

Climate Change and Non-domination: A proposal for Future Earth Inhabitants' rights to Representation and Planet Management

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Abstract

The release of greenhouse gases (GHGs) into the atmosphere due to human activities that, for example, involve the burning of fossil fuels or biomass, has led to the increase of the planet's temperatures since the Industrial Revolution. GHGs' long to very long atmospheric lifetimes, which can extend from decades to centuries or even millennia, imply that present emissions are equal to higher global temperatures in the distant future. Consequences of a heated planet such as the increased frequency of extreme weather events and sea-level rise have potentially devastating effects on human life. Despite international agreements aiming at holding global temperature increases to keep the planet safe for future inhabitants, global GHG emissions just continue to rise. This situation allows for the question of whether the focus of concern of intertemporal justice should shift from inequality of distribution toward inequality of relations which takes place when future lives are not at the mercy of present-day powerful actors' wills. The need for such a shift is defended in the present study through the proposal of non-domination as the ideal of intertemporal justice for the case of climate change. The proposal of non-domination is sustained in the analysis of the relation held between actors with power to drive alterations of the planet and future Earth inhabitants, and the finding of features suggesting that the former dominate the latter. On that basis, a proposal is offered for a basic institutional design to be implemented if intertemporal justice is understood as the promotion of non-domination.

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Introduction

In 1990, the Intergovernmental Panel on Climate Change (IPCC) published a first report with findings revealing that the global mean surface air temperature of the Earth had increased by 0.3 to 0.6 °C in the last century as a result of human activities (IPCC 1990, 53). In later reports, it was further specified that the main drivers of this temperature increase were human activities involving the combustion of fossil fuels for industrial or domestic usage, and biomass burning, producing greenhouse gases (GHGs) (i.e. carbon dioxide, methane, nitrous dioxide) and aerosols (i.e. chlorofluorocarbons) that end up concentrating in the atmosphere. Atmospheric concentration of GHGs is of a natural in addition to its more recent human origins and there is a natural greenhouse effect which keeps the Earth warmer than it would otherwise be (IPCC 1990, 52). The result of the human activities that imply the emission of GHGs is that of topping up their natural levels of atmospheric concentration, hence enhancing the effect of keeping the energy of the sun reflected on the surface of the planet from making its way back out into space. Land-use change, due to urbanisation, human forestry and agricultural practices can also be counted among the drivers of global temperature increase given that they affect the physical and biological properties of the Earth's surface, thus altering exchanges of GHGs and other compounds between land and atmosphere. In addition, urban land uses tend to produce a phenomenon called "urban heat island", related to the heat released by densely populated human settlements. The status of these activities as drivers of global temperature increase originates in the Industrial Revolution, i.e. mid-18th century (IPCC 2001, 92-94). The disruptive effect of this human-driven temperature increase on the planet's climate has become commonly known as climate change.

The chemical properties of GHGs make them have long to very long atmospheric lifetimes, which are further extended by human activities that undermine the capacity of the planet's biosphere to capture them from the atmosphere (Ibid., 93). In consequence, once emitted by, for example, the burning of fossil fuels, GHGs can stay for decades, centuries or even millennia in the atmosphere, keeping the sun's energy from getting back out and contributing to the increase in global temperatures. The effect of global temperature increase due to human action is the disruption of the climate system, i.e. the dynamics and composition of the atmosphere, the ocean, the ice and snow cover, the land surface and its features, as well as the many mutual interactions between them, and the large variety of physical, chemical, and biological processes taking place in and among these components (Ibid., 87). The disruption of the climate system manifests through the rise in the frequency of statistically

unlikely, i.e. extreme, events, such as heatwaves, wildfires, severe rainfalls, and cyclone activities worldwide. These can be added to the rise of sea levels due to the melting of great ice sheets at the poles. These kinds of events resulting from a heated planet are potentially devastating, not only because of the obvious threat to human life and health that they represent but also because of their likely impact on socio-economic and ecological systems (IPCC 1990, 55).

Given the long-lived warming effect of atmospheric GHGs and the potentially devastating consequences of their overconcentration, it is possible to say that by throwing them into the atmosphere, humanity can harm lives in the distant future. It is indeed realistic to think, for example, that emissions during the past century are, in an important part, responsible for the costs of, say, the Indian Heatwave or the extreme rainfall in the Brazilian south in 2024. As a result of this capacity to engage in behaviours with long-lasting climate-disrupting effects that will inflict great harm on future lives, questions inevitably arise about the responsibilities toward future inhabitants of the Earth. The branch of ethics that has developed as a discipline oriented at responding to the question about the responsibilities held toward future people is that of intergenerational or intertemporal justice. Generally speaking, the task of this discipline is that of asserting these responsibilities through the proposal of ideals of rightness meant to serve as guidelines for present action. Simon Caney has convincingly pointed out that due to specific features of the phenomenon of climate change, it is a problem more unequivocally said to be addressed from a perspective of intertemporal –rather than intergenerational– justice. That is because the scope of responsibilities, given by the long-lasting effects of atmospheric GHGs, encompasses a larger number of future humans than the term ‘generation’ suggests (Caney 2018, 162).

An ideal of intertemporal justice that has gathered important support and popularity when it comes to setting the standards of responsible action toward future inhabitants of the planet is that of sustainability, which prescribes that present action is right as long as it “meets the needs of the present without compromising the capacity of the future to meet their own needs” (Brundtland 1990, 27). The public acceptance and agreement around the ideal of sustainability have prompted official attempts to coordinate international efforts oriented at fulfilling its demands. The most recent, and perhaps most significant, of these attempts took place on December 12th, 2015, when a legally binding international treaty on climate change was adopted by 196 Nation-State parties at the UN Climate Change Conference (COP21) in Paris. The agreement consisted of a commitment of the signatory parties to keep the rise of global temperature below the limit of 2 °C above pre-industrial times and to strive for a maximum of 1.5 °C by the end of the 21st century.

Almost nine years later, the last IPCC report (2023) reveals that, although some countries have succeeded in reducing and even capturing concentrated GHGs from the atmosphere, the goals of Paris are far from being achieved: the world is failing to cut emissions that increase year after year. Global GHG emissions had a 12% increase in the period between 2010 and 2019 (Ibid., 4). This resulted in atmospheric concentrations in 2021 reaching approximately 472.35 molecules of CO₂ equivalents in GHGs every one million molecules of air, a level that reduces the chances of keeping the global temperatures below 1.5 °C to less than 67% by 2100 (ibid., 10). Despite this, emissions increased yet again by 1.2% from 2021 to 2022 (United Nations Environment Programme 2023, IV), so it is safe to assume that those chances are now even lower. With the current levels of atmospheric GHG concentration, global warming is more likely than not to reach 1.5 °C even under a very low GHG emissions scenario and likely or very likely to exceed 1.5 °C under higher emissions scenarios. Furthermore, based on modelled pathways of mitigation, i.e. the reduction of GHG emissions and atmospheric concentration, that are consistent with Nationally Determined Contributions (NDCs) until 2030, and assume no increase in ambition thereafter, there is medium confidence in a median global warming of 2.8 [2.1 to 3.4] °C by 2100. Emissions are not expected to lower in the near term either, since public and private finance flows for fossil fuels are still greater than those for mitigation, and the finance that goes in that way nevertheless falls short of the levels needed to limit warming to below 2 °C or 1.5 °C across all sectors and regions (IPCC 2023, 10-11).

Increase in global temperatures that will most certainly occur due to the persistent increase in GHG emissions is projected to translate into extreme weather events for every region in the world, whose consequences are expected to be rises in heat-related human mortality and morbidity, food-borne, water-borne, and vector-borne diseases, mental health challenges, flooding in coastal and other low-lying cities and regions, biodiversity loss in land, freshwater and ocean ecosystems, and a decrease in food production in some regions. Changes in floods, landslides, and water availability have the potential to lead to severe consequences for people, infrastructure, and the economy in most mountain regions. The projected increase in frequency and intensity of heavy precipitation will increase rain-generated local flooding. These risks, impacts, losses, and damage will escalate with every increment in global temperatures (Ibid., 15).

Despite the attempts at embracing responsibilities toward future inhabitants of the planet through official agreements aligning with the demands of sustainability, GHG emissions continue to increase, the temperature of the planet will reach higher records and therefore,

the needs of the present continue to be met at the expense of the future's capacity to meet their own. What implication does this scenario have for intertemporal justice? I believe that it calls for a revision of the ideal of justice that is meant to assert intertemporal responsibilities toward future inhabitants and thus serve as a guideline for present actions and decisions. Hence, the main question that this study picks up is formulated as follows: what ideal of intertemporal justice should be pursued in light of the persistent increase in global GHG emissions? The question is thus formulated because it is not my intention to put forward a general ideal of intertemporal or intergenerational justice that is able to operate on any kind of intertemporal human relations. Rather, the intention is that of looking for an ideal that is useful as a guideline for present action insofar as it has potentially negative impacts on future people as future inhabitants of the planet. Additionally, I will seek to respond to the question about a basic institutional design for the implementation of intertemporal justice as non-domination in the case of climate change.

The thesis sustained and defended here is then twofold. Firstly, I maintain that the ideal of intertemporal justice to be pursued in the case of climate change, given the persistent increase in global GHG emissions, is that of non-domination. To sustain this claim, I argue that the relation between present and future inhabitants of the Earth bears the marks of domination: the former can alter the planet's climate without tracking the interests of the latter, which explains why emissions persist. Secondly, I propose that a basic institutional design oriented at the reduction of this relation of intertemporal domination should be based on future people's right to manage the planet and representation.

The argumentation will be divided into four main sections. Initially, I show why the ideal of sustainability, as presented by Bryan Barry (1997), is insufficient to address the intertemporal inequality involved in the increase of emissions due to its exclusive focus on equality of distribution. On that basis, I will argue for an ideal that is underscored by Elisabeth Anderson's relational value of democratic equality. In the second section, following Anderson's thread toward non-domination, I provide a thorough explanation of this account of freedom as an ideal of justice. To that end, I begin with Isaiah Berlin's taxonomy of freedom presented in his essay *'Two Concepts of Liberty'* (1958), then proceed to Philip Pettit's critique of the negative liberty ideal (2011), and finalise with his (1997) and Frank N. Lovett's (2010) definitions of domination. Based on Pettit and Lovett's concepts, I analyse in the third chapter the relation between those with enough power in the present to make decisions about alterations of the planet's conditions and those affected in the future, in order to see whether it is a case of domination. Lastly, I argue for a basic institutional design for the reduction of intertemporal domination that is sustained on Anja Karnein's (2023)

guidelines for future representation and a right to manage the Earth taken from A.M Honoré's (1993) notion of ownership.

I. Climate Change and Intertemporal Justice

1. Sustainability as an Ideal of Intertemporal Justice

The causality involved in climate change implies that performing actions in the present¹ that will increase the planet's temperatures into the future is equal to contributing to the materialisation of consequences, –extreme weather events and sea level rise– that are likely to have negative impacts on future human lives. Following Barry (1997, 43), the situation is that present-day temporary custodians of the planet are capable of altering its conditions into the distant future, e.g. by raising its temperatures through GHG emissions², and therefore negatively impacting the lives of the successors whom it will be handed on to. Impacts are negative because extreme weather events caused by present temperature-increasing action pose obstacles to the fulfilment of vital interests, i.e. the objective requirements for human beings to live healthy lives, work at full capacity and take part in social and political life (Ibid., 47; 53). This is equal to taking opportunities to live good lives away from the future inhabitants. That is, same as people in the present do, future persons will be agents capable of conceiving what a good life is as well as performing efforts and making choices for its achievement. Although it is not possible to access what the conceptions of the good life will be held in the future to know about specifically defined opportunities, certainly any pursuit of the good life depends primarily on the fulfilment of vital interests. Based on the expected events that higher global temperatures will produce, emitting large amounts of GHGs is tantamount to an alteration of the planet's conditions that reduces future opportunities to live good lives by threatening the fulfilment of vital interests.

The fact that contributing to climate change harms future people by undermining their pursuit of the good life, however, does not immediately lead to the conclusion that the global GHG emissions must be immediately reduced. Reducing present GHG emissions means, to an important extent, thwarting opportunities for the present pursuit of the good life. That is

¹ To forestall possible confusions, it is important to state that, in line with Barry (1997, 55) the words “present”, “now”, “today” and any other which refers to the present moment, are used in a non-fixed sense. Thus, for example, my intention is to say that contributing to climate change *now* has certain implications for the future, regardless if that *now* may specifically be completed as 2024, 2032 or 2050.

² The release of radiation, for instance, would also enter this category.

because the fulfilment of present-day vital interests depends in a large part on GHG emissions, a phenomenon also described as “carbon lock-in” (Unruh 2002), which occurs when the techno-institutional complexes through which the needs and interests of individuals and entire communities are fulfilled, become strongly dependent on fossil-fuel based systems of provision. In consequence, dealing with climate change from a perspective of intertemporal justice is turned into an intertemporal conflict of interests: giving opportunities to present inhabitants of the planet means taking from the future, and vice versa.

According to Barry (1997, 44) and others³, the discipline called upon to resolve conflicts of interest is that of distributive justice. Broadly speaking, the task of distributive justice is the allocation of valuable goods to parties with conflicting claims in accordance with a fair rationale. A pursuit of the good life can therefore be endorsed or secured through the provision, allocation, or availability of goods, such as opportunities for the fulfilment of vital interests. A straightforward way for distributive justice to operate is to define the allocation of goods based on the consideration that the claims on one side are stronger than those on the other. That may happen when one of the parties presents a given feature which is considered relevant enough to deserve a different treatment. This response is commonly known as discount rate. For instance, in defining taxation schemes, it is sometimes understood by governmental authorities that a social discount rate should be applied to those with a higher income. Given their level of wealth, their eventual claims for a lower taxation is weaker, since parting with a higher percentage of what they own will have less impact on their lives than on the less-wealthy. The application of a time discount rate that applies to temporal location rather than to socio-economic position, would most likely rest on the assumption that the fulfilment of vital interests in the present is more urgent than in the future. Therefore, unequal treatment would be justified by attaching more importance to present people’s claims.

Important discussions have taken place about the justification of a time discount rate⁴. The most convincing argument points out to the injustice of its application and favours a “zero pure time” discount rate in cases where hardly reversible effects are at stake. This is sustained in the intuition suggesting that there is no compelling reason to attribute fundamental moral importance to someone’s location in time. Someone’s temporal location is considered to be on par with their racial identity, gender, or ethnicity and thus, for the same reason that it is wrong to give someone unequal treatment based on their race or gender, it is also wrong to give someone less opportunities because of their date of birth

³ See, for example, Page (2006, 3)

⁴ See, for example, Caney (2014), Nash (1973)

(Caney 2014, 324). Present and future people's fulfilment of vital interests are equally valuable because the value of them as persons who will benefit from them is not affected by the passage of time and thus the former should not be fulfilled at the expense of the latter.

The conclusion is then that justice dictates that climate change, insofar as threatening the future with irreversible consequences, should be dealt with through measures that are underscored by an equal treatment for both present and future planet inhabitants thereby leading to an equal allocation of opportunities between them. At this point, the notion of Sustainability arises as an ideal for this distributive task. As Barry points out, beyond its widespread definition, sustainability means that "there is some *X* whose value should be maintained in as far as it lies within our power to do so, into the indefinite future" (Barry 1997, 50). This *X*, as it has been already noted, is the fulfilment of vital interests insofar as the baseline upon which opportunities for the pursuit of good lives are sustained (Ibid., 53).

Perhaps it is worthwhile to dissipate possible confusion by reminding that, since future lives are not lived out in the present, it is impossible to know what their pursuit of the good life will consist of and, ultimately, make sure that they have the very same level of opportunities. What is possible to conceive, however, is that if future people's chances to fulfil their vital interests are reduced by making them live on an overheated planet, they will have fewer opportunities for the pursuit of a good life. With sustainability operating as a standard of justice, it is now clear why GHG emissions are intertemporally unjust. They violate the principle of equality of opportunity to the extent that their effects consist of altering the conditions of the planet, thus leading to the materialisation, intensification, and perpetuation of extreme events and sea level rise associated with global temperature increases.

2. What is the point of Intertemporal Equality?

Until now, the currency of intertemporal justice has been described as the opportunities for the pursuit of a good life. The responsibility of the present is to respect the intertemporal equality of opportunities that the future planet inhabitants, insofar as equals, are due. Thus, future people's vital interests and the ground that their fulfilment provides for the enjoyment of opportunities for a good life, represent the *X* whose value should be maintained, i.e. a threshold that the effects of present action must not trespass, and therefore the present's planet-altering capacity must be managed to respect. What should be done then, if the temperatures of the planet through GHG emissions just continue to be raised year after year?

Before putting forward the value shift that should underpin the tackling of this situation through a renewed ideal of justice, I would like to complete the map by answering the question about who is responsible for the management of present-day planet alterations so as to secure the meeting of sustainability's demands. In other words, who are the recipients of future claims for equal opportunities? A common response would be to say that the future's vital interests must be respected by everyone who is presently alive and in conditions to decide by themselves how to act. This may have a degree of truth, but it does not show the full picture. As it has been noted, GHG emissions are carried out on a national scale and have become systematic by phenomena such as carbon lock-in. Although there may be something that each person can do on their own, responsibilities to reduce the global temperature increase fall upon countries like China, the United States, India, the EU27, Russia and Brazil, i.e. the six largest GHG emitters in 2022. Together, they account for 63.4% of global fossil fuel consumption and 61.6% of global GHG emissions (European Commission. Joint Research Centre. 2023) Specifically, those who are in the best position to secure future Earth inhabitants' fulfilment of vital interests those at the helm of these nations in addition to the ones in charge of private entities who may influence their policymaking.

This point can be better settled through an example. Imagine a train that, due to a specific causal connection, the faster it goes, the worse the consequences it will bring for some people other than its passengers. Although they may benefit from the speed increase, are the passengers who have the primary responsibility for the train to slow down? They may have a second-order responsibility to demand the reduction of the speed, but the machinist is the main responsible for this. It is, therefore, reasonable to say that it is upon the shoulders of those actors with the highest institutional and economic power in the world that the future's claim for justice as equality of opportunity leans most of its weight, i.e. those able to make and influence the policies of the largest emitting countries because it is ultimately them who decide on further planet alterations. By taking this position, I echo Simon Caney's principle holding that those with the greatest political power bear the greatest responsibility (Caney 2018b, 161; 2014, 141).

We are now equipped with the currency of intertemporal justice, i.e. opportunities for the pursuit of the good life; the scope of justice which involves on the one hand, present inhabitants of the planet who satisfy their needs through GHG emitting systems of provision, on the other, future inhabitants who will be reached by the effects of those emissions, i.e. the right holders; the duty bearers are the politically powerful of the present-time given their ability to reduce GHG emissions; lastly, the pattern of justice is defined by the vital interests

of future inhabitants marking the threshold of equality as a limit below which their opportunities must not fall as a result of present vital interest fulfilment. The persistent increase in GHG emissions, then, speaks out loud in terms of justice: duty bearers have been unable to respect the principle of equality of opportunity implicit in the notion of sustainability. Temperature-increasing actions have continued to transpire and increase, and thus the needs of the present are met at the expense of opportunities of future people to equally enjoy pursuits of the good life that are taken away by posing threats to the fulfilment of their vital interests. It is as if a time discount rate downplaying future enjoyment of opportunities influenced the decisions about global emissions, regardless of its unjust rationale for unequal treatment. How are we supposed to address, from a perspective of sustainability, a situation in which the duty bearers just discount importance from future fulfilment of vital interests? Sustainability prescribes how opportunities are to be distributed across time, but it does not offer further guidelines about how to address a situation in which its demands are ignored based on morally irrelevant features. Sustainability is concerned with inequality of distribution, but there seems to be a different sort of inequality involved here.

Elisabeth Anderson (1999) proposes an alternative, democratic strand of equality, whose corresponding concerns with inequality are of interest for the problem at hand. Democratic equality amounts to a conception which is “fundamentally concerned with the relationships within which goods are distributed, not only with the distribution of goods themselves” (Ibid., 314). Advocating for democratic equality means that the focus of concern is on the inequality inherent in the domination of some by others, the inequality inherent in relations where some live at the mercy of others’ wills (Ibid., 315). If justice is let to be driven by this value, then its concern would lie with the injustice intrinsic in relations of superior and inferior, where those of superior rank are “thought entitled to inflict violence on inferiors, to exclude or segregate them from social life, to treat them with contempt, to force them to obey, work without reciprocation and abandon their cultures” (Ibid., 312). Inequality, from this perspective, amounts to relating with as well as treating others differently based on arbitrary features that do not justify unequal treatment.

As it can be noted, a shift takes place at the higher level of the encompassing value of equality that underpins justice, which permits a grasp of the problem at hand from a renewed angle. The sustained increase in global GHG emissions appears as a discounting of future planet inhabitants’ claim to equal opportunities based on their sheer, morally irrelevant position in time. Following Anderson, the suggestion is then that there may be a breach of democratic equality that manifests in treatments of future Earth inhabitants as if they were

inferiors. If that is the case, then the task of justice should be to ensure that they are equally respected as persons and unequal treatments effectively ruled out from how present actors relate to their claims. If democratic inequality is the case, the way to intertemporal justice should consist first of building up a relationship in which future Earth inhabitants' lives are not at the mercy of the will of the present-day powerful. Thus, in order to show that non-domination should be the ideal of intertemporal justice in the case of climate change, it must be proven that the persistent increase in global GHG emissions is a case of democratic inequality which is tantamount to domination.

Having argued why increased global emissions call for a shift in the question to be asked about intertemporal equality, I will proceed to inquire whether domination is the case in a scenario characterised by the persistent increase in GHG emissions. I intend to show that global temperatures just continue to rise into the future because the present-future relationship involved in climate change is one in which present-day powerful actors hold the capacity to drive alterations of the planet's conditions in ways that are not forced to track the interests of its future inhabitants. That is to say that the lives of the latter are at the mercy of the will of the former. To be sure, I do not mean that distributive ideals of equality as intertemporal justice should be ruled out from this intertemporal case, but rather that an ideal that is best suited to engage with the demands of democratic equality should be first implemented. The next step will then be the provision of a detailed review of Neo-Republican theories of freedom as non-domination.

II. Neo-Republicanism and Freedom as non-Domination

The task to be carried out throughout this section is that of describing the Neo-Republican ideal of justice: freedom as non-domination. The necessity for an optimal understanding of this value finds its justification in the ethical analysis carried out in the last section. There, it was pointed out that the problem of climate change needs to be observed from a different angle in light of the incapacity of the sustainability ideal to put forward a response to the unequal treatment of future inhabitants of the Earth that is implied in the persistent increase of global GHG emissions. The proposed angle is provided by Elisabeth Anderson's value of democratic equality, which prioritises relations of inequality over unequal distribution. The focus on this value allowed for the question about domination: is the persistent increase in global emission a sign that those with enough power to raise global temperatures dominate

future inhabitants of the planet? To respond to that question, an optimal understanding of the concept of domination is therefore necessary.

1. Negative and Positive Freedom

The conception of freedom as non-domination can be better accessed from the initial concerns and disconformities with prior definitions of freedom that have prompted its formulation as an ideal for the social and political domains of justice. It will be worthwhile, then, to begin by reference to Isaiah Berlin's famous taxonomy of freedom presented in his essay "*Two Concepts of Liberty*" (1958). Berlin argues that the conception of social and political freedom has split up into two opposing notions: negative and positive freedom. The author begins the exposition by presenting two different questions, each tied to the opposing conceptions. Negative freedom is involved in answering the question of the area within which a subject—a person or group of persons—is or should be left to do what he is able to do. Positive freedom, on the other hand, is concerned with what, or who, is the source of control or interference that can determine someone to do one thing rather than another (Berlin 2002, 169).

A point that remains implicit in Berlin's essay is that, although they end up drastically opposing each other, both negative and positive conceptions of liberty are concerned with the human capacity for choice. Every time we act in our lives, there is an underlying process of decision in which we actively choose (perhaps not fully consciously), among a set of options available to us at that given moment. Choices are made, most of the time, in line with our aims and intentions that strongly relate to our conceptions of the good life. People tend to experience decision-making as a straightforward process, we decide on how to act and have corresponding reasons to make this decision and not another one. Suppose then, that you are presented with the choice of having for dessert an apple or an orange, your choice will be probably based on your lifelong taste for oranges, or on how healthy oranges are, etc.

Positive and negative notions of freedom part ways at the point of discerning what free choice is. Generally speaking, advocates of negative freedom will sustain that an agent is free when her choice is free of restraints. On the positive side, an agent is deemed free when achieving mastery over her own choice. From the former perspective, freedom amounts to the least restricted way of realising one's aims. Restrictions to freedom are defined in terms of interference: the sort of influence over an agent's choice, or valuation

thereof, of aims and/or the options for their implementation, making her choose this rather than that (Ibid.). The kind of interference that Berlin speaks of is that which, employing violence, coercion, deception or manipulation, either reduces the agent's power of choice by removing or replacing options or makes the agent believe that the options are other than what they are. Imagine, for instance, that somebody steals the orange you picked for dessert right after you took it; or that a person threatens you with doing something you will regret if you take the orange; or that someone lies to you about getting sick if you eat that orange. According to negative freedom, that person is interfering with you and rendering you unfree in the domain of your dessert choice. If interference with one's choices and their implementation is presented as unfreedom then, simply put, freedom is the lack of interference in the pursuit of one's own good in one's own way (Ibid., 174). Consequently, enlarging the unrestricted extent to which one can determine and implement one's aims, intentions, and goals in absence of interference by other agents is equal to having one's freedom enlarged.

Negative freedom takes shape as an ideal of social and political justice when, through a system of rules, non-interference is sought to prevail in both the interaction between community members and also between these and the collective authority embodied in state-like institutions. To that end, the rules, i.e. laws, must inevitably perform a level of interference through the coercive imposition of sanctions on interferences with freedom. The unfreedom rendered by the law is justified only insofar as it is meant to avoid greater levels of unfreedom stemming from the unregulated interaction between individual or collective agents themselves. Questions will inevitably arise about the limits of the law's interfering function, and it is about this point that advocates of negative freedom tend to disagree. The disagreement will manifest in the proposal of alternative principles of justice through which the ideal of non-interference is thought to best operate. Where some sustain that limits to the law's intervention are to be guarded by the natural law or natural rights, others say that it depends on utility, or the pronouncements of a categorical imperative, or the sanctity of the social contract, or "any other concept with which men have sought to clarify and justify their convictions" (Ibid., 173-174).

Positive freedom, on the other hand, prescribes that freedom consists of self-mastery: the direction of choice by no other force but by the agent's "true self". Along these lines, choice will then be free when the pursuit and implementation of one's aims obey 'uncorrupted' rational drives as opposed to mere natural needs. For example, the choice of an orange for dessert will not be free unless it is made for the 'right' reason, e.g. it being the healthiest option. An inner division is, through this conception of freedom, prone to be drawn within the agent herself between her "dominant" or "autonomous" self, identified with rationality, and

her “heteronomous” self, closer to irrational drives, impulses, desires, and passion (Ibid., 178-179). The opposite of freedom in this sense are the agent’s inner determinations that may render her choice irrational, corrupted, inconsistent, or ineffective. Consequently, the road to freedom will not consist of removing obstacles and opening options for the agent’s choice, but of “liberating” that agent’s rationality and bringing her closer to the choices that her rational self would make.

Berlin fears the dangers that may rise from the positive conception of freedom in its articulation as an ideal of justice, since it may lead to communities ruled and controlled by authoritarian or despotic figures. This link between positive freedom and authoritarianism is convincingly argued for as self-mastery enables the drawing of objective and universal criteria of how choice is to be carried out according to true reason, and thus can make justifiable “to coerce men in the name of some goal (let us say, justice or public health) which they would, if they were more enlightened, themselves pursue, but do not because they are blind or ignorant or corrupt.” (Ibid., 180). Furthermore, it would be possible for a despot to claim that the oppressed party has, although unconsciously, consented to the option it is being forced to take, and that therefore coercion is not even taking place (Ibid.).

Even though Berlin rescues some merit of positive conceptions of freedom as some versions of it stand behind just demands of national and moral self-determination, he ends up favouring the negative conception of freedom as non-interference as an ideal of social and political justice, i.e. the ideal toward which citizen-citizen, as well as citizen-state interactions, should strive. He sustains his position on the assumption that “the ends of men are many, and not all of them are in principle compatible with each other” and thus that “the belief that some single formula can in principle be found whereby all the diverse ends of men can be harmoniously realised is demonstrably false.” (Ibid., 214).

2. Freedom as non-Domination

2.1 Pettit’s Critique of Non-Interference

Republican freedom is presented as a third, radically different, way of conceiving freedom that stands in the space left unoccupied between positive and negative liberty (Pettit 1997, 19-21). If positive freedom consisted of self-mastery and negative freedom of the absence of others’ interference then, broadly speaking, non-domination can be seen as taking elements from both sides to put forward a conception of freedom defined as the absence of others’ mastery: domination. As it can be noted, freedom as non-domination is also negative in the

sense of a conception of freedom as the absence of restraints with the exercise of choice. The need for a reformulation of negativity, however, will stem from the realisation that unfreedom may persist even in the absence of interference.

In order to show that criticism as presented in the work of Philip Pettit (2011), let's go back to the previous example. Imagine you have a choice between an apple and an orange for dessert. Suppose also, that someone is interfering with the option of the orange, say, by threatening you with undesired consequences if you choose it. The interference, however, does not affect the implementation of your intentions since you happen to prefer the apple. From a non-interference perspective, although the preferred option has remained available, this is not a free choice. If freedom depended on the availability of preferred options exclusively, it would be possible to secure it merely by adapting one's preferences to the options that have not been interfered with. Then, others' behaviours toward one such as inflicting violence, threats or manipulation could not be ruled out for the sake of freedom since they would not endanger it to the extent that it can still be achieved simply by adapting one's preferences in accordance. What is thus rather needed is a more robust and demanding conception of freedom that is not at risk of ultimately depending on adaptive capacities. For a choice to be free, all options an agent may have available must remain free of interference, and not only the ones she happens to prefer. Thus, for the example of dessert choice to be free, nobody should threaten your choice for either the apple or the orange.

Pettit's strategy is to turn this non-interference line of argument against itself by adding an extra element to a hypothetical situation of choice. Suppose now that, in accordance with non-interference, your choice is free: regardless of what you actually prefer for dessert, nobody is threatening your choice for any option. But now, additionally, imagine that there is also a potential interferer. This is, someone who could make undesired consequences to fall upon you if you choose the orange but, based on own private reasons, has decided not to do so or issue threats. Although the options have been kept intact, and thus from a perspective of non-interference the choice can be said to be free, something is not right, for in such a case, it would be possible to secure one's freedom by ingratiating the potential interferer and keeping her sweet towards oneself (Pettit 2011, 704-705). Similarly to the refusal, from the view of non-interference, to make freedom ultimately depend on adaptive capacities, non-domination refuses to make it depend on ingratiating capacities. Advocates of non-domination will thus argue that, for a choice to be free, it is not enough that all the possible options remain free of interference, rather, nobody must have a capacity to interfere that is not controlled by the affected. A choice of dessert between an orange and an apple is

free if nobody is in a position to interfere with the choice you can make based on reasons that you don't have access to, and therefore, are unable to control.

It follows, then, that freedom as non-interference is incomplete because it leaves room for situations that can be considered as unfreedom, something which ultimately undermines its potential as an ideal of social and political justice. This weakness was indeed recognized by Berlin himself when he spoke of the perfect conceivability of a "liberal-minded despot (who) would allow his subjects a large measure of personal freedom" (Berlin 2002, 176). Additionally, recall that non-interference sought to justify the law as an interfering way of ensuring non-interference. A non-domination approach will be able to ease this tension. For, as it will be seen, non-domination will equate unfreedom to the capacity for arbitrary interference. Thus, although the law may represent a kind of interference, or even an endowment to certain agents with a capacity to interfere, that does not make it an instance of unfreedom provided that laws are not arbitrary and their interferences can be contested by those under its rule.

Pettit's criticism of non-interference can also be translated to point out the insufficiency of sustainability as the ideal of intertemporal justice setting the standards for present action toward future Earth inhabitants. Performing actions in the present that will result in future increases in global temperatures can be understood as a planet-altering interference that removes future options for the pursuit of a good life insofar as exposing them to extreme weather events and sea level rises. Sustainability is meant to protect future inhabitants from interference by fixing their vital interests as the threshold beyond which their opportunities must not fall as a result of present action. But, doesn't this ideal leave open the flank about someone having the power to decide over the continuity of GHG emissions that ultimately lead to planet alterations and, therefore, have the future's fulfilment of vital interests in their hands?

It is important to note, however, that although non-domination is presented as a distinct and, in a way, more robust, demanding and consistent conception of freedom than non-interference, the reason for their respective articulation as ideals of justice is one that permeates the entirety of the liberal tradition. The point is that, beyond the intuitions that may render them a better or worse ideal, advocates on both sides are bound by an effort that consists of seeking ideals of social and political justice that make the systems of rules –and sanctions thereof– guided by them, accessible and endorsable for all of its subjects. This is what Charles Larmore (2001; 2013; 2015) has called the "idea of respect for persons", which amounts to the recognition of all human agents as "beings essentially capable not only (as are the higher animals too) of thinking and acting for what we take to be reasons, but also of

reflecting on such reasons in the sense of examining whether what appear to be reasons really are good reasons.” (Larmore 2015, 77). Respect for persons is the normative core that both conceptions of freedom as ideals of justice strive for. Pettit’s criticism of non-interference just described can thus be understood as the claim that non-domination does a better job in this regard.

2.2 Philip Pettit’s Formulation of Freedom as Non-domination

From the realisation of the weaknesses of freedom as non-interference, stems the formulation of a more robust conception of freedom in the negative sense that is able to work as an ideal of justice whose aim is to counter the greatest evil: living at others’ mercy (Pettit 1997, 32). The first elaborate definition of non-domination is found in Philip Pettit’s *Republicanism: A Theory of Freedom and Government* (1997). There, he provides a definition of domination which consists of three clauses: an agent dominates a subject to the extent that the former 1) has the capacity to interfere, 2) on an arbitrary basis, 3) in certain choices that the subject is able to make (Ibid., 52-53).

Regarding the first clause, a capacity to interfere implies that someone (group or person) stands in a position with regard to another based on which the possibility of interfering with their choice by removing, replacing options, or manipulating, deceiving about them is ready to be exercised (Ibid., 54). It is, however, the second clause that carries most of the weight when it comes to defining and identifying domination. For Pettit, an arbitrary basis for interference means that the decision and reasons for interference depend merely on the interferer’s private judgement in a way that does not force interference to track the interests of the interferee (Ibid., 55). As illustrated before, the main issue with the freedom of dessert choice between apples and oranges is not that someone actually interferes with the options, but that the interferer is not forced to justify her eventual interference to whom is making the choice.

The third clause points out that a capacity for arbitrary interference does not need to influence every choice that the affected party can make in order to be considered as domination (Ibid., 56). Choices are exercised with regard to specific domains, the example used until this point is about the domain of dessert choice. But one is already dominated if it is out of one’s control whether somebody can interfere with what one chooses for dessert, and this is true independently of whether it is also the case that one is dominated in other domains, e.g. how to dress, whom to meet, etc. This means that domination can vary in extent, i.e. the more the domains of choice in which someone is subject to others’ arbitrary capacity to interfere, the larger the extent of domination.

As it can vary in extent, depending on how many domains of choice it encompasses, domination also can vary in intensity, depending on the degree of arbitrariness. The degree of arbitrariness will be higher the fewer avenues exist for the interfeeree to constrain the interferer's power by demanding a justification for interference that is based on her interests. In other words, domination is more intense when the decision about interference is less accessible to the interfeeree and more exclusively subject to the judgement, or mere pleasure, of the interferer:

Suppose that an agent can interfere in the life of another more or less at will: they can act just as their own whim or judgment leads them; they can act at their pleasure. Suppose, moreover, that the agent is subject to no particular difficulty or cost in exercising this capacity to interfere with someone: there is no prospect, for example, of suffering retaliation. And suppose, finally, that the interference in question is the most effective available: it can remove any options that the agent does not like or it can impose unbearable costs on the person's choice of those options. Such an agent will enjoy an absolute power of arbitrary interference over that person. (Ibid., 57)

The fulfilment of the three conditions are sufficient for domination to obtain in any of its possible degrees of intensity and extent. The paradigmatic cases of domination are relations of bondage (Ibid., 32; 35; 60). Slave masters in, for instance, the Antebellum South in the U.S., were able to interfere in almost every choice their slaves could make and had no compelling reason whatsoever to incorporate any considerations other than their own in the decisions about interference. Although this paradigmatic case has generally fallen out of currency, the versatility of Pettit's definition of domination given by its formulation as a phenomenon that may manifest in different degrees of extent and intensity makes it applicable to modern-day relations such as, for example, husband-wife or employer-employee (Ibid., 58).

2.3 Frank N. Lovett's expansion of the conception

Along the lines of Pettit's definition and the critique of non-interference, it is possible to see that the conception of freedom as the absence of domination means also a shift of the focus of concern relevant to democratic equality. Differently from the non-interference account, where unfreedom had its locus in interactions between agents, now the focus of concern are relations or, rather, some of their aspects that result in others' endowment with the ability to interfere in arbitrary ways.

Frank N. Lovett exploits the characteristic relational aspect of non-domination and expands its definition in a way that further furnishes that of Pettit. Lovett says that "a person or group experiences domination to the extent that they are dependent on a social relationship in which some other person or group wields arbitrary power over them" (Lovett 2010, 100). In

order to unpack this account it is worthwhile to begin with his Weberian definition of social relationship as a phenomenon in which the “behaviours and actions of a plurality of actors, in its meaningful content, take into account those of the others and are oriented in these terms” (Ibid., 35; Weber 1978, 26). This means that actions and behaviours are socially mediated, in the sense that the action of a given individual or group can only be conceived in light of how they relate to other agents, i.e. what some are and do depends on what others are and do and vice versa. The choices, therefore, that agents are able to make, what they can do or become –Lovett calls these “opportunity sets” (Lovett 2010, 41), are constituted and defined by the relations held with other agents. For example, the choice between orange and apple for dessert is, in the first place, given because there is a custom (tacitly) agreed among agents about having a sweet course after every meal. Likewise, someone’s power to interfere with your dessert choice will ultimately be given by the social norms, customs, traditions, and institutions that mediate between you and them: say you are a student and the one who is issuing threats on your choice for an orange is the school inspector.

According to Lovett, social relationships, and the possibilities for choice that they set available for their members are in turn embedded and depend on “all the political and social institutions and practices that constitute the relatively stable background conditions or expectations against which the members of a given society live out their lives” (Lovett 2010, 41). This concept is the one that Rawls (1971, 6-7) has in mind when referring to the “basic structure”, or the major institutions of society. Lovett will sustain that domination should be understood as ultimately referring to “the structure of a social relationship itself, and not to the specific ways in which it happens to play out in some particular case” (Lovett 2010, 45). This is because domination is not given by specific ways in which agents behave toward subjects but rather by the existing relationship whose embeddedness in a specific structure makes it into one that endows some with the status of, for example, masters and others as slaves. Ultimately, then, it is the basic structure and its specific organisations that are the locus of the possibilities for action that constitute domination⁵. This marks a strong point of consistency with Pettit since domination is given not because a master interferes with a slave’s dessert choice between an orange and an apple but rather because he can do it based on his own pleasure, and the causes of this capacity ultimately refer to the structural settings that allow the institution of slavery to mediate between them.

⁵ Lovett stresses time and again (see, for example, Lovett 2010, 47-49; 119-121) that this is not supposed to mean that domination is a strictly structural phenomenon devoid of agency. In his own words: “Structures define the respective roles of agent and subject in all relations of domination, but real persons or groups must occupy these roles for the experience of domination to exist. Domination is always a relationship among persons or groups, never a relationship between persons or groups and structures as such.” (Ibid. 49)

The three building blocks of a relationship of domination in Lovett's account are dependency, power imbalance and arbitrariness, and have to be understood as parts of the structural environment which makes the relationship take this particular character. Dependency is determined by the objective or subjective costs that leaving a specific social relationship has for some of its members (Ibid., 50). This refers to the costs of either exiting a specific social relationship, e.g. a slave changing masters, or leaving it overall by quitting the role implied by it, e.g. a slave becoming free. Dependency, for example, was higher in the Antebellum south of the U.S. where the great dangers of attempting escape for slaves were extremely high, than in ancient communities that observed the practice of manumission and other means of exit. Another example of dependency are the high costs that attempts to emigrate had in totalitarian or despotic states (Ibid., 50-51).

The imbalance of power condition encompasses what Pettit earlier called capacity for interference. Lovett, also based on Weberian notions, defines this condition as *power over* or social power: "One person or group has power over another if the former has the ability to change what the latter would otherwise prefer to do (...)" (Ibid., 75). In line with the definition of interference provided in the discussion about negative and positive liberty, Lovett says that there are two ways in which power can be exercised: 1) the powerful member of the relationship can lower or raise the costs attached to the powerless member's options, or 2) influence the latter's preference for those options (Ibid.). In short, an imbalance of power is related to the unevenly shared possibility for one party in the social relation to engage in coercive, deceitful or manipulative behaviours toward others thus reducing their power of choice.

The last condition of Lovett's account of domination is arbitrariness. Lovett, however, says that arbitrary power, taken as the power that is subject to the will or pleasure of its holder, can be interpreted in two different ways. On the one hand, there is a substantive interpretation of arbitrariness which applies to cases in which social power can be used with disregard to the relevant interests of the affected parties. On the other hand, procedural arbitrariness corresponds to the power that is not somehow externally and effectively constrained by rules, procedures, and goals that are common knowledge to all persons or groups concerned (Ibid., 112). Thus, the interference with your dessert choice would be arbitrary in the substantive sense if the school inspector is not forced to provide any reasons based on your benefit about why she is issuing threats if you choose orange. In the procedural sense, arbitrariness with your dessert choice is not given by the failure to justify the interference based on your interests, but rather based on further, collective goals that you do not necessarily know or endorse. Based on his methodological intention of putting forward a descriptive definition of domination that is independent of normative concepts

whilst also able to capture prior intuitions, the author will end up endorsing the second, substantive interpretation of arbitrariness (Ibid., 114-17).

Lovett's definition of domination as a social relationship particularly composed of by the structural elements of dependency and arbitrary power imbalance permits the author to expand the conception and thus group together the common features of phenomena such as 1) the practice of slavery, 2) regimes of systematic discrimination against minority groups, 3) despotic, totalitarian and colonial political regimes, 4) entire modes of production such as feudal and capitalist, and 5) institutional structures such as the criminal incarceration or mental health systems (Ibid., 1).

III. The Case of Intertemporal Domination

At the end of the first section, the continuous increase in global GHG emissions was characterised as an unequal treatment of future Earth inhabitants' claim for equal opportunities. This unequal treatment was said to bear similarities with relations of discrimination such as racism, sexism, ethnic exclusion and others. These are relations that violate democratic equality insofar as built upon complexes of superiority and inferiority based on which a group or person treats or relates to others as unequal based on morally irrelevant distinctions. The question thus was raised about whether the sustained increase of the globe's temperatures through GHG emissions represented a breach of democratic equality, which has been equated with domination. Equipped now with an understanding of what relations of domination are, the task of this section is to analyse the relation between present actors who are able to decide over further increases of the planet's temperatures, and future inhabitants of the Earth, in order to answer whether it constitutes a case of domination.

The task will be performed by taking elements from both Pettit's and Lovett's definitions of domination that allow for the following unified conception of the term. First and foremost, according to both authors, domination finds its paradigmatic case in relations of bondage between masters and slaves and can be defined in terms of a relationship of dependency where one party, i.e. the agent of domination, has the capacity or power to interfere on an arbitrary basis with choices that the other party, i.e. the subject of domination, is able to make. Second, the constitutive features of a relation of domination are ultimately determined

by the basic institutional structure in which it takes place. Third, domination may vary in extent depending on how many domains of choice of the subject's life fall under the influence of the agent of domination. Fourth, arbitrariness may be of a substantive or procedural kind and may vary in intensity depending on how accessible are the reasons for interference available to the interferee.

1. Is Intertemporal Domination Possible?

Both Pettit and Lovett provide accounts that help identify the distinctive features of relations of domination. Their accounts are meant, however, for the analysis of relations that hold an important degree of contemporaneity, a requirement that intertemporal relations between present and future planet inhabitants do not meet. I will argue that despite this fact, intertemporal domination occurs in this case and therefore non-domination can play the role of the ideal based on which responsibilities toward future Earth inhabitants are asserted. The argument will be divided into three subsections. To the extent that they represent the locus of the constitutive elements of relations of domination, I will begin by analysing the role of structures in the relation at hand. Then, proceed to dependency as a condition that, although not structural per se, can be considered as obtaining in the intertemporal case. These two first subsections will be followed by the analysis of the condition of power of interference, which will be accompanied by objections that stem from the Non-identity Problem. Lastly, the condition of arbitrariness is addressed.

1.1. Structures

The importance of structures remained implicit in Pettit but was made explicit by Lovett, who pointed out that domination ultimately refers to the relatively stable background of conditions that give shape to social relationships rather than to the specific ways in which these played out (Lovett 2010, 41-45). It may be said that the relationship between present and future Earth inhabitants is not mediated by major social and political institutions that constitute a basic structure, but only by time. Having a closer look, however, it can be seen that structural social and political elements do mediate in this relation.

To be sure, the "natural" basis of the intertemporal relationship that is the focus of this study is one of succession: future people will live on the same planet as present people do. Thus, there is an object in common –the planet– upon and through which the relation is held. Are not, then, the relations that the people in the present hold to the planet, namely how it is

understood, governed, studied, used, behaved towards and so on, socially mediated? Certainly, major institutions that set up the modern global order such as nation-states, international agreements and financial markets determine how present inhabitants of the planet relate to it and their successors. Moreover, the fact that some actors in the present can further raise the planet's temperatures through GHG emissions, can only be conceived in light of these global institutions. As it was argued above, these actors are those in charge of the largest, wealthiest countries as well as in the private sector who can influence their policies. Thus, imagine a couple owning a house in which many generations of their descendants will live. It is indeed difficult not to conceive that the main features of the society in which that couple take part will not have an influence on the ways in which they relate to the house and thus to their descendants as future owners. Additionally, the technological developments that, since the Industrial Revolution, led to the increase in the globe's temperature would not have taken place if it were not for the historical development of social and political structures. In Lovett's own words, the "opportunity sets" composed by all the possible paths of action, behaviours and decisions that powerful actors in the present can make and have potential impacts on future lives find ultimate explanation by reference to social and political institutions that structure life on the Earth.

1.2 Dependency

One element that may, nevertheless, arguably escape the structural settings of the relationship with future planet inhabitants in this case is that of dependency. Dependency is associated with the objective and/or subjective costs implied in the option of exiting a relationship. That is, the costs implied in leaving a relationship with a specific agent and relating with others or leaving the relationship overall by quitting the role implied in it. But, as suggested above, it is the very structure of time that places some in the present, occupying the role of predecessors and some in the future as successors, and although social and political structures do play an important role in determining the (lack of) power that each of these positions entails, they certainly do not influence exit costs. It is indeed not possible –as far as we can know– for those yet to be born to choose what time to come in, or what planet to inhabit, thus deciding which planet inhabitants to relate with as predecessors. A debate about the fulfilment of this condition in this case thus seems impossible to settle since, based on the impossibility for those whom the structure has rendered powerless to exit the relationship, it is equally plausible to argue for a high level of dependency than for its inapplicability. What to claim will rather depend on whether one is determined to make a case about intertemporal domination or to contest it. Therefore, I maintain along with John

Nolt (2011, 62) that the dependency condition obtains in the intertemporal case of climate change.

1.3. Power of Interference

Important problems lie with this condition. As it was argued above, it is not difficult to think that altering the planet's conditions in ways that reduce the chances for future fulfilment of vital interests, such as raising global temperatures through GHG emissions, is a kind of interference to the extent that it removes options for future pursuits of the good life. Living in a heated world due to past actions and decisions, for example, will make it very dangerous for settlements in coastal areas due to the rise of sea levels. Similarly, the viability of other regions will be affected by phenomena like desertification, cyclone activity, rainfalls, and others. Additionally, there will be impacts on socio-economic systems that may prompt geopolitical conflicts. So far so good, planet-altering interferences so conceived do not require contemporaneity.

But what about the capacity to interfere? Recall that the capacity to interfere implies that someone (group or person) stands in a position with regard to others where the possibility to interfere with their choice by removing or deceiving about options, is ready to be exercised (Pettit 1997, 54). Even if someone is demonstrably interfered with, that does not necessarily mean that they are subject to others' capacity to interfere. Beckman (2016, 293-294), reasonably points out that currently having the capacity to decide in one or another direction does not mean that future people are subject to that capacity. Future people will be rather subject to the consequences of decisions themselves than to the capacity to make them.

Addressing Beckman's argument will benefit from a response to Derek Parfit's Non-Identity Problem (NIP) (Parfit 1992, 351-355), which has until now been postponed. What does it mean that future people are subject to planet-altering interference caused by present contributions to the rise of global temperatures? What the NIP claims is not only that future people deal with the consequences of present decisions rather than being subject to the capacity to make one or another, but they are themselves part of those consequences. The claim is based on the realisation that, depending on what is done today, different things occur which ultimately will affect the identities of those coming later to life. Thus, present actions that allegedly interfere with future Earth inhabitants by modifying the planet's conditions in ways that will result in fewer options for the fulfilment of vital interests actually are the causes of their existence. The problem is that it is not possible to claim that what causes someone's existence also renders them worse off by taking opportunities away. So, despite the immensity of the hardships future people might face due to anthropogenic

climate change, Parfit's thesis makes it seem impossible to take issue with the cause of their hardship and life, for they are one and the same. Consequently, the statement made above has to be withdrawn: planet-altering interferences are not even possible, for it cannot be said that what brings someone to life is also what removes opportunities for a good life by threatening their vital interests.

This powerful argument has been responded to in different ways, the most useful for the problem at hand being Rahul Kumar's (2003). Based on the principles of contractualism, Kumar points out that in order to determine whether someone has been wronged, what is important are the features that make them fit into a certain role, or occupy a certain standpoint from which it is legitimate to expect others to behave in certain ways rather than others. Thus, for example, someone who presents features that match with those essential to the role of "student" can legitimately expect those in the role of "teachers" not to be late for class. This implies a shift from the notion of wrongful action as something that happened to someone to something that is done by the wrongdoer (Ibid., 110). When late for class, a teacher thus wrongs a student, provided that punctuality is something that can legitimately be expected based on the definitions of the roles that each plays in their relationship. The immunity to the NIP is given because someone's specific identity may be irrelevant when determining whether they have been wronged based on how others have behaved toward them. It is not necessary to know the specific identity of a student to claim that she has been wronged by the teacher arriving late. There is no special problem for instance when, based on the roles that define their relation, one claims that a couple has acted wrong toward their child if, due to their failure in pursuing appropriate preconception testing, she was born with a congenital disease (Ibid., 114).

Similarly, it can still be claimed that raising the globe's temperatures amounts to an interference with future planet inhabitants' choice. Actions can be taken today that will alter the conditions of the planet into the distant future and thus cause future inhabitants of the planet to be exposed to extreme weather and sea rise events in addition to its socio-economic and geopolitical consequences. What is relevant here is that future inhabitants, consistently with what has been said, fit what Kumar calls the basic type of contractualism: "persons", or "individuals capable of rational self-governance in pursuit of a meaningful life" (Ibid., 111). Secondly, they are successors insofar as they will live on the same planet. It is then possible to keep the notion of interference so far used since, by altering the planet's conditions in the present, opportunities are taken away for the pursuit of the meaningful life of planet successors. It is irrelevant if present actions make them have a specific identity rather than another. The point is that whoever is in the position of inhabiting the planet in the distant future will have fewer chances of satisfying vital interests and

therefore reduced opportunities for the pursuit of a meaningful life if the planet's temperatures are raised than if not. The power of interference that Beckman criticises amounts then to some present actors' power to decide over further alterations of the planet's conditions that will contribute to the reduction of future opportunities. In Lovett's terms, the intertemporal power of interference with future inhabitants is less to be conceived as the power to change what future people would prefer to do, but rather what future people would prefer the present to have otherwise done, whether they will want actors in the present to have made some decisions rather than others.

Seen under this light, the current power of intertemporal interference regarding climate change goes down to the capacity to influence, through present decisions, the higher or lower worth that future people will give to their own lives. For, consider, as it has been said, that deeply altering the planet's conditions may impact future people's vital interests and through them the enjoyment of opportunities for the pursuit of a good life. It is then likely that for some in the future, the lack of chances to fulfil vital needs as a result of the exposure to harsh climatic events in addition to their social and political consequences will make it impossible to engage in any pursuit of the good life whatsoever, and their existence thus rendered a mere struggle for survival. Remember Pettit's point about the extent of a capacity of interference defined by the number of domains of choice it influenced. In this case, the power to interfere through planet-alteration is capable of affecting the valuation that agents have over their life as a whole pursuit of choices rather than specific choices in given domains. It means that such power reaches its greatest possible extent.

1.4. Arbitrariness

The power of planet-altering interference has to do with the capacity to remove options from future pursuits of the good life by modifying the planet's conditions and posing threats to the future fulfilment of their vital interests. The question about the arbitrariness with which this power is wielded can lead to three potential answers. According to Lovett, it can be substantial arbitrariness if the interfering capacity is not forced to track the interests of future people, or it might be procedural arbitrariness if not constrained by goals, procedures, and rules that are common knowledge for all those involved. A third option is still that there is no arbitrariness whatsoever, and thus no domination. The fact that future inhabitants' choice continues to be interfered with by persistent and increased emissions that contribute to an alteration of the planet's conditions strongly suggests that a degree of arbitrariness is involved. For, if the capacity to further increase global temperatures was externally constrained in any possible way by future inhabitants' interests or procedures and goals that involve their participation, one could reasonably expect that planet-altering interferences

implied in GHG emissions would not continue to increase as they have. In short, the arbitrary power of interference is proven by the very consistency with which interference transpires and increases. It may be further objected, however, that the fact of interference does not mean that the capacity to interfere is arbitrary. And, vice versa, arbitrariness can be obtained even in the absence of interference (Pettit 1997, 63).

This objection can be answered by answering the question about the kind of arbitrariness involved. To begin with, due to rather simple reasons, it is better to stick with the substantive rather than the procedural notion of arbitrariness. Future inhabitants are not currently around to be informed about procedures, goals, or rules regarding treatments of the planet as to claim that interference is arbitrary when not based on these. Thus, the capacity of planet-altering interference must be arbitrary in a substantive manner: a power that is not forced to track the interests of the affected. Now, what kind of interests are at stake? In Barry's words, vital interests are the objective requirements for human beings to live healthy lives, work at full capacity and take part in social and political life (Barry 1997, 47; 53). Lovett speaks of three different notions of interests that can operate within the substantive type of arbitrariness. First, there are objectively defined, normatively justified interests related to the welfare and worldview of persons or groups. Secondly, the interests related to subjectively expressed preferences or desires. Third, their ideas about their interests as expressed through suitably designed deliberative procedures (Lovett 2010, 113-114). Clearly, the only presently conceivable interests of future inhabitants of the Earth belong to the first type: objectively defined and normatively justified interests. If the powerful and wealthy actors who are able to decide how much and whether the conditions of the planet are altered through GHG emissions were somewhat forced to track future inhabitants' vital interests, then emissions would have decreased rather than increased once their effects on future lives became known. Arbitrariness is then proven by the lack of responsiveness to future inhabitants' claims for equal opportunities.

2. GHG emissions and Intertemporal Domination

Let's recapitulate what has just been argued for. The main point is that future earthlings and those actors in the present with enough power to make decisions about the further increase of global temperatures through GHG emissions are bound by a relation of domination. That is a relation of temporal dependency in which the latter are structurally endowed with the capacity to interfere with the former in ways that are not constrained by their basic or vital

interests. An essential element of this relation is the object that holds the parties together as predecessors and successors: the planet. Namely, the dominating agents' capacity to interfere in the present has to do with the power to make decisions about GHG emissions that ultimately lead to the further alteration of the planet's conditions by increasing global temperatures for long periods into the future. Higher global temperatures are synonymous with sea levels rise as well as more frequent extreme weather events such as heatwaves, drought, cyclone activity, floods, and others. It was said that, insofar as their status as future inhabitants of this planet in pursuit of a meaningful life is concerned, these consequences will, directly and indirectly, impact their power of choice by rendering certain areas inhabitable as well as increase the likelihood of geopolitical conflicts, thus reducing chances for the fulfilment of vital interests. That those actors who can decide about planet alterations are not forced to track future people's interests was accounted for through the status of vital interests as objective requirements for human beings to live healthy lives, work at full capacity and take part in social and political life. Insofar as these are objective and normatively justified, if future inhabitants' vital interests were imposed on decisions about the conditions of the planet, these would have not continued to be further altered by GHG emissions as they have in recent years. Moreover, this can be explained by future people not being around so as to push for the respect of their interests.

The relation of intertemporal domination implied in the capacity, held by present-day powerful actors, to make decisions about further increasing global temperatures through GHG emissions without tracking future inhabitants' vital interests makes a powerful case in favour of adopting non-domination as an ideal of intertemporal justice for the case of climate change. Having non-domination operating as such would be equal to prescribing, as with its articulation in the social and political domain, that rules must operate in order to keep present inhabitants of the planet from having a capacity to alter the planet's conditions that is not forced to track future inhabitant's vital interests. In the upcoming and final section, I will focus on the question about a basic institutional set-up for intertemporal justice as non-domination

IV. Reducing Intertemporal Domination

In the last section, the need for non-domination as an ideal of intertemporal justice for the case of climate change was argued. The point was made through an analysis of the relation

between present-day politically powerful actors and future earthlings that is currently characterised by the persistent increase of GHG emissions as one in which the former have the power to decide over planet treatments that threaten with further altering its conditions and thus result in diminished options for the latter's pursuit of the good life. Now, how is the intertemporal ideal of non-domination to be implemented? What basic institutional settings should take place in order to promote⁶ future planet inhabitants' non-domination? I propose that non-domination should be promoted through the endowment of future people with both the right to representation and the right to manage the planet.

1. Respect for Persons and Discursive Status

Let's briefly recall Charles Larmore's idea of respect for persons, which constitutes the normative core of non-domination. Respect for persons consists in the recognition of all human agents as beings essentially capable not only of thinking and acting for what we take to be reasons, but also of reflecting on such reasons in the sense of examining whether what appear to be reasons really are good reasons (Larmore 2015, 77). Non-domination, thus, is an ideal that, in ruling out the capacity for arbitrary interference, pushes for equal respect for persons' capacity to reflect on reasons. In other words, if someone is able to act or behave in ways that attempt against others' freedom of choice without appealing to their reflective capacities in order to justify those actions or behaviours, that person fails to give those others the respect they deserve and dominates them. At the moment in which rules are implemented that force potential interferers to appeal to others' reflective capacities by providing reasons for how they act toward them, a basis for contestation is permitted that ultimately endows with control over capacities to interfere. Pettit has called this discursive status: a standing which means that should any interference with oneself not conform to a certain pattern, then one can prevent it from occurring or continuing (Pettit 2003, 92). In order to reduce intertemporal domination in the case of climate change then, future earthlings need discursive status, which is equal to taking away arbitrariness from present actors' power of interference by providing a basis for, and thus enabling, contestability to treatments of the planet that do not answer to their relevant interests (Pettit 1997, 85)

⁶ The use of the word "promotion" is based on both Pettit and Lovett's embrace of a teleological rather than deontological approach to the ideal of non-domination. Accordingly, non-domination is a goal that institutions promote through the reduction of existent domination rather than a constraint to be honoured in the pursuit of other goals (Pettit 1997, 81) (See also Lovett 2010, 161).

An objection, however, comes across at this point. Future people are yet to be born, which means that their reflective capacities are not available so as to be respected or disrespected. That is, the lack of justification regarding actions toward someone cannot be considered a failure in addressing her reflective capacity if that very capacity is not yet available to be addressed. This ultimately undermines the argument for intertemporal domination: if domination is the capacity to act toward someone without providing a justification, then future planet inhabitants cannot be said to be dominated simply because the fact that reasons are not provided for planet alterations that do not track their vital interests is a mere consequence of their current absence and not of present actors' power. To this objection, I shall respond by saying that intertemporal domination in the case of climate change, defined as the power to interfere with future inhabitants by contributing to the increase of global temperatures without tracking their vital interests, hinges precisely on the fact that future people are not around to demand a justification about present treatments of the planet. That is, their absence is taken advantage of and their vital interests simply bypassed. It is true that their reflective abilities cannot be addressed, but that, rather than making domination impossible, actually opens the way for it. The point is that the possibility and obligation of addressing future inhabitants' reflective capacities as virtually represented in the present is what needs to be implemented in order to reduce intertemporal domination

2. Intertemporal Non-Domination

2.1 Right to Representation

The intention of an institutional design for intertemporal justice whose goal is to reduce intertemporal domination will be to secure future earthlings' discursive status. What discursive status is meant to secure in turn is the respect for their interests by enabling them as external constraints to those with the power to decide about the alteration of the planet's conditions. As it was previously pointed out, it is not enough for non-domination if non-interfering treatments come out of the mere benevolence of the powerful, and the interests of the powerless need to be forced on them. I thus endorse A. Karnein's (2023, 739) proposal of reducing intertemporal domination through both political representation and the provision of avenues for contestation.

Implementing political representation for future planet inhabitants raises a few initial question marks. In the first place, it is important not to lose sight of the interests at stake in the problem of climate change, those being the vital interests of future inhabitants of the entire

planet. Therefore, what representatives have to be able to control and contest are the actions and decisions of the present-day powerful, understood as the group of actors capable of influencing policies of the wealthiest, largest-emitting states, insofar as these have an impact on the conditions of the planet. Future representation should then operate as a centralised body with a global reach in order to control decisions with global impact. This is not to say, however, that more specific interests of future inhabitants based on potential effects on determined regions or nations will be left out of representation. The global institution for future representation can be subdivided and composed of representatives belonging to smaller territorial units in which climate change is expected to impact differently. Thus, representatives will be able to bring specific interests of future inhabitants of their respective regions based on projections of how eventual actions and decisions will affect the requirements for the pursuit of meaningful lives in the future. The definition of vital interests provided by Barry in terms of living healthy lives, working at full capacity and taking part in social and political life (Barry 1997, 47; 53), provides already a broad basis for further specifications depending on different regions.

Second, something that may cause concern when thinking of future representatives is that the people whom they are supposed to represent are not around to scrutinise whether their representation remains true to their interests. This is true, but the fact that the kind of interests they will be representing are basic vital interests eases down difficulties in addressing potential problems of misrepresentation. As it was said following Lovett, these are objectively defined and normatively justified interests, which enables people other than the represented themselves to push for the honest voicing of these interests. In that sense, I echo Karnein's proposal that the procedural mechanisms and processes by which representatives of the future come to deliberate and interpret what respecting the interests of future earthlings would mean in particular cases should include large diverse numbers of experts and non-experts (Karnein 2023, 740). These mechanisms and processes may also be divided by region, as well as include avenues for calling out specific representatives in order for them to account for their decisions.

2.2 The Right to Manage the Earth

The problem now, as Karnein well points out, is that future representation, lacking any real political power, will do little to reduce intertemporal domination (Ibid.). Thus, the question is about the avenues of contestation or the broader basis that permits complaints based on future people's vital interests to be heard by those who ought to be responsive to them. This is the point where my account parts ways with that of Karnein, for her intention seems to be that of putting forward an institutional design for the reduction of domination in different kinds

of intertemporal relations, which leads her to find political weight by enabling representatives to invoke future people's right to self-determination. My goal is narrower in scope since the intention is that of reducing intertemporal domination between present politically powerful actors and future inhabitants of the planet. That is why I propose that the political weight of future planet earthlings' representation comes from a right to manage the Earth.

In order to set this clearly, it is important to recall how the intertemporal relation has been defined. It was said that politically powerful and economically wealthy actors in the present can make decisions about treatments of the planet that, insofar as not being forced to track future inhabitants' vital interests, result in the reduction of the chances for their fulfilment of vital interests. In this sense, future inhabitants of the planet have an expectation, quite tangible today, that their predecessors are not treating the planet in ways that may result in threats to their lives. What kind of system of laws can be useful to recognize these legitimate expectations in how the planet is treated? A system of rules, such as those coming from the institution of ownership, which offers agents discretion in what others are allowed to do with objects established as their property, may offer guidelines in this regard.

Antony M. Honoré (1993; 2002) defines the institution of "liberal ownership" as consisting of a bundle of incidents that give shape to the discretion that owners have over their property. Among these are the rights to possess, use, and manage an object, the right to derive income from it, the right to capital (including the rights to alienate, consume, destroy and waste), and a right to security. Now, it is indeed difficult –and perhaps even dangerous– to think of the planet as an object of property so as to designate a group or individual as "owner of the planet", with all the discretion that these rights concede. I propose rather to focus on a superficial meaning of the right to manage exclusively. According to Honoré, the right to manage is basically the right to decide how the thing owned shall be used (Honoré 1993, 372). It is consistent with all that has been so far said that the actors whose institutional endowments and economic wealth allow them to decide on GHG emissions that modify the conditions of the planet by increasing its temperatures have a *de facto* right to manage the Earth. In other words, their power endows them with an important degree of discretion, which is not forced to track future inhabitants' vital interests, over how and whether the planet's conditions are altered due to certain treatments. The treatments of concern, in this case, are those leading to global temperature increases: extraction of fossil fuels and their burning, land uses and biospheric alteration that thwarts natural processes of GHG absorption.

In order to reduce domination, future planet inhabitants' vital interests must act as a constraint and representatives are supposed to contest decisions regarding treatments of

the planet that threaten their represented with dangerous consequences due to the alteration of natural conditions. It would make sense, then, if their political power comes from a *de jure* endowment with the right to manage the Earth. A right to manage the planet will provide a basis to legally compel the consultation with future inhabitants' representatives at the moment of deciding how and whether the planet will be altered. That would be tantamount to the reduction of arbitrariness by forcing future people's vital interests to come to the fore at the moment of deciding how the planet is treated. As a result, a system of rules based on rights to representation and planet management would be in place will allow future earthlings virtual control over their own lives instead of being at the mercy of the will of politically powerful present actors.

A final objection may, however, be raised against the proposed institutional design for the reduction of intertemporal domination in the case of climate change. The result of this design, so the argument may go, will be simply to provide different people with the same power to decide over treatments of the planet. In the end, thus, intertemporal domination will not be reduced because interferences with future inhabitants through planet alterations will merely depend on the judgement of a different kind of present powerful agents. There is no doubt a degree of truth in this critique. It is important to recall, however, that the principle of intertemporal justice here endorsed is that of reducing domination, i.e. promoting non-domination, and not one that sets domination as a feature that intertemporal relations between planet inhabitants ought to avoid by all means. Taking that into account, the proposal aims at reducing the arbitrariness with which the planet can be further altered in the present, i.e. reducing some actors' power to make decisions about GHG emissions or other behaviours that have an impact on the planet's conditions, without tracking the vital interests of future inhabitants of the earth. A reduction of arbitrariness takes place by prescribing to other present-day actors the specific task of representing the future's vital interests through a right to decide how the planet is used. Moreover, as it was said, the discretion of future representatives and their right to manage the earth on behalf of future people is expected to be subject to procedural mechanisms and processes that include large diverse numbers of experts and non-experts who will ultimately hold some control over how that power is exercised.

Conclusion

The point of departure of this study was the persistent increase in global GHG emissions despite their planet-warming potential as one of the main drivers of climate change, i.e. the

planet's climate disruption as a consequence of human activity. Given the long to very-long warming effect of atmospheric GHGs, i.e. decades, centuries, or even millennia, and the potentially devastating consequences for human life on a planet that is overheated due to their overconcentration, responsibilities toward future inhabitants of the planet had been embraced through the adoption of the ideals such as sustainability. The increase in global emissions in recent years thus takes place in the context of international agreements aiming at the fulfilment of intertemporal responsibilities. The problem that this study picked up is associated with the pressure under which sustainability is found due to the persistent increase in global GHG emissions that contradict its demands of meeting present needs without compromising future people's ability to meet their own. The research question set to be answered was: What ideal of intertemporal justice should be pursued in light of the persistent increase in global GHG emissions? Additionally, a secondary research question about how this ideal should be implemented through a basic institutional design was also addressed. The responses provided were, first, that non-domination should be pursued as an ideal of intertemporal justice in the case of climate change given the current situation regarding GHG emissions. Second, intertemporal domination should be reduced through the endowment of future earthlings' right to representation and Earth management.

The argumentation in favour of non-domination as the intertemporal ideal of justice whose main demand is that future earthlings' lives ought not to be at the mercy of present-day powerful actors' wills, was carried out in two steps throughout the three first sections. Firstly, based on Brian Barry's account, sustainability's underlying value of distributive equality was analysed and, based on the characterisation of the increase in emissions as the application of a discriminatory time discount rate, it was argued that the situation called for an ideal that is rather underpinned by the value of democratic equality. Elisabeth Anderson's value of Democratic equality is concerned with the inequality of relations that permit unequal treatments prior to inequality of distribution. Secondly, based on Philip Pettit and Frank N. Lovett's definitions of domination, it was argued that GHG emissions just increase because present-day politically powerful and economically wealthy actors have the capacity to drive alterations of the planet's conditions in ways that are not forced to track future inhabitants' fulfilment of their vital interests. That is, an intertemporal relation of domination, tantamount to democratic inequality, takes place in the current situation regarding climate change. Therefore, the ideal of non-domination is needed to address this situation from the perspective of intertemporal justice.

A response to the secondary research question was offered in the last section. Based on the notions of respect for persons and discursive status, I claimed that if intertemporal domination is possible due to future inhabitants' absence and therefore the impossibility of

addressing their reflective capacities to justify present behaviours that affect them, then their discursive status should be recreated by present-day actors assigned with the task of representing their interests. It was said that a basic institutional design oriented at the reduction of intertemporal domination of future planet inhabitants should therefore consist of 1) a right to representation and 2) a right to manage the earth. The second, right to manage the planet, found its justification as the basis for future representatives' political power insofar as it would enable them to challenge the *de facto* discretion over planet alterations that powerful actors in the present have.

A few things, however, remain to be said. Firstly, the intention is not, by any means, to close down the debate about the ideal of intertemporal justice in pursuit of which the problem of climate change should be addressed. On the contrary, the proposal of the ideal of non-domination is open-ended, and my aim is only to expand the outlook of the discussion by including ideals whose concerns transcend those associated with the task of distribution through a focus on relational conceptions of equality. In addition, the institutional design I sketched out based on the rights to manage the Earth and representation can undoubtedly be further developed. Since, for example, how would the right to manage the planet held by future representatives be reinforced in case those who are supposed to be constrained by it decide to bypass them? A just system of sanctions for this kind of situation would thus be necessary which should itself be non-dominating in its functionality. I believe that the recognition of this open flank was manifest in the proposal being offered as a *basic*, or preliminary, institutional design. Therefore, the door is still open for the development of that and other elements of the proposal in further research.

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