

Climate crisis, intergenerational domination and representation of future generations

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Current democratic decision-making is systematically biased in favor of the present people, due to various psychological and institutional factors. Humans are short-termist by nature and willingly discount the interests of future generations, as exemplified by the climate crisis. This thesis argues that climate change is not only a global coordination issue, but an instance of intergenerational domination, in which the present generation subjugates and violates autonomy of future generations. The technological progress has made it possible for us not only to affect posterity, but to arbitrarily determine the conditions of their actions, thereby dominating them. Future generations are vulnerable and without recourse against unconstrained power of the present people. This violates fundamental human interest in autonomy and self-determination. This expansive conception of domination is defended against neorepublican objections. Intergenerational domination is an insidious structural injustice permeating our institutions and even many of the supposed remedies to climate change, such as geoengineering.

I argue that intergenerational domination can only be overcome by instituting accountability and limiting the arbitrary power of the present generation. This can be achieved by granting the otherwise voiceless future generations representation in decision-making. However, this has to be done carefully not to violate democratic rights of current people. Due to uncertainty, human biases and legitimacy concerns, I argue that public deliberation is our best option to institutionalize representation for posterity. This deliberation is aimed at protecting autonomy of future generations and empowering them to exercise their democratic sovereignty in the future. Central to deliberation is educative perspective-taking and public reason-giving that encourage people to adopt the viewpoint of posterity. Deliberation also holds present people discursively accountable to the future by incentivizing them to justify their decisions to posterity as if they were present today. Evidence from deliberative mini-publics indicate that they do indeed lead to more long-term policies and consideration of future generations' interests. Public deliberation therefore strikes an ideal balance between effectiveness and democratic legitimacy of representing posterity.

Key words:

intergenerational justice, domination, future generations, vulnerability, global climate change, structural injustice, short-termism, institutions, deliberation, representation, democracy

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1. Introduction

Technological progress has rapidly propelled humanity into a new era. We now possess various means of wreaking havoc over the long-term with significant ramifications for our descendants. In contrast to the increasing technological power to affect the future, our institutions lack behind, exacerbating the problem of democratic short-termism. Our common sense morality and institutions have proven to be increasingly inadequate in the face of these global, intergenerational problems. We are morally myopic, and our concern tends to be limited to select few spatially and temporally close to us. The victims of these collective action problems are predominantly statistical future generations whose potential suffering does not motivate us to take action. In contrast, common sense morality relies on closely related, clearly identifiable causes and victims (Jamieson 2014, 149). While we care deeply about those closest to us, such as family, community or even nation state, we lack compassion for those spatially and temporally distant from us. These short-sighted moral intuitions also permeate our current institutions and entrench the injustice on structural level. As a result, future generations are continuously disregarded and subjugated, as exemplified by the climate crisis. This intergenerational problem is not merely an issue of just savings, but placing the vulnerable posterity in unprecedented danger, thereby limiting their life choices. I argue that by arbitrarily determining the conditions of posterity's actions the current generation continues to dominate them and violate their autonomy. Intergenerational domination is a structural problem resulting from lack of accountability and safeguards against the arbitrary power of the present people. Therefore, it is of utmost importance that the power disparity is constrained by representing future generations in decision-making, thereby protecting popular sovereignty and democracy over time. However, constitutionally entrenched representation of posterity could also undermine their freedom and violate democratic ideals. Self-imposed restrictions designed to empower the posterity have to amendable not to succumb to what they try to remedy.

I argue that public deliberation is both democratically legitimate and effective way of representing interests of future generations. Given the uncertainty of posterity's interests deliberation is an ideal way of respecting their autonomy. One might argue that if intergenerational domination arises in part because of shortsighted voters, it cannot be

amended by democratic means either. If people are biased and short-termist by nature, surely they cannot be trusted to represent posterity's interests?¹ Yet the fact that our intuitive thinking is biased against the future is exactly why deliberation is needed to represent posterity. Public deliberation can affect the attitudes of citizens and curb the vices of common sense morality by motivating long-term thinking and providing incentives for people to consider the potential interests of posterity, even if they were not disposed to do so at first (MacKenzie 2018, 253). Some authors have argued in accordance with the all-affected principle² that it is democratically illegitimate that the future generations, who are most affected by our decisions are not represented in their making. My approach is similar yet different. The argument is neither that future generations are harmed nor subject to democratic violations, but that they are being dominated and denied of their autonomy. In other words, my argument ties together both justice-based and democracy-based justifications for representation of future generations.³ This is why both the effectiveness and democratic legitimacy of representation are central to my proposal, and why public deliberation is especially well placed to used to represent future generations.

This thesis shall start off by describing the common sense morality, which breeds our failure to take generational power discrepancies seriously. Technological process has challenged the traditional understanding of morality, which has relied on single individual intentionally causing harm to someone close to them. Global climate change is one of the most striking examples of failures of common sense morality. As seen in the second chapter, traditional forms of analysis, such as tragedy of the commons approach fail to truly appreciate the intergenerational aspect of climate change. As Stephen Gardiner (2011a) has argued, climate change is characterized by tyranny of the contemporary and intergenerational buck-passing, where the current generation postpones the costs of climate change to future generations. But even this cooperation-based account obscures the power asymmetries between generations: as posterity is completely at the mercy of the present people, the situation is one of domination. The absolute power itself does not dominate posterity, but the fact that current generation is free to wield such power arbitrarily does. When an agent is in position to arbitrarily

1 For example, see Kates (2015).

2 According to the all-affected principle all those who are significantly affected by a decision ought to have a right to participate in the making of the said decision. See Ekeli (2005), Tännsjö (2007) and Bovenkerk (2015).

3 See Beckman (2013) for the distinction between democracy and justice-based justifications.

shape conditions of another agent's actions, the latter is dominated because this violates her autonomy. I defend this expansive conception of intergenerational domination against neorepublican objections. According to my relational and structural notion of domination, structural power disparities violate posterity's freedom irrespective of their harmful outcomes. Consequently, present people's undue influence on posterity's lives ought to be institutionally constrained. Representing future generations in decision-making is a possible solution to establishing accountability. By disregarding future in decision-making we undermine posterity's opportunities to live a life according to their conception of the good. In the last chapter of the thesis I will further consider the institutional ways and challenges of representing future generations in decision-making. Uncertainty about posterity's values along with biases of common sense morality suggest that such institutions should be focused on deliberative and educational forms of representation. While constitutional ways of constraining the power of current generation are desperately needed, such reforms have to be cautiously conducted not infringe on democratic rights of current people.

Before embarking, some preliminary remarks are in order. First, the term generation tends to be vague with no widely agreed definition or time-span. I will be focusing on non-overlapping generations, who do not exist at the same time and cannot interact with each other. The focus on the distant and unborn future generations is illuminating, because the longer the time frame, more challenging the ethical problems. Secondly, this thesis does not seek to present a comprehensive account of intergenerational justice or of our duties to future generations. Rather, it showcases how anthropogenic climate change breaches the minimum of what we owe to posterity: not to violate their autonomy. I will presume that there are at least some basic interests and rights, such as personal autonomy that future generations are entitled to. As to how exactly these rights exist does not fall within the scope of this inquiry, even if there is considerable disagreement about these issues. Third, I will not consider the classic non-identity problem in detail.⁴ The generational autonomy view explicit in the argument should be

4 According to Derek Parfit's (1984) non-identity problem, future individuals cannot be said to be harmed by our actions because their existence is conditional on those same actions. Under different environmental policies different individuals would be conceived, and thus no-one is made worse-off. The non-identity problem has had numerous convincing answers, including impersonal effects of action, threshold notions of harm and distinguishing harm from having been made worse-off. See Roberts (2019) and Meyer (2016). I would also add that when it comes to representation of posterity, it does not follow that future people would necessarily be in favor of policies that led to their existence, even if their lives are worth living, as authors like Tännsjö (2007) assume. For example,

well suited to answer such objections because of its collective, rights-based focus. As the problem is not that we harm future persons, but the fact that we violate their impersonal, generational rights, it is irrelevant which particular human beings will exist in the future. The pivotal point is that future people's rights are violated by the arbitrary power exercised by present generation. This is also important because acts that do not explicitly harm future generations, can still violate their autonomy. Fourth, when it comes to the common sense morality and empirical issues of moral psychology, some skepticism is of course justified. It might be argued that the outlook presented here is overly stark and that people do hold genuine intergenerational concerns, which are disregarded by current democratic institutions. To clarify, I am not arguing that people do not care about future generations, but that other short-term interest often override these concerns. At the very least there is a significant value-action gap which is not solely reducible to institutions. Therefore, a collective value change that public deliberation facilitates is essential. While common sense morality helps to explain the drivers and causes of institutional short-termism, it is not strictly necessary for the arguments of the subsequent chapters. Therefore, one does not necessarily have to agree with the analysis of presentist bias to find the later parts compelling. Regardless, it should help us give a background for why current institutional arrangements have failed future generations, and why educative deliberation is needed to represent future generations. Lastly, this thesis is based on the scientific consensus on anthropogenic climate change and will only examine it from a limited anthropocentric viewpoint. The harm climate change imposes on non-human nature is certainly morally problematic, but outside the realm of this thesis.

had I been given a choice, I would not have supported the WWII despite it being one of the preconditions for my rather pleasant existence.

2. Common sense morality

Common sense morality refers to set of basic moral norms that hold for a wide variety of different human societies, presumably due to humanity's evolutionary history. Human beings have lived in tight-knit, technologically deprived societies for nearly all of their history. This is also where our sense of morality has evolved in, leading to at least three important consequences. First, human morality is focused on the short-term consequences of our actions. The far future is unlikely to factor into our moral considerations, especially if they are only affected indirectly. Secondly, our moral circle tends to be restricted to those closest to us, both temporally and spatially. Thirdly, the focus on near-term well-being of our close ones has rendered us myopic and incapable empathy when it comes to suffering of larger collectives. This is not least, because large-scale harm is often tied to social structures, which function independently of individual's intentions. We do not see ourselves responsible for allowing harm to occur, if we have not caused it directly as individuals. These dispositions facilitate collective action problems that wrong distant people. (Persson & Savulescu 2012, Ch 2.) Humanity's spatial and temporal influence used to be rather limited, but scientific discoveries have drastically expanded our powers. For example, consumption of fossil fuels enables us to benefit ourselves by imposing costs on the future. Our limited moral psychology is bound to lead to tragedy as technological process has enabled humanity to indirectly wreak havoc over long distances and time-frames. Common sense morality, suited for life in small communities with limited technology has now turned on itself, contributing to moral catastrophe.

Research in moral psychology suggests that morality has evolved to make cooperation within groups possible, as this poses evolutionary advantage (Haidt 2012, Greene 2013). But as Joshua Greene has suggested, our current tragedy is that the same moral reasoning that enabled cooperation within groups now undermines cooperation between groups in a globalized world. Morality did not develop to advance universal cooperation and can even lead to active animosity towards outsiders and out-group members. Rather, it evolved to efficiently compete against other groups, leading to conflict between *Us versus Them*. (Greene 2013, 26.) Moral emotions that make small scale cooperation possible – feelings of empathy, friendship, gratitude, shame, and guilt –

lose their force in global moral problems which implicate those spatially and temporally distant from us. Future generations cannot shame us for our wrongdoing, eliminating guilt as a motivator to action. Tragedy of common sense morality is then that our tribal group inclinations crowd out our impartial concern for others. Our tribal beliefs are easily biased, resistant to facts and distort our sense of fairness. (Greene 2013.) These group identities motivate who we see as worthy of moral consideration and those we do not, going against the ideal of human moral equality. Common sense morality is still tied to our tribal nature, obscuring our pressing obligations to distant others. Simultaneously there has been steady progress throughout history towards more inclusive moral circle encompassing more cultures and nations (Singer 2011). We have shifted our identities from hunter-gatherer groups of 150 people to larger collectives, such as nation states and have even endorsed ideals such as universal human rights. While there are still great strives to be made towards more global and cosmopolitan morality where everyone is considered moral equal, there is one, especially large and discredited group which lacks moral consideration – future generations. This is largely connected to psychological factors that make people prone to discounting the future.

Simon Caney (2016) discusses how political nearsightedness is connected variety of psychological factors. Aside from the institutional explanations such as electoral and economic dependence of politicians, short-term performance indicators and media coverage, *harmful short-termism* also arises due to various qualities of human nature. Such biases include self-interest, weakness of the will, procrastination, positive illusions, vividness and invisibility of the problem, creeping problems and identifiable victim syndrome. Humans are motivated by immediate risks, which they personally experience, but ignore intangible, scientific warnings. Furthermore, we have tendency to ignore problems which gradually worsen and so to speak, creep up on us. Identifiable victim syndrome is well studied phenomenon in which people care more strongly about suffering of identifiable individuals in comparison to statistical victims.⁵ Death of a single individual evokes empathy and outrage whereas thousands of victims due to insufficient health care cause no such reactions. Since the future generations are only representable in statistical, non-personal ways, they are likely to enjoy little concern

5 Studies have found that people are much more likely to donate to for the well-being of single individuals rather than to large, statistical groups of people, even though the latter would result in much more welfare. Other things being equal, our compassion and willingness to help negatively correlates with the number of victims in a tragedy. See Slovic (2007).

from current people. (Caney 2016, 143-145.) These factors are further exacerbated by our group identities which pit us against each other. In fact, there is a third driver of short-termism which functions at the intersection of human biases and institutions: political polarization. Politics have become increasingly partisan, divided and fractured along party and identity cleavages across the world. As political decision-making becomes ever more identity-based, the temptation of tribalism and *Us vs Them* views increase. This results in declining trust in government and gradual decline of democratic institutions, which have all been well documented. (McCoy, Rahman & Somer 2018.) Erosion of democratic norms, trust and tolerance of other parties all threaten cooperation and foresight required to tackle emerging global threats. As politics is reduced to tribal allegiances and scoring wins against opposition, long-term interests are ignored as there is no common ground which to base these values on. Cooperation is seen as weakness, despite being necessary for addressing long-term problems of humanity. As Jamieson (1992, 151) points out, addressing problems like climate change requires collective moral change, which is fundamentally cooperative rather than coercive endeavor.

Common sense morality leads us astray in regard to long-term problems by contributing to pure time discounting. Experiments show that people place less moral importance on far-off suffering, even though this is hardly morally defensible (Green 2013, 260). It is hard to justify why pure time preference should play into considerations of moral status. Punishing a person merely because they were born later in time would be to hurt them through no fault of their own (Caney 2014, 234). Indeed, it has long been recognized that the pure temporal distance of harm is irrelevant. There is no universal reason to favor the present over the future, and pure time discounting is a form of indefensible myopia. (Lagerspetz 1999, 151.) There is no moral reason to give less weight to human interests the further into the future they are.⁶ Surely it is just as morally abhorrent to plant a bomb in a school which goes off in 100 years rather than tomorrow? A yearly discount rate of 3 percent would preposterously mean that a person born today would be twice as morally valuable as someone born 25 years later (Gardiner 2011a, 276). Aside from violating moral equality of persons and leading to absurd conclusions, pure time discounting also leads to suboptimal use of resources across generations (Caney 2014,

⁶ This is not to say that growth discounting and uncertainty could not justify some limited deference of costs to future. See Caney (2014). However, while discounting future benefits might be justifiable due to uncertainty over the future, there is no general justification for it (Lagerspetz 1999).

234). These problems are equally clear in the case of discounting physical distance. Despite our common sense intuitions, whether someone is 5 or 5000000 meters away from us should not on its own affect their moral status. Discounting is also often motivated by uncertainty regarding the future. As the consequences of present decisions remain unknown, future risks are discounted because of their uncertainty. In contrast, Henry Shue has argued that this does not hold in the case of climate change. Robust climate action is required under the following conditions:

“(1) massive loss: the magnitude of the possible losses is massive; (2) threshold likelihood: the likelihood of the losses is significant, even if no precise probability can be specified, because (a) the mechanism by which the losses would occur is well understood, and (b) the conditions for the functioning of the mechanism are accumulating; and (3) non-excessive costs: the costs of prevention are not excessive...” (Shue 2014, 265).

Uncertainty does not justify inaction, in fact the opposite. The unknown probability of the massive losses does not support the assumption that the chances of them are minor. Given how catastrophic such losses would be, chances of them occurring ought to be minimized. This is more so, because the climate system is characterized by potentially dangerous tipping points and feedback loops. It appears that we are at the times-of-last-opportunity when it comes to avoiding many of these lock-in effects. The burden of climate action can hardly be deferred into the future as inaction risks irreversible losses and catastrophic dangers. Uncertainty is therefore an urgent reason for action. (Shue 2015, 88-90.) Of course, the tendency to discount the future is only natural given what we know about the origin of our common sense morality. Human capacity for empathy evolved to promote reciprocity and cooperation within specific groups.⁷ Therefore it is no surprise that our tribal morality is biased towards identifiable individuals closest to us. Our indifference to the suffering of faraway statistical victims is due to intuitive, inflexible gut reactions overcoming careful moral consideration. We confound our morally relevant connections, such as causation, benefiting or capacity with irrelevant factors such as physical distance or time. We might well have special obligations to those closest to us in the light of our morally relevant connections, say the capacity to alleviate their suffering, but this does not diminish our general responsibilities to distant

⁷ In other words, there is no biological advantage to being universally empathetic (Greene 2013, 262).

others.

In a global world the common sense morality holds back humankind's ability to address our largest problems. In essence our morality is restricted to those closest to us both spatially and temporally. Dale Jamieson has forcefully claimed that evolution did not design humans to recognize or solve problems of climate change's time scale. Even if we care for some future people, this is usually limited to our children and grandchildren. It is nearly impossible to empathize with people thousands of years apart from us, whose lives and interest are completely foreign to us. Nor is there a possibility for reciprocity, which is a central concept for our common sense morality. (Jamieson 2014, 165-166.) Furthermore, the invisible, gradual and indirect nature of climate change does not stimulate our emotional brain which is wired to respond to immediate sense of danger (Marshall 2014). Climate change fails to incite deep feelings of disgust or anger and therefore we do not feel urgency for action. Common sense morality runs into problems when faced with structural problems in which uncoordinated actions of the many result in future harm. Issues such as climate change overwhelm moral machinery of humans: the moral severity of the problem negatively correlates with our motivation to address it. This especially visible in the concept of responsibility, which is perhaps the most essential part of our moral motivation.

2.1. Responsibility

Dale Jamieson has argued that the western value system evolved in low-technology and low-population societies with abundance of resources. This has made our account of responsibility one that “presupposes that harms and their causes are individual, that they can be readily identified, and that they are local in time and space.” (Jamieson 1992, 148.) But issues like climate change do not fit to these paradigm cases since their causes and effects are dispersed both spatially and temporally, and seemingly innocent acts of many can result in devastating consequences. Thus, we face “the possibility that the global environment may be destroyed, yet no one will be responsible.” (Jamieson 1992, 149). Jamieson has later demonstrated this with his Jack and Jill example.

1. “Jack intentionally steals Jill's bicycle.”

This is a paradigm case of moral responsibility, because 1) an individual knowingly harms another individual, 2) both the perpetrator and the victim are clearly identifiable, and 3) they are closely related in space and time. It is easy to see that Jack committed a wrong and hold him accountable. But if we extrapolate by making the perpetrator an unstructured collective, reduce spatial and temporal proximity and minimize the contribution to harm, we end up with scenario that resembles climate change:

6. “Acting independently, Jack and a large number of unacquainted people set in motion a chain of events that causes a large number of future people who will live in another part of the world from ever having bicycles.” (Jamieson 2014, 149-150.)

Here the morally suspect nature of the situation has eroded away, even though the core remains the same: some people have harmed others with their actions (Jamieson 2014, 150).⁸ Despite the moral wrongdoing, the concept of individual responsibility fails to identify any individuals who would be at fault. Conventional morality fails to assign responsibility for harms that no single individual caused, intended or foresaw. This illuminates why everyday behavior, such as flying to exotic vacation is not usually recognized as negligent or reckless behavior. As the agents, victims, and causality become blurred so does responsibility. Jamieson's example 6 might be too innocuous description of climate change though. As Stephen Gardiner notes, the example does not capture how the affluent claim unfair portion of the global public goods, thereby unnecessarily imposing a risk of significant harm on the poor. Loss of a bicycle does not represent the severe harm posed by climate change, nor does it arise as a consequence of rather frivolous consumption patterns of the rich. (Gardiner 2011b, 43-44.)⁹ Now, it is true that accounting for these factors results in a more accurate view of the climate injustice, thereby giving some traction for the concept of responsibility. But Jamieson (2013, 43) is not claiming that the acts contributing to climate change ought to be seen as instances of example 6, but rather that our common sense morality makes it appear so. It is exactly the aforementioned power disparities between the rich, poor and future that common sense morality blinds us from. As a result, people tend to see their actions as analogous to example 6, resulting in greatly diminished sense of

⁸ Jamieson (2014, 151) does not claim that harm causation necessarily leads to moral responsibility.

⁹ Also see Gardiner (2017b).

responsibility and motivation to tackle these injustices. As Jamieson has concluded: “Unless we develop new values and conceptions of responsibility, we will have enormous difficulty in motivating people to respond to this problem.” (Jamieson 1992, 150).

2.2. Motivation

Even if assigning blame and fault to individuals were possible, it is unlikely that the traditional model of responsibility would be particularly effective in motivating climate action. As George Marshall has written, blame breeds resentment and activates personal defense mechanisms, which makes people less likely to shoulder the burden. This also creates an undesirable *Us vs Them* dichotomy and enemy narrative, which leads to further polarization and hampers the required cooperative responses to climate change. Instead, what is needed is a common purpose and a sense of belonging. Without common ownership of the problem there is little hope to motivate people to take on responsibility. Unfortunately, as common sense morality dictates, such burden sharing is usually only seen within small, homogenous groups that conceive of themselves as acting together. The challenge is then to expand our moral circle by building consensus and narrative around cooperation and shared interests. Asserting wider values to the common ground assists in establishing a positive vision of the future and communal hope for change. (Marshall 2014.) Global long-term problems therefore require people to overcome their tribal in- and out-group divisions.

Motivation deficiency to address long-term problems such as climate change is also exacerbated by the fact that the usual moral emotions and reciprocity cannot be relied on. Acting on behalf of future generations is more reliant on authentic moral motives because we struggle to feel love, compassion or solidarity towards those who do not yet exist and neither can they benefit us reciprocally (Birnbacher 2009, 281). One could argue that we can be indirectly motivated to care for the future through a *chain of love* where each generation cares for their immediate descendants (Birnbacher 2009, 285). While it is true that we are greatly concerned about the well-being of our children and grandchildren this does not seem to be particularly motivational against competing short-term interests, as seen in the current climate crisis. Furthermore, the chain of love

would only account for near-term problems which affect our immediate descendants while disregarding long-term future. The myopia would still persist as many of our decisions have their most significant effects in the far future. In the case of climate change, reliance on the chain of love would likely emphasize near-term adaptation policies at the cost of genuine mitigation, leading to exacerbated future damages. In addition, these accounts face intergenerational collective action problems, meaning that we cannot trust that our successors will comply and finish our projects. The lack of credible commitment therefore imperils the first generation's motivation to take action. Some have argued that our failure to take the interests of future generations into account is merely an institutional issue.¹⁰ Yet this ignores how institutions and norms reflect broader values and priorities of the society. Institutional reform is not separable from transformation of values.

In conclusion, globalization and technological advances mean that human interaction is no longer restricted to local communities where morality evolved. But it is not only the global aspect where common sense morality lacks behind. Our increasing power to affect future generations also creates additional, intergenerational aspect where morality has not kept up with the technological progress. These power asymmetries are further entrenched by our political institutions. Humans have evolved to express moral concern for their local in-group members at the cost of those who are geographically or temporally distant.¹¹ To only be concerned for those closest to us likely helped our ancestors to survive. But the evolutionary basis of our moral intuitions is not a justification for them. Conversely, it seems that the current global problems have arisen in large-part due to our limited view of morality. Our traditional moral conceptions are based in low-population groups which lead us to disregard these distant outsiders. It therefore comes as no surprise that problems such as climate change, which predominantly threaten distant future generations have not been acted upon. The pervasiveness of the problem is no accident given the mismatch between our moral and technological capacities. I will now move on to consider why climate change is a problem of intergenerational domination, rather than a mere global coordination problem, as is the prevalent view.

10 See Gardiner (2017, 29). This point also ties into the importance of educative deliberation in Chapter 4.

11 One can confirm this in practice by having an even brief look at media outlets and their reporting priorities.

3. Climate change as intergenerational domination

Climate change poses risks to fundamental human needs because of increased food and water scarcity, droughts, diseases, floods, natural disasters, depletion of ecosystems along with other numerous harms (IPCC 2014, 2–8). Indirect social effects such as migration, economic downturn and conflicts are also likely to contribute to more instability. The moral nature of climate change is characterized by enormous power discrepancies. Those historically least responsible for greenhouse gas emissions are the ones bearing the heaviest effects of climate change. There is only a limited amount of greenhouse gasses that can be emitted into the atmosphere before dooming the planet to catastrophic levels of warming.¹² This means that emissions are fundamentally a zero-sum game where luxury emissions of the rich are derived from the same finite pool as the subsistence emissions of the poor and future generations. The result is a double damage: emissions of the rich both harm those most vulnerable and unfairly seize their share of the dwindling supply of emission rights (Shue 2015, 10). In crude terms, the continued luxury emissions then essentially rob future generations of right to life.

The most disturbing feature of the moral landscape of climate change is its intergenerational dimension. Climate change is a back-loaded phenomenon as the emissions continue to affect the atmosphere for centuries. Benefits of the emissions are derived instantly yet the costs are deferred into the future. We are thereby imposing unprecedented dangers to severely vulnerable future generations who are woefully incapable of defending themselves. This is not merely a failure to protect someone's rights but inflicting grave risk on the innocent and the defenseless for frivolous reasons. Worst of all, climate inaction can lead to runaway climate change where severe problems are transformed into irreversible and catastrophic outcomes.¹³ (Shue 2014, 272-274.) Despite this, climate change has usually been analyzed as an international coordination problem, a tragedy of the commons, where rationally self-interested behavior leads to collectively adverse outcome. But this ignores the detrimental effects

12 It is generally agreed that no more than trillion tonnes of carbon dioxide can be emitted cumulatively if the temperature rise is to be restricted to 2°C above pre-industrial levels (Shue 2014, 297). However, even an increase of 1.5°C is set to have devastating impacts on many vulnerable communities (IPCC 2018).

13 Irreversibility is a real concern which carries moral weight. Consider Derek Parfit's (1984, 453) extinction example: surely a nuclear war killing all of human population is magnitudes worse outcome than the war killing merely 99 % of the population.

of climate change on posterity's autonomy. The moral issue of climate change cannot be understood without reference to intergenerational domination – subjugation of the future generations.

3.1. The Global aspect

The global nature of climate change is usually well recognized even by traditional forms of analysis.¹⁴ Greenhouse gas emissions from around the world affect the global climate with no regard for national boundaries. These emissions remain in earth's atmosphere for centuries and continue to affect it in unpredictable ways. Both the causes and impacts of climate change are dispersed across the globe. Consequently, climate change is not caused by any individual agent, but rather signals widespread institutional failure. (Gardiner 2011a, 24.) Accordingly, climate change is often seen as the world's largest collective action problem, analyzed through prisoner's dilemma or tragedy of the commons framework (Gardiner 2011a, 28). In principle the spatial aspect of climate change can be solved by wider international cooperation, but without effective global governance the solution remains difficult. The original tragedy of the commons analysis by Garrett Hardin (1968) considers shepherds grazing cattle on a common land. Shepherds keep all the benefits of animal grazing to themselves, while costs such as soil depletion and grass consumption are shared among all herders. As a result, shepherds always have incentive to graze more and more animals even if the pasture is already overcrowded. Rational behavior of the individuals ultimately results in outcome that is not in anyone's interest, that is, the destruction of the commons. The paradoxical nature of the tragedy of the commons situation can be represented as follows:

1. “It is collectively rational to cooperate: each agent prefers the outcome produced by everyone cooperating over the outcome produced by no one cooperating.
2. It is individually rational not to cooperate: when each agent has the power to decide whether or not she will cooperate, each (rationally) prefers not to cooperate, whatever the others do.” (Gardiner 2011a, 104.)¹⁵

14 The sections 3.1. and 3.2. will largely rely on Stephen Gardiner's (2011) distinction between the global and intergenerational storms of climate change.

15 These principles will be later (p. 18) referenced as TC1 and TC2.

Tragedy of the commons analysis appears valid for climate change as well. Every country wants to avoid catastrophic climate change through cooperation, but at the same time short-term economic incentives prevent them from restricting emissions. Free riding by continuing to use fossil fuels and pollute yields competitive advantage over countries that would cooperate. Therefore, each individual country refrains from action despite it being in their collective interest to enact restrictions.¹⁶ (Gardiner 2011a, 28.) Essentially, climate change is then a collective action problem caused by lack of cooperation due to adverse incentives. Fortunately, such problems can be resolved through cooperation and introduction of enforceable sanctions which punish free riding. Individual and collective rational action are then aligned in favor of cooperation. What is required in practice is a system of global governance which enables reliable regulation of emissions.

But analyzing climate change merely as an issue of international cooperation underestimates complexity of the problem – it is not pessimistic enough. As noted, solving tragedy of the commons situations is normally feasible in the real world. As parties notice that their unilateral actions leave everyone, including themselves worse off than they would otherwise be, they are likely motivated to cooperate. (Gardiner 2011a, 115.) For example, it has been argued that local communities can resolve commons problems in stable situations where use of resources can be effectively monitored and regulated by excluding the noncooperators. This requires frequent face-to-face communication and social interaction that enables parties to trust each other and observe emotional reactions to noncompliance. (Dietz, Ostrom & Stern 2003, 1908.) But climate change lacks most of these features; social interaction is limited, support for regulation varies and excluding outsiders is challenging. Climate change cannot be mitigated by local communities alone but requires coordinated global action. Preconditions for effective cooperation are therefore largely absent. Furthermore, addressing climate change entails profound social consequences which threaten vested economic interests. Uncertainty about the magnitude and impacts of climate change also complicate the situation further. (Gardiner 2011a, 117.)

16 This is admittedly simplified version, as Gardiner notes. There are various complicating factors which make cooperation either more or less likely to occur. Tragedy of the commons is an evolving tragedy which involves multiple marginal decisions which are subject to new information. Furthermore, budget constraints of the agents, possible thresholds in the degradation of the commons and undercutting feedbacks can alter the willingness to cooperate. The overall framework nevertheless remains applicable. (Gardiner 2011a, 110-113.)

Another issue which the commons analysis disregards is international fairness. Interpreting climate change merely as an issue of securing cooperation between states carries risk of neglecting unfair background circumstances. In reality, parties do not face identical costs and benefits from cooperation. Climate change is characterized by skewed vulnerabilities and uneven historical responsibility. Rich industrialized countries are the main perpetrators of dangerous climate change, but are least vulnerable to it due to the economic benefits they have accrued from contributing to the problem. On the other hand, those most vulnerable to climate change are least responsible for it. This includes poor countries of the global south who lack resources for adaptation and that are disproportionately situated in areas worst affected by rising temperatures and sea levels. (Gardiner 2011a, 119.) The power to affect and adapt to climate is unevenly distributed on the global scale.

So far it has been shown that even the global aspect of climate change is not adequately captured by tragedy of the commons approach. But matters become worse when we consider temporal dimensions of climate change. While in principle it is possible for the current poor to resist domination and place demands on the affluent countries, no such possibility exists in the intergenerational sphere. The above-mentioned power discrepancies will prove to be insurmountable as the present exercises unregulated power over the posterity. Neglect of intergenerational justice is the main reason why tragedy of the commons account provides far too benign interpretation of climate change. In fact, the intergenerational problem undermines the crucial assumption of the commons analysis according to which countries represent interests of their people in perpetuity. (Gardiner 2011a, 122-123.)

3.2. The Intergenerational aspect

The temporal and intergenerational aspect of climate change is what truly makes it a tragedy. Temporal dispersion of impacts and fragmentation of agency has devastating consequences for cooperation. While spatially fragmented agents can cooperate in principle, temporally distant agents cannot become unified by definition (Gardiner 2011a, 34). The intergenerational dimension is defined by what Gardiner calls the

tyranny of the contemporary. One way to conceptualize this is to think of self-interested, non-overlapping generations, who are exclusively concerned about their own well-being.¹⁷ Now, consider two types of temporally dispersed goods: *front-loaded goods*, benefits of which are accrued immediately alongside substantially deferred costs which fall on later generations, and *back-loaded goods*, which substantially benefit later generations but impose some costs on current generation.¹⁸ Given the selfish motivation of these generations it is reasonable to assume they would produce front-loaded goods which would only benefit themselves marginally while imposing catastrophic costs for later groups. In general, we would expect current generation to oversupply front-loaded goods and undersupply back-loaded goods. Furthermore, the problem is cumulative: as the costs compound over time, later generations are likely to face escalating burdens from their predecessors. (Gardiner 2011a, 150-151.) This is what Gardiner names the central problem of *intergenerational buck-passing*. If we can secure benefits for ourselves by imposing severe costs on our successors (who cannot hold us accountable), the temptation to do so is high. This seems unjust, especially when the costs are catastrophic (starvation, disease or death) and the corresponding benefits are gratuitous luxuries like larger cars and exotic vacations. It appears that the current generations are guilty of serious moral wrongs by giving no consideration to basic needs of their successors. (Gardiner 2011a, 152-153.) Furthermore, intergenerational buck-passing usually involves negative rights violations which are usually seen as especially stringent ethical obligations.¹⁹

Climate change is particularly potent soil for intergenerational buck-passing to occur. Greenhouse gasses have prolonged atmospheric lifetimes which means significant changes usually take centuries to occur. This suggests that emissions have immediate and concrete benefits for current people in the form of inexpensive energy, but most of the serious costs are likely to be deferred to future generations. As subsequent generations find themselves in the same position with the same incentives, such buck-passing has high probability of recurring. Overconsumption continues, thereby

17 In more detail, in his idealized "pure scenario" Gardiner (2011, 150) assumes generations whose interests are generation-relative, which do not overlap and are temporally distinct i.e. that later generations cannot have any causal impact on earlier groups.

18 Production of front-loaded goods can be taken to mean violation of our negative duties not to impose harm on others, whereas failing to produce back-loaded goods is failure to fulfill our positive duties to aid others.

19 Failure to provide back-loaded goods which would significantly benefit future generations might not be quite as serious but still seems morally suspect.

exacerbating the climate crisis. (Gardiner 2011a, 123.) While the above might sound overly stark analysis it is not merely an idealized model. Existing national and international institutions appear to be biased against concerns of future generations: excessive weight is given to the interest of current people. Climate change thereby poses a severe intergenerational collective action problem. The pure intergenerational problem (PIP) outlined before has a grievous structure which makes it incredibly challenging to resolve. This is revealed by applying it to the tragedy of the commons (TC) framework. The intergenerational problem might be formalized the same way as earlier:

1. “It is *collectively rational* for most generations to cooperate: (almost)²⁰ every generation prefers the outcome produced by everyone cooperating over the outcome produced by no one cooperating.
2. It is *individually rational* for all generations not to cooperate: when each generation has the power to decide whether or not it will cooperate, each generation prefers not to cooperate, whatever the others do.” (Gardiner 2011a, 162.)

As Gardiner points out, the constituent claims are worse than in the tragedy of the commons cases, which leads to iteration of the problem. In TC1, every agent prefers absolute cooperation over absolute noncooperation, but this is not necessarily the case in PIP1.²¹ The first generation in sequence does not prefer cooperation, as it has nothing to gain from it. It will therefore not cooperate due to its generation-relative concerns. Furthermore, this undermines later generations incentives to cooperate. Preferability of cooperation is based on the benefits produced by the preceding generations also cooperating. If the first generation decides against cooperation (as is likely), then the subsequent generations will also decline to coordinate their actions, hence dooming the collective project. As for the second principle, TC2 usually arises because of practical obstacles to cooperation. But these obstacles can be overcome by enforcing communication, trust and sanctions through institutions. Conversely, PIP2 is not contingent. Collective cooperation is in the generation's interest only because it wants to avoid adverse effects of its predecessors' actions. But when a given generations has the power to cooperate, it is no longer bound to earlier generations, as these generations do

20 This is an optimistic application of the 1st principle. Aims of different generations might not be as compatible due to the temporal dispersion. Despite the optimistic concession to the commons framework, intergenerational problem leads to even worse outcomes.

21 Refer back to page 14 for formulation of TC1 and 2.

not exist anymore, and have already either cooperated or not in the past. In other words, the pure intergenerational problem resists standard solutions to tragedy of the commons situations. The notions of reciprocity or broad self-interest of parties do not carry any weight in intergenerational scenario. As parties do not coexist, no interaction or prospect of mutual advantage is possible. (Gardiner 2011a, 163-164.) Defining characteristics of pure intergenerational problem are then causal asymmetry and asymmetric independence of interests. Earlier generations can unjustifiably impose severe costs on future people, who have no causal influence over their predecessors. While future generations have a significant amount to gain or lose from actions of earlier generations, the reverse does not hold: earlier generations are indifferent to the actions of later ones. (Gardiner 2011a, 165-166.) Gardiner's term tyranny of the contemporary fittingly highlights vulnerability of future generations to their predecessors.

While humans are not exclusively self-interested, it seems clear that we tend to display much more concern for those closest to us than those spatially and temporally distant from us, as discussed in the previous chapter. As a result, group decision are largely motivated by short-term considerations which suppress intergenerational concern. (Gardiner 2011a, 168.) The fact that humans do not exist in rigid generational clusters does not undermine relevance of intergenerational analysis either. Admittedly, generational overlap might mean more potential solutions due to increased reciprocity and personal attachment. But even if these factors manifest themselves, it is not likely that they would overpower the short-termism rooted in human biases. The threat of intergenerational buck-passing is therefore palpable even when there is strong generational overlap. Most of the current political institutions are defined by limited time-horizons and temporal asymmetries of power. Governments are focused on the next election cycle and voters' short-term interest dominate the agenda setting. Corporations are most focused on quarterly profits and meeting shareholders' volatile expectations. Furthermore, the power within these institutions also tends to accumulate to the oldest citizens. (Gardiner 2011a, 173-174.) The decision makers will often not even be alive to experience effects of their own policies. If the intergenerational problem seems likely to manifest itself in these ordinary cases, it appears even more potent in genuinely long-term issues such as climate change.²²

²² Gardiner notes that even abrupt climate change is likely to lead to short-term adaptation strategies,

But the insistence to depict the intergenerational problem as a failure of cooperation seems misguided given the weak and non-reciprocal connections between generations. Coordination problems such as tragedy of the commons are characterized by *mutual vulnerability* of parties – cooperation exposes them to exploitation. Each side has to worry whether others will take advantage of their cooperation by defecting. This reciprocal relationship is why defecting in prisoner's dilemma cases is seen as rational and justified. But no such common vulnerability exists in the intergenerational case. Cooperation or not, the present do not stand to be punished in any way by the future. While it is true that current generation abandons some of the benefits of temporally diffuse goods by cooperating, this is the case regardless of whether the posterity complies or not. (Smith 2013, 216-219.) Contrary to classical cases, the current people know exactly what they are giving up by cooperating, with no risk of exposing themselves to greater costs.²³ While there is a coordination problem between current people with regards to global climate change, in intergenerational realm the issue mostly resembles domination.²⁴ The question is not one of cooperation but whether the present generation refrains from exploiting their absolute power over the posterity. Intergenerational domination appears to rise as one of the main injustices of climate change.

3.3. Intergenerational domination

Definitions of domination are plentiful, but most are concerned with unrestricted and unjust power asymmetries. To speak of domination is to resent against morally illegitimate power, which ought to be remedied.²⁵ Iris Marion Young (1990, 38), for

thereby giving insufficient consideration to the future. This gives rise to *intergenerational arms race*, a vicious cycle where future generations are forced to pollute even more on the grounds of self-defense. In the face of serious climate tragedy each subsequent generation might feel justified in imposing unacceptable burdens on the future people, just to escape disaster themselves. (Gardiner 2011a, 201-203.)

23 One could argue that the present is exposed to costs if their cooperation is wasted by future people who decide to free ride and consume more. However, the costs are hardly comparable to traditional cooperation problems – years in jail versus preference about far future left unsatisfied. Current generation never faces unseen material harm for their cooperation and will not even know what is the end result of their cooperation. (Smith 2013, 219.)

24 This is not to say that practices such as extortion are not prevalent in international climate negotiations.

25 See McCammon (2018, ch 1) for more extensive discussion.

example defines domination as institutional structures which violate individual autonomy to determine conditions of one's own actions. Frank Lovett has offered a more comprehensive account according to which an individual or group is dominated when three conditions are fulfilled: 1) imbalance of power, 2) dependency, and 3) absence of rules (Lovett 2001, 101-104). In essence, a dominated agent is subject to superior, unconstrained power without a chance of exiting this relationship. On the basis of this criteria John Nolt has argued that the current generation dominates posterity via greenhouse gas emissions. There is considerable imbalance of power as our emissions unilaterally affect the future. Dependency condition is also met as future generations cannot exit this relation due to the very nature of time. Rules are also absent since the power is being wielded arbitrarily without commonly established law or constitution with respect to posterity. Nolt adds harm as the fourth condition to only focus on harmful forms of domination.²⁶ This is also clearly met as greenhouse gas emissions are likely to result in massive harm to future generations: droughts, floods, famines and consequent violence and forced migration. (Nolt 2011, 62.) Therefore, the current generation collectively dominates posterity with their emissions. Nolt highlights eight features prevalent in our domination of the posterity, which make it especially unjust:

1. It is domination of a majority by a minority
2. The subordinated are innocent of any harm to their dominators
3. The subordinated are voiceless, powerless and without recourse against the domination
4. The motives for the domination are often frivolous
5. The subordinated have reason to expect beneficence, not harm, from their dominators
6. Many of the dominators have systematically denied the domination
7. The domination is worst for those who are in other ways already the most disadvantaged
8. The harmful consequences of the domination will worsen rather than improve over time, diminishing long-term hope. (Nolt 2011, 66-68.)

26 I am compelled to agree with Smith (2013, 230 f.n.) that there is something fundamentally wrong in all cases of domination, even if this does not directly result in harm to the subject. Therefore, I disagree with Nolt that only harmful domination is morally problematic. Morally speaking, we ought to oppose benevolent dictators and eliminate dominative relationships whenever possible.

These considerations reflect how climate change will continue to inflict unprecedented harm on numerous innocent generations far into the future.²⁷ In contrast to many historical instances of domination, future victims of climate change are utterly voiceless and without power to resist the domination. Furthermore, the domination rests on pompous consumption patterns and is systematically dismissed and ignored by those in power. The harm is also compounded as the descendants of the most vulnerable people will suffer the most. The moral weight of this enormous suffering is further exacerbated by the fact that the future people have a reason to expect us to only pass on benefits such as prosperity and science to them like our predecessors did for us. Yet we are likely to become the first generation to knowingly pass on huge, back-loaded costs on to posterity. These harms are set to exacerbate the farther into the future we look, thereby diminishing hope of a better tomorrow. It is hard to question the injustice of such intergenerational domination.

Posterity's irredeemable dependency on the present gives the current generation enormous power to structure the choices available to the future generations. Theories of intergenerational justice have often disregarded this in favor of more traditional savings principles or compensation mechanisms. Indeed, if we conceptualize justice between generations as reciprocity²⁸ and fair cooperation, one might say that the present has fulfilled its duty to the future once it has ensured that the future receives its fair share (Smith 2013, 234). Fair share is often defined in terms of wealth or technology for adaptation to climate change. But thinking about intergenerational justice in terms of distribution of material goods misses the underlying relationship of domination. Taking domination into account means that we cannot rely on technological responses such as geoengineering which exacerbates domination and path-dependency. Compensation based accounts of intergenerational justice are ultimately too narrow. The fact that we are also doing much that will benefit the posterity²⁹ does not diminish the injustice of domination. Similarly to how slavery is not justified by the care master provides for his slaves, neither is intergenerational domination acceptable due to wealth we pass on to

27 Nolt (2011, 66) roughly estimates that at least 100 billion people will be affected by our greenhouse gas emissions.

28 Anja Karnein (2015, 52) has also noted that indirect reciprocity suffers from restricted scope as it focuses on adjacent generations. This is inadequate because climate change does not only affect our immediate descendants.

29 One can think of accumulated wealth, scientific advances, medicine, infrastructure, institutions et cetera.

the future. Even if we were to grant that the we do more good than harm to our descendants, this still does not justify the harm we are committing. (Nolt 2011, 70.) One has acted unjustly if he punches another person without their consent, regardless of how greatly they are willing to reimburse afterwards. Compensating or conserving is inadequate approach as it ignores the need to reform the dominant institutions or structures. Fair burden-sharing does not resolve intrinsically problematic power asymmetries between the present and future. Instead, one has to ask how to remedy a dynamic where the present is capable of unilaterally conditioning the lives of posterity.

This enables us to see the heart of intergenerational justice. One of the most innate human needs is to form and live according to our own conceptions of the good. This is gravely violated if we preempt posterity's choices. Therefore present generation ought to protect posterity's opportunities to live according to their conception of the good life. Brian Barry even calls for equal opportunity across generations that leaves posterity's options open, although he does not develop the idea further. (Barry 1997, 52.) Given that present policies can coercively impact autonomy of future people, we ought to take precautions to secure posterity's decisional agency. Genevieve Fuji Johnson has argued that imposing severe risks upon future generations would be deeply unjust, "not only because they could be harmful to future generations, but more specifically because they could limit the ability of future persons to make decisions as to how best to realize their individual and collective ends." (Johnson 2007, 82.) The central question is whether we impact future generations far beyond the inevitable and so undermine their ability to live autonomous life. Distribution of planetary resources is only relevant insofar as it undermines future generations' ability to live a self-directed and dignified life. (Karnein 2015, 62-63.) Large-scale disruptions such as climate change do not only lead to destruction, but also force future generations to a situation where they no longer have the liberty to choose the course of their own lives. The destabilized climate coerces future people into pooling their resources towards their mere survival. While our predecessors have always affected the choices available to posterity, future generations' lives may no longer just be impacted, but determined to a large degree due to their ancestors' failure to take decisive climate action. People have a right not to have their lives determined and dictated by others beyond their control. Accordingly, what we owe to future is not to exert undue influence on them. Current generation has to ensure posterity's life opportunities to lead self-directed lives by not violating their right to be

free from undue influence. (Karnein 2015, 63-64.) We are not only harming the posterity but imposing our own values and preferences on them, thereby taking away their ability to dictate the course of their own lives. This is what intergenerational domination is – subjugating future in a way that is inimical to their autonomy.

It has already been pointed out that domination depicts the power relations between generations more accurately than any cooperative scheme. Moreover, focusing on autonomy is essential in intergenerational cases because of the uncertainty regarding interests of future people. We lack knowledge about preferences and values of future generations. The future might look drastically and unfathomably different, presenting us with an epistemic challenge we remain oblivious to. As we can only know some of the very basic interests of posterity, it would be problematic to make strong assumptions regarding what the future generations might value.³⁰ Given the variety of preferences the posterity might hold, we ought not to restrict their choices needlessly. In other words, uncertainty provides a compelling reason to protect posterity's capacity to make their own collective decisions (Thompson 2010, 22). Respecting autonomy of posterity is therefore a direct answer to the uncertainty problem. In the same vein, Johnson argues that both utilitarian and deontological theories are too indeterminate because of uncertainty and ignorance about future's interests. The uncertainty caused by the inevitable cultural and moral change means we can never know nor protect values of future generations. (Johnson 2013, 109.) Traditional theories of justice fail in intergenerational cases because they rely on reference to specific individuals and their interests (Thompson 2010, 27). This suggests that a better basis for intergenerational justice lies in structural power inequalities between generations, and in our contribution to those disparities. The domination analysis takes this into account by respecting autonomy of future people and ensuring that they are in charge of their own lives.³¹ If we value that future generations can live according to their own conception of the good, curbing domination is of up most importance. This is in line with how climate change is characterized by various irreversible outcomes, feedback loops and lock-in effects.³²

30 Further complicating factor is that our decisions also impact preferences and values of future individuals.

31 The domination analysis bears some similarities to Amartya Sen's and Martha Nussbaum's capability approach, as it focuses on people's effective freedom and dignity – capabilities – to achieve lives they themselves value.

32 It is also worth bearing in mind that advances in science and humanity's collective knowledge might enable future generations to utilize some valuable resources, but which they lack due to shortsighted decisions in the past.

Humanity is currently on course to breach many of these irreversible climate thresholds, after which the progress cannot be reversed. These irreversibles grossly restrict option values of future people (Shue 2015a). Thereby uncertainty about the preferences of future people gives us a pressing reason to mitigate climate change to protect opportunities of posterity, as domination analysis suggests.

3.3.1. Objection: Over-generalization

The most obvious objection against the domination analysis would be how it over-generalizes the problem. If the present dominates future by necessity due to their superior temporal position, it is hardly useful to employ the concept of domination. That would be to say that every generation, including our ancestors are inescapably guilty of domination. However, this inescapability objection ignores how technological progress has exacerbated the power disparity between the present and the future. Aside from some local depletion of resources, past generations have not possessed power to fundamentally dictate the lives of future generations.³³ Even if harm occurred, it was limited and unknowingly inflicted. By contrast, the current generation knowingly wields power to harm future with our greenhouse gas emissions. (Nolt 2011, 62-63.) Technological developments such as fossil fuels have weakened the internal checks restricting power of the present.³⁴ The present is now capable of exploiting temporally diffuse goods to pass the buck to posterity. (Smith 2013, 228-229.) As the spatial and temporal scope of our actions have increased, we continue to rely on outdated Westphalian norms of governance. While it is impossible to completely eliminate the unequal power structure between generations due to the flow of time, it is feasible to make sure this relation is as harmless as possible. No amount of emission cuts curbs the threat of domination, which would still persist. Only structural and institutional solutions are reliable ways of constraining the power of the present. In other words, the

33 I do not try to identify a specific threshold of power which be enough to constitute domination between generations. Regardless, it appears that humanity has recently breached such limit with industrialization and consumption of fossil fuels. Most strikingly, humans are capable of causing mass extinction of humanity and much of the accompanying life on earth. In fact, this is what is often meant by anthropocene – epoch where humans themselves now constitute an enormous geological force with long-term consequences for the environment. It is also widely accepted that domination is a question of degree (McCammon 2018, ch. 1). At the very least the current domination of posterity is significantly more widespread and severe than in the past.

34 Smith also plausibly argues that interests of present and future used to be more aligned historically. In pre-industrial times people relied on children to be their caregivers as they grew old. In other words, caring for the future also helped the present people themselves. This relationship has significantly decayed with economic development. (Smith 2013, 228-229.)

superior power of the current generation has to be structured so it is non-arbitrary. Even if the present is inevitably more powerful than the posterity, nothing necessitates this power to be wielded arbitrarily. This can be achieved by constitutional orders and global governance measures that promote accountability, checks and safeguards on behalf of posterity. Therefore, our power over the future does not have to constitute domination. Institutional reforms can restrict power of the current people in domains where the temptation to buck-passing is evident and potentially detrimental to future generations. As the institutional power held by current generation lessens, so does the domination (Smith 2013, 244). These measures – which range from ombudsmen and proxy representation to public deliberation³⁵ – will be considered further in chapter 4.

The criticism of over-generalization can also be wielded against the autonomy and freedom of future generations. If protecting autonomy of the posterity is the highest priority, then should the current generation not postpone all decisions to their successors in order to maximize the options available? Governance would have to cease not to step on toes of future generations. This would be an absurd and paradoxical conclusion. However, this argument is overly simplistic as it ignores how omissions are also decisions, especially in the case of climate change, which has arisen precisely because of humanity's inaction. Furthermore, some policy choices are clearly less path-dependent and restrictive on the future than others – think of renewable versus nuclear energy. In any case, this criticism is not potent against the domination approach. Domination analysis does not imply that posterity's option value ought to be maximized at all cost. Instead, it only maintains that the current generation has to institutionally constrain their power over the future to make it nonarbitrary. This is what it means to respect autonomy of posterity.

3.3.2. Objection: Neorepublicanism

Next two objections, intentionality and capacity to interfere are derived from the influential neorepublican tradition, which sees freedom as non-domination.

35 Some might argue that proxy representation of future generations' interests arrogantly presupposes us to know their preferences. I do not think this is necessarily the case. The domination analysis merely promotes autonomy of posterity, without any commitments to certain material goods or ends. Posterity's interest only refers to their capacity to determine conditions of their own actions and live according to their conception of the good. Some policies, such as acute mitigation of climate change (rather than mere adaptation) are clearly conducive to this goal.

Neorepublicans such as Philip Pettit and Frank Lovett tend to restrict domination to inter-subjective relationships.³⁶ Both the capacity for interference and intentionality relate to what we take the power over others to mean. First, neorepublicans interpret the superior power over others as a capacity to interfere in their actions. While future generations' options are heavily affected by their predecessors, it is not clear that they are subject to any potential interference by their ancestors. Temporal distance between generations means there is no possibility of direct coercion or manipulation of posterity, unlike in the typical case of slavery. A slave is continuously exposed to his master's will at every turn of his life. In fact, neorepublicans think that domination is harmful precisely because of the continuous fear of possible interference which breeds anxiety, uncertainty and loss of dignity. But posterity's choices are not exposed to our control or whims in the same way, as we have already passed away when they exist. Instead, each generation has to do most with the hand they have been dealt with. (Katz 2017, 303.) Even if our ancestors heavily impacted our lives with their decisions, there is nothing they could currently do to us. In other words, there is no capacity to potentially interfere in the ongoing sense meant by the neorepublicans. Therefore, present generation cannot subject posterity to domination by potentially interfering with their choices, as they possess no such capacity. (Beckman 2016, 294.) Consequently, the neorepublicans conclude that intergenerational domination is not possible. The ongoing nature of the interference is of course a relevant difference between traditional and intergenerational domination. But how else should we describe the enormous power gap between generations if not as domination? Surely the fact that we can effectively shape future circumstances and choices available to posterity is an exercise of power over them. If one is capable of altering the very conditions of another person's life beforehand, is the threat of ongoing interference relevant for it to count as domination? More than anything, this appears to be an argument against the neorepublican concept of domination. The fact that the extent of the domination has already been determined does not diminish the superior power of the present which the future has been unilaterally subjected to. It is not clear why the imbalance of power would only count as domination when the subjugated are under constant threat of interference. In some sense the relation between present and posterity is even more profound as it affects the very preconditions

36 Central idea of the freedom as non-domination is how even potential interference violates freedom, given that this interference is arbitrary. Inter-subjectivity means that those dominated cannot look their superior in the eye without feeling inferior or unequal. Pettit has proposed an eyeball test for domination: one has to be able to "look others in the eye without reason for the fear or deference that a power of interference might inspire" (Pettit 2012, 84).

of a person's life. It might not be domination of the same kind as with contemporaries, but it is domination nonetheless.

According to neorepublicans, not only should we be capable of interfering in actions of posterity, but secondly, this should be done intentionally. Neorepublicans understand domination as a violation of freedom which requires the agent to act intentionally to worsen the conditions of another (Beckman 2016, 297). Therefore, they challenge the idea of climate change as intergenerational domination on the basis that it is unintentional. As has been argued, climate change is an unintended consequence of aggregate emissions of various actors. While climate change undoubtedly restricts options of future generations, it is a mere side-effect of the current generation getting on with their lives. Hence, we are not purposefully subjecting posterity to our will by our emissions. Neorepublicans would maintain that while climate change reduces the freedom of posterity, it nevertheless does not violate it. As a result climate change does not subject future generations to domination. However, it is not clear as to why one would restrict power over others to only mean intentional control of their choices. It is not even apparent that this holds in many traditional cases of domination, such as serfdom. It is hardly the case that the landlords sought to specifically subjugate their serfs. Rather, similarly to climate change the issue arises from social structures which are tied to our everyday life. The inter-subjectivity of domination only holds in the most direct slave-master relations. John Nolt distinguishes between domination motivated by antipathy toward the dominated and domination motivated by self-interest or greed. While the former derives pleasure from intentionally oppressing those dominated, the latter only seeks to elevate the dominator himself. (Nolt 2011, 63.) There is no reason to only limit domination to the handful of situations where it is explicitly intentional, rather than a by-product of large social structures.

The restrictive view of power over others as intentional and ongoing threat of interference is especially misguided because it hampers our ability to see the structural aspect of domination. For example, Pettit has asserted that interpersonal restrictions on a person's freedom are “more serious than the impersonal restrictions that arise non-intentionally from the natural order or from the way things are socially organized.” (Pettit 2001, 132). But unlike a volcanic eruption, arbitrary power gaps between generations are not mere natural or accidental obstacles to freedom. Rather,

intergenerational power asymmetries are directly affected by our negligence of the future. As such they can be institutionally restricted and remedied to be less arbitrary. The danger is that by not conceptualizing this relation as domination we ignore it as a normal and unproblematic. Underestimating the threat structural and impersonal factors pose to freedom is especially worrisome, because according to Pettit domination is the one and only political value and yardstick by which to judge our institutions (Pettit 1997, 80). To regard the power disparity between present and posterity as a natural occurrence which does not warrant action is to close our eyes from an enormous threat to freedom. The problem lies precisely in the elusive structures which reproduce arbitrary power asymmetries between generations. Intergenerational domination does not rest on deliberate repression but on structural negligence of the future which can be mitigated by institutional restrictions on the power of the present. The neorepublican account of intentional domination is thereby overly limited in scope. In fact, it has been criticized for disregarding how indirect, structural discrimination such as racism and sexism violates freedom. To think that obstacles to freedom result either from natural forces or intentional decisions is a false dichotomy. (Krause 2013, 191.) Unchecked power structures and unintended consequences can also threaten to violate freedom of vulnerable people (Schuppert 2015, 449). In a similar vein, Michael J. Thompson has argued that by focusing on interpersonal interference the neorepublican view misses the larger, systemic nature of domination. Unlike the 17th and 18th century politics, modern domination is defined by systemic forms of subordination and control. Institutionalized domination normalizes inequalities in political influence and leads to corruptive concentrations of social power. (Thompson 2013.) Due to these shortcomings Fabian Schuppert redefines domination as follows (paraphrased):

“Domination occurs if either an agent A (which can be an individual, a group or an institution) has the power to intentionally arbitrarily interfere with an agent B *OR* if agent A's actions and practices structurally disadvantage (i.e., over a longer period of time through an identifiable mechanism) agent B with regard to her status as a free and equal person, without due concern for her relevant fundamental interests.” (Schuppert 2015, 450).

This extended conception of domination is easily applicable to intergenerational cases such as climate change. The present generation structurally disadvantages and hampers

choices of future people by the mechanism of greenhouse gas emissions, hence undermining their autonomy and freedom. This also fits with Thompson's analysis: as domination becomes ingrained in institutions, it can lead to erosion of subject's moral autonomy. Power over others does not merely mean interfering in the subject's choices, but a more fundamental capacity to shape their will and legitimate unequal power relations to benefit the few. (Thompson 2013, 295.) Current generation molds the conditions of posterity's life and choices without due concern for their autonomy. This power disparity is legitimated and reproduced by our institutions, which are only accountable to current generation. A relation of domination can clearly reign over large spatial and temporal distances, even if the neorepublican conception struggles to make sense this.

Neorepublicans' dismissive stance on structural domination is peculiar because they stress the structure of domination instead of its outcome: unequal power relations dominate even if the power is not exercised. If what matters is capacity to potentially affect others, a similar relation exists between generations. Even if there is no ongoing threat of interference, each generation possesses potential to subjugate posterity if no institutional checks are in place. This relation is central because every generation is vulnerable to the ultimate power of their predecessors. This does not mean that the injustice is derived from the fear of exploitation but rather from the fact that structures of unequal power are left in place to deny autonomy of future generations. Domination of posterity does not stem from the harm caused to defenseless people, but from the lack of institutional constraints against the superior power held by present. That is to say, the main issue in the arbitrary power relation which remains unabated, not the isolated harmful outcome.³⁷ The latter is only a symptom of the former. While this unequal power does not place the posterity under a threat of an ongoing interference, it leaves them potentially vulnerable to undue influence on their lives. This loss of autonomy is made worse by the fact that the present is likely to abuse this power and harm the posterity by engaging in intergenerational buck-passing. It is worth noting that this broader notion of domination does not rely on actual interference but on the potentiality of it. Posterity's position is saliently inferior to present and warrants a right to complain, even if no actual interference occurs. In fact, ignoring the potential abuse of arbitrary

³⁷ Domination can also be conceptualized merely in the outcome-oriented sense, but I do not think this gives proper attention to the structural power disparities which violate posterity's freedom.

power leaves all of posterity vulnerable to whims of the present. The challenge is then to design political institutions which promote accountability and restrict exercise of arbitrary power.

Neorepublicans argue that a relation of domination itself harms the subject, and that this is implausible in intergenerational cases, where no interaction is possible. Yet even if the relation does not harm the posterity directly, it can fail to respect their right to autonomy. (Katz 2017, 305.) The relation of domination between generations is morally significant, even if no harm is caused – it violates posterity’s autonomy. A similar point is made by Rahul Kumar (2018), who argues that it is the imposition of risk, not the actual harm that wrongs future generations. Given the power disparity between generations and human near-sightedness, posterity's lives are put at considerable risk and thereby wronged. Adopting a risky policy wrongs future people by failing to respect their autonomy and interests. If a relation of domination can wrong the subject deontologically without making her worse-off, then it is irrelevant whether the dominator could potentially interfere with the subject. Therefore, it would be a mistake to try to reduce the immorality of domination to purely inter-personal harms such as uncertainty or anxiety that require possibility of on-going interaction. Pettit’s and Lovett’s insistence that relation of domination itself lessens a person’s freedom requires continuous subjection to will of another agent. As there is no possibility of interaction or subjugation to fear between generations, neorepublicans are forced to conclude that the current generation’s exercise of superior arbitrary power over the future people is unproblematic. (Katz 2017, 305-306.) For them, the posterity’s loss of freedom is a natural occurrence which does not have to be amended. *Reductio ad absurdum*, this suggests the neorepublican view is incapable of adequately addressing domination between generations. If a theory is unable to see the vast, unabated power gap between generations as a violation of future people's freedom, then it is a shortcoming of the said account. The problem lies in the limited neorepublican concept of domination itself, rather than in its intergenerational interpretation. As the spatial and temporal reach of domination increases, the neorepublican theory of domination becomes less and less feasible. A more comprehensive notion of domination is needed to account for its intergenerational dimension, which is ever more present with the increased consumption of temporally diffuse goods. Following Katz (2017, 306), I argue that if the current generation’s superior and arbitrary power over posterity is not subject to appropriate

institutional restrictions, they wrong the posterity by denying their autonomy and thereby dominate them.

In sum, given the arbitrary, unilateral relationship between the powerful present and the vulnerable future, this relation is best conceived as domination. Domination better captures the notable lack of cooperation or reciprocity between generations in comparison to collective action problem analysis. In contrast to cooperation, domination approach is suitable even when parties no longer interact with each other. (Smith 2013, 236.) It forces us to focus on the abuse of arbitrary power between generations. Given our newfound technological power to shape future lives, the current generation exercises unilateral power over a dependent posterity with barely any institutional constraints. Climate change is an especially pressing example of domination of posterity. I defended a relational and structural conception of intergenerational domination, irrespective of its harmful outcomes. When an agent is in position to arbitrarily shape conditions of another agent's actions, the latter is dominated because this violates her autonomy. The classical neorepublican view was criticized for narrowly restricting domination to instances with an ongoing threat of intentional interference. Instead, intergenerational domination is significant because it is enmeshed in institutions that violate posterity's autonomy. The present is in relation of domination with posterity as long as they refuse to place constraints on their own power to be sufficiently accountable to posterity.

3.4. Structural injustice and moral corruption

Analyzing climate change in terms of intergenerational domination helps us see why it is an instance of structural injustice, as is frequently argued. Structural injustices are collectively produced harms through institutions and social practices without any specific party bearing liability. Iris-Marion Young, who has popularized the term, defines it in the following way:

“Structural injustice, then, exists when social processes put large groups of persons under systematic threat of domination or deprivation of the means to develop and exercise their capacities, at the same time that these processes

enable others to dominate or to have a wide range of opportunities for developing and exercising capacities available to them.” (Young 2011, 52).

As discussed in the previous section, this is exactly the kind of injustice that occurs between generations in global climate change. Current generation undermines posterity's autonomy and capabilities by imposing costs of fossil fuel consumption on them. The institutional processes that consolidate this relation enable the current generation to dominate and elevate their own abilities by exploiting the future. Simultaneously future generation's range of opportunities for exercising their capabilities are increasingly diminished. Young (1990, 32) sees domination as a structural phenomenon, because people are often coerced by the unintended consequences of actions of many people. Domination refers to the institutional conditions which preclude people from determining the conditions of their actions. If social institutions enable other people to determine the conditions of one's actions without reciprocation, a person lives within structures of domination. (Young 1990, 38.) Structural injustice is not caused by intentional individual action, but by uncoordinated group behavior, which is tied to unquestioned institutional norms. The lack of direct causal agency means that the injustice is embedded in background conditions, making it difficult to recognize (Parekh 2010, 677). Domination of posterity is sustained by the billions of people acting habitually within our institutional framework. This is reinforced by the human bias towards the near future and local in-group members along with general scope insensitivity.

The inconspicuous nature of structural injustice also makes humanity more susceptible to what Gardiner calls *moral corruption*. Due to our superior temporal position the current generation is likely to fall to the temptation of passing the buck to the least well-off, future people and nature. Each generation of course attempts to justify their behavior, and in doing so succumbs to moral corruption. We disguise and distort the real, morally uncomfortable tragedy that we are contributing to. This is done by deceptive language and arguments which conceal the immoral nature of our actions. Applying our attention selectively, we draw attention away from posterity's suffering and cast ourselves as the victims. In the case of climate change discourse this has meant excessive focus on the concerns of the present and short-term economic sacrifices,

leading to continuous procrastination and delays.³⁸ Corruptive discourse licenses each generation's buck-passing and makes inaction excusable. Recognizing one's moral failures is especially hard in the public sphere and it is therefore no surprise that each generation is likely to be attracted to such comforting, self-deceptive thinking. (Gardiner 2011a, 301-302.) Moral corruption is further facilitated by the complex structural injustices which appear to be natural and unavoidable, with no-one at fault. The threat is that such thinking becomes subconsciously internalized through society, corrupting the political system. One instance of moral corruption might even be how climate change is commonly thought of as global coordination problem, thereby concealing the uncomfortable thought of intergenerational domination.³⁹ Moral corruption is especially worrisome because of the enormous power asymmetries present: most the victims lack ability to resist or even make themselves heard as they are yet to exist (Gardiner 2011a, 302). Corruption and domination is particularly likely to manifest itself when there is no sense of accountability. "Power tends to corrupt, and absolute power corrupts absolutely" as written by John Dalberg-Acton (1887). The complete lack of accountability and responsibility practically invites present generation to indulge in moral corruption.

As seen above, structural injustices overwhelm our concept of responsibility. Young formulates social connection model of responsibility as a solution to this. She contrasts this with the standard liability model that fails to assign responsibility for global, structural injustices since it relies on direct interaction between a single perpetrator and a victim, but no such easily identifiable causal relation is present in structural injustices. The social connection model revises this by asserting that anyone whose actions contribute to the structural processes producing an injustice are responsible for it (Young 2006, 119). Responsibility therefore arises from structural social processes that connect people. The social connection model differs from traditional individual responsibility in five ways. First, it does not isolate or blame individuals, because structural harms are result of the institutional system. Second, it takes into consideration that the background conditions of an action are often unjust. Third, it is forward-

38 Furthermore, claims of prior entitlements, excessive burdens, budget constraints and reciprocity are routinely employed against climate action (Gardiner 2011a, 337).

39 Rather than reliably representing interest of future citizens, it seems that governments continuously succumb to short-term concerns of the present. The global analysis disguises this by failing to recognize the tyranny of the contemporary. (Gardiner 2017a, 26-27.) This obscures the fact that current generation is dominating posterity by arbitrarily shaping the conditions of their actions.

looking. This means that the social connection model focuses on preventing future injustices, which often means reforming institutions. The mission is not to blame or punish the perpetrators but rather to push for collective action to facilitate change. Fourth, the responsibility is shared between large groups of people who all contribute to the unjust social processes. Fifth, it can only be discharged through collective action and cooperation. (Young 2006, 119–123.)

According to Young, the social connection model falls into the category of political responsibility: responsibility to organize and coordinate collective action to amend unjust structures. Such cooperation is based on public communication and persuading others to take action. (Young 2006, 123.) Furthermore, the social connection model enjoys a motivational advantage over the liability model: blame is likely to lead to resentment, defensive reactions and shifting responsibility as others are also culpable in structural injustices. Such blame-shifting and finger pointing is not conducive to mobilizing cooperation for institutional reform (Young 2006, 124). Indeed, international climate negotiations demonstrate the recurring failure of the blame game. In contrast, the social connection model allows us to share the responsibility for structural injustices together, rather than holding certain individuals blameworthy. It is also important to note that shared responsibility does not amount to equal responsibility. Agent's capability to influence the processes that produce the injustice determines her degree of responsibility. The responsibility differs based on agent's power, privilege, interest, and collective ability in relation to the unjust structures (Young 2006, 127).

When applied to intergenerational domination, social connection model implies that we are responsible for contributing to social processes that dominate future generations. Do we by our actions contribute to structural processes that limit the options of future people by placing them in vulnerable position? When one reflects on the harmful consequences of climate change and the institutionalized short-termism, the answer is a resounding yes. Young's portrayal of this responsibility also appears correct. No individual is at fault, as intergenerational domination is clearly a structural issue stemming from short-sighted institutions. Furthermore, such responsibility ought to be forward-looking, aimed at preventing future injustices. Given that climate change and domination predominantly threaten future generations, it is central that our concept of responsibility tracks our ability to remedy such harms and stop them from occurring in

the future. What matters is repairing the dominating relationship. The responsibility for climate change is also collectively held, because it is not caused nor solved by individual action. Objective of such responsibility is to create lasting political and institutional change, and therefore the responsibility is political in nature. Combating structural injustice is done by establishing and reforming institutions where they fail us. Neither should the climate responsibility be restricted by arbitrary spatial or temporal barriers as structural factors connect people to injustices irrespective of current state boundaries. Such forward-looking collective responsibility is a form global political responsibility which aims at effective institutional measures to safeguard the environment and future generations. Further inquiries regarding how to distribute this responsibility between different actors fall outside the scope of this thesis. I would also add that the above discussion of responsibility is not integral to my overall argument, but merely supplements it. Nonetheless, it serves as an example of the kind of reformed notion of responsibility that domination approach calls for in order to better tackle structural, long-term global challenges.

In this chapter I hope to have shown that the traditional way of describing climate change as a global coordination problem overlooks more fundamental issue: domination of future generations. Resulting from the uncoordinated emissions of the present generation, climate change is a structural process that dominates posterity and makes them vulnerable to deprivation. Intergenerational domination arises as a particularly egregious problem, because many of the seemingly innocuous solutions to climate change, such as geoengineering, are likely to exacerbate the domination of posterity. Furthermore, the asymmetric vulnerability between generations combined with the structural nature of climate change makes the ground ripe for moral corruption. This is a form of self-deception, serving as a tool to shift the blame and obfuscate the problem. Such self-serving behavior is unfortunately not surprising given the human tendency to succumb to short-termism. But the social processes we partake in are neither unavoidable nor natural, and can be remedied to lessen the domination. The current generation contributes by their actions to the conditions of domination and therefore have a forward-looking political responsibility to establish institutional measures to curb the tyranny of the contemporary. By disregarding future in decision-making and continuing excessive greenhouse gas emissions we undermine future peoples' opportunity to live a life according to their conception of the good. As we have a

responsibility not to contribute to the structural processes that lead to domination of future generations, we ought to elevate standing of posterity and limit the arbitrary power of the present. This calls for institutional representation of future generations and their interests in decision-making. This is essential for restoring accountability and adequately respecting posterity's autonomy. However, one also has to bear in mind that political institutions are not created in a vacuum. They reflect attributes of common sense morality and its corruption. It is crucial to account for the human nature when assessing what kind of institutional reforms should be enacted to safeguard future generations.

4. Institutions for the future

Taking climate change and intergenerational domination seriously means tackling the power disparity between generations. Most often, this is taken to mean institutional constraints on the power each generation holds over their descendants. What should these institutions then look like? There are two general ways of resolving relation of domination as Pettit (1997, 67) has argued. First, one can seek to equalize the power between agents, either by increasing the capabilities of the oppressed or by decreasing the power of the dominator. Unfortunately, this appears unfeasible in the intergenerational sphere, because of the superior temporal position the present holds over the future. The asymmetry of power based on laws of nature cannot be overcome. The second option is to structure the power relation to be non-arbitrary. This means establishing a constitutional authority that provides checks and balances, accountability and means of contestation. Yet it is unclear how future generations could possibly hold current decision-makers accountable for their decisions. By definition non-overlapping generations cannot interact or hold each other accountable. Common constitutional order cannot be enforced if the posterity is unable to contest decisions of the present. (Smith 2013, 237-238.) However, to conclude that intergenerational domination is unavoidable would be a mistake. The accountability can be ensured by establishing institutional representation for future generations. Posterity's interests can be represented, and short-sighted policies contested, even if the future individuals themselves are unable to participate. Consequently, no personal contestation is needed (Smith 2013, 242).⁴⁰ Representative institutions function as external check on the power of current people and make the intergenerational relation less arbitrary.

Domination is an institutional failure – it occurs when we fail to place external constraints and checks on arbitrary power structures (Smith 2012, 49). Intergenerational domination is not only restricted to climate change but is widespread throughout political institutions. Current democracies are prone to succumbing into presentism – a bias in the decision-making in favor of the present generation (Thompson 2010, 17). This partiality toward the present is strengthened by the fact that the democratic process itself amplifies citizens' tendency to discount the future. Simultaneously, current

⁴⁰ The same kind of indirect representation occurs between children and parents, who represent interest of their offspring.

policies are increasingly having ramifications for the far future. In essence, those who are most adversely affected by certain laws do not have a voice in their creation. As climate change has showcased, short-termism is a continuous threat within democratic decision-making. To counteract domination between generations, constraints against unregulated power of current generation have to be institutionally introduced. Measures against supremacy of current generation do not violate their freedom, but instead are necessary to protect autonomy of each generation.⁴¹ Given human biases and uncertainty regarding posterity's values, I propose the answer lies in constitutionally ensuring deliberative methods of representation for future generations.

Institutions that attempt to represent the interests of future generations can be divided into three forms: executive, legislative and judicial. The executive reforms refer to ombudsmen, trustees, guardians, and councils for future generations. They promote and introduce interests of future generations into political discussion by raising awareness of how our decisions affect them. Government bodies are answerable to ombudsman, who monitor and evaluate policies on the basis of how they impact posterity. Trustees can launch investigations on the basis of citizen complaints. This might also involve Future Councils that are authorized to initiate legislative proposals or referendums. Actual examples include *Hungarian Ombudsman for Future Generations* since 2008 and the *Knesset Commission for Future* from 2001 to 2006. Both of these institutions had a broad mandate to review, suspend, and introduce future-oriented legislation, but this was also their downfall: they were abolished or downgraded because they were seen as political threats.⁴² Legislative reforms refer to changes in parliamentary and electoral systems. For example, Andrew Dobson (1996) and Kristian Ekeli (2005) have argued that legislative bodies should include proxy representatives for future generations. Certain fraction of parliamentary seats would be reserved to these representatives, who have a special mandate to represent the future. Other legislative means include sub-majority rules: if a piece of legislation is expected to harm the posterity, a specified minority of parliamentarians could suspend it, or perhaps initiate referendum on it (Ekeli 2009). Second chamber for future generations, equipped with veto powers could also achieve similar results. In practice the Finnish parliament has had a Committee for

41 This can be thought of as a liberal ideal, a minimal way of ensuring each generation does not impose its values on its successors.

42 See Zwarthoed (2018) for different potential and existing institutional arrangements to represent posterity.

the Future since 1993, yet its role is restricted to research and communication concerning future trends. Finally, judicial institutions encompass constitutions, courts, and criminal law. Constitutional articles can assert the rights of future generations or institutions which safeguard the future. As with other reforms, these are often connected to preservation of natural resources and sustainability. One possible avenue would be a court for the future that could file indictments for crimes against posterity. Of course, many reforms, even the ones discussed here do not adhere to strict division between the three branches of government, but are cross-cutting. For example, compulsory future impact assessment would predictably cover the whole political decision-making process. Furthermore, the reforms presented here aim to formally institutionalize representation of future generations into policy-making: NGOs and civil society can also play important role in representation outside of this. (Rose 2016, 60-64.)

It should be noted that representation of posterity will be used here as a shorthand for representation of posterity's interest. This essentially means speaking and acting on behalf of the future generations. Only tentative and non-concrete proposals for representing posterity will be provided here. The focus will be on deliberative proposals that function somewhere in-between substantial future-focused institutions and instrumental changes that provide future benefits as a by-product.⁴³ This is because non-domination simultaneously requires accountability mechanisms only found in robust institutional solutions as well as procedural value change. To what extent this requires specific future representatives, establishment of new institutions or other practical questions are outside the realm of this chapter. While I will be focusing on reforms at the national level, representative mechanisms for posterity would eventually have to be introduced on the global scale as well.

4.1. Challenges to representation

There is a tension between effectiveness and democratic legitimacy of representing posterity. The stronger the representation of future generations, the more problematic it is in terms of legitimacy. Less powerful advisory bodies are unlikely to trample

⁴³ See González-Ricoy & Gosseries (2016) for distinction between future-focused and future-beneficial institutions.

democratic rights of current people, but they are also weaker in safeguarding posterity. The following sections will focus on these legitimacy challenges, namely accountability, generational sovereignty and practicality.

4.1.1. Accountability

Accountability concerns arise mostly because posterity can neither select nor validate their representatives. The main difficulty of representation therefore relates to lack of authorization and accountability – if posterity's interest were to be misrepresented, they would be powerless to oppose it. Of course, this would not be a problem if posterity's interests were widely known, but uncertainty regarding these preferences is precisely the problem. Epistemic issues regarding the plurality of values held by posterity diminishes legitimacy of their representation. While we can be confident in knowing the basic needs of future generations, such as food and housing, their fundamental conceptions of the good remain elusive to us. Even protecting a general interest like autonomy might require us to know something about the kind of preferences posterity could potentially hold (Karnein 2016, 87). Otherwise we are likely to remain unsure of how to best support their autonomy in practice. Identifying objective interests is also complicated by the fact that the current generation unavoidably shapes and affects the values posterity comes to accept. Furthermore, there is likely to be considerable plurality of values, within and across different future generations. Even in the case of climate change, basic interests of different future generations might come into conflict. Problems of uncertainty are also exacerbated by the difficulty of predicting far-off consequences of our actions. Finally, insincere and perverted representation of posterity's interests also remains a worry, as present people are not authorized by posterity to represent them. (Karnein 2016, 85-87.) This is especially so given the ever-present threat of moral corruption.

These challenges do not make representation of posterity impossible though. Rather, a theory of representation has to be sensitive to the issues raised above. Namely, surrogate representation of future generations remains a plausible option, which means acting for the interests of people outside the representative's constituency. Since posterity cannot communicate their consent, one ought to assess how these representative institutions are established in the first place. This includes both the principles that guide representative's

decisions and the procedural mechanisms which dictate how these principles are applied. (Karnein 2016, 93.) I propose the main principle that should guide our actions is the respect for posterity's autonomy. While future generations' objective interests are hard to define, we can certainly know that each generation has interest in deciding the course of their own lives. Even the posterity is likely to have intrinsic need to dictate conditions of their own actions. That future generations want to have a say over the laws that bound them is hardly a radical assumption, and rather innate to humanity. Respect for autonomy makes it possible for people to pursue their own conception of the good and act in accordance with their objective interests. In practice, we only have to know which policies are especially path-dependent and thereby likely to significantly reduce autonomy and options of future generations. Posterity would hardly agree to be subjugated by catastrophic climate policies of their predecessors. In the same vein, Dennis F. Thompson argues that the present can represent future by acting as trustees of the democratic process. The current generation should protect popular sovereignty and democracy over time. Even if we do not know the exact preferences or needs of future generations, we can preserve their right to make those choices collectively. (Thompson 2005, 248-249.)

One way to frame this is as contractualist account, where our actions have to be justifiable to all future generations. Respecting posterity's autonomy means considering what policies they could not reasonably reject. In other words, this means weighing what would be acceptable to future people, so not to violate their decisional agency (Johnson 2007, 82). The contractualist view also helps explain why the non-existence of posterity is not a problem for accountability.⁴⁴ It is widely recognized that contractualism does not place emphasis on the actual consent, but on reasonableness of the terms proposed. The fact that future generations cannot presently consent is therefore a non-issue. The main contribution of contractualism is that it compels us to scrutinize the reasons for our decisions. (Beckman 2008, 616-618.) Similarly, Karnein suggests a standard of equal respect between generations. According to her, the essential point is that the current representatives have to justify their decisions to posterity as if they were present today. The current generation is then discursively accountable to the future. Placing one's own frivolous interests above their descendants' survival is hardly

⁴⁴ Furthermore, contractualism alleviates the classic non-identity problem. Posterity is justified in blaming us because of our failure to show due concern for their interests. Whether the harms actualize in the future is irrelevant as putting posterity at risk already wrongs them. (Kumar 2018.)

justified compatible with such respect. This duty does not require one to know future generations' preferences and is therefore free of substantive value assumptions. (Karnein 2016, 93.) Accordingly, accountability to posterity is best seen as public reason-giving, as way of justifying ourselves to the future. As will be seen, deliberative forms of representing the future are just this.

In contrast to Thompson (2005; 2010), I argue that one cannot exclusively focus on the preservation of democracy, but also on environmental constraints that violate liberty of posterity. Climate change will put enormous pressures on democratic systems in the form of refugees, food shortages, heat waves and societal instability. It would be disingenuous to defend climate inaction on the basis of wanting to leave these choices for the future generations, without considering how such inaction threatens the autonomy of these same future civilizations.⁴⁵ Only by considering these factors can we gain a more comprehensive view of intergenerational domination. All in all, these viewpoints highlight the importance of representing posterity in decision-making. By respecting each generation's autonomy, it is possible to represent the future in a fair manner, without imposing our values on them. Rather than advancing specific alleged interests of posterity, the current generation ought to protect future generations' capacity to make those choices for themselves. In other words, the representation is limited to the protection of posterity's autonomy.⁴⁶

4.1.2. Generational sovereignty

Representation of future generations, especially if constitutionally entrenched, can threaten democratic sovereignty of generations. First off, any representation of posterity is predictably going to place constraints on the democratic powers of the present generation. What is more, constitutionally entrenched representation of future generations might actually hurt their freedom. The argument is that democratic constraints introduced today are likely to remain in force long into the future, thereby

45 Not to mention how such an argument leads to a rabbit hole of inaction, where no generation could possibly act.

46 Of course, there might be trade-offs with autonomy and other forms of well-being. I do not suggest that autonomy trumps all the other ethical considerations, but merely that other things being equal, one ought to choose the option that is less restrictive on posterity's autonomy. In practice one might have to carefully weigh path-dependency and future well-being against each other, when considering a policy, while also being mindful of our limited knowledge concerning the future. The central point is that these decisions are justifiable to posterity in discursive terms.

restricting posterity's options and denying them from determining their own lives. While future generations may try to change the laws made by their predecessors, this can prove to be difficult or even futile as many laws have irreversible effects. The damage is done as the precedent is set and the law becomes entrenched. (Thompson 2005, 247.) As a result, current generation's self-imposed restrictions designed to empower the posterity might turn out to dominate them. Safeguards against short-termism may in reality undermine autonomy of posterity, who have no say in their creation. This trade-off is especially evident in environmental issues: strict constitutional measures might protect the environment while simultaneously hurting posterity's ability to govern themselves effectively. This is what Ludvig Beckman calls the "democratic problem of future generations". (Beckman 2008, 613-614.) Institutional reforms should be careful not to violate generational sovereignty of each generation to govern themselves. Any representative model therefore has to walk a fine line between respecting autonomy of the present and the future.

Constitutions can be taken to be a necessary safeguard for the self-determination of both present and future generations, because of the long-term stability they provide over generations. As a forward-looking document, it establishes fundamental values and rights that are beyond the will of simple majorities (Gárdos–Orosz 2017, 595). Constitutionally mandated representation of future generations can preserve freedom by ensuring accountability and distribution of power between generations. Such ideas are not wholly new. Even the preamble of the United States Constitution claims to preserve liberty to present and future generations, while the constitutions of Japan and Norway actually grant posterity rights (Zwarthoed 2018, 95). Over the few last decades, nearly 60 countries have adopted constitutional provisions which explicitly try to safeguard posterity (Gonzalez-Ricoy 2016, 170). Constitutions are justified precisely because of the benefits they create over time due to their immutable nature (Beckman 2008, 619). The fact that constitutions are immune to changes by simple majorities is essential to inclusive, liberal democracy. Current democracies already include various kinds constitutional protections for minorities to avoid tyranny of the majority, ranging from supermajorities requirements to minority rights. Constraints on legislative majorities are therefore not intrinsically undemocratic and can be justified by how they protect the democratic capabilities of future generations. As Thompson (2005, 255) has suggested, constitutional entrenchment is only objectionable if it constrains posterity in a particular

way. Similarly, Gárdos–Orosz (2017, 596) argues that as long future generations are able to challenge the constitution, eternity clauses do not hinder their sovereignty or self-determination.

The above can be seen as a continuation of the liberal harm principle, which states that individual freedom can only be restricted in order to prevent harm to others.⁴⁷ In other words, individual is free to act in any manner as long this does not violate corresponding rights of other people. This notion is directly applicable to intergenerational relations. Establishing constitutional restrictions to safeguard the future is a minimal way of ensuring each generation does not impose its will on their successors. Therefore, it is justified to limit the powers of the present people in order to ensure the autonomy of posterity. This does not amount to domination of posterity, or imposing our values on them, but the opposite: ensuring minimal protection for them. This minimizes the extent to which future generations are exposed to the arbitrary power of the present people and holds people accountable for deviations from this. In conclusion, it is possible to improve effective generational sovereignty by placing restrictions on the power wielded by the current generation, as noted by Alex Gosseries. While this restricts the jurisdictional sovereignty of each generation, it only does so to a limited degree, while simultaneously contributing to a more just distribution of effective generational sovereignty. (Gosseries 2016.) In other words, constitutions do not have to foreclose legislative options as much as they increase them for each generation. Constitutional provisions therefore do not have to be a source of intergenerational domination but can instead form an important safeguard against such domination.

In addition, constitutions alleviate intergenerational collective action problems. As a mechanism of intergenerational communication, constitution can encourage cooperation across generations and investments into long-term projects (MacKenzie 2018, 262). By their nature constitutions incentivize every generation to comply and cooperate jointly under common rules. Constitutional clauses make commitments more likely to be honored over time and render them more resilient to electoral turnover (Gonzalez-Ricoy 2016, 174). They strengthen the continuity between generations and lessens the uncertainty, thereby creating a more robust political commitment to long-term policies. As the constitution promotes cooperation across generations, current people can act

⁴⁷ See Mill (1859) for classical description of the no-harm principle.

knowing that their present sacrifices will not be in vain. Gonzalez-Ricoy also argues that clear constitutional provisions increase public perception and support of long-term policies. Uncompromisable constitutional provisions signal importance to citizens, affecting their values and beliefs. (Gonzalez-Ricoy 2016, 177.)

Constitutions are usually limited to decision-making procedures: they set the framework for accountability and render the use of power less arbitrary. Given that domination arises because of the lack of accountability, constitutional provisions are an ideal tool to introduce answerability and justifiability to the system. In the case of posterity this can be done through establishing future representation and deliberative reason-giving. Under contractualist account the justifiability of constitutional restrictions comes down to whether future generations could be reasonably expected to support such constraints despite the costs to their own self-determination. The current generation has to establish institutions that consider posterity's interests in a way they could not reasonably reject (Beckman 2008, 616-619). Even if future generations were exclusively concerned about their autonomy, they would surely care how climate change undermines their democratic options.⁴⁸ The distinction between formal and effective freedom is relevant here: the issue is not merely what the legislation allows but the actual options one has available to himself. It appears feasible that future generations would accept some restrictions in their formal political freedoms to ensure climate change does not threaten their democratic choices. Generational sovereignty does not only extend to jurisdiction, but also to effective freedom to choose one's path of action. Earth ravaged by climate change heavily shapes conditions of posterity's actions, permanently foreclosing some options available to them.

The power of constitutions is derived from the fact that they have higher precedence and are more stringent to amend than ordinary law (Gonzalez-Ricoy 2016, 174). At the same time, the threat constitutional rigidity poses to generational sovereignty is real. One might initially object that each generation possesses the ability to change their constitution and laws, and is thereby not tied by decisions of their ancestors. This is not quite right, as the question is precisely the legal cost of such changes (Beckman 2008,

48 The claim that posterity only cares about maximization of democracy is a dubious claim in itself, see Beckman (2008). Posterity is also likely to appreciate environment, civic society, culture and numerous other things. However, this modest assumption focusing on autonomy and democracy is consistent with us not knowing the fundamental interests of future generations.

615). The point of constitutional constraints is that they increase the costs policymakers face if they disregard the future, thereby widening the time-horizon of politics. Indeed, it should be costly to circumvent rights of posterity and therefore constitutional provisions ought to be judicially enforceable. They have to be rigid enough to actually limit policy-making and be resilient against the temptation of buck-passing. On the other hand, constitutional rigidity might result in harmful or at least less than optimal outcomes to posterity (Gonzalez-Ricoy 2016, 179). The clauses have to be flexible enough to adapt to unseen consequences and interests of future generations. Constitutional measures that tackle intergenerational domination still ought to be amendable, in order not to succumb what they try to remedy (Beckman 2016, 13). We face a balancing act. These challenges can however be alleviated. Most constitutional entrenchments usually limit themselves to procedural requirements (such as deliberation), rather than specific policy paths. They assert general principles the decision-making has to adjust to, rather than tying the hands of posterity to particular practices. In related manner, constitutional provisions are often formulated abstractly, to better adjust to the evolving needs of future generations. While abstraction makes the clauses less enforceable, it makes it possible for courts to adjust their understanding to scientific and societal progress. Finally, the content of constitutional restrictions can be limited to issues which are the least uncertain, like each generations interest in self-determination. (Gonzalez-Ricoy 2016, 180.) In other words, constitutional measures have to be modest in their scope, and not overly ambitious in what they try to legislate. This is reflected in the focus on posterity's autonomy. Constitutionally entrenched deliberative institutions are consistent with each generations' right to self-determination, especially if they are directed at how to best protect autonomy of future generations.⁴⁹

4.1.3. Practicality

Representation of future generations also faces practical challenges. Aside from being democratically legitimate across generations, future-oriented institutions ought to fulfill principles of effectiveness, feasibility and sustainability. Most obviously, constitutionally entrenched representation of future generations actually has to be

⁴⁹ The institutional focus is also important because, as Chilton and Versteeg (2016) have found, in contrast to individual rights, organizational rights embedded in constitutions tend to be more effective. This is because organizational rights establish institutions and resources to safeguard the underlying right, thereby making them self-reinforcing. Embedding long-term deliberative institutions in constitution could therefore increase their impact.

effective in limiting intergenerational domination. As Simon Caney notes, this does not necessarily mean eliminating the problem altogether, but making strides towards so. Effectiveness of a reform ought to be judged both in terms of how it would improve the status quo and how it compares to other possible measures. (Caney 2016, 140.) It is important to note that the goal is not just to render politics less short-termist, but to actually curb the intergenerational domination. The distinction is central, because many of the proposals aimed at making politics more long-termist do not actually incorporate accountability mechanisms, which are crucial in tackling domination. Constitutional measures usually establish accountability frameworks, making deviations more costly. Political representation should also be sustainable over longer time periods and resistant to electoral shifts. This is obviously another criterion where constitutionally entrenched representation performs well. As noted earlier, constitutions can also be self-reinforcing by breeding long-term values in citizens. Finally, representation should be politically feasible and achievable. If a proposal does not stand any chance of being implemented or affecting values of the citizens, resources spent endorsing it are essentially lost. (Caney 2016, 142.)

An institutional challenge related to future is the uncertainty of nation states. Constitutions as we know them are restricted to specific states with their own jurisdiction, yet these states are constrained by boundaries and subject to change. This casts doubts over the effectiveness of constitutional safeguards which are limited to certain states. Global institutions which would encompass these constitutional provisions appear more comprehensive and efficient, although also less feasible politically. This is not necessarily a far-fetched idea: The Universal Declaration of Human Rights was passed in 1948. Similarly, some have recently called for the creation of United Nations' High Commissioner for Future Generations. Indeed, Aaron Maltais among others has argued that climate change creates cosmopolitan duty to establish global institutions with extensive jurisdictional mandate. If one accepts that we ought to show at least some consideration for interest of future generations this implies a duty to engage in global political project to overcome collective action problems between states and generations. (Maltais 2008.) Duties of justice therefore cannot be limited to only those that currently live under the same coercive political system. Likewise, Thompson has argued that looking into the future, one cannot draw a sharp distinction between the claims of foreign and future citizens. As future citizens are equally as likely to be

descendants of some other state, national boundaries lose their significance in long-term decisions.⁵⁰ And because present boundaries will hardly matter in the future, they should not weigh significantly in our current decisions that affect the future either. (Thompson 2010, 21.) The global governance aspect is also recognized by Gardiner (2014), who calls for a global constitutional convention that is explicitly focused on future generations. However, I will not consider problems of global governance further here.

4.2. Deliberative representation

Any attempt to represent the interests of future generations in decision-making has to balance between democratic legitimacy and effectiveness. Given that policy proposals have to combine these two, often contradictory goals, I argue that the solution is to pursue deliberative forms of representation for posterity. This is not least because of the unavoidable uncertainty regarding the future and the biases of common sense morality. In the case of representing posterity, two aspects of deliberation are especially important: perspective-taking and public reason-giving. Perspective-taking enables people to place themselves in others' shoes and to see the issue from the viewpoint of future generations. Indeed, perspective-taking and empathy are intimately connected to representation of those who are not present (Setälä 2019)⁵¹. Public reason-giving is used to justify one's decisions to others, central for the deliberative accountability to the posterity. This entails careful deliberation about which principles the future generations could come to accept. Without extensive deliberation sustainable value transformation cannot be achieved and we are likely to misjudge interests of future generations. Deliberative democracy fulfills the legitimacy condition, while also possessing enough action-guiding potential to effectively safeguard posterity. All in all, deliberative representation of future generations may encapsulate future people's interests in our own preferences (Goodin 1996).

Deliberative democracy highlights the importance of discussion and dialogue to the political process. Political decisions should be a result of reasonable debate and

50 This is also assuming that current nation states and borders remain unchanged in the future – rather unlikely scenario.

51 I would like to thank Maija Setälä for sharing a manuscript of her unpublished paper "The Politics of Non-Existence", presented at ECPR General Conference, Wrocław, September 2019.

discussion between citizens. Legitimacy of decision is therefore not based in mere aggregation of votes but in inclusive, quality deliberation. According to theories of deliberative democracy, the decision-making itself is a process which can breed greater value alignment and consensus on policies between citizens. The mutual communication forces people to justify their positions by arguments that others could also plausibly accept. This discursive process illuminates the differing values and preferences of groups and helps them find common ground. Deliberation incorporates inclusive and diverse groups in order to avoid biased discussion and harmful groupthink. (Fishkin 1995.) Public deliberation is said to change citizens' preferences and lead to more enlightened decisions. In practice, deliberative mini-publics such as Citizens' Assemblies have led ordinary citizens to deliberate in good will and align their views with evidence (Dryzek et al. 2019). Mini-publics usually take place over multiple days, and consist of information gathering, expert testimonies and small group deliberation, facilitated by moderators. These democratic innovations use sortition, ie. random, but representative selection of citizens to ensure inclusion of different viewpoints. Empirical evidence suggests that such small-scale deliberation leads to stronger support for sustainable and long-term policies. For example, Niemeyer and Jennstål cite findings from Australian deliberative forums concerning climate adaption, which led to strong commitment to long-term climate action among the participants. The deliberation also made participants care about future generations in more concrete terms: as vulnerable individuals under threat rather than as mere abstract entities. (Niemeyer & Jennstål 2016, 254-256.) Similarly, Ireland's recent Citizens' Assembly nearly unanimously backed investments into clean energy, green infrastructure, public transportation as well as tax on greenhouse gas emissions to combat climate change (The Citizens' Assembly 2018, 5-6).

One of the tenets of deliberative democracy is the so called 'all-affected principle', according to which all parties whose interests are seriously affected by a decision ought to have a say in its making. In deliberative terms this means public reasoning in which everyone affected or their representatives have the right to participate in the decision-making process. As a result, democratic decisions that significantly affect posterity cannot be considered legitimate unless they have been heard in the decision-making process (Ekeli 2005, 430.) Future generations should therefore be represented in policy decisions that significantly bear upon their lives. The all-affected principle has been

criticized for over-inclusion and impracticality, especially if it is taken to include all possibly affected future generations (Tannsjö 2007; Bovenkerk 2015).⁵² The problem of limitless demos can be countered by requiring decisions to be merely justifiable to future generations that cannot participate through deliberation (Bovenkerk 2015, 503). It should be noted that what I have been arguing for is not as demanding as the all-affected principle. The problem is not that we are affecting or impacting future generations, as this is inevitable. Rather, nowadays we are determining and preempting conditions of posterity's actions, thereby denying their decisional agency. The chief motivation for representation of future generations therefore rests on curbing intergenerational domination, rather than on adhering to the all-affected principle.⁵³ One does not have to explicitly subscribe to the all-affected principle, to still appreciate how the process of public deliberation instrumentally helps us toward more long-term and intergenerationally just policies.

Deliberative democracy can figure into and manifest itself in the representation of posterity in multiple ways. As already suggested, there are two main avenues for advancing representation of future citizens: guardians like ombudsmen and reserving seats for parliamentary representatives. Both of these can be used to increase public attention and deliberation about posterity's interests. Ombudsmen can give voice to politically marginalized groups and thereby influence political discourse. As Thompson (2010, 29) notes, assuming a role of future representative is a powerful motivator that changes individual behavior. However, as a single institutional authority, whose mandate is focused on investigation and monitoring, ombudsman is unlikely to facilitate inclusive debate about posterity's interest. A single spokesperson does not represent the diversity of views that inclusive deliberation does. The same applies to courts and special agencies appointed to safeguard posterity. Of course, future guardians can nevertheless be useful for inciting debate about the posterity's interests, and should therefore not be disregarded, but seen as complementary to legislative reforms. A more natural place for genuine deliberation to occur is certainly the legislative chamber. Indeed, Kristian Ekeli's (2005) proposal to reserve certain number of parliamentary seats to future representatives has strong deliberative element to it. In contrast to

52 Furthermore, there is the boundary problem, i.e. who decides whose interest are significantly affected. This decision cannot be made democratically by those affected since that would lead to infinite regression.

53 Intergenerational domination and the all-affected principle are admittedly closely connected to each other. More research on this relationship would be welcome.

Dobson (1996), who proposed environmental lobby to act as representative for the posterity in the parliament, Ekeli argues that environmentalists have insufficiently narrow of a view of sustainability. The debate about posterity's specific interests should be left open, as only diverse set of perspectives can capture the plurality of values future generations might hold. (Ekeli 2005, 435-437.) Under Ekeli's proposal future representatives would be democratically elected and each citizen would vote for two candidates: both future and present representative.⁵⁴ Aside from regular law-making, a qualified majority of future representatives would also have a suspensive veto power to delay legislation that they deem harmful to the future generations. Ekeli's model is based on ideals of deliberative democracy. By slowing down decisions, it fosters public awareness and debate about future issues. This aims to prevent excessively short-termist or self-interested proposals. Deliberation encourages citizens and representatives to put forward impartial arguments that are acceptable to all the parties involved. Representation of future generations may thereby foster an educative process that engenders citizens to internalize the needs of posterity in political decision-making. In the end the interests of future generations become more imaginatively present to people.⁵⁵ (Ekeli 2005, 440-441.)

The deliberative aspect of representation is perhaps strongest in mini-publics, which are composed of ordinary citizens. For example, Thompson (2010, 30) mentions a specialized second chamber of randomly selected citizens, inspired after the Tribune of the Plebs in the Ancient Rome. The tribune did not participate in ordinary politics but stepped in to defend the rights and interests of the plebs when required. Independent from other political institutions, it was even capable of vetoing laws to safeguard the otherwise unrepresented plebs. MacKenzie (2016) also introduces a general purpose, randomly selected chamber of citizens as way to advance long-term decision-making. As an independent, broadly representative and deliberative body, it would be free of

54 In order for traditional political parties or short-term interest groups not to abuse the system, the courts would have to regulate which candidates could qualify as legitimate representatives of posterity (Ekeli 2005, 438). The escalated power of courts is a valid criticism of Ekeli's model. Furthermore, as Jensen (2015, 548) notes, proxy representation can also involve unwanted costs to democratic ideals like equality.

55 Ekeli (2009) has also introduced sub-majority rules as one solution to the representation of posterity. Sub-majority devices specifically seek to counter the will of majority. A specially designated parliamentary minority could be given the authority to delay legislation or to trigger referendum when interests of future generations are overlooked. This has the benefit of avoiding a sharp distinction between the interests present and future people as well as the adjacent issues for democracy. However, sub-majority rules also face legitimacy challenges and are prone to abuse.

political incentives that breed short-termism. Instead of traditional law-making, the chamber would exercise influence by holding parliamentarians discursively accountable for their policies. The chamber could return legislative proposals back for the parliament to reconsider, which the elected officials would then have to deliberate and justify to second chamber and the wider public.⁵⁶ (Mackenzie 2016, 291-292.) Furthermore, Niemeyer and Jennstål call for institutionalization of deliberative mini-publics, which offer discursive representation for posterity. Mini-publics create a deliberative space where the interests of future generations can be discursively present and felt. Broadly inclusive and representative group of citizens is more likely to capture the diversity of perspectives their descendants might hold. Carefully designed and implemented mini-publics can give face to the misfortune of posterity and transform them from abstract statistical victims to something more tangible. (Niemeyer & Jennstål 2016, 251-253.) The direct participation of citizens also increases the democratic legitimacy of the representation. Moreover, randomly selected and rotated citizens are exempt from pressures of short-term electoral cycles. If a diverse assembly of people sincerely imagines and deliberates about future generations' interests within an established institution, this is likely to mainstream its way to the public discussion. A citizens' assembly in which a group of representatives deliberate how decisions affect autonomy and interests of posterity would be large step toward that direction.

My goal here is not to argue for specific deliberative institutions, but merely offer examples of potential reforms to represent the interests of future generations. I leave it an open question exactly how much power these deliberative institutions should hold: whether their role is merely consultative or even includes veto-powers? Similarly, it is contentious to what degree these institutions should rely on specific future representatives to shape deliberation. The specific form of these institutions also depends on empirical findings. Rather than imposing certain institutional structures, it is most important that the procedural nature of deliberation is present in these reforms. Furthermore, there are major differences between countries' political systems which affect how effective these representative devices are. There are no one-size-fits-all-models. (Rose 2016, 65.) The main takeaway should be that deliberative reforms are especially well placed to address many of the issues in representation of future

⁵⁶ Admittedly the random chamber's effectiveness remains a worry, given the lack of veto powers. Its power is derived from the perceived legitimacy and credibility among the population (Mackenzie 2016, 293).

generations. Public deliberation functions as check on power of the present, by effectively empowering the citizens to act as watchdog for posterity. It slows down decisions and exposes short-sighted reasoning, thereby limiting the power of myopic legislators (Ekeli 2009, 456). Regardless of the specific reform pursued, they nevertheless ought to incorporate deliberative practices into them. Institutionalization of deliberation is important for directing the discussion towards the autonomy of posterity. I will now showcase the benefits of deliberation and how it alleviates some central challenges of representing interests of future generations in decision-making. Namely, deliberation leads to educative perspective-taking, long-termism, discursive accountability, depolarization and relieves uncertainty about the future.

4.3. Benefits of deliberation

Educative perspective-taking

Deliberative institutions can raise awareness about the interests of future generations in an educational manner. This is essential, because as discussed earlier, intergenerational domination is to a large degree result of shortcomings of common sense morality. Human morality is focused on the short-term consequences of our individual actions to those spatially and temporally closest to us. In essence our moral circle and empathy is restricted to our immediate contemporaries.⁵⁷ Implication of these human biases is that institutions have to be focused on education, dialogue, and public deliberation to achieve sustainable value transformation within the population. As Caney (2016, 152) has noted, many of the institutional restrictions are downstream solutions, which are hard to enact legitimately without first affecting people's values and motivation in the upstream.⁵⁸ Deliberation's strength lies in combining these two aspects.

Central for deliberation is perspective-taking, a process where people learn to understand others' viewpoints, and in some sense are able to put themselves in positions of others. Perspective-taking can alleviate the empathy biases that also motivate short-termism. Humans tend to empathize with their close in-group members at the cost of

⁵⁷ See back to chapter 1 of this thesis.

⁵⁸ Another way to formulate this would be to make a distinction between supply (institutional restrictions) and demand (moral deliberation) solutions.

distant out-groups. Deliberation can break these barriers and motivate consideration of interests of disadvantaged out-groups, such as future generations. (Setälä 2019.) Therefore, deliberation is not a mere representative tool but educative way of incorporating future generations' interests in to the public sphere. Through discursive process citizens can come encapsulate and internalize interests of future generations. Affection, empathy and the subsequent motivation are all essential in safeguarding the future. Deliberative reasoning is of no use unless posterity is also emotionally present in the process. As the interests of future generations are incorporated to the deliberative setting, they are transformed from abstract or statistical victims to actual beings that motivate us to reconsider our actions. Deliberation aims to generate empathy for voiceless groups by making their interests salient during the dialogue. (Goodin 1996.)

Public deliberation helps citizens consider out-groups' interests by exposing them to a diverse set of perspectives. Empirical studies indicate that this applies even if the oppressed group itself is not present in the deliberation. In a Finnish experiment, deliberation encouraged participants to consider interests of immigrants despite no immigrants being involved in the process. By the virtue of deliberation, those empathetic towards immigrants acted as representatives for their viewpoints. (Grönlund, Herne & Setälä 2015.) There is no principled reason as to why the same mechanism could not apply in intergenerational setting and why deliberation could not provide presence for posterity's interests.⁵⁹ Of course, the non-existence as well as non-identity of posterity is a challenge even in deliberative setting. These more abstract, distant out-groups might not incite empathy in the same way as groups that actually exist in the present. But as discussed, empirical evidence suggest citizen deliberation generally leads to more long-term and sustainable policies. This effect can be reinforced by framing and narrative tools that evoke emotional concern for posterity, say by using young people as proxy representatives for interests of future generations (Setälä 2019).

Long-termism

Deliberation alleviates both affective and rational conditions that breed short-termism. While perspective-taking emotionally motivates us to consider the interests of future

⁵⁹ It is worth noting that future generations do not actually suffer from social prejudice the same way some existing out-groups do, say immigrants. Future generations are usually seen in positive light, as an extension of ourselves.

generations, deliberative processes also breed more far-sighted reasoning. Analytical deliberation can help us overcome the deeply rooted, intuitive cognitive biases which underlie our short-termism (MacKenzie 2018, 254). Under deliberation public decisions ought to be justified by reasons and arguments that everyone affected could plausibly accept. Deliberative institutions therefore promote universal positions that consider potential interests of posterity. (Ekeli 2009, MacKenzie 2016.) Given that careful weighing of the strengths and weaknesses of different arguments is essential to deliberation, claims that integrate preferences of both current and future generations are more likely to find success. The fact that participants have to justify their views to others through public reason-giving and critical dialogue helps combat biases. Accordingly, findings indicate that participating in deliberation leads people to adopt more public-spirited positions (Ackerman & Fishkin 2004, 55). When intergenerational issues are recognized in the deliberative process, self-serving and short-sighted arguments can be challenged on those grounds (MacKenzie 2016, 287). Arguments motivated by narrow self-interest lose their thrust in an environment where they have to be reasonably justified to everyone. While deliberation does not necessarily guarantee more long-termist outcomes, it is nevertheless advantageous for participants to rely on arguments that are consistent with the interests of the posterity. Gundersen (1995) finds that face-to-face dialogue on environmental issues can push people to adopt more long-term perspectives. According to Fishkin (1995) participating in a deliberative poll in Texas led people to call for increasing renewable energy investments and conservation measures. Similar findings have also been reported globally by the World Wide Views on Global Warming project, which organized deliberative mini-publics across thirty-eight countries in 2009 (MacKenzie 2016, 287).

Given that deliberation induces people to consider future generations' interests in their arguments, this might actually lead participants to internalize their interests (Goodin 1996, 846). Having to publicly justify one's position leads to subconscious self-censorship and anticipatory internalization of others' interests (Ekeli 2005, 446). In other words, perspective-taking and reason-giving complement each other in improving impartiality of decisions. This is crucial because deliberative reasoning itself is not necessarily sufficiently directed towards the long-term interests of others. It also requires the right environment and incentives, perhaps facilitated by specific future representatives. In fact, given how political behavior is still influenced by common

sense morality and its biases, affective responses might be the most important part of the puzzle. Group identities and emotional reactions often beat out carefully crafted arguments in political decision-making. However, this is also something that deliberative institutions try to influence and change for the better. Regardless of their respective importance, both emotional and cognitive aspects of deliberation motivate people to safeguard future generations' interests.

Discursive accountability

Deliberative representation balances between the democratic rights of the present and the future. Given that future generations are not present to validate and hold us accountable for how their interests are represented, new interpretations of accountability are needed. Deliberation suggests that accountability means justifying our decisions to future generations as if they were currently alive. This implies entertaining policies posterity could not reasonably reject. In other words, present people are deliberatively or discursively accountable to posterity. Accountability to the future is therefore exercised through a process of public reason-giving that aims to justify our actions to the posterity. Discursive accountability essentially means careful reasoning to arrive at principles neither the present nor future people could reasonably be expected to reject. Decisions have to be backed by reasoned explanations that could plausibly be backed by posterity. Thus, deliberation does not impose decisions on either the present or future people, but instead renders them more legitimate.

One could criticize the above interpretation of accountability as too weak, especially given the threat of intergenerational domination. But it should be noted that even deliberation can act as a significant check on power. Open and free deliberation is a barrier to concentration of power, because it slows down decisions and renders them subject to public criticism and scrutiny. Public deliberation therefore has an important power-checking function that aids legitimacy of democratic decisions. (Ekeli 2009, 456.) Future-oriented deliberation is part of the checks and balances that protect posterity against present majority decisions that do not give consideration to their interests. It is therefore a block against the unlimited power the present generation wields. Yet this obstacle cannot be overly rigid either not to violate democratic sovereignty of each generation. While deliberative representation is more genuinely

democratic across generations, it cannot guarantee posterity's interests because there are no guarantees in democracy. Deliberative representation of posterity makes democracy as future-oriented as possible, while still retaining each generation's right to sovereignty. Especially deliberative mini-publics such as citizens' assemblies do well in combining both legitimacy and effectiveness in representing the future.

Deliberation, especially when compared to more stringent institutional restrictions, is inherently democratic and promotes more inclusive decision-making across generations. This is not merely restricted to representation of posterity's interests, but also improving how today's disenfranchised voices are heard. Deliberative methods improve the representativeness and inclusiveness of the whole political system by including a wider array of perspectives. Deliberation is also often accompanied by selection of the participants through random sortition, so to ensure variety of viewpoints. It is a central deliberative ideal that all the affected parties, within and across generations are represented in the public discourse. Indeed, deliberation enhances democratic legitimacy by involving those who are affected by the policies in making them. If the interests of affected parties, like future generations are not considered, democratic legitimacy is undermined. (Ekeli 2009, 444.)

Depolarization

As discussed in the first chapter, increasing political polarization and partisanship has arisen as one of the main obstacles to long-term policy-making. Political landscape characterized by tribal allegiances devoid of common values is not conducive to long-term policy-making. If one's political opponents are seen as immediate and hostile threat, intergenerational concern is unlikely to manifest itself in decision-making. Moreover, instituting reforms that safeguard future generations require cooperation across political aisles. Deliberation can counter this by encouraging respectful and civil discourse. Respectful discussion helps us empathize with others and understand their viewpoints better. Deliberation has been found to foster an expanded collective identity and a common voice (Felicetti, Gastil, Hartz-Karp & Carson 2012). Deliberation therefore lessens societal divisions and contributes to strengthening of democracy (Dryzek et al. 2019). Moreover, deliberative democracy can empower citizens to identify and pursue shared social objectives and long-term goals (MacKenzie 2018,

258). Bringing people together in deliberative environment facilitates trust between them. The mutual trust breeds greater consensus on policy issues and enables us to consider how future generations are affected by them. Requiring greater consensus for policies to be passed also reduces viability of extreme polarization as a political strategy and forces different parties to cooperate for the common good.⁶⁰ As such deliberation is the central antidote to polarization.

The depolarizing effect of deliberation is especially important because otherwise some of the institutions and reforms enacted to better safeguard the future might be turned against themselves. Such abuse would allow parties or interest groups to advance their own narrow short-term interests. For example, legislative tools such as delaying legislation or veto powers could be abused in partisan manner to obstruct governance, like has already happened in the United States congress. Some of the proposals for future representatives also grant judiciary a significant amount of power, which can be problematic if courts reflect the wider polarization of society. Some authors have criticized deliberation for leading to group polarization, because discussion between like-minded individuals tends render their viewpoints more extreme (Sunstein 2009). While group polarization is a threat, this criticism is misguided because deliberation specifically refers to discussion between people who represent plurality of views. In fact, most deliberative institutions take explicit steps against polarization by measures like moderators, discussion rules, balanced information and expert testimonies. Findings from mini-publics indicate that groups actually tend to become less polarized during deliberation as people learn from variety of views and partial beliefs are countered (Grönlund, Herne & Setälä 2015). This indicates that it is precisely the lack of deliberation that leads people to more extreme viewpoints.

Uncertainty

Deliberation can relieve the epistemic uncertainty related to the future in at least two respects: judging consequences of our actions and imagining posterity's preferences. First, most of the long-term problems are complex because of how they intersect with

⁶⁰ Relatedly, deliberation is also an obstacle against polarization ever emerging because the discursive process restricts polarizing authoritarians seeking to abuse power. As polarization is often connected to the feeling of marginalization and not being heard in the decision-making, greater representation of different interests within a deliberative setting can also prevent polarization from arising.

other issues (MacKenzie 2016, 286). Especially long-term impacts of policies can be hard to model and understand, due to their many variables. These problems are often dubbed wicked problems, because of their unique, unknowable interdependencies and resistance to simple solutions (Rittel & Webber 1973). Deliberation can help us gain a better understanding of these interrelated issues. Bringing people together to think and deliberate over complex issues enables us to pool our knowledge, experiences, and insights from various sources to better understand the issue (Ekeli 2009, 459). The broad range of perspectives subject to critical scrutiny breeds novel and innovative solutions to shared threats. Diverse, interdisciplinary knowledge can improve quality of decisions under uncertainty and lead to more informed and enlightened decisions. By gaining a more comprehensive understanding of long-term policy issue we can expand the information basis of decision-making and more accurately gauge how our actions affect posterity. (Ekeli 2009, 442-444.)

Secondly, and perhaps more importantly, uncertainty regarding posterity's various interests is also alleviated by deliberative means. Perspective-taking helps us imagine what interests future generations might hold, especially in relation to their autonomy. Through common discourse we can better judge which measures future generations could be reasonably expected to endorse in order to safeguard their autonomy. It encourages people to imagine variety of futures and possible interests people within those futures could hold. In fact, the diversity of perspectives within current population is likely a good mirror for the ones find in future generations. Deliberation enhances the level of reflection among the representatives, resulting in a greater clarity regarding future generations preferences. As Karnein (2016, 96) argues, deliberation reduces the epistemic difficulty of representing future to its inevitable core and addresses the problem of value plurality. It enables us to imagine more sincerely which policies could be feasibly accepted by posterity if they were present today.

4.4. Instituting deliberation

Based on the above, deliberation can play an essential part in creating a presence for posterity and curbing the empathy gap in decision-making. The pervasive uncertainty of the future combined with human biases means that future-oriented deliberation is one our best options in representing future generations. The beauty of deliberative

institutions is that they simultaneously address the motivational, epistemic, and legitimacy challenges of representing future generations. They lessen the appeal of short-sighted self-interest and create incentives for decision-makers to care about the long-term. Institutions designed to represent future generations should therefore be built around deliberation, preferably including ordinary citizens, like in the case of mini-publics. This educative approach is needed to motivate the wider public to take a more long-term, intergenerational view of our common issues. Without public backing no future-focused institution is likely to succeed. Of course, the success of deliberation is reliant on how well posterity's interests are actually represented in the deliberative process. Deliberative mini-publics have repeatedly shown that citizens are capable of taking long-term decisions with future generations in mind. To what degree such deliberation should involve specific future representatives is an open question – such representatives might help ensure that citizens overcome biases of common sense morality and actually do adopt enlarged long-term perspective.

The interests of future generations can be represented in public deliberation even without genuine future representatives. Deliberative mechanisms like public reasoning mean that deliberation can encourage long-term thinking even if no specific representatives of the future are present (MacKenzie 2018, 256). Karsten Klint Jensen argues that the interests of posterity might be better served by promoting deliberative consideration of the future, rather than by establishing specific proxy representatives. This is because strong representation might violate democratic ideals, such as political equality and autonomy of the present. (Jensen 2015, 548.) However, institutionalization of the deliberation is important for directing it towards the long-term. This is where future representatives can provide valuable input and framing to the deliberative process. While future representatives are not necessarily required for successful citizen deliberation, they might complement it in valuable ways. Ombudsman who advocates on behalf of posterity and brings their interests forward in public discussion might be useful in creating initial presence for posterity in the deliberation. Afterwards, deliberative mechanisms themselves act as a strong deterrent against short-termism. In practice, the deliberative institutions might be explicitly oriented towards the future: citizens' assembly might be specifically tasked to consider viewpoint of the posterity. Perhaps a certain number of the participants would be assigned role of a future person. Long-term impact assessment of policies might also be subject to citizens assemblies.

Deliberation can both be integrated into existing legislative processes or scaled up through aggregating results of mini-publics across the society (MacKenzie 2018, 264). The opportunities here are numerous. Indeed, as Bovenkerk (2015, 511) says, public deliberation can be successfully used to represent future generations, as long as the type of representation itself remains pluralistic, open for debate, and revisable in the future. While future-focused citizen deliberation might be made part of the decision-making procedure in the constitution, this has to be left amendable to facilitate different interpretations of this duty. Posterity has to be able to amend policies and procedures that have turned out to run counter to their conceptions of the good.

As intergenerational domination arises partly due to deep moral deficiencies, deliberation plays an important educational function by the virtue of perspective-taking. It can motivate citizens both emotionally and rationally to consider the interest of future generations. Furthermore, this lessens the epistemic challenges of anticipating consequences of our actions and how they affect posterity. Unlike specific representative reforms, deliberation affects the whole political and societal system, making it more future-oriented. This is welcome given the human tendency to succumb into moral corruption and short-termism. The threat of intergenerational domination requires power checks and accountability mechanisms to be introduced to the political system. Deliberation functions as a check on power of the present, by limiting the degree to which decisions are subject to the unlimited will of myopic majorities (Ekeli 2009, 456). Present decision-makers can be held discursively accountable for their policies. While curbing intergenerational domination requires robust restrictions on the power of current majorities, these restrictions can themselves violate generational sovereignty. Deliberation aims to strike a delicate balance between effectiveness and legitimacy of representing the future generations by creating procedural limitations on the use of power, while still respecting each generation's self-determination. As deliberation is inherently democratic and respects sovereignty of each generation, it cannot guarantee that democratic majorities will always act in the best interest of posterity. Yet this is an unrealistic goal as such guarantees would violate democratic rights of the present people. While one cannot enforce others to care for posterity, they can establish impersonal and impartial instruments that do so, such as citizen deliberation. Deliberation represents our best option in balancing legitimacy and effectiveness of representing the future.

5. Conclusion

Humans have evolved in small, technologically deprived communities, where one's actions only had local consequences. This has also influenced our common sense morality, which tends to be restricted to those closest to us both spatially and temporally. This is further reflected in the current political systems that are systematically biased in the favor of present generation. Yet now humanity is capable of wrecking unprecedented havoc across the planet, impacting far-off future generations in irreversible ways, as demonstrated by the climate crisis. In this thesis I have argued that climate change and even many of its possible remedies are instances of intergenerational domination, where the present generation subjugates future in a way that is inimical to their autonomy. This is not merely about affecting future generations but determining conditions of their actions. Posterity is subject to superior, arbitrary power of the present without a chance of exiting this relationship. I have defended this structural conception of intergenerational domination against insufficiently narrow neorepublican interpretations. When an agent is in position to arbitrarily shape conditions of another agent's actions, the latter is dominated because this violates her autonomy. The fact that the current generation poses unconstrained power to impose their own values and preferences on posterity violates the fundamental human need to autonomy and freedom.

This structural power disparity calls for institutional restrictions on the power of the present generation. Representation of future generations in decision-making can act as power check on the relation and introduce accountability to the picture. Yet constitutionally entrenched representation can also threaten autonomy of generations to come and impose costs on democratic ideals if not carefully designed and open to amendments. Any attempt to represent interests of posterity therefore has to balance between democratic legitimacy and effectiveness. I have argued that due to challenges of legitimacy, uncertainty and human biases we ought to represent the posterity's interests through public deliberation. While we lack knowledge of posterity's exact preferences, we can know enough to safeguard the conditions that empower them to make these choices for themselves. Deliberation can lead the public to take the perspective of future generations and internalize their interests, namely autonomy. This

way public deliberation can foster enlarged, long-term thinking in pursuit of the common good. The present generation is discursively accountable to posterity under such model. Indeed, evidence from deliberative mini-publics suggest that public deliberation can be used to represent future generations, leading to more sustainable long-term policy choices. Deliberation balances between these issues by creating procedural limitations on the use of power, while still respecting each generation's democratic sovereignty.

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