

Additionally, the reach of public reason is limited only to reasonable pluralism. It addresses only those citizens who are reasonable, i.e. persons that "want to cooperate with others who are [equally] reasonable, who appreciate the consequences of the burdens of judgement and have a reasonable moral psychology,

[21] Rawls, 1993, 1999; See also Freeman, 2007, pp. 39-42; Testino, 2012, p. 13.

including a sense of justice, and want to be seen as reasonable fair and just"[22]. Reason-giving in the public reason 'ecosystem' therefore has to stay within well-defined boundaries both for what concerns how one's reasons are expressed and what content such reasons aim to promote. Formally, reasons should be expressed without any reference to particular moral or religious views, by appealing to core public values that other individuals could endorse regardless of their specific religious or moral justification, so as to be endorsed or shared by anyone who has a different comprehensive view than ours[23]. Substantially, public reason draws a distinction between arguments that can have space during the discussion because either they are part of what forms a public reason or because they can be reframed in more acceptable – political – terms and the ones that, instead, should be excluded from the political debate. Whereas freestanding reasons have a rightful place during deliberation, arguments sustained by comprehensive views can be expressed as long as they "show how these assertions support the public values"[24].

However, a further, typically Rawlsian distinction affects the reasons that can be brought up during deliberation. Notably, Rawls draws a distinction between reasonable and unreasonable people, consequently promoting reasonable and unreasonable views. Reasonable people "take others to be politically free and equal and equally deserving of fair terms of social cooperation"[25]. They hold reasonable comprehensive views that are reconcilable with a political conception, and they are ready to accept the burdens of judgement, accepting the variety of worldviews that can coexist in a society[26]. Instead, unreasonable citizens are unwilling to accept the

[22] Freeman, 2010, p. 481.
[23] Rawls, 1995; Chambers, 2018. For a theory of deliberative democracy incorporating the idea of public reason, see Gutmann, Thompson, 1996.
[24] Wenar, 2017.
[25] Sala, 2019, p. 68.
[26] Wenar, 2017.

fair terms of social cooperation and reject the fact of pluralism[27], with the implication that they would tend to impose their own views on others. Unreasonable people endorse unreasonable views – intolerant, illiberal views, for example – which should be excluded from the public discussion because they do not respect the requirements of public reason-giving. As Freeman clearly puts it, "there is no presumption that Social Darwinists, fundamentalists, neo-Nazis, or Southern slave-holders would be amenable to public reason; nor should any effort be made to address or accommodate their views"[28]. So, if we assume a Rawlsian conception for the act of reason-giving by using the idea of public reason, the modality of deliberation should formally be limited only to an exchange of free-standing reasons which can be reconciled with reasonable comprehensive views. If individuals cannot frame their values and preferences within these boundaries, they are excluded from the discussion.

The alternative view characterising reason-giving draws from Habermas' theory of communicative action. Even though Habermas recognised as well that there is a specific space for debating matters of common concern (the public sphere), he described it not as a space in which the political discourse is confined to public reasons, but rather as a space in which justification is "ultimately based only on reasons that withstand objections under demanding conditions of communication"[29]. These conditions include that nobody should be excluded, that everyone should have equal opportunity to speak, that deception and manipulation are not allowed and that there should not be coercion or external pressure[30]. In this ideal speech situation, reason-giving is thought to be a pruning process open to every kind of argument (even the ones that Rawls would define as unreasonable or part of a comprehensive

[27] Sala, 2018, p. 68.
[28] Freeman, 2003, p. 40.
[29] Habermas, 2008, p. 50. See also: Chambers, 2018, p. 68.
[30] Habermas, 2008, p. 50.

doctrine) expressed during discussion. Contrarily to public reason views of deliberation, Habermasian views remove any kind of constraint on the substantive content that views might promote, leaving only a formal requirement regarding how individuals' opinions are expressed. Unreasonable, irrational or outlandish arguments can be expressed. Still, in an ideal speech situation, they would be progressively filtered or defeated by other better arguments raised in the dialogical exchange, until the better argument prevails. I will extend on the implication that comes with the Habermasian idea of the "the unforced force of the better argument"[31] when I will speak about the goals of deliberation, but for now, let me just underline how the reason-giving process is conceived differently with Habermasian or Rawlsian views. The latter excludes unreasonable arguments because of their potential threat of upturning the well-ordered society if they are left enough space in the public debate. In contrast, Habermasian deliberative models have more trust in deliberation's capacity to sever intolerant, illiberal and undemocratic views from the discussion.

The inclusion of self-interested reasons into deliberative models is a matter of debate. Usually, deliberation is used in contexts in which what matters is the advancement of the common good. So, participants should filter between reasons promoting or contributing to pursuing the common good and reasons that instead are related to the promotion of their own self-interest, excluding the latter from deliberation. Deliberation is generally used to address matters regarding the public sphere, public life and the citizenry. It can be used to advance bill proposals or to deal with problems regarding a community – e.g. in a small municipality. So, when they are asked to decide, deliberators should always try to evaluate proposals, arguments and opinions according to their capacity to advance the common good. For this

[31] Habermas, 2008.

reason, many deliberative models require that participants bracket all concerns and reasons connected to self-interest. According to this idea, pursuing the common good – the point of deliberation – and self-interest is antithetic.

Contrarily to the views rejecting self-interest in public deliberation, it has been noted how self-interest can instead provide original information that may enrich the debate, and that might even be crucial for decision-making. The best example of the essential role played by giving space to self-interested considerations in a deliberative context is provided by Mansbridge et al.[32]. The example recounts how the University of Michigan faculty decided to adopt 'teach-ins' as a form of anti-war protest. The faculty members had two alternatives on their plate, one proposing to call off classes (risking to lose their job at the university for breach of contract). The other suggested a 'teaching marathon' about the war without any class cancellation. A faculty member expressed his preference for the second alternative because it was the one which would not make him lose his job. By expressing his self-regarding worry, the faculty member provided a piece of information that "turned out to be highly relevant, as what was best for the anti-war cause turned out to include the cost of anti-war activity for potential participants"[33]. This is a clear example of how self-interest can indeed enrich the discussion by advancing arguments that otherwise would have been ignored. Yet, it does not mean that *any* self-interested consideration is consistent with deliberation. Self-interest should respect the "deliberative constraints of mutual respect, equality, reciprocity, fairness and mutual justification"[34]. Therefore, individuals should be able to justify their self-interested remarks to others "in terms of fairness"[35] and evaluate reasons seeking outcomes that "do not benefit one side or another unfairly"[36].

[32] Mansbridge et al. 2010, pp. 74-75.
[33] Mansbridge et al., 2010, p. 74.
[34] Mansbridge et al., 2010, p. 76.
[35] Mansbridge et al., 2010, p. 78.
[36] Mansbridge et al., 2010, p. 78.

These competing ways to describe deliberation – reason-giving versus relevant considerations, public reason versus Habermasian theory, inclusion versus exclusion of self-interest – influence many aspects of how effectively the discussion would take place. Choosing one over the other would affect how the deliberative exercise would occur and who would be allowed to take part in it. For one, deciding on one parameter over the other would constrain the discussion by limiting the argumentative and persuasive methods allowed and the permissibility of including self-interest. Secondly, different parameters would also constrain who would be included in the deliberation, which is a crucial matter for raising unconcerned individuals an environmental concern

1.3 Goals of Deliberation

The category that I dubbed 'goals of deliberation' includes all those features setting what should be the result of a deliberative exercise. It defines whether a discussion should end only when a consensus is reached – distinguishing between different ways to represent 'consensus' – or if it not essential to end up with an agreement. Ending with consensus or not depends basically on the task for which deliberation is used. Indeed, deliberative discussion might be used for decision-making or opinion-forming tasks. The two, as I will explain later, are not incompatible one with the other. Any deliberation involves opinion-forming to a certain degree, but if deliberation is used to produce a result – e.g. a decision about what policy should be implemented – then, the importance of having a consensus or not becomes relevant.

Indeed, the ideal outcome of deliberation has traditionally been pinpointed with the idea of unanimity, with all participants agreeing on the same decision for the same reason. Still, an alternative version holds that mutual acceptability can be a

less demanding alternative to unanimous consensus. However, it has been noted that consensus is not the only logical conclusion. Pluralism, conflict clarification and political disagreement can be valuable goals of deliberation as much as consensus, especially if the deliberative tool is used as an 'opinion-forming' endeavour, rather than for decision-making or problem-solving tasks.

The idea of unanimity as the primary goal of deliberation dates back to Habermas's theory of communicative action. According to Habermas, ideally, deliberation ends when unanimity is reached, with all participants agreeing on the same solution or decision for the very same reason. Indeed, as Habermas wrote, the whole point of deliberation is to reach a "final unanimity"[37] created by a "long process of mutual enlightenment, for the 'general interest'"[38]. According to this idea, bad arguments are progressively filtered during deliberation and pruned away by what Habermas calls "the unforced force of the better argument"[39]. The discussion will eventually reveal the better argument that will progressively defeat other bad, unsound or subpar reasons, so as to be held by every participant for its validity as the right solution. So, in Habermas' take, consensus assumes a strong connotation, with one reason recognised as the best solution by every individual participating to the deliberative exchange, as "the consensus brought about through argument must rest on identical reasons able to convince the parties *in the same way*"[40]. Of course, this condition of unanimity is very far-fetched to reach in real conditions. Indeed, Habermas's account and other similar versions had been contested both from

[37] Habermas, 1989, p. 179.
[38] Habermas, 1989, p. 195.
[39] Habermas, 1996.
[40] Habermas 1996, p. 339.

empirical and normative points of view, highlighting how reaching unanimity was a highly idealized outcome for deliberation[41].

However, there are other weaker ways to conceptualize consensus[42], especially using the blueprint provided by deliberative models inspired by the idea of public reason, which offer either a consensualist or a 'convergentist' characterisation of consensus[43]. Public reason models require "that the moral or political rules that regulate our common life be, in some sense, justifiable or acceptable to all those persons over whom the rules purport to have authority"[44]. Public reason models can be structured so as to involve a "kind of consensus, or whether it can allow different people to converge on the same rule or principle for entirely different reasons"[45]. The former version, the consensualist one, is embodied by Rawls's idea of public reason. Rawls tries to "enhance the consensual basis of society through constructing reasonable consensus on a subset of widely accepted political values"[46]. According to this view, agreement is obtained through an overlapping consensus, in which "all reasonable persons can endorse a political conception of justice from within their non-public or comprehensive doctrines, but public reason itself makes no reference to the content of those nonpublic doctrines—it depends only on the shared political

[41] As Bächtiger et al. explain, this criticism of deliberation aimed at unanimous consensus was largely misdirected, as the role of substantive consensus – i.e. every participant settling on an outcome for the same reason – has lost its centrality in favour of a more procedural take, seeking for consensus on the rules, procedures and rights regulating the deliberation. (Bächtiger et al., 2018, p. 20).

[42] Aiming to consensus in deliberative contexts is a valuable goal, especially if we think about the intrinsic and instrumental values that are usually attached to the idea of consensus. For one, consensus provides a strong basis for political legitimacy. Consensus as a goal of deliberation is valuable because of its link to political legitimacy, on the one hand, and for its ability to foster stability and obedience in a democratic system. As highlighted by the contractualist tradition, consensus grants the legitimacy of political decisions and it provides a high level of individual autonomy, as the decisions are not imposed on anyone against their will (Martì, 2017, p. 4). For what concerns its instrumental value, greater consensus allows more stability of the political regime and it grants citizens' allegiance and obedience towards laws and policy (Martì, 2017, p. 3). This idea holds not only for the justification of a political regime, but also for the legitimacy of decisions on a smaller scale.

[43] On this see: Vallier, 2010.

[44] Quong, 2018.

[45] Quong, 2018.

[46] Ceva, 2012, p. 200. On the connection of public reason to political justification see also Holder, 2012.

ideas found within the political conception of justice"[47]. In a yet weaker version of public reason (e.g. the one proposed by Gaus[48]), it is possible to drop the Rawlsian requirement of reasonableness and, "allow for the possibility that a principle or rule may meet the test of public reason even in the absence of any shared or public reasons"[49]. In this way, in order to have a convergence of public reason, it is sufficient that the reasons advanced are intelligible. Taking in a weaker version of consensus offers a less idealised version of consensus than the one envisaged by Habermas's theory. Differently from Habermas' account, where there is one solution, supported by one reason held by all participants to the deliberation, this public reason view proposes a milder version of consensus, in which there is still one solution, but held for a plurality of reasons.

The importance of reaching consensus over a certain matter is crucial if deliberation is used to make a decision or solve a pressing problem. Indeed, for these tasks, consensus is the ideal way in which a successful deliberation can end. But deliberation is not used only for these two ends. In some cases, deliberation can be used for its capacity to encourage reflection on one's own opinions. When deliberation is used for a purely reflective scope (that is to say, for opinion-formation), then pluralism and disagreement can take the place of consensus as the conclusion of the deliberative exercise[50]. So, even though targeting consensus has been meant primarily as a regulative ideal and not a realistic goal of deliberation, the idea that deliberation should aim to consensus has been revised to respond to the fact that in a pluralistic society, disagreement is a value that can enrich society. Additionally, if

[47] Quong, 2018.
[48] Gaus, 2011. See also Quong, 2018.
[49] Quong, 2018.
[50] Landemore, Page, 2015.

deliberation is used for 'opinion-formation' tasks, disagreement can be a valuable result of deliberation as much as consensus is.

Pluralism, for one, contributes to and is the expected outcome of exercising one's autonomy. Political disagreement is the "hallmark of a free and open society where individual autonomy is respected"[51]. Moreover, pluralism grants epistemic diversity. According to some epistemic views of deliberation, through the exchange of very different points of view, the access to a multitude of information and the added knowledge coming from individuals contributing with their own experience and worldview to the discussion, taking correct collective decisions is more attainable thanks to the multiple information coming up during the discussion[52]. The epistemic richness coming from different points of view, opinions and interests is indeed something to value. During deliberation, it improves the information available and helps in making more informed decisions. If deliberation is used to clarify individuals' preferences and opinions, pluralism can be a valuable outcome when it results from a more profound and more insightful reflection on one's own preferences, ideas and interests.

Choosing whether aiming towards unanimity, weaker versions of consensus, convergence views or accepting disagreement as the outcome of deliberation depends on what we want to obtain by using the deliberative tool. As I said before, deliberation can broadly have two tasks, decision-making and opinion-forming. Deliberation is used for decision-taking whenever a deliberative forum is called to decide what course of action should be taken. The faculty council example provided by Mansbridge et al. is indeed an example of a deliberative context in which the goal was to decide how to

[51] Martì, 2017, p. 4.
[52] Martì. 2017, p. 5; Estlund, Landemore, 2018; Min, Wong, 2018.

protest against the war[53]. When the point is to make a decision, consensus, both in its strong or weak version, should be the expected outcome.

Yet, deliberation can also be used for purely opinion-forming processes – open discussions where the point is not to reach a decision, but rather have a clearer, more informed perspective on a certain topic. One might contend that these two tasks are not so starkly differentiated. Decision-taking involves a certain degree of opinion-forming, as the participants are asked to bring forth their reasons for endorsing a certain solution, evaluate and possibly revise them if someone else raises a more convincing, pertinent or reconciliatory view. Yet, opinion-forming deliberation is committed to discussing an issue without the need to find a solution, but just to provide participants with a better understanding of something thanks to the deliberative interaction.

2. A Deliberative Model to Deal with Climate Change

Once having delineated all the parameters according to which it is possible to trace the deliberation rules, in this section, I will compare and select them to create a deliberative tool fit for the problem of inducing stable compliance with climate change-related norms and behaviours. Indeed, we have seen that the crucial element that grants stable compliance derives from the fact that individuals are concerned about the environment. Individuals with such a concern would have pertinent reasons to comply with environmental norms, when present. More generally, they would have reasons for adopting pro-environmental behaviours even if there are no climate change policies at work or are of subpar quality. So, in order to have stable

[53] Mansbridge et al., 2010.

compliance, it is crucial to raise in as many individuals as possible such an environmental concern, from which compliance would follow.

Deliberation should specifically be targeted towards unconcerned individuals, including people who do not care about the environment, people who consider climate change not an urgent issue compared to other problems, and people who reject or are distrustful about climate change's scientific evidence. Bearing this in mind, we need to build up a deliberative model that, of course, includes mutual respect and non-coercion as its fundamental tenets, and that fine-tunes the other parameters so as to accommodate the diverse group of unconcerned individuals.

To sum up, we need to specify the following aspects: whether the dialogical exchange should be about reason-giving or relevant considerations; if there should be any constrains about the views promoted during deliberation, following the distinction between public reason-inspired and Habermasian deliberation (reasonable views only versus any view allowed); whether self-interested remarks may be permitted; if the deliberation is for decision-making or opinion-formation, and, consequently whether it should result into either strong or weak consensus or pluralism of views.

Starting from perhaps the most obvious parameter, it is clear that deliberative models inspired by public reason views, especially inspired by Rawls's theory, are not fit for dealing with climate change. As I showed in Chapter I more systematically but as I also highlighted in other passages of this work, the debate about climate change bristles with views that Rawls would deem unreasonable. Individuals rejecting the scientific evidence for climate change (as deniers do) or doubting its validity despite the scientific consensus, would place themselves beyond the line of reasonableness.

According to Rawls's view, scientific matters are not controversial[54] , and there is an overall consensus regarding scientific truths. For this reason, denying or refuting scientific knowledge would be beyond the realm of reasonableness. If we had to endorse deliberation in such terms, we would exclude from the discussion crucial members of the 'unconcerned' group. Therefore, in the specific case of climate change, the only choice to make deliberation work is to let express any view that individuals might endorse. In this way, we would easily include into the deliberative exercise both individuals who hold peculiar views (e.g. that climate change is a hoax) supported by conspiracy theories or by distrust towards scientific evidence.

Consequently, we also have to consider that we would have to deal with individuals who perhaps would not consider scientific arguments convincing or remain indifferent in front of the statistics about climate disruption. Limiting the deliberation to an exchange of well-construed arguments would constrain too much the possible strategies that could help individuals form a concern about the environment, so opening up to using emotional references, anecdotes or other less formal forms of communication might facilitate the dialogical exchange. For the same reason, self-interest should be included among the possible arguments that can be brought up during deliberation.

Moreover, self-interest has a strong motivating force, as we have seen in chapter 3, and having an environmental concern can also produce prudential pertinent reasons for compliance. Both the public reason model and the discursive one does not admit self-interested remarks. If they do, they include self-interest only under certain conditions – such as that it should be express in terms of generality and universality as to be understood in the most generalizable way possible. However,

[54] "In working out what the requisite principles are, we must rely upon current knowledge as recognized by common sense and the existing scientific consensus" (Rawls, 1971, p. 480).

considering that observing climate change-friendly rules impacts private, non-generalizable preferences, and that from an environmental concern might also stem prudential pertinent reasons for compliance, it is crucial that we include the contribution that self-interest can give to deliberation.

For what concerns the goals of deliberation, we have seen that the main task we seek to obtain through this deliberative model is to raise in individuals a concern about the environment, which puts us firmly in the 'opinion-forming' domain. Even though there are accounts applying deliberation to make citizens take decisions about environmental issues[55] and it is possible to think about experiments in which aptly informed citizens develop policy proposals on hot environmental topics such as water preservation or promoting clean energy, I assume that the policy aspect is a prerogative of the political authority. The government should decide – maybe following the experts' counsels, as I have envisaged in Chapter III – what policies should be implemented and complied with. Accordingly, if deliberation aims to induce reflection, seeking consensus as its outcome would be pointless and even counterproductive. Indeed, the task of raising in individuals an environmental concern makes consensus pointless, as there are many possible ways to conceive and instantiate such a concern. Someone could be concerned that climate change would destroy ecosystems of incommensurable value (e.g. the coral reef). Someone else's concern might be limited to what strictly affect her (e.g. water pollution for a specific basin). Therefore, in this case, we should reject consensus as the ideal deliberative goal and replace it with the idea that we need to accept pluralistic points of view if they can raise in individuals a concern for the environment.

[55] See: Steele, 2001; Chambers, 2007; Humphrey 2008; Baber, Bartlett, 2018.

So, to sum up, the deliberative model I propose to raise in unconcerned individuals a concern about environmental matters is characterised by the fact that in a mutually respectful and non-coercive dialogical exchange, individuals share and discuss any kind of relevant consideration (including unreasonable and self-interested ones) to induce reflection on their preferences, interests and values regarding environmental matters. With this definition in mind, I will now apply the deliberative model I built to show how it would effectively work if applied to unconcerned individuals.

3. Environmental Deliberation

This section will deal with the application of the deliberative model I have outlined, so as to assess if deliberation is able to raise a concern about environmental matters in unconcerned individuals and thus provide them with a motivation to comply with climate change norms and pro-environmental behaviours. As I showed in Chapter III, having an environmental concern is a crucial component of obtaining the required stability in complying with climate change policies and pro-environmental behaviours. If motivated by a concern regarding climate change, it would be more likely that individuals would develop pertinent reasons for compliance in the presence of aptly devised policies. Furthermore, thanks to such an environmental concern, individuals would also be more inclined to maintain the behaviours even if the policies are not implemented anymore, thus granting stable compliance.

The bet is that deliberation might change the noncompliers' stance and, therefore be an essential asset to enhance compliance quantitatively and qualitatively. For what concerns the quantitative enhancement that deliberation might bring about, if the deliberative method successfully raises an environmental concern in

individuals, then there would be more people willing to follow the written and unwritten rules of environmental protection. Thus, through deliberation the number of compliers would likely increase. For what concerns the qualitative aspect, if deliberation works in raising an environmental concern, then the individuals' tendency to comply would be constant, so as to fulfil the stability requirement that is necessary to contrast climate change effectively.

The spotlight is on unconcerned people, which is an umbrella definition grouping together individuals holding different points of view regarding climate change specifically, and more generally, environmental matters. Indeed, the category of 'unconcerned individuals' is very varied. For this reason, it is useful to unpack the 'ideal-types' who compose this group to see what strategies can be used to raise in these reluctant individuals a concern for environmental matters. Unconcerned individuals can be split into four main groups: climate deniers, climate sceptics, softly concerned and uncaring individuals.

In what follows, I will describe each ideal type's characteristic, and I will discuss potential persuasive strategies that might be used with them during deliberation. Within the constraints I set in the previous section, I will delineate some possible arguments that might persuade noncompliers to change their stance regarding climate change and the importance of doing something about it. The deliberative exchange should be imagined as the exchange between a concerned individual, i.e. someone who already cares about environmental matters, and one of the four unconcerned types. The deliberation's overall aim shall be to find arguments and persuasive strategies to raise in the unconcerned interlocutor a potential concern for climate change and/or environmental matters.

Before starting, I need to make a quick remark about the forthcoming discussion. In the following sections, I will present some prototypical stances

regarding climate change. Of course, I am the one writing, and I mostly do not share the views I will describe. Considering that the dialogical exchange entails taking individuals' own stances and opinions seriously, in the examples I am advancing, I will try to be as much fair as possible in representing what an individual who might have a certain stance might think and feel about climate change, trying to avoid any kind of bias or to sugarcoat stances that might prove challenging to manage through deliberation.

3.1 Epistemic Disagreement as the Background of Deliberation

We have already encountered sceptics and deniers in the first chapter, as supporters of contrarian views about climate change. Indeed, climate deniers and climate sceptics have in common the fact that they are both wary of scientific evidence regarding climate change, which usually leads to consider them as the same category when, instead, they hold significantly different outlooks regarding climate change.

Climate deniers are those individuals who reject the scientific evidence regarding climate change and dismiss the phenomenon as a hoax or as the product of a cleverly construed conspiracy to undermine (usually Western) affluent societies. Deniers doubt climate change's very existence – both in its scientific terms and in its so-to-say ontological terms. Indeed, in addition to their distrust towards science, deniers also negate the fact that there is a disruptive pattern regarding environmental phenomena going on. Usually, deniers are formed by "groups from outside of climate science whose primary motivation is to block climate policy, in some cases by "manufacturing doubt" about the reality or seriousness of anthropogenic climate change"[56]. They deliberatively spread lies and doubts to create a general atmosphere

[56] Parker, 2018.

of distrust towards scientific evidence regarding climate change. Yet, this anti-climate change narration often spreads among the populace. More and more individuals are convinced by the claim that climate change is a hoax based on (mostly second-hand) unscientific partisan and conspiratorial proofs[57]. Denialist claims are very easy to dismiss as the product of a mix of ignorance, gullibility and misinformation (falling under the scope of the Rawlsian category of 'unreasonableness'). Yet, it is also challenging to eradicate and refute them, because such claims are grounded on strongly held beliefs.

On the other hand, climate sceptics do not deny the existence of climate change *per se*[58]. They indeed recognise that there are some changes in the climate cycle of the planet Earth. Instead of ascribing such modification to the human intervention, they state that climate alterations are a normal component of the Earth's climate cycle. They hold that the planet goes through periodical cooling and warming phases (as it happened, for example, during the ice age), which are not due to human interference. Indeed, many sceptics are climate scientists who "challenge key conclusions of "mainstream" climate science"[59] and "consider headline attribution claims to be insufficiently justified"[60]. This kind of controversy regarding the reliability of climate modelling and the data used to produce such models is very technical. It develops entirely within the scientific debate, as I explained in the first chapter. However, it resonates also through the lay public by conveying the message that scientists cannot provide conclusive evidence regarding the anthropogenic nature of climate change. Some people feel justified to hold an agnostic stance regarding climate change considered as an entirely human-induced phenomenon on this ground.

[57] On this, see section 1.3 of Chapter 1.
[58] For a taxonomy of the possible nuances of the sceptic arguments, see Van Rensburg, 2015.
[59] Parker, 2018.
[60] Parker, 2018.

Whereas deniers consider scientific evidence as manufactured to make people believe something that is false, and thus they tend to reject scientific arguments, sceptics would be more prone to suspend judgement for what concern scientific arguments, as according to them there is no conclusive and decisive scientific evidence to prove that climate change is human-induced. What unites the denier and the sceptic is the nature of their disagreement with a potential environmentally concerned interlocutor.

A sceptic and a denier would disagree with a concerned individual entirely on *epistemic* grounds. Once presented with the same evidence regarding climate change, a concerned individual, a denier and a sceptic would trace very different conclusions. The concerned individual would consider such evidence as a proof that climate-related actions are necessary, whereas both the sceptic and the denier would argue in favour of inaction. So, if the concerned individual is asked to take part to a deliberative exchange with the task of trying to raise an environmental concern in a sceptic or in a denier, what strategies could he or she possibly employ? I will try to answer this question in the next two sections, taking as an interlocutor first a denier and then describing a deliberation with a climate sceptic.

3.2 Deliberation with Climate Deniers

Starting with deniers, imagine a deliberative situation involving precisely a climate denier and an environmentally concerned individual. When asked to express her point of view regarding climate change and environmental action, the denier might affirm: «I don't believe in climate change, and I have no intention to comply with pointless rules developed by crooked scientists. The weather is not changing that much, and, even if it was, I don't see that many disadvantages with it. What's wrong

with warmer weather? We would enjoy longer summers spent having fun at the seaside, and we would start turning on radiators later in autumn, saving some money from the heating bill. We could even say that climate change would be good for us».

We will try to unpack the denier's arguments for rejecting the existence of climate change and the fact that it is a worrying phenomenon to pinpoint the more suitable arguments to oppose to her view. The first statement concerns the core beliefs that identify this interlocutor as a denier. Radical denialism, distrust towards experts and allusion to conspiratorial motives to hold a certain theory are all peculiar characteristics of climate deniers. These beliefs characterise an individual as a denier, and they represent the core of the deep epistemic disagreement between concerned individuals and deniers. Any kind of evidence that the concerned interlocutor might present to prove that scientists are not on the payroll of a mysterious and ill-intentioned puppeteer and that their research is legit would fall on deaf ears. For what regards such beliefs, there is no way to make the denier change their mind.

Instead, the other two statements of the denier might provide two viable arguments to make her see that there is actually a point in assuming pro-environmental behaviour. On the one hand, we have the denier conveying the message that spending time at the seaside, maybe on a sandy beach, is something she values. On the other hand, instead, we can also gather that she is concerned about spending less money for her bills. Both considerations might be used to persuade the denier that complying with climate change policies or, more generally, behaving in line with pro-environmental behaviours could possibly be in her interests if she stands by what she had initially affirmed.

The first aspect that we might advance to induce reflection would play on advancing considerations that would likely make the denier reflect on the importance of assuming eco-friendly behaviours. Indeed, according to the denier's interest in

passing more time at the beach, her interlocutor might ask he whether she would prefer to spend her extra-summertime on a pristine beach or a dirty one, full of garbage and leftovers from other beachgoers. To compare the two situations better, we might also show to the denier two photos of the same beach, one clean and the other with a lot of garbage. To add emotional impact, we could show her a doctored photo of her favourite seaside place – specifying that it does not reflect the actual state of affairs, but it is a representation of a possible future scenario – to show her how it would look like if everybody would start disregarding common rules such as throwing the garbage in the bins. We can imagine that to our question: «Which beach do you like more, the littered one or the clean one?» she would answer that she would prefer the clean one. With the addition of photographic evidence, her answer would be even more resolute: «Of course I would prefer staying on a pristine beach, with no detritus around» she would say.

Once established that for her spending time on a clean beach is better than spending time on a dirty one, we could go on and push the denier on her preferences and what it might entail for her in order to get what she wants and what she values. If she prefers spending time on a clean beach, then she would also agree that in order to keep that beach clean, beachgoers (the denier included) should respect some basic rules, such as throwing their garbage in the appropriate bins, so as to keep the beach clean as she prefers. If our friend denier is rational, she would consider this input from her interlocutor from her own point of view: it is in her interest to keep the beach clean, and to do so it is necessary for her to assume eco-friendly behaviours. Thus, she should comply with the rule prescribing her to throw garbage in the rubbish bins, be it an explicit rule (as in, part of the beach's rules for access) or an implicit one.

A similar argument – based more on self-interest than emotional involvement plus self-interest – may be advanced by playing on the denier's interest in saving bill

money. For example, we could argue that she would spend less if she sets the radiators' temperature on a lower level or, even if she changes her energy source into something more sustainable (and therefore, more eco-friendly). To convince her, or to make her consider other options that would produce the result she values (namely saving money from her monthly heating bill) we could produce testimonies recounting their experience. By doing this, we would lead her to reflect on options that otherwise she would have never considered – because too linked to that kind of discourse that she blindly rejects on an ideological basis.

If the deliberation with the deniers works as I have shown, then she would develop a self-regarding environmental concern that would lead her to have pertinent reasons for compliance of the prudential kind. Once that deniers realise that pro-environmental behaviours are tied to matters that are important and valuable for them, then they would likely develop an environmental concern even though they do not revise their beliefs regarding climate change science. Formally, they would still remain deniers, but they might become environmental compliers with the help of deliberation.

The example I proposed was something I have devised playing mostly on self-interest. In addition, an empirical research shows that deniers are more likely to assume eco-friendly behaviours if "they believe [that mitigation] efforts will have positive societal effects"[61]. The crucial thing to convince deniers to act pro-environmentally is "to identify outcomes of mitigation efforts that deniers find important"[62] and play on the contribution that climate action can provide to achieve such desirable goals. With two surveys, the authors show that deniers "intended to act more pro-environmentally where they thought climate change action would create a

[61] Bain et al., 2012, p. 600.
[62] Bain et al., 2012, p. 600.

society where people are more considerate and caring, and where there is greater economic/technological development"[63]. So, some self-proclaimed deniers expressed their agreement with typical climate change-related policy decisions in virtue of the economic benefits that such policies would likely produce. For example, one of the participants to the survey stated: "«while I personally don't believe in climate change as a recent phenomenon, I do agree with reducing our carbon emissions [...] think of the possibilities that this would open to individuals and business alike, it would create jobs»"[64]. Similarly, other people pointed out that caring for the environment would entail caring for the human race and that "mitigation efforts would have positive effects on their nation and on people's character"[65], showing a humanitarian concern involving solidarity and feelings of belonging. Ultimately, this research highlights how focusing on "societal effects of action"[66] by using scientific, economic and moral progress as proxies for climate action is a viable way to promote mitigation efforts without attempting to 'convert' climate deniers into climate believers.

This empirical research provides a further example of how a deliberation might develop. Instead of playing on a denier's self-interest, according to this survey's findings, it would be possible to play on both instrumental and moral concerns, even though they are not directly connected to environmental matter. If we analyse the survey participants in light of the model that I have proposed in the second chapter, we can see that all crucial elements to motivate individuals to comply are present. There is a concern, in one case instrumental (that is to say, that it is important to create more jobs) and moral in the other (namely, the idea that it is important to being considerate towards others). The implemented policies focused on caring for

[63] Bain et al., 2012, p. 600.
[64] Bain et al., 2012, p. 601.
[65] Bain et al., 2012, p. 601.
[66] Bain et al., 2012, p. 602.

the environment would also promote these additional values that individuals deem important. Together with the policies providing an outlet for this concern, the concern would motivate individuals to comply, albeit for non-pertinent reasons. As a matter of fact, in both cases (instrumental and moral concern) we would have reasons for complying that have nothing to do with the environment, or with the aim that the implemented policies try to pursue. If we think about a policy regarding carbon transition, the point of that policy would be to make green energy more widespread and promote energy sources' sustainability. Producing more jobs in the 'green market' would only be a (surely welcomed) by-product of a policy whose goals are primarily of environmental nature. However, the interviewee's reason for complying with such policies would be based precisely on the policy's non-environmental side-benefits, making this individual comply for non-pertinent reasons. A similar reasoning would apply to moral concerns regarding solidarity among individuals, with individuals complying with policies that contribute to promote consideration and care for others, even though the policy goals would be of different nature. There would be compliance for non-pertinent reasons in both cases, which, according to the model I proposed, is not enough to guarantee stability. However, it might be possible to use deliberation to raise an environmental concern *ex novo* and make individuals reframe or reconsider their already present concern. Through deliberation, it might be possible to make these people reflect on the role that a clean and safe environment plays in fostering the values they deem worthy or think that addressing climate issues would also promote what they deem as important.

Using deliberation to raise an environmental concern in climate deniers is not an impossible task. The most straightforward strategy would be to play precisely on the denier's interests and show her that such interests are coherent and can be promoted by adopting eco-friendly behaviours, so as to argue that having an

environmental concern is crucial for obtaining what they deem as important for themselves. Additionally, we have seen that some deniers might also be responsive to arguments that have nothing to do with self-interest. So, it might be possible to play on deniers' already present non-environmental concern to reframe it in light of environment-related considerations to make individuals comply, even if not entirely, for pertinent reasons, thus granting stable compliance over time.

3.3 Deliberation with Climate Sceptics

We have seen that climate sceptics have a different stance regarding climate change if compared to deniers. Indeed, whereas "deniers use strategies that invoke conspiracies, quote fake experts, denigrate genuine experts, deploy evidence selectively and […] rely on misrepresentation and flawed logic"[67], sceptics advance "legitimate concerns"[68] regarding the data and the models of climate science, demanding "convincing evidence before accepting any claim"[69]. This scepticism, which is a debate developed entirely within the frame of climate science, has resonated among the populace. According to polls and surveys[70], many lay people suspend judgement about whether climate change may or may not be occurring. Still, they reject the idea that such changes – if they are happening – are due to human activity and they think that such changes are "the result of natural cycles alone"[71].

In a deliberative situation, if we were to ask the sceptic to state her position regarding climate change, she would probably say: «If you ask me whether I believe in climate change, I can say that yes, our climate changes. It has been changing since

[67] Kemp et al., 2010, p. 673.
[68] Kemp et al., 2010, p. 673.
[69] Kemp et al., 2010, p. 673.
[70] See: Hobson, Niemeyer, 2013, p. 397.
[71] Hobson, Niemeyer, 2013, p. 397.

the Earth has formed. And it had been changing even when humans were not there to interfere on it. I don't think that human activity is the primary cause of climate change, so all this talk about duties and responsibilities towards the environment is pointless. It is how it is, and we can't be blamed for it. There is much talk about what we should do to avoid climate change, but, newsflash, we can't avoid or contain it. We have just to deal with whatever changes will come – if they are coming at all».

The sceptic's position is indeed one of agnosticism regarding the human contribution to climate change. Contrarily to the denier, she admits that climate change exists, but not in its anthropogenic declination. Rejecting the idea that human action causes changes in the climate, she also rejects the idea that there should be duties to mitigate or responsibilities for dangerous emissions, saying that even if we were able to modify our behaviours, the changes would keep occurring because they are a part of the natural cycle of the planet. At first glance, it looks like that the environmentally concerned interlocutor would have no other hook to make the sceptic reason beyond her epistemic stance regarding climate change. In other words, it seems that the epistemic disagreement with the sceptic cannot be overcome.

Yet, the sceptic herself says something interesting that needs to be further investigated. At the end of her statement, she says that we should deal with changes when they manifest themselves. Her interlocutor might ask her to clarify what she meant by it. We might discover that the sceptic was basically referring to actions of what we would consider climate change adaptation: «By 'dealing with changes', I mean that instead of thinking about what will happen in fifty years, we should pay attention to what is actually happening right now». This concern regarding what is happening right now versus what would happen in the future might provide a good leverage to make the sceptic reflect more about the importance of environmental protection. If we show her a video of the damages provoked by Hurricane Katrina in

New Orleans, the sceptic would probably see it as proving her point. Regardless of what has caused Hurricane Katrina to be so violent and impactful, she would say, when it happened it showed us the weakness of certain ways to build houses, the critical areas where water tended to accumulate, and where the less resistant riverbanks. Then, we might ask what she thinks should be done once that we know the weakness of the New Orleans area when struck by a Hurricane. If she is consistent with her initial point of view regarding climate change, she would probably answer that we would need to reinforce the weak riverbanks, that reconstruction should be done according to flood-proofs structural plans or that there should be an efficient system of evacuation in case of incoming hurricanes. Basically, her point would be that the past experience should be a cornerstone to take effective and pragmatic measures that would prevent people from getting hurt.

If we can bracket the disagreement regarding what causes climate change and environmental disruption, then it would be possible to use practical examples of how environmental disaster impact people's lives. Even if we disagree that climate change exacerbates extreme weather events, both a concerned individual and a sceptic would see that such events are disruptive and that there are ways to contain their negative effects. Even though not fully formed, a sceptic might easily acquire an environmental concern if climate problems are framed in pragmatic terms. Indeed, the sceptic is amenable to think about precautionary measures, applying the precautionary principle to practical problems in order to contrast the potential negative consequences of events that have a high probability to occur again, such as hurricanes and other extreme weather events. Starting with a practical assessment of what it entails to live during a period of climate disruption, through deliberation we could point out to the sceptic's attention the consequences – instead of the causes – of

changes in the Earth's climate system, so as to make her think in terms of environmental protection, thus raising in her an environmental concern.

To conclude the discussion regarding deliberation among individuals whose disagreement is of epistemic nature, we have seen how it is possible to raise an environmental concern with individuals whose lack of an environmental concern is based on denialist and sceptics beliefs regarding climate change. By bracketing the epistemic disagreement regarding the 'ontological status' of climate change and/or its anthropogenic nature, the viable strategies that might be employed focus on playing on individuals' interests, concerns and values so as to make them realise that environmental matters play a role in improving or deteriorating what they deem as worthy of concern. If individuals reflect on the inputs and the insights that are given to them during deliberation, they would probably be able to reconcile they value system with an environmental concern, that, once raised would motivate formerly unconcerned individuals to comply with climate norms and more generally with pro-environmental behaviours.

3.4 Normative Disagreement as the Background of Deliberation

Sceptics and deniers are probably the most evident examples of individuals who disregard climate change. Still, the category of unconcerned individuals includes also people who do not necessarily ascribe neither to the sceptic nor to the denialist category. Indeed, some might fall into the 'unconcerned category' not in light of an epistemic disagreement with concerned individuals, but rather in light of a value disagreement. Concerned and unconcerned individuals might disagree on ranking environmental matters over other issues, making it a *normative disagreement*. For one person who considers climate change as the most important issue of our times, there

are many people thinking that climate change is only one of the many problems that we should face – surely not the most urgent one – and many other people who, without denying the scientific evidence, do not even list climate change as a worrying issue. According to the different value we give to environmental matters and climate change, it is possible to discern into softly concerned individuals and uncaring people.

On the one hand, softly concerned individuals recognise the fact that climate change is an issue that should be dealt with. Yet, for different reasons, they do not consider it as an issue that overrides all the other ones that might occur in their society or in the world. The fact that they do not consider climate change as a primary issue might be because, in their system of values, they hold that there are other more pressing issues to be solved; because they think that there are problems that are more important and have more significance than climate change, or because they are just disheartened regarding the possibility to solve climate change.

In the first two cases, softly concerned individuals do not deny the need to act on climate change, neither they oppose climate change action on ideological grounds. They simply rank it lower than an environmentally concerned individual would do. They hold that other problems (e.g. economic issues, matters of socioeconomic equality, or problems of global justice) would have the priority over climate change[72].

Instead, for what concerns the 'disheartened' individual, we are not precisely dealing with a proper normative disagreement. Indeed, the disheartened individual's disagreement is connected to the use of means to solve climate change vis-à-vis using the same means to address another issue. A disheartened person could easily hold that for what concerns climate change, it is already too late to do something, and at this point, there is nothing that we can do to solve the issue. So, rather than waste

[72] For example, someone holding Pogge' view regarding global justice (Pogge, 2002) might be considered as an example of softly concerned individual.

resources and efforts on an elusive quest, those resources should be allocated to address salvageable problems, such as world hunger. A way to address the disheartened individual's consideration is to show her that it is not true that we can do nothing to address climate change. Indeed, it is true that we cannot reverse the ongoing processes. Still, if we do not start cutting emissions, we would accumulate pollution, making climate change worse and worse, causing therefore even more devasting effects. So, for this reason, the disheartened person should think that rather than solve or abort climate change, the important thing is to try mitigating it – which is a task still achievable.

For what concerns uncaring individuals, climate change does not appear in their radar at all. The people who form this group are those who do not care about climate change, and, therefore, do not think about it as a problem that needs to be addressed. Even though they do not deny that climate change is happening and that is a problem with potentially far-reaching consequences, uncaring individuals simply do not care about it.

Considering that for both softly concerned and uncaring individuals it is a matter of making them re-evaluate their consideration of environmental and climate change-related problems, deliberation should aim to show them that their evaluation of environmental matters is faulty or partial and that they are missing some crucial information that would make them alter their order of priority. What arguments might be advanced to make softly concerned individuals shift priorities? And, how to make someone who does not care about the environment to change her stance? Similarly to what I have proposed for deniers and sceptics, I will try to imagine how a deliberation with a softly concerned individual and with an uncaring individual would develop.

3.5 Deliberation with Softly Concerned Individuals

Deliberation with softly concerned individuals should aim to make them reconsider their ranking of priorities in favour of environmental matters. As it happened with sceptics and deniers, a first step is to ask our interlocutor to state her stance regarding climate change. A softly concerned individual would probably say: «I believe in climate change, and I trust climate experts when they say that we need to do something about it. Yet, I think that there are more urgent problems that need to be solved before concentrating our energies on climate change. Think about world hunger. Do you know that over a billion people live with less than 1.5 dollar per day or that more than 12% of the world population is starving and many people do not even have access to potable water? Solving climate change can wait when people are suffering for hunger, famines and poverty. So, we should first think about relieving those who are suffering right now before addressing climate change». According to our softly concerned individual, in the order of priorities, climate change ranks at the fourth place after global poverty, world hunger and access to clean water. The reasons she adds to state that such issues should be prioritised over climate change are basically based on moral grounds.

To further prove this point, we could use a strategy that with deniers and sceptics was not available, namely presenting factual evidence about climate change impacts and its correlation with other issues. For example, we could show her how in many cases, famine is connected to the desertification process which destroys hectares of arable land, or that there is a connection to poverty and unsustainable development. By shifting the focus from a diachronic perspective to a synchronic one, we could give to the softly concerned individuals more information that would make

her see that it is not an either/or choice and that issues that might seem disconnected are actually linked one to other.

Ultimately, it would not be difficult to raise an environmental concern into a softly concerned individual. Besides being already halfway there in considering climate change a an important issue, we would only need to make her realise that the solution to other pressing problems (such as the ones that our fictional interlocutor has raised during deliberation) passes through climate change mitigation and environmental preservation.

Here I described an individual with conflicting concerns about climate change and world poverty. A similar reasoning may be applied to other issues such as economic growth, conflicts, immigration and many other similar issues. The argument would apply in the same way by showing that climate change would likely exacerbate such problems. Therefore, addressing climate change would also entail addressing and making a partial progress on the other issues that a softly concerned individual might think more pressing. Deliberation should make emerge that softly concerned individuals' interests, beliefs and commitments imply an underlying environmental concern.

3.6 Deliberation with Uncaring Individuals

Uncaring individuals are those who do not care about climate change. When asked what they think about climate change, probably their answer would be a vitriolic «I couldn't care less about climate change». And that is the uncaring individual's stance regarding climate change.

When faced with this kind of attitude, we have reached a crossroads of sorts in which the success of the deliberative tool basically depends on how far we push the

prototype of an uncaring person. On the one hand, we could characterise this person simply as someone with an uncaring attitude because, in depth, she believes denialist or sceptics claims or as someone who is actually a softly concerned individual who ranks climate change as the very last issue in her order of priorities. If we assume that an uncaring stance just needs to be led back to one of the other stances I presented, then through deliberation, we would raise an environmental concern even in this challenging case. On the other hand, we could instead describe this individual as a nihilist and, in this case, the deliberation tool would not be able to bring about the result we desire.

In the first case, that is to say when the uncaring attitude can be led back to one of the other stances, deliberation could still be successful in raising an environmental concern. Indeed, we could insist with probing question in order to understand why the uncaring individual does not care about climate change. Is it because she does not think that there is something wrong with the planet's climate? Or because she does not think that GHGs are really that dangerous? Or maybe, she simply thinks that climate change is the least important problem to think about. With further investigation, we might assess whether the uncaring individuals' opinion is rooted in a reason that might be reconnected to one of the previous stances we have already analysed. Therefore, we could try to apply the same strategy in order to convince this uncaring interlocutor.

This would mean that if being uncaring underlies denialism, we might try to pinpoint what our interlocutor considers important and play on that factor. If instead the uncaring individuals reveals to be a climate sceptic, we could try to reframe climate action in more neutral ways. If, instead, she is actually a softly concerned individual with a grouchy attitude, we might try to provide her with further information for deeper reflection so as to change her views. We alternatively could

use the emotional punch of showing her people's displacement provoked by environmental disruption, sea animals endangered by plastic waste in the oceans, or the effects that desertification has on land, human and non-human beings. Another option is to try to work around this person's self-interest, trying to find a way to breach her attitude toward environmental issues. For example, we might ask about her preferences and try to show that it is actually in her interest to assume pro-environmental behaviours, e.g. if she demonstrate a deep affection towards her own children, we could use the argument regarding the consequences for future generations if we do not act to contain climate change. In this way, by using her self-interest to breach her barriers, we would probably be able to raise an environmental concern, leading to prudential pertinent reasons for actions.

On the other hand, we might bring the uncaring attitude to the extreme and describe our interlocutor as a nihilist who would resist every appeal to think about the environment. If the uncaring person is a nihilist, we would face someone who would maintain an indifferent stance for what concerns climate change and all other related issues, even when pressed to answer more probing questions about her opinions. Even when confronted with hard-to-digest evidence (e.g. we could think of the most tragic, gruesome images of climate change's effects), she would steadfastly maintain that she just does not care – and perhaps she would also tell us to stop bothering her with all this climate change yapping.

As a last resort to try convincing the nihilist individual, we might try to probe the limits of deliberation by using persuasive strategies that would stand on a fine line between coercion and non-coercion, for example by using fear as a motivation for action. For example, we could instil into our uncaring interlocutor fear for the future, about what might happen to her or her beloved ones if environmental disruption

becomes worse and worse, or, more trivially, we might exploit the individual's phobias and use them to raise an environmental concern.

I find this solution problematic for two reasons. The first one is that besides walking the tightrope between coercion and non-coercion, using fear would somehow betray the requirement of mutual respect between deliberators. The second one is probably more methodological, so to say. So far, I have always implicitly framed the environmental concern as something rational and not emotional. Even though it could be provoked by emotional reactions, having a concern for the environment is ultimately the product of a rational thought process and not an instinctive reaction. By using fear as a source for environmental concern, we would be open to the possibility that instinctive reactions are able to create a concern for the environment, but they would not be able to sustain it over time and provide the necessary ground for having stable compliance. If we frame the concern as something purely emotional in this sense, then we would have to drop the idea that having a concern would be enough to motivate individuals to comply even when explicit laws and policies do not prescribe pro-environmental behaviours.

In the end, if the uncaring individual is actually a nihilist, then we have reached the worst-case scenario for my argument, as deliberation would indeed fail to raise an environmental concern. With this kind of individual, the only viable way to make her comply would be to use sanctions and/or incentives. If we use this strategy, we would then have to admit that it is not possible to foster stable compliance with this kind of individuals.

CONCLUDING REMARKS

In this work I set out to address the issue of noncompliance with climate change related norms. More specifically, the research question animating this work focused on asking how it should be possible to motivate individuals in order to make them comply with climate change-related norms and behaviours over time. The hypothesis I proposed to answer this question centred around the idea that only a certain kind of reasons – the pertinent ones – would be able to meet such a requirement of stability. I defined pertinent reasons (opposed to non-pertinent reasons) as those reasons created by the consistency of an environmental concern in individuals with the rationale animating a certain environmental policy.

In the first place, I tackled the issue by assuming that individuals either have or do not have an environmental concern in their motivational set. By distinguishing between concerned and unconcerned individuals, I played on the possible political means that can be used in order to elicit in these two categories of individuals motivations for compliance. For the former group, I argued that efficacy-driven policies would have a twofold role in bridging a cognitive gap in individuals (showing them how to act upon their concern practically) and in motivating them to comply with policies whose rationale shares the environmental commitment of these individuals. Considering, indeed, that there is a convergence between the policy rationale and individuals' own environmental concern, I concluded that this group of individuals would likely have pertinent reasons for compliance.

By contrast, for individuals who do not have an environmental concern I argued that in order to motivate them to comply, we should play on their self-interest,

by using incentives and sanctions as leverage to prompt unconcerned individuals' compliance. In this case, as the policy rationale and the individuals' motivation diverge, I concluded that unconcerned individuals would likely have non-pertinent reasons for compliance.

Once established this, I turned to focus specifically on the problem of fostering stable compliance. I proposed a test to assess if pertinent and/or non-pertinent reason could sustain compliance over time. To do so, I tried to assess what might happen if the policies addressing climate change would be withdrawn. In the end, it emerged that individuals motivated by non-pertinent reasons, once that the incentives motivating them are removed, would likely stop endorsing pro-environmental behaviours. By contrast, individuals motivated by pertinent reasons, even if the effective policies are not at work anymore, would maintain conformity with pro-environmental behaviour in virtue of their environmental concern, therefore proving my initial hypothesis that pertinent reason can withstand and fulfil the stability requirement.

However, this conclusion opened up another possible way to prompt compliance. Indeed, besides proving my starting hypothesis, this analysis revealed that the crucial factor to motivate individuals is not actually the pertinence of the reason for compliance with respect to the policies in place, but rather it is the presence of an environmental concern in individuals' motivational set – which is the element granting the necessary motivational pull. Therefore, in light of this consideration, I dropped the assumption that described having an environmental concern as a given fact, and I envisaged the possibility to prompt compliance by raising in unconcerned individuals an environmental concern by using the tool of deliberation, which is a more feasible and less onerous method if compared to using incentives and sanctions that are difficult and costly to maintain over time. The secondary hypothesis I

advanced in the last chapter suggested that if it were possible to raise in unconcerned individuals an environmental concern, they would be more likely to have pertinent reasons for compliance. Therefore, they would also be more likely to sustain compliance and conformity with pro-environmental behaviour over time.

In the final chapter, I dealt with different 'ideal-types' of unconcerned individuals. I tried to use the deliberative tool to assess whether they would respond to arguments and considerations regarding environmental matters. I equally dealt with uncomplicated cases (sceptics and softly committed individuals) and with the hard ones (deniers and uncaring individuals). I showed that it is indeed possible to raise an environmental concern in most instances.

Still, deliberation has a blind spot for what regards uncaring individuals. I argued that, in some cases, it is possible to raise a concern in such individuals, but only provided that their stance can be traced back to one of the other categories. If instead, they are uncaring in a strong, nihilistic sense, then deliberation would likely not work with them. Nevertheless, as collective action theorists stress, we can still afford and accept a certain amount of noncompliers if they are outbalanced by a majority of compliers – which would be indeed increased by using the deliberative tool with softly committed individuals, sceptics and deniers.

The model I have proposed in this work has at least four advantages. First of all, it is not a very demanding model. It involves few and contained idealisations, and it plays on dealing with plausible considerations, especially when discussing how to deal with unconcerned individuals. Moreover, it shows that it is indeed possible to draw out an environmental concern even in the most challenging cases, even though the model is not able to address all difficult cases (as the discussion about nihilist individuals shows). However, even this less than triumphalist conclusion can provide

a newfound insight in showing how far we can reach noncompliers, delineating the boundaries within which we can move to motivate individuals to comply.

Secondly, and strictly related to the previous point, it is a model which does not shirk from addressing the difficult cases. Indeed, I tried to take fully on the challenge of dealing with deniers, sceptics and the like who doubt or deny the importance of dealing with climate change. I tried to understand their stances, take their claims seriously, and address them fairly and respectfully. Similarly, I did acknowledge that potentially we might have to deal with people who probably would never be caught in a deliberation about climate change or environmental matters. By including the profile of a nihilist individual, I tried to go off the beaten path and acknowledge that there are indeed instances in which we have just to admit defeat.

Thirdly, I tried to propose an inclusive model even though the arguments I proposed to support it have an undeniable Rawlsian footprint. Besides including stances that in an orthodox application of Rawls's schemata would be excluded, I considered the case of unconcerned individuals – acknowledging that self-interest and prudential reasons can indeed have a strong motivational foothold. I also delved into the realm of views that Rawls would surely consider as 'unreasonable' because they deny matters of scientific consensus. Moreover, my model tries to consider individuals as they are, without resorting to using the veil of ignorance or other Rawlsian tools to make unconcerned individuals' stance more accommodating for my argument.

Fourth and lastly, my model develops entirely in non-ideal theory. In this sense, I tried to avoid falling into the same pattern that I criticised in the other political theorists who have dealt with the problem of noncompliance before. Indeed, in the literature review, I insisted that most discussions regarding noncompliance, despite recognising it as one of the tantamount issues for non-ideal theory, always

give in to the temptation of using ideal theory principles to analyse this issue. Working in ideal theory is indeed more comfortable than moving in non-ideal theory, yet I tried to bracket issues pertaining to ideal theory (e.g. developing fair policies, allocating mitigation and adaptation burdens) and focus specifically on the fact that at some point we would have to deal with people who would not comply with climate policies. Instead of thinking of noncompliers as an unfortunate exception to the (ideal) rule, I tried to develop a specifically targeted model. Additionally, I also tried to include considerations about the political space that concerned and unconcerned individuals share, evaluating the options that a political authority can undertake in order to induce its citizens to comply.

An open question, and a possible remark that can be raised against my model, is that it underestimates the reach of individuals' agency within their political community. Indeed, I talk almost exclusively about policies that a political authority imposes on its citizens. If not only in passing, I do not mention the possibility that individuals can have a more active role and push a reluctant authority to be more engaged with environmental matters.

In my defence, I can advance two considerations. The first one is that what I have proposed in this dissertation is a preliminary analysis of the factors that might contribute to prompt compliance. What has emerged is that having an environmental concern is a necessary condition or, at least, a factor contributing to motivate people to assume the appropriate behaviours. Yet, having an environmental concern might also motivate individuals to become more politically active in pushing their governments to implement more effective policies or respect the international treaties they sign. The second consideration is of a more general nature. It is related to the specificity of working under non-ideal theory, which presupposes a certain spirit of adaptation and improvisation. By this, I mean that the advantage of working in non-

ideal theory is that it involves a normative investigation of real-world problems with no definitive solution. In this work, I proposed an *additional* solution to the problem of noncompliance to the ones already present in the literature. However, it does not mean that we have exhausted how it is possible to think about the issue of noncompliance or that the solution I proposed is the only viable or valid solution to the problem of noncompliance. For example, we can envisage alternative methods for increasing compliance that do away with top-down impositions and instead play on a bottom-up push. I am thinking of protest movements, civil disobedience, and other similar cases of bottom-up political action that try to raise awareness both horizontally – among peers – and vertically by demanding that governments finally take effective action in dealing with climate change. These alternative ways of thinking about prompting climate action are very interesting and may open fascinating possibilities regarding additional methods to increase compliance.

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