The Four-Branches Model of Government: Representing Future Generations

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Abstract

This chapter proceeds as follows: after clarifying the key concepts, it elaborates on the reasons for the endemic presentism in democracies. It then argues the case for offices for future generations (OFG) that are tasked to represent future citizens of the respective state. Due to diverging political traditions which have materialised in diverse political architectures, there cannot be a one-size-fits-all solution; rather, it seems apt to conceive of such a representative body differently for each country. Nevertheless, this chapter seeks to find some commonalities for the general design of OFGs. One common trait is that these institutions should have the right to initiate legislation rather than the right to delay or prevent it. This ensures the democratic legitimacy of the OFGs. In the last section, such OFGs are defended against three counter-arguments: the non-existence problem, the non-identity problem and the ignorance problem.

Keywords

Offices for future generations, intergenerational justice, representation, non-identity problem, ignorance problem

Note

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Tremmel, Jörg (2021): The Four-Branches Model of Government: Representing Future Generations. In: Cordonier Segger, Marie-Claire / Szabó, Marcel / Harrington, Alexandra R. (eds): Intergenerational Justice in Sustainable Development Treaty Implementation. Advancing Future Generations Rights through National Institutions. Cambridge: Cambridge University Press, pp. 754-780. "[O]nly present interests make themselves heard and felt and enforce their consideration. It is to them that public agencies are accountable, and this is the way in which concretely the respecting of rights comes about (as distinct from their abstract acknowledgment). But the future is not represented, it is not a force that can throw its weight into the scales. The nonexistent has no lobby, and the unborn are powerless. Thus accountability to them has no political reality behind it in present decisionmaking, and when they can make their complaint, then we, the culprits, will no longer be there."

Hans Jonas 1984: The Imperative of Responsibility, p. 22

1. Introduction

Only recently, in the past two decades, have philosophy, political science and law engaged in a burgeoning debate about the 'presentism' of the democratic form of government.¹ Since this field of study is quite new, concept formation still remains unfinished. To be sure, having an adequate terminology is essential – after all, just as concepts without corresponding phenomena are empty, so too are existing phenomena not fully accessible to human reason without appropriate concepts.² For instance, the concepts of 'presentism' and 'short-termism' do not mean the same. 'Presentism' stands in sharp contrast to the noble idea of 'intergenerational justice',³ but the same is not necessarily true for the phrase 'short-term.' Take, for example, the political right of generations to self-determination. Constitution-making is a case in point here that has been discussed regularly in political philosophy and at great length in particular by Jefferson, Madison and Paine during the founding period of the United States. Constitutions enshrine the fundamental values of a people and they build a framework for a state's public policy. With regard to intergenerational justice, their long-term endurance gives rise to two concerns: the (forgone) welfare concern and the sovereignty concern. A procedure for constitution-amending that is intergenerationally just must not be

¹ Schlickeisen 1994; Dobson 1996; Goodin 1996; Mank 1996; Stein 1998; Barry 1999; Doeleman/Sandler 1998; Kielmansegg 2003, Eckersley 2004; Wood 2004; Ekeli 2005; Tremmel 2006; Thompson 2005, 2010; Read 2011; Oxford Martin Commission for Future Generations 2013; Gesang 2014; Kates 2015; Tremmel 2015a. Research on institutions for future generations has gained even further momentum in recent years. In 2016/2017 alone, several remarkable volumes have addressed institutional responses to the widespread problem of 'presentism' in democracies, see González-Ricoy/Gosseries 2016; Rose 2017 and Boston 2017a.

² Paraphrasing a famous remark by Kant (1996 [1787], p. 107): "Thoughts without content are empty; intuitions without concepts are blind."

³ For an overview of definitions and theories of 'intergenerational justice', see Tremmel 2009; Gosseries/Meyer 2009.

too rigid and long-term-oriented.⁴ One must thus be careful about criticizing short-termism and praising long-termism in general. Not every short-term action is a form of myopia that over-discounts the interests of future generations.

Another remark regarding terminology: speaking of 'institutions for the future' is a little imprecise, too. The future itself is no moral patient. It can neither be harmed nor benefited. If one does seek to address the members of future generations of the human species, one should say so. Terminologically, the use of specific concepts such as 'institutions for future generations' is preferable to concepts such as 'future-beneficial institutions' or 'institutions for the future'.

This article will criticize the concept of 'presentism' (harmful short-termism), and it will discuss 'institutions for future generations' in general and 'offices for future citizens of specific states' in particular.

2. Alleviating democracies' endemic presentism

2.1. Preference for the present as an interdisciplinary topic

'Preference for the present' or 'time preference' is an interdisciplinary topic with an abundance of literature in each of the related disciplines (inter alia philosophy, political science, sociology, economics, biology). For economics as a discipline, it is simply axiomatic to assume that any sum of money due in the future has a value different from the same sum due in the present. This assumption is the justification for positive interest rates. The debate about discounting rates for different goods is pertinent here.

Biologists have pointed to the fact that the growth of the frontal lobe in the brain of homo sapiens was a precondition for the very possibility of certain forms of the deferment of preference satisfaction. To put it simply: humans are (under certain circumstances) able to pass the marshmallow test, chimpanzees are not.⁵

Psychologists and social scientists discuss the effects of graduality on the alertness of people and their willingness to take action. This variable is an important driver for harmful shorttermism (Glantz 1999; Caney 2016, 143-145). Climate change, for instance, is a so-called creeping environmental problem, i.e. one that is barely remarkable on a day-by-day, year-by-

⁴ In search of middle ground between perpetual constitutions (or difficult-to-change constitutions) and sunset constitutions, Tremmel (2017) proposes recurrent constitutional reform commissions.

⁵ The 'marshmallow test' refers to a series of studies on delayed gratification in the late 1960s conducted at Stanford University. In these studies, a child was offered a choice between one marshmallow provided immediately or two marshmallows if they waited for a short period (15 minutes). In lifecycle studies, the researchers found that those children who had been able to wait longer for the preferred rewards tended to achieve better degrees and have a better body mass index.

year basis. Given the way the human brain works, graduality poses a specific obstacle for resolute action.

Another important variable is the invisibility of the victims. It is widely recognized that the willingness of humans to take action to respond to people's plight depends on the fact that the victims are visible or at least identifiable (Jenni/Loewenstein 1997). Those that are yet unborn are invisible and unidentifiable.

One key insight from this kind of research is the necessity to distinguish between pure time preference, precaution against an insecure future (precaution-induced time preference) and egoism (self-interest-induced time preference).⁶ Put differently, without the last two factors, most people do not prefer the present over the future (Frederick 2003).⁷

This article restricts itself primarily to *political* presentism, i.e. presentism in the realm of politics.

2.2. Political presentism: the electorate

Democracies are skewed in favour of presentism. From this diagnosis, some studies arrive at conclusions which can be taken as a critique of elected politicians or, using a pejorative term, 'the political class'. It has been argued that politicians are inclined to adopt policies that let them reap short-term benefits while avoiding policies that have near-term costs and delayed benefits (Kavka/Warren 1983). But these critiques underestimate the influence of voters as the root cause. The constituency usually seeks advantages that can be realized in the present or near future, or at the very least within their own lifetimes. Faced with the choice between receiving a certain state benefit (or tax concession) either in the present or in the future, most voters opt for the present for what appear to be rational reasons. Pure time-preference might be myopic and irrational but the reduction of uncertainty is not – and the future, especially the distant one, is less certain than the present. And since no one knows the day of their own death, it is not irrational to strive for a good life *before* one dies. There is empirical evidence that representative and direct democracies are both subject to presentism. In direct

⁶ When asked if the government should rather save 100 lives now or the same number of lives in 100 years from now, the respondents of Frederick's (2003) questionnaires opted in their majority for the presentist solution. Among the reasons they gave was: The life that could be saved could be my own life.

From other studies, it is well-known that people opt for the avoidance of minor harm for themselves rather than for major harm (or even death) of a person that is unknown to them.

⁷ It is also important to note that presentism on the level of the same individual (intra-personal) is rather a question of imprudence than of immorality. This article is mainly concerned with presentism with regard to successor individuals (inter-personal), although both forms are often difficult to disentangle in practice.

democracies such as Switzerland the presentism of the electorate can be ascertained by looking at the relevant referenda (Bonoli/Häusermann 2010). Demographic aging seems to play a role, too. Van Parijs' (1998) claim that older voters tend to display stronger harmful short-term interests than younger ones because the former are not as likely to experience the delayed costs of today's presentist actions has been partially confirmed in the meantime. It has been shown empirically that there is an age effect in the acceptance of public policy measures directed at different age groups. With every year gained in life, the odds of supporting a significant increase in child benefits decrease by around 4 percent. Childlessness has an important effect: the odds for childless elderly people to be in favour of the proposed policy measure are 53 percent lower than for parents (Wilkoszewski 2008, p. 202). It is thus inappropriate to equate more direct democracy, especially in societies with an increasing number of childless old voters, with less 'presentism'.

2.3 Political presentism: the politicians, and their need to campaign

In democracy, opposition politicians take an interest in being elected, as do governing politicians in being re-elected. This is not to say that, as a group, politicians are exclusively motivated by power, positions and privileges. Even those who seek to shape sensible policy have to exert power in order to do so, and the only way to obtain that kind of power is by holding an office (or mandate). During campaigns, politicians have to focus on the current preferences of the current electorate. Elections can be compared with marshmallow stores that open up once in the electoral cycle (i.e. periods of four to five years). Political competitions between two politicians, one of whom promises some benefits in the near future, while the other one pledges the same benefits but in the more distant future, will not end in favour of the latter. Future-awareness amongst politicians cannot translate into sustainable decision-making under the dictates of frequent electoral campaigns. Future people cannot vote today and they cannot be included in the calculus to maximize votes.

The rhythm of democracy conforms to the timing of election periods, exhibiting structural incentives for a politics of glorifying the present and disregarding the future. For this reason, appeals to the conscience of politicians, asking them to consider the interests of future people more deeply, are likely to go unheard. *Mutatis mutandis*, John Stuart Mill's insight from 1861, still holds true today:

"Rulers and ruling classes are under a necessity of considering the interests and wishes of those who have the suffrage; but of those who are excluded, it is in their option

whether they will do so or not; and, however honestly disposed, they are, in general, too fully occupied with things which they *must* attend to to have much room in their thoughts for any thing which they can with impunity disregard." (Mill 1958, p. 131)

Voters' presentist attitudes and politicians' need to campaign (frequently) are the main drivers of political presentism in democracies. This is not to say that there are no additional drivers. Businesses with short timeframes play a role, as politicians are often dependent on their support in order to be (re)elected (Boston 2017a). Another driver of presentism in democracies is the 24 hour news cycle that puts pressure on politicians to be able to respond quickly to show that they are taking action (Caney 2016).

2.4. The breach of the all-affected principle

Political presentism leads to a breach of the all-affected principle. The all-affected principle states that all citizens who are affected by decisions should have their say on the laws that rule their lives (Kates 2015, p. 511; Beckman 2013, p. 778; Dryzek 1999, p. 44; Dobson 1996, p. 124; Shapiro 1996, p. 232; and famously Goodin 2007). This right to participate in the decision-making process is an important normative justification for democracy (just recall the famous maxim "no taxation without representation"). Present citizens' decisions will affect people of tomorrow, too. But future generations of the citizenry cannot vote (or participate otherwise) today. Conflicts of interest are decided according to the opinion of the majority of eligible voters, not the majority of those affected by a decision. This presents an internal deficiency of present democratic systems that brings into view a special form of 'representation gap'. This gap differs from the lack of electoral representation experienced by societal minorities or groups such as women, the elderly, immigrants, and minors.⁸ These groups are present in the here and now; they can take part in political discourse, write letters, appear on talk shows, and in many cases vote in elections. None of this applies to the members of future generations. If future people were able to claim their interests in the political decision-making process, the majority stakes in important political decisions would be different.

⁸ With regard to the case of minors, Tremmel and Wilhelm (2015) advocate a 'flexible voting age' building on the willingness of minors to participate in elections. This proposal takes into account that babies, little children and many younger adolescents have no interest in political participation anyway. The 'flexible voting age' proposal contains a need for adolescents to register in voting lists and must thus be strictly distinguished from proposals that come under the name of 'voting from birth on' or 'voting age zero'.

One example of this dynamic is energy policy. Scientific analyses indicate that current energy policy intensifies the natural greenhouse effect and causes the global average temperature to rise (Houghton et al. 1990). The present fossil fuel-based energy production maintains a high standard of living for current citizens. However, such a policy brings grave disadvantages to those who will live in the mid-term future (50-100 years from now). Anthropogenic climate change will cost hundreds of thousands of human lives (Global Humanitarian Forum 2009; World Bank 2013).

If, along with present-day citizens, those born within the next 100 years were to have a say on energy policy in the next general election, all political parties would hasten to rewrite their platforms in order to facilitate a much faster reduction of greenhouse gas emissions.

2.5. Political presentism in the Anthropocene⁹

The problem of 'presentism' in democracies is not limited to environmental issues. Long before the advent of the modern environmental movement, excessive public debt was a prime example of the careless use of the future, and a topic for discussion in political theory (Jefferson 1816). Underinvestment in education or lack of adjustments to social security systems are other examples of a lack of future orientation in political systems. But the consequences of political presentism are most severe in environmental issues. Since the 20th century, the pace of humankind and the environment have started to fall apart dramatically. In environmental issues, more than elsewhere, the effects of current actions reach far into the future and can have a deeply negative impact on the quality of life of numerous future generations. Prompted by humanity's unprecedented ability to influence its geophysical surroundings, scientists have recently begun to speak of the beginning of a new geological period, the Anthropocene. At the 35th International Geological Congress in Cape Town (September 2016), the members of the sub-commission voted almost unanimously in favor of changing the classification of geological epochs and of declaring a new world age. There are sound reasons for this step. As a result of urbanization, large areas are by now covered by a mixture of concrete, glass and metals. Even if humankind were to go extinct tomorrow, those structures would remain where they are for millennia to come. If in a few thousand years from now, geologists were to visit the place where a large city is standing today, they would discover fragments of concrete, rusted iron, pavements and road bitumen, glass from fiber

⁹ The link between the Anthropocene concept and the debate about OFGs is further developed in Tremmel 2018a.

optic cables, and an amount of aluminium which as such is not found in nature. The shifting from wilderness to grasslands is another unforeseen sign of the enormous changes humanity has brought upon earth's surface. While the proportion of non-wilderness was minimal 12,000 years ago, more than a third of the earth's surface is being used as grassland for livestock today. If one were to place all mammals on a huge scale, one would find that humans and their livestock have amounted to 0.1 percent of all biomass at the beginning of the Holocene, while today this share has risen to 90 percent of all biomass (Vince 2011). Further examples of the unprecedented extent of human interventions include:

- The harvesting of subterranean forests, that is, the extraction of coal, oil and gas from the lithosphere. If ever, it would take hundreds of millions of years for these resources to regenerate.
- 2. The anthropogenic contamination by radioactivity, the timescale of which is likewise only measurable in millions of years.
- 3. The worldwide flora and fauna species extinctions caused by the human species. Nature is always in the process of creating new species, so it is indeed only a matter of time until the ramifications of the sixth mass extinction will have been 'processed' by nature. However, this too will run into the low millions of years time-wise.
- 4. Climate change, by comparison, is reversible within a much shorter timeframe, but here too we are dealing with tens of thousands of years.
- 5. Space debris has been accumulating in the earth's orbit since the beginning of space travel, and the forces of nature alone will be unable to dispose of it within the next few thousands of years.

It is not very controversial any more in philosophy to assert that the 'neighbour ethics' that was very useful in the Holocene is of limited use for this new era. But it is less understood that the ecological crisis is also a crisis of democracy as a form of government. Our political institutions, as we know them, were designed in and for the Holocene. The transition into a new phase of geology necessitates a reform of these institutions, namely parliamentarianism. One should not think of 'the Anthropocene concept' as just another frame, but rather understand it as an eye-opener and a wake-up call to reform democracy.

Offices for future generations have been proposed in the literature – and already realized in practice in pioneering jurisdictions – to introduce the interests of future citizens into today's political system. But before outlining what such a reform might look like, two caveats seem to be necessary: one with regard to the superiority of democracy to all other forms of political rule; the second with regard to the limited use of posterity protection clauses in constitutions.

3. Democracy as a valuable inheritance for future generations

Reforming democracy, to be sure, does not mean putting it into question. Since the 1970s (e.g. Ophuls 1977), some unnecessary ink has been spilt pleading for an eco-authoritarian 'solution'. Especially after a series of failed UN climate conferences between 2009 and 2014 before the success in Paris 2015 (and then again when US president Donald Trump opted out of this accord in 2017), several contributions to the debate asked the question of whether democracy is the best form of government to cope with ecological challenges (Shearman/Smith 2007, Beeson 2010, Randers 2012). This provocative question is misleading, whether it is answered in the affirmative or not. At any rate, the international climate conferences are a bad case in point, given that not only democratic, but also nondemocratic states contributed to the failure of the negotiations. Comparative studies have shown that the environmental performance of authoritative regimes is worse than that of democracies (Jänicke 1996). On average, authoritarian regimes display less concern for the future-related interests of their citizens, and they typically engender patronage and corruption (Boston 2017). So-called epistocrats (proposing rule by those who have knowledge) could reply in return that they don't advocate for authoritarianism per se, but an enlightened nondemocratic rule. One lesson from history is that there is no way to ensure that an enlightened dictator does not abandon his benevolence eventually. 150 years ago, at a time when intellectuals open-mindedly discussed whether or not democracy is better than monarchy or aristocracy, Mill wrote sensible words that are still (or again) worth reading today: "In no government will the interests of the people be the object, except where the people are able to dismiss their rulers as soon as the devotion of those rulers to the interests of the people becomes questionable." (Mill 1977, 73)

In the long run, no other form of government but democracy is better suited to solve the global environmental problems.

4. Posterity protection provisions in constitutions do not suffice

Constitutions are often perceived as a tool against presentism and intergenerational injustice because they are procedurally difficult to change (Tremmel 2017). Therefore this governance mechanism itself seems to represent a more durable foundation to the state than other environmental regulation (Dirth 2017). The growing acceptance of responsibility for future generations has led to the trend of including posterity protection clauses in constitutions. Insofar as constitutions were newly adopted, for example in Eastern Europe and Central Asia

after 1989, or in South Africa after the end of apartheid, a regard for future generations was inscribed in almost all of these cases. Even well-established constitutions were changed in order to reflect the increasing future-mindedness of citizenries around the world (for details, see Brandl/Bungert 1992; Weiss 1989; Hayward 2005; Tremmel 2006: 192-197; May/Daly 2014; Cho/Pederson 2013; Ekeli 2007; González-Ricoy 2016; MacKenzie 2016a). Using the new Constitute Project's database, Dirth (2017, 43-51) has scrutinized environmental posterity protection provisions and more general provisions about the environment of all the constitutions in the world – the complete universe of cases, not just a sample. She categorized these legal provisions, 120 altogether, into a) individual rights to a healthy environment (74), b) non-binding environmental clauses (58), c) explicit mention of future generations (37), d) the right of future generations to the environment (5), e) more elaborate legal provisions (33), f) clauses enabling further legal or policy frameworks to develop (46), and finally g) citizens responsibility clauses (59).

The number of constitutions with posterity protection clauses is already considerable, and it continues to grow.¹⁰ But does this make any difference? One key finding by Dirth (2017, 47) was "that there does not seem to be a relationship between clauses related to environmental protection, future generations or intergenerational equity and the implementation of further provisions or legal enforcement to operationalize these legal foundations. Therefore constitutional clauses do not guarantee direct outcomes, but instead potential for outcomes." Notwithstanding the focus on OFGs rather than constitutional clauses in this text, it is important to remember that the salience of a constitutional clause can be judged best when it is tested in court (Dirth 2017). Court cases that deal with enforcing posterity protection clauses are not easy to sort because there is no such thing as a legal doctrine of intergenerational equity (Anstee-Wedderburn 2014). Instead, decisions made in favor of intergenerational equity are founded on other established legal principles, namely: "sustainable development, the common heritage of humankind, the principle of custodianship or stewardship, the precautionary principle, and the principle of common but differentiated responsibilities" (Collins 2007, 124-125). To categorize and to assess related judiciary decisions is beyond the scope of this text (see Dirth 2017, for a list of cases).

¹⁰ Some constitutions speak explicitly of 'rights of future generations': Norway (art. 110b), Japan (art. 11), Iran (art. 50), Bolivia (art. 7), and Malawi (art. 13, art. 11). In other constitutional texts, for instance in art. 37 (4) of the Georgian constitution, the 'interests' of future generations are addressed; alternatively their 'needs', e.g. in the constitution of Uganda (art. XXVII ii).

It is unclear which governance mechanism, OFGs or constitutional posterity protection clauses, is more efficient. Ideally, both mechanisms work hand in hand and reinforce each other. Arguably, constitutional courts alone are not optimal to serve as the guardians of future generations' interests. They cannot represent such interests with full commitment for the simple reason that they have no mandate to do so.

It makes a substantial difference whether a new institution is created with its own budget, whether new people come to hold new positions and whether new office spaces are furnished for a specific new cause – or whether, by contrast, existing courts are entrusted with new tasks by legal extensions. The approach advocated below is based on the premise that there is a need to create a new OFG for the representation of future generations.

5. Paradigm shift from a Three- to a Four-Power-Model

What is required in the Anthropocene is nothing less than a paradigm shift. The new paradigm would entail a 'future branch', and regard it as a legitimate and necessary part of a democratically constituted community. The linchpin of this paradigm would be that the ageold separation of powers into legislative, executive and judicial branches is no longer sufficient in the Anthropocene. The present-day demos of the 21st century can affect the living conditions of a future demos far more than in former times. Just as in the 18th century, when in the course of first establishing a democracy in a large territorial state, the *Federalist Papers* considered a system of checks and balances to protect minorities against the 'tyranny of majority' (Tocqueville 1835/1840), so today, we are in need of checks and balances against the tyranny of the present over the future.

It seems appropriate to draw on the history of ideas to conceptualize the new future branch. The historical roots of the separation of powers are usually associated with the political theorists John Locke and Charles de Montesquieu. However, even a thinker as early as Aristotle already recommended a mixed constitution or, more specifically, a mixture of democracy and oligarchy, which he called 'politie', designed to prevent an excessive concentration of power. In his *Two Treatises of Government*, published in 1690, John Locke distinguishes between legislative and executive, but leaves no room for an independent third judicial power. Locke introduces a clear hierarchy of powers when he writes that "this *legislative* is not only the *supreme power* of the common-wealth, but sacred and unalterable in the hands where the community has once placed it" (Locke 1823, Chapter XI, § 134). Charles de Montesquieu, the actual father of the tripartite separation of powers in his *De l'esprit*

des lois of 1748. In the sixth chapter of the 11th book (Montesquieu 2001), which mainly deals with the English constitution, he is concerned with the sharing and balancing of powers. Montesquieu (2001, 173) writes: "In every government there are three sorts of power: *the legislative; the executive, in respect to things dependent on the law of nations; and the executive, in regard to things that depend on the civil law.*" Following this statement, Montesquieu explains that this latter power is to be referred to as the judiciary power of the state. This brings us to the classic tripartite division of legislative, executive and judicial power.

The 'trias politica' was conceived by thinkers in the 17th and 18th century and is now universally established in Western democracies. The view of our present Three-Power-Model changes when we learn about the evolution from a Two- to a Three-Power-Model in the approaches of Locke and Montesquieu. The most important lesson from the history of ideas seems to be that even the supposedly definitive present is only a stage between the past and the future. The tripartite division was sufficient for the past; but at the start of the 21st century it does not suffice anymore.

A few remarks with regard to the 'vertically' directed separation of powers seem appropriate. In federal states like Germany, for example, the federalization of political systems means the division of labour between a local level, a *Länder* level and a national level, complemented by the European Union. The Länder have governments, parliaments and constitutional courts. The European level also has a parliament (the EU parliament), a court (European Court of Justice) and a sort of government (the European Commission). In a four-power system, all such levels should get future branches as well to complement their 'horizontal' separation of powers.

Apart from the horizontal and vertical 'separation of powers', further overloading the term is of little use. The media is also often referred to colloquially as 'the fourth power'. The same applies for interest groups such as trade unions or employers' associations. It is true that the power of the political system does not fully penetrate other autonomous areas such as business, science, media, religion, or private relationships; however, to prevent confusion the term 'separation of powers' should continue to refer to the organization of state power. The terminology used here counts only the 'branches of government' (not society) and adds a fourth such branch to the existing three.

The legislative branch passes the laws, the executive branch implements them, and the judiciary controls their abidance. Constitutional courts also check the *constitutionality* of laws after the legislative branch has passed them. Where does the future branch fit in here? Many

models are possible. Such a future branch (which might come under the name of an ombudsperson, guardian, commissioner, committee or council) *could* be designed as a body which checks the *sustainability* of laws, and quashes them if they harm future citizens. Alternatively, it is possible to see the future branch somewhat closer to the legislative than to the judicial branch, namely as a body with the right to initiate legislation instead of preventing it.

It should not be forgotten that the idea of the *trias politica* currently varies from country to country as a result of different traditions of political thought. With regard to institutions for future generations, there cannot be a *one-size-fits-all* solution; rather, it seems apt to conceive of such a representative body differently for each country. 'Future branch' is thus an umbrella term that does not designate a particular model. Instead, it refers to all institutions for future generations that are powerful enough to credibly represent the needs and interests of future citizens.

6. Typologies of OFGs

Across the globe, there is by now a considerable number of institutions with a mandate for the representation of future generations. Applying a wide definition of 'institutions' that includes not just OFGs, but also constitutional posterity protection provisions and cross-cutting policies, Boston (2017b) lists 80 institutions. Rose comes up with 29 institutions but states that he has deliberately left out those that seem too powerless (Rose 2017, appendix I). A United Nations report lists the following eight institutions on a national level as the supposedly most influential ones: Finland: Committee of the Future, Germany: Parliamentary Advisory Council on Sustainable Development, Israel: Commissioner for Future Generations (2001-2006), Hungary: Ombudsman for Future Generations (2008-2011), Canada: Principal for Sustainable Development Strategies, Wales: Commissioner for Sustainable Futures, Norway: Ombudsman for Children, New Zealand: Parliamentary Commissioner for the Environment (UN 2013, for an interpretation see Szabó 2015). To bring some order to this "messy landscape" (Boston 2017a, 321) is a topical feat to achieve. Classifying these institutions is complicated because they differ on multiple dimensions: their territorial ambit (e.g. national or supranational), the scope of their competencies, their statutory basis, their governance and accountability arrangements, their composition, and their size and resourcing (Boston 2017a, 322).

There are a number of categorization attempts in the literature (Rose 2017; Boston 2017; Jávor/Rácz 2006; Göpel/Arhelger 2010; Teschner 2013). Rose's (2017, 180) elaborated typology identifies four dimensions (with two values each) relevant for the impact potential of real-world institutions representing future generations (that he calls 'proxies'):

Agency: permanent agent (e.g. commissioner) or meta-policy (e.g. impact assessment)
Dominance: dominance of future generations' interests within the institution or equal consideration with the totality of interests of all other constituents of the institution, if any.¹¹
Influence: hard power access to the political decision-making process (e.g. suspensive veto) or (only) soft power access (e.g. non-binding recommendations)

4) legal basis: persistent legal basis (e.g. constitution) or fragile legal basis (e.g. standing orders).¹²

As an addition to verbal attempts, the three-axis graphic model presented below visualizes some of the most important dimensions. The 'cuboid of offices for future generations' is heuristically well-suited to exploring the uncharted territory in the 'universe of cases' of OFGs. Some sub-cuboids are (or were) filled already, others might be filled in the future. Each sub-cuboid represents a potential separate case study. The model is applied below to *powerful* OFGs only; more specifically it applies to OFGs which have the right to intervene in legislative procedures. This is the decisive touchstone whether or not such offices have 'hard power' and are distinguishable from those institutions that enjoy merely consultative status. The latter ones exercise little actual power in a Weberian sense: "Power means every chance in a social relation to realize one's own will even against the resistance of others" (Weber 1922, § 16). Moreover, the cuboid relates to OFGs on the *national* level. These OFGs are aimed at ensuring the representation of the future *demos* of a specific people (e.g. the Hungarians) but not of future generations of mankind as such. Of course, the members of each specific people are part of mankind but we should employ precise terminology.

The three dimensions of the cuboid below are 'agency', 'policy fields' and 'composition/membership'.

¹¹ This resembles the distinction between 'future-focussed institutions', designed specifically for future people, and 'future-beneficial', related in some way to the future (Gonzalez-Ricoy and Gosseries 2016, 7).

¹² Using an additive index as an aggregation mechanism, the $(2^{4}=)$ 16 types are reduced to 6 types, thereby sorting the proxies into a six-step scale ranging from very low to very high impact potential.

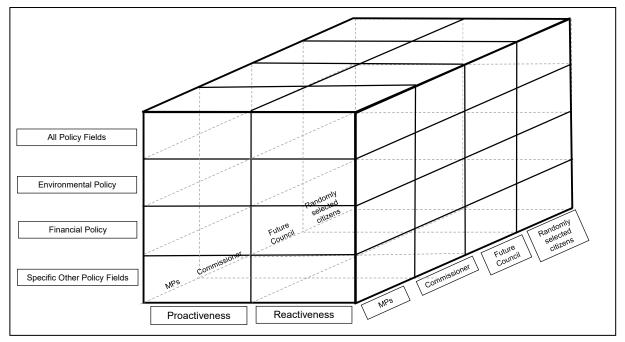


Figure 1: The cuboid of offices for future generations

Source: own

Proactiveness and *reactiveness*: these two values of the dimension 'agency' make up the cuboid's horizontal axis. OFGs can get competencies either on the output side or the input side of the political process. Proactiveness means that the OFG has the right to take the political initiative by starting the legislative process. Reactive power means that the OFG has the right to stop the law-making process.

The vertical axis of the cuboid categorizes OFGs according to the policy fields they treat. The values are: a) 'all policy fields' (possibly with a few exceptions); b) '(monothematically) *environmental policy*'; c) '(monothematically) *financial policy*'; d) specific other policy fields. Those OFGs dealing with all areas of policy making must be distinguished from those which deal with only a few selected policy fields. In the case of the latter, the policy areas in question are usually environmental or finance policy. However, other policy fields are also conceivable (e.g. education or labour market policy). While the Israeli OFG (2001-2006) was empowered to engage on any subject on the parliament's agenda, excluding defense and foreign affairs, the Hungarian OFG (2008-2011) was 'solely' tasked to sustain and preserve the environment for future generations.

The diagonal plane of the cuboid represents the composition of the OFG. The values are: a) members of parliament; b) commissioner; c) future council; d) randomly selected citizens.

a) Members of parliament can, in theory and practice, form parliamentary committees for future generations. Examples are the *Committee for the Future* in Finland or the *Parliamentary Advisory Counsel for Sustainable Development* in Germany. The term of office of the members of these OFGs is in all cases identical to the one of the other members of parliament.

b) Commissions, led by single commissioners (likewise: ombudsmen or guardians) are independent of the legislative, executive or judicial branch, notwithstanding that they are appointed by the parliament or the government. The Hungarian, the Israeli and the Welsh OFGs fall into this category.

c) Future councils are expert groups that are appointed by the legislature and the government, just like commissioners. Consultative expert bodies already exist in most countries, albeit without assertive competencies. Future councils with 'hard power', either the right to initiate, to delay or to stop legislation, have been proposed in the literature (Stein 2014).¹³ One important difference of the existing and the proposed future councils to b) is that the expert bodies are less person-centred.

d) On the basis of participatory/deliberative theory, some scholars have made the case for randomly selected citizens' committees, either with veto rights or without (MacKenzie 2016b; Read 2011. Somewhat more cautiously, Smith 2017 argues that OFGs can enhance their legitimacy through embedding systematic public participation in their activities). In practice, such assemblies were established on a temporal basis to deal with a variety of issues. Arguably, the most prominent examples were the citizens' committee for the constitution of Iceland (Landemore 2015) and the British Columbia Citizens' Assembly in Canada (Warren/Pearse 2008).

In the cuboid above, those dimensions that correspond with the core questions for each citizenry that embarks on the endeavour of implementing an OFG were picked. These questions are the following:

¹³ Tremmel 2015 and more detailed in Tremmel 2018b.

- a) Should the representative body for future generations be entitled to initiate legislation, to put a substantive veto on it, or even to prevent it completely?
- b) Should the domain of the new institution be limited to certain areas of policy, and if so, which ones?
- c) How should the new institution be constituted? Should its members be appointed? By which procedure and by whom?
- d) How many members should the institution for future citizens have? How long should the new institution's members be in office, and to what kind of resources should they be entitled?
- e) Would the constitution of a particular country have to be amended in order to establish such a new institution, and if so, how exactly?

I have elsewhere tentatively answered these questions by devising an institution for Germany,¹⁴ just as others have done it for their respective home countries, e.g. Rupert Read (2011) for the UK, or Jonathan Boston (2017c) for New Zealand. These models are *not* transferable from one country to another as they factor in the existing political institutions and the existing traditions of each country. But aren't there characteristics that all (or almost all) institutions for future citizens should have in common? Even if it seems apt to design OFGs differently for each country's political system, there are design features that are cogent and appeal forcibly to the mind or reason. Two of them are elaborated upon in the next section.

7. Proactiveness as a key design criterion of OFGs

OFGs, composed of independent appointees, are not at odds with the principle of democratic legitimacy if (and only if) they do not have the power to stop the law-making process of the legislative branch. The key criterion suggested here is 'proactiveness' in the sense of a right to *initiate* legislation, as opposed to all rights intended to suspend laws and programs temporarily or permanently. In order to allow an OFG to place bills on the formal voting agenda, most parliaments would just have to change their rules of procedure. Parliamentary rules of procedure vary, but bills usually have to be signed either by a party fraction or, interfractionally, by a specified percentage of all members of the parliament. If an OFG, in its capacity as representative for future citizens, did also get the right to initiate laws, its motions

¹⁴ Tremmel 2018b.

would be treated like inter-fractional motions – the proceedings of which are often shining examples of parliamentarianism.

OFGs should be proposers, not preventers. The argument in favour of proactiveness (or constructiveness) seeks, first, to render the charge of an 'eco-dictatorship' moot, and second, to prevent another 'veto player'.

7.1. Rebutting the charge of 'dictatorship'

From the analysis of the root causes of political presentism (see above) it follows that OFGs should be unelected bodies. The institution designed to counter presentism should be as remote as possible from the source of presentism. As discussed, human beings are more or less prone to presentism, depending on the circumstances. Each election date presents a chance for catering unduly for the short-term and demanding some instant reward gratification from politicians. While popular elections would maximize the formal independence of the organization's members – vis-à-vis the legislative, executive, and judicial branches – they would inescapably subject the election candidates to the presentist pressures of parliamentary elections, thereby defeating the purpose for which the office was created. Given that electorates tend to be biased in favour of the present, the candidates for OFGs who promise to cater for the short-term wishes of their constituencies would be at an advantage. If the candidates for the OFG had to run campaigns and court votes, they would de facto turn into politicians. No longer would knowledge and expertise be the decisive qualities, but eloquence and public appeal.

Lacking a popular mandate, OFGs could be criticized as unaccountable. Expertocracy, the rule of experts, has been discussed in political theory for a long time, arguably since Plato promoted it for Kallipolis, the utopian city in his dialogue *Politeia*. Here again, concept formation is crucial. Fischer (1990) highlights the dangers of 'technocracy' but, to be sure, 'technocracy' and 'expertocracy' should not be conflated. It is likely that experts in an OFG might be rather opposed to a technocratic stance. Terminologically, if anything at all, my concept could be criticized as paving the way to a 'future-oriented expert-dictatorship', not a 'technocratic dictatorship'.

But such a criticism would be unfounded. To put it into perspective, let's recall the rights of the third branch in the existing Three-Branches-Model. In many countries, constitutional courts exercise enormous power in interpreting if a specific law is compatible with the constitution. The doctrine of a living constitution allows courts to overrule parliament if the court's present interpretation of a constitution's semantics is in contradiction to passed

legislation. This is of course country-specific. To this day, popular sovereignty is equated much more closely with parliamentary sovereignty in some countries than in others. But on a global level, the readiness of constitutional courts to challenge legislatures is generally increasing rather than decreasing (Rosanvallon 2011).

The debate between proponents of popular sovereignty and its most important institution, namely parliaments, on the one hand, and proponents of constitutionalism and the power of courts on the other hand, can serve as a blueprint for a debate about the democratic legitimacy of OFGs. To cut a long story short, most scholars agree that courts might be unelected bodies, but they serve democracy quite well, providing a check on the powers of the executive and legislature. If this is agreed, then the charge of 'dictatorship' cannot reasonably directed against law-proposing OFGs as their competencies (if they are well-designed) come not even close to those of courts.

As explained above, OFGs would use their power differently to courts, as they would not have the right to suspend laws temporarily or permanently, but only to propose them. OFGs might be less able to assert themselves, compared to courts, but the power to partake in the agenda-setting of the law-making process should not be underestimated. On the contrary: agenda-setting plays a pivotal role in shaping what policies are adopted (Baumgartner/Jonas 2009). A Future Council¹⁵ with the right to initiate laws would ensure that long-term concerns are aired at the earliest stage in the policy cycle and thus could play a valuable role by ensuring that the future is not set aside but instead is made part as a regular item on the agenda (Caney 2016). Each agenda-maker knows the problem: Urgent (but not important) items and important (but not urgent) items fight for the top ranks on an agenda. A Future Council would help the latter ones to climb up the agenda of the parliament.

The strengthening of the scientific and academic elements of parliamentarian debates, as suggested in my proposal, does not imply that the legislators *must* necessarily follow the scholarly advice of an OFG. This is the bullet to bite. Indeed, it would be naïve to believe that the legislature would take up and implement each and every proposal made by the Future Council. Rather, past experience with inter-fractional motions¹⁶ would suggest that parliament would pass on most of the Future Council's legislative initiatives to committees, where they

¹⁵ When I write Future Council, I am referring to the here described specific OFG (with the right to initiate laws), using capital letters to distinguish it from the more generic usage of the term future council.

¹⁶ For a fuller account, including some figures, of the treatment of inter-fractional motions in the German Parliament, see Tremmel 2018b.

would face a silent death by non-treatment. However, there is reasonable hope that at least in some cases the legislative initiatives brought forward by the OFG might be able to garner the support of future-oriented lawmakers, as well as that of the press and public opinion. According to the American theologian and author James Freeman Clarke (1810–88), the difference between a politician and a statesman is that the politician thinks about the next election while the statesman thinks about the next generation. But future-oriented thinking is not just a question of a politician's character, it also needs to be incentivised.

To be sure, the model of a Future Council as presented here transcends the dualist interpretation of science and politics spelled out in their respective binary codes of 'knowledge' and 'power'. Unlike political advisors, the independent members of a Future Council would not approach politicians as mere supplicants, hoping for a willing ear that may be lent but doesn't have to be. While on the one hand the power of decision-making fully remains with the politicians, on the other hand the element of long-term rationality is strengthened by parliament's obligation to at least consider the Future Council's proposals. The endemic problem of politics' resistance to advice is not entirely solved, but mitigated. In times like these, with politicians like US president Donald Trump presenting their own 'alternative facts' by consciously disregarding – or even showing contempt for – scientific insights, there is need for a stronger coupling of politics and science. Knowledge *ought* to play a role in political decision-making.

7.2. The prevention of an additional veto player

Traditionally, institutionalists have examined dichotomous classifications (unitary vs. federalist, parliamentarian vs. presidential etc.). By contrast, Tsebelis's theory of veto players (Tsebelis 2002) asks how many actors must consent to a decision or are able to veto it. Multi-level parliamentarianism already features a high number of veto players, such as the second legislative chamber, the Constitutional Court, the President (if he or she has to formally sign laws in parliamentarian systems), and the people itself, insofar as it makes itself heard through referenda.

There is a risk that creating a fully operational OFG will result in the addition of a new veto player, thereby increasing the chances of gridlock in the political system. In contrast to some theories that advocate slowing democracy down (Clark and Teachout 2012, Ekeli 2009), I see political gridlock as a drawback, even a threat, in times when problems such as climate change demand urgent action. *Not* slowing down the political system is a strong additional

argument for giving OFGs the right to initiate legislation, but not the right to delay it or to prevent it altogether.

The right to *delay* law-making (for a limited period of time, not indefinitely) seems to lie somewhat in between the input and the output side of the political process. But in fact, postponement rights are not initial or constructive actions; they are part of a reactive capacity. They can be a sharp sword, too, as Shoham, the one and only Knesset Commissioner for Future Generations in Israel, explains: "The right to be given enough time to prepare an opinion is an implied authority to create a delay in the legislative process. Such a delay may be crucial for the parliamentary work when it comes to bills discussed in the framework of the state's budget. In that case, the time factor is vital since the implication of not voting on the state's budget for the next year (...) is that parliament must dissolve itself and go to elections." (Shoham/Lamay 2006, p. 248). While this might be a peculiarity of the political system in Israel, the US-American experience with filibustering highlights that delaying resistance is often difficult to overcome.

8. The personal embodiment of OFGs: individual-led or team-led?

Another important design feature of OFGs is their leadership structure. It is an interesting question whether institutions that are led by more than one individual are better suited, in theory and practice, to represent future citizens than those that are led by a single person. 'Led by a single person' is defined as having one single individual in the driving seat of the institution for future generations, independently of his leadership style. Even if a chairperson of an institution for future generations consulted regularly with his subordinates, and listened to their advice, this would count as a case of single leadership as one individual alone is legally responsible and (much) more visible for the media and the public than the rest of the staff.

In Constitutional Courts, the chairperson is usually not more than a primus inter pares. Likewise, in the legislature the role of the parliament's chairperson enjoys relatively little additional power compared with other members of parliament.¹⁷

The effects of the variable 'collective leadership' as opposed to 'individual leadership' for the success of OFGs cannot be ascertained in a scientific sense for epistemological reasons. There is no alternative history that tells us if, for instance, the Commissioner for Future Generations

¹⁷ This is of course different with regard to the leaders of the executive branch, such as presidents, prime ministers or chancellors.

in Israel would not have been disbanded if this institution had been devised as a group-led institution from the beginning. But what can be done is a test of the plausibility of the thesis that OFGs should be led by more than one person, in their own interest. There is some empirical evidence. When Sophie Howe was appointed Future Generations Commissioner in Wales in 2016 by Carwyn Jones, the First Minister of Wales and a member of the Labour Party, she was sharply criticized from the Conservatives over her own membership in the Labour Party. The party leader of the Conservatives, Andrew R. T. Davies, took the opportunity to demand that the FGC be elected by the Welsh Assembly, rather than appointed by the Prime Minister. Was Davies attacking Howe as a person? Or was his aim to hit the mandate of the institution as such, independently of the placeholder? And if Davies in fact was opposed to the institution of a Future Generations Commissioner in Wales, would he then be able to target his criticism in the same way if, counterfactually, the Welsh Future Generations Institution were led by a collective of people rather than by a single person? Critics of any institution for future citizens, anywhere in the world, have the chance to zero in on its personal embodiment. Even if the integrity of the officeholders is beyond doubt, his or her unique position does provide a target. The only possibility to avoid this is to have no single individual in such an exposed position. A collective body is much better shielded from criticisms that are ostensibly directed against a person but in fact aimed at de-legitimatizing the institution. It should not be forgotten that OFGs have many foes just because of the nature of their mandate. As Boston puts it: "[A]ny commission (or other public entity) for future generations runs the risk of having few friends and defenders. At the same time, it is bound to generate enemies. Among these will be all those with a vested interest in existing policy arrangements and who expect to be net losers from the kinds of policy investments advocated by a future-oriented institution. Ironically, therefore, such institutions are destined to encounter the same political challenges and temporal asymmetries that they are designed to alleviate. If they fail to meet these challenges, they will become yet further victims of the presentist bias." (Boston 2017a, p. 331)

The optimal group size of collectively-led OFGs is up for discussion. Rawls, for instance, was particularly optimistic about the chances of success of deliberation within the US Supreme Court (Rawls 1993, lecture 6). Generally, a maximum of 15-20 people should not be exceeded to ensure the deliberative quality. But whatever the optimal size, every composition of the steering board of an OFG that exceeds one single leader can bring about the positive effects known from bi-partisan bodies in highly polarized political systems. For the productive

exchange of arguments, two members would be the minimum to develop a 'deliberative stance' (Niemeyer/Jennstål 2016, p. 247).

9. Counter-arguments against a powerful institution for future citizens9.1 "Only the contemporary citizens constitute the demos!"

There are, of course, counter-arguments against the establishment of a powerful institution for the representation of future generations of the citizenry.

In this section, the claim that only present citizens constitute the demos will be scrutinized. This is a variant of the non-existence challenge – an umbrella term that draws argument from the present non-existence of future persons (Gosseries 2008).

The Greek term *demos* (δῆμος) designates the citizenry within a people while the term *ethnos* $(\check{\epsilon}\theta vo\varsigma)$ refers to a nation as an ethnic group. Historically, the establishment of demes as fundamental units of the state by Cleisthenes in 508 BC was an important step in the evolvement of political order out of kin structures. Since the invention of the demos, the idea of who is part of it has been subject to historical change. Dahl's (1982, 98) quote that "[the problem of inclusion] is an embarrassment to all normative theories of democracy, or would be were it not ignored" is reminiscent of the importance of this question for political theorists since the beginning of their discipline. "Who constitutes the demos?" – To pose the question this way is neither self-evident nor undisputed, but arguably this framing of the question is preferable to a formulation such as "Who should be included in the demos?" The latter might lead us to think of an existing authorized decision group and thereby block out the more decisive question of how the original composition of an authorized group can be justified (Goodin 2007, p. 40). In earlier times, in democracies the demos was formed of those men who paid the 'right' tax revenue, had the 'right' skin colour, and were of the 'right' religion and the 'right' age. It is crucial that, for logical reasons, the issue of the original composition of the demos cannot be decided democratically. Goodin writes: "It is logically incoherent to let the composition of the initial demos be decided by a vote of the demos, because that demos cannot be constituted until after the demos votes." (Goodin 2007, 47). To illustrate this point, one might imagine the 1959 vote on women's suffrage in Switzerland. Two thirds of the men refused the extension of suffrage and thus defined themselves as, alone, the voting demos, at that time and also in the future. Today, hardly anyone would consider this decision legitimate. Rather, the consideration of upstream normative principles must form the basis of deciding how the demos should be constituted. The all-affected principle leads to the conclusion that

both current and future citizens can be considered as bearers of popular sovereignty as both groups bear the consequences of today's decisions.

But, it might be asked, is it not the case that the principle of representation is generally incompatible with the idea of democracy? In a world in which most democracies happen to be *representative* democracies, the struggle for the principle of representation itself (as it prominently features in Kant's distinction between the republic and democracy) has long been settled. According to a dictum by Abraham Lincoln in his Gettysburg Address, democracy is characterized by "government of the people, by the people, for the people" (Brooks Lapsley 2012). However, most democracies today are based on the principle of representation: government of *all* members of the people (with few exceptions), by *some* elected representatives from the people, for *all* members of the people. Thus, in accordance with common knowledge, representation to future citizens merely amounts to a consistent extension of this principle. Representation, in its etymological sense, means precisely a visualization of the absent. It must be understood as making the invisible visible and the absent present.

9.2. "We do not have any obligations towards future people because of the non-identity principle!"

Especially the non-identity problem has often been viewed as a serious challenge to theories of intergenerational justice and models of representation of future generations. Advocacy for OFGs implies that we do, in fact, have obligations towards future people in the first place. Viewed strictly, if the non-identity problem (NIP) were a single irrefutable 'no-obligation' argument, it would necessarily and with one blow spell the end to any accounts of the representation of future generations. The NIP was first formulated in greater detail by Kavka (1978), and developed most effectively by Parfit (1984) in *Reasons and Persons*. In 2010, he substantiated his main arguments in *Energy policy and the further future* (Parfit 2010). The NIP has been viewed as such a serious challenge to the justification of *any* obligation towards future generations that the debate over the *extent* of such obligations, which began during the 1970s with a number of remarkable collections of essays (Sikora and Barry 1978; Partridge 1980), had ebbed in the mid-1980s. Today, Gheaus (2016, p. 491) still calls it "the most difficult obstacle for theories of intergenerational justice".

The NIP can be formulated as follows: The present actions of members of the currently living generation determine not only what the conditions of life of future people will be, but also

which people will exist in the first place. According to the NIP, our actions in the present change the roster of individuals who exist in the future and thus our actions (and our forbearances, one should add) lead to 'disappearing victims'. The point of the NIP is not that individual future persons do not exist *yet*, it is that they might not exist at all.

It is indisputable that the NIP applies to some biomedical decisions, therefore the question is not whether the NIP in itself is right or wrong. The question at hand is one of ambit and the danger lies in overestimating it. Gosseries, for instance, ponders: "Yet, it appears that the scope of the non-identity problem extends far beyond these biomedical cases. Hence, the non-identity challenge should be taken very seriously. While not affecting all our decisions, be they of a bioethical nature or not [...], it certainly affects *many* of our policy choices as well as the meaningfulness of ascribing rights to future people in such cases. And it is on whether it is meaningful to extend the scope of the non-identity problem beyond the strictly bio-medical cases that there is certainly room for disagreement. I think that it does extend beyond such cases." (Gosseries 2008, p. 460)

Consider the following of Parfit's examples:

"Depletion: Suppose that, as a community, we must choose whether to deplete or conserve certain kinds of resources. If we choose Depletion, the quality of life over the next two centuries would be slightly higher than it would have been if we had chosen Conservation, but it may later be much lower. Life at this much lower level would, however, still be well worth living." Parfit goes on to say: "If we choose Depletion rather than Conservation, this will lower the quality of life more than two centuries from now. But the particular people who will then be living would never have existed if instead we had chosen Conservation. So our choice of Depletion is not worse for any of these people." (Parfit 2010, p. 114-115) I have argued elsewhere that those moral philosophers who see the NIP as a challenge to theories of intergenerational justice usually skip the causality questions associated with the NIP and move directly to a moral discussion. But their moral problems arise only if a very specific concept of causation is employed. The Parfitian concept of causation takes into account too many necessary conditions, among them "insignificant" ones. The underlying rationale of the "insignificant-causal-factors rejoinder" is that the Parfitian concept of causation is at odds with the concept of causation that is usually used in law, science and commonsense. Put differently: the legal, the scientific and the commonsense view usually consider the negative causal statement "without X, no Y" (X being a specific event or policy, and Y a specific future person) as insufficient for a statement of positive causation (X caused Y)To cut a long story short: the NIP is an interesting thought but it is inapplicable in the

context of offices for future generations and thus does not present an irrefutable argument against representation of future citizens.¹⁸

9.3. "We cannot act in the best interest of future people because we do not know their interests!"

It is in principle impossible for us to ascertain the interests, preferences and values of people who live in a distant future. If circumstances will change in the future, the interests of future generations might change as well. That circumstances will change in the future is very likely, given the rapid change in the past 300 years. Advocates of need-based conceptions of intergenerational justice do not deny this but they counter that it is 'needs' that matter (Feinberg 1973; Kavka 1978, p. 189; Partridge 1980, p. 2; Tremmel 2009, p. 113), not 'preferences'. The (basic) needs of every member of every generation are identical, no matter which age, culture or context he or she lived (lives, will live) in. Future individuals will also need air to breathe and water to drink and thus they will need croplands and water sources to supply their food and water. Therefore, the argument that we have no obligations towards future generations because we cannot know their higher preferences loses ground. Although the distinction between (basic) needs and (higher) preferences is helpful in theory, it does not really help for the practice of OFGs, as examples show. Next to the Israeli Commissioner for Future Generations (2001-2006),¹⁹ the Hungarian Ombudsman for Future Generations (2008-2011, i.e. before the restructuring)²⁰ is arguably the OFG with the greatest bargaining power that ever existed. Drawing on the documented decisions of the incumbent of the Hungarian OFG, Dr. Sándor Fülöp, it is difficult to say which of the issues he was confronted with in his daily work were needs vs. interests issues. The task of the Hungarian ombudsman was mainly environmental: to protect the health and living conditions of present and future generations, and to preserve the common heritage of humanity as well as the quality of life and the unhindered access to natural resources (§27/B of the Ombudsman Act). The bulk of the FGO's activities consisted of mediation and handling citizens' petitions against public administration. In addition, the FGO was endowed with a number of powerful and very specific authorities reminiscent of those of an Attorney General, comparable to the position of the Federal Prosecutor in the Brazilian Ministério Publico. The regulations added

¹⁸ This section draws on Tremmel 2015b, Tremmel 2018c and Tremmel 2019.

¹⁹ Shoham/Lamay 2006; Shoham 2010; Lavi 2014.

²⁰ Hungary, the Ombudsman Act of 2007; Ambrusné 2010; PCFG 2012; Fülöp 2013, 2014.

to the Ombudsman Act in 2007 authorized the FGO to repeal the enforcement of governmental decisions, if otherwise the environment would suffer from severe damage. Apart from this powerful weapon, he also had the right to participate in certain civil and administrative trials. This could happen either by his initiating a lawsuit or by his joining a lawsuit initiated by a third party as an 'amicus curiae'. The FGO was to be consulted on every draft bill and government initiative that could have an impact on the environment and sustainable development. He repeatedly argued his case in parliamentary committees and made use of the right to speak in plenary sessions. According to his own judgement, the FGO's successes entailed the following: "Thousands of hectares of last green spots around the larger cities of Hungary were saved by the FGO (decreasing our popularity amongst real estate speculators, strong allies of several political parties), large polluting enterprises (such as the 50 MW Szerencs Power Plant in the buffer zone of the Tokaj World Heritage Site) were prevented and we could even cross out the plans of the Ministry of Defense to put a radio locator with strong and long lasting non-ionizing radiation on the top of a hill in Pécs (South Hungarian city with 160.000 dwellers). We considered these successes a positive feedback of our methodology using clarification and networking, while our counterparts might feel differently." (Fülöp 2013, p. 10)

How did the FGO deal with the problem of competing interests of future generations? How could he know which alternative political action would prove (most) advantageous to future citizens of Hungary? In what was seen as particularly controversial at the time, the FGO deployed all legal instruments at his command in order to prevent a huge 50 MW biomass facility in the buffer zone of Tokaj, a wine region and World Cultural Heritage. It should not go unnoticed that biomass is a renewable energy that plays a decisive role if a country wants to phase out both fossil and nuclear energies. So, what serves the needs of future Hungarians more: an increase in the country's share in renewable energy or the aesthetic value of a preserved cultural rural site? In cases like these, it is almost impossible to determine scientifically how the needs of the members of future generations would be served best, or ought to be weighed.

Evidence suggests that the 'uncertainty argument' deserves to be taken seriously. Failing to cope adequately with this counter-argument might have contributed to the disempowerment of the FGO in Hungary²¹ and the demise of the Knesset Commission for Future Generations in

²¹ The Hungarian system of ombudspersons before 2008 consisted of the 'general ombudsperson' primarily in charge of civil rights, and two 'special ombudspersons' in charge of ethnical minorities' rights, data privacy, and

Israel. This, however, does not belittle the credit that is due to those states that first installed representatives of future generations, and in doing so, altered the institutional setting of their respective political landscapes in a both spirited and innovative way.

10. Conclusion

The problem of political presentism cannot be solved, only alleviated. But limiting the size of this problem would be no small achievement; in fact, it is of paramount importance for the future of mankind.

I have argued that an office for future generations will not be at odds with the principle of democratic legitimacy as long as such an office does not have the power to stop the law-making process of the legislative branch. Independent bodies have been a fundamental part of democratic architecture since classical Athens – just think of scrutineers, auditors, supervisors and later constitutional courts and public ombudsmen. The role of such bodies is supportive for democracy as they equip it against the anxieties of the majoritarian principle. OFGs are democratically legitimized as long as they are granted their status by law – and as long as this status can be revoked by law as well (Rosanvallon 2011). Unelected representatives of future citizens, appointed by elected politicians but not for their pleasure (Pettit 2012, 306), are a necessary and legitimate instrument against political presentism.

OFGs are more than just a vision or illusion. The future-orientated *part* of the political class takes a genuine interest in amending the rules of the game so as to engage the self-commitment of the *entire* political class. An increasing number of experiments with such bodies, and the lessons learnt, alter the political landscapes in more and more countries in a both spirited and innovative way.

This nourishes the hope that full-fledged OFGs will eventually come into existence.

freedom of information. Hence, the FGO that was installed 2008 was the third in the line of 'special ombudspersons'. In 2011, with a change in the Hungarian constitution, the FGO was converted into a Deputy Ombudsman for Future Generations under the General Ombudsman. In comparison to the original FGO, the new institution has significantly smaller resources and no right of investigation without the agreement of the General Ombudsman. From 2012-2016, Marcel Szabó, a professor of law, was the incumbent of the new Deputy FGO post. Following Szabó's appointment to the Constitutional Court, Bandi Gyula, also a professor of law, was appointed to the post. The disarming of the FGO in 2011 is usually seen as a major setback by the academic community. But Rose still lists the Deputy FGO in Hungary (as it has been since 2011) among the most powerful institutions for future generations worldwide (Rose 2017, 258-264).

References

Ambrusné, E., 2010. The Parliamentary Commissioner for Future Generations in Hungary and its Impact. *Intergenerational Justice Review*, 10 (1), 18-24.

Anstee-Wedderburn, J., 2014. Giving a Voice to Future Generations: Intergenerational Equity, Representatives of Generations to Come, and the Challenge of Planetary Rights. *Australian Journal of Environmental Law*, 1(1), 37-70.

Barry, J., 1999. Greening political theory. London: Sage.

Beckman, L., 2013. Democracy and Future Generations. Should the Unborn Have a Voice? *In:* J.-C. Merle, ed. *Spheres of Global Justice. Vol. 2: Fair Distribution – Global Economic, Social and Intergenerational Justice.* Dordrecht: Springer, 775-788.

Bonoli, G. and Häusermann, S., 2009. Who Wants What from the Welfare State? Sociostructural Cleavages in Distributional Politics: Evidence from Swiss Referendum Votes. *In:* J. Tremmel, ed. *A Young Generation under Pressure? The Financial Situation and the 'Rush Hour' of the Cohorts 1970-1985 in a Generational Comparison*. Berlin/Heidelberg: Springer, 187-205.

Boston, J., 2017a. *Governing for the future. Designing democratic institutions for a better tomorrow.* Bingley: Emerald.

Boston, J., 2017b. Safeguarding the Interests of Future Generations. Countering the Presentist Bias in Democratic Policy-Making. *In:* F. Ciaramelli and F. Menga, eds: *Responsabilità verso le future generazioni future*. Neapel: Editoriale Scientifica, 251-291.

Boston, J., 2017c. *Safeguarding the Future: Governing in an Uncertain World*. Wellington, Bridget Williams Books.

Brandl, E. and Bungert, H., 1992. Constitutional Entrenchment of Environmental Protection. *Harvard Environmental Law Review*, 16 (1), 1-100.

Brooks Lapsley, A., 2012. *The Papers and Writings of Abraham Lincoln* [online]. Vol. 7. http://www.gutenberg.org/files/2659/2659-h/2659-h.htm#link2H_4_0028. Accessed 25 March 2017.

Caney, S., 2016. Political Institutions for the Future: A Five-fold-Package. *In:* I. González-Ricoy and A. Gosseries, eds. *Institutions for Future Generations*. Oxford: Oxford University Press, 135-155.

Cho, H. and Pedersen, O., 2013. Environmental Rights and Future generations. *In:* M. Tushnet, T. Fleiner and C. Saunders, eds. *Routledge Handbook on Constitutional Law*. London: Routledge, 435-447.

Clarke, S. / Teachout, W. (2012): *Slow Democracy. Rediscovering community, bringing decision making back home.* White River Junction: Chelsea Green Publishing.

Collins, L. M., 2007. Revisiting the Doctrine of Intergenerational Equity in Global Environmental Governance. *The Dalhouse Law Journal*, 1, 74–134.

Dahl, R.A., 1982. Dilemmas of pluralist democracy. New Haven: Yale University Press.

Dirth, Elizabeth (2017): Governance for Future Generations: A Global Review of the Implementation of Intergenerational Equity. Master thesis.

Doeleman, J. and Sandler, T., 1998. The intergenerational case of missing markets and missing voters. *Land Economics*, 74 (1), 1-15.

Dobson, A., 1996. Representative Democracy and the Environment. *In:* W. M. Lafferty, and J. Meadowcroft, eds. *Democracy and the Environment*. Cheltenham: Edward Elgar, 124–139.

Dryzeck, J., 1999. Transnational Democracy. Journal of Political Philosophy, 7 (1), 30-51.

Eckersley, R., 2004. *The green state: Rethinking democracy and sovereignty*. Cambridge, Mass./London: MIT Press.

Ekeli, K., 2005. Giving a voice to posterity—deliberative democracy and representation of future people. *Journal of Agricultural and Environmental Ethics*, Vol. 18 (5), 429-450.

Ekeli, K., 2007. Green Constitutionalism: The Constitutional Protection of Future Generations. *Ratio Juris*, 20 (3), 378-401.

Ekeli, K., 2009. Constitutional experiments: representing future generations through submajority rules. *Journal for Political Philosophy*, 17 (4), 440-461.

Fischer, F., 1990. Technocracy and the Politics of Expertise. Michigan: SAGE Publications.

Frederick, S., 2003. Measuring Intergenerational Time Preference: Are Future Lives Valued Less? *Journal of Risk and Uncertainty*, 26 (1), 39-53.

Fülöp, S., 2013. *Clarification and Networking – Methodology for an Institution Representing Future Generations*. Manuscript of Sándor Fülop at the Workshop European Science Foundation ENRI Representing Future Generations, (4 May 13 in Munich).

Fülöp, S., 2014. Die Rechte, Pflichten und Tätigkeiten des ungarischen Parlamentsbeauftragten für zukünftige Generationen. *In:* B. Gesang, ed. *Kann Demokratie Nachhaltigkeit?* Wiesbaden: Springer VS, 67-84.

Gesang, B., ed., 2014. Kann Demokratie Nachhaltigkeit? Wiesbaden: Springer VS.

Gheaus, A., 2016: The Right to Parent and Duties Concerning Future Generations. In: *Journal for Political Philosophy*, 24 (4), 487-508.

Glantz, M. H., 1999: Sustainable Development and Creeping Environmental Problems in the Aral Sea Region. *In:* M. H. Glantz, ed.: *Creeping Environmental Problems and Sustainable Development in the Aral Sea Basin.* New York: Cambridge University Press, 1-25.

Global Humanitarian Forum, 2009. *Human Impact Report. Climate change - the anatomy of a silent crisis*. Geneva: Global Humanitarian Forum.

Göpel, M. and Arhelger, M., 2010. How to Protect Future Generations' Rights in European Governance. *Intergenerational Justice Review*, 10 (1), 3-10.

Goodin, R. E., 1996. Enfranchising the earth, and its alternatives. *Political Studies*, 44 (5), 835-849.

Goodin, R. E., 2007. Enfranchising All Affected Interests, and its Alternatives. *Philosophy & Public Affairs*, 35 (1), 40-68.

González-Ricoy, I., and Gosseries, A., eds., 2016. *Institutions for Future Generations*. Oxford: Oxford University Press.

González-Ricoy, I., 2016. Constitutionalizing Intergenerational Provisions. *In:* I. González-Ricoy and A. Gosseries, eds. *Institutions for Future Generations*. Oxford: Oxford University Press, 170-184.

Gosseries, A., and Meyer, L. H., eds., 2009. *Intergenerational Justice*. Oxford: Oxford University Press.

Gosseries, A., 2008. On future generations' future rights. *Journal for Political Philosophy*, 16 (4), 446-474.

Hayward, T., 2005. Constitutional Environmental Rights. Oxford: Oxford University Press.

Houghton, J.T., Jenkins, G.J. and Ephraums, J.J., eds., 1990. *Climate Change: The IPCC Scientific Assessment*. Cambridge: Cambridge University Press.

Jänicke, M., 1996:. Democracy as a condition for environmental policy success. *In:* W. M. Lafferty and J. Meadowcroft, eds. *Democracy and the Environment*. Cheltenham: Edward Elgar, 71-85.

Jänicke, M., 1992. Conditions for Environmental Policy Success. An international comparison. *The Environmentalist*, 12 (1), 47-58.

Jávor, B., and Rácz, J., eds., 2006. *Do we owe them a future? The opportunities of a representation for future generations in Europe*. Budapest: Védegylet.

Jefferson, T. 1816. *Letter to John Taylor (28 May 1816)* [online]. http://teachingamericanhistory.org/library/index.asp?document=308. Accessed 24 Oct 2017.

Jenni, K. E., and Loewenstein, G., 1997. Explaining the "Identifiable Victim Effect". *Journal of Risk and Uncertainty*, 14 (3), 235-257.

Kant, I. 1996 [1787], *Critique of Pure Reason*. Transl. W.S. Pluhar. Indianapolis/Cambridge: Hackett Publishing Company. (First published 1787).

Kates, M., 2015. Justice, democracy, and future generations. *Critical Review of International Social and Political Philosophy*, 18 (5), 508-528.

Kavka, G. S. and Warren, V., 1983. Political representation for future generations. *In:* R. Elliot and A. Gare, eds. *Environmental philosophy. A collection of readings*. University Park: Pennsylvania State University Press, 20-39.

Kavka, G. S., 1978. The futurity problem. *In:* R. Sikora and B. Barry, eds. *Obligations to future generations*. Philadelphia, PA: Temple University Press, 186-203.

Lavi, A., 2014. Facing the Future. Futurism in the Space of Governance and Lessons from the Israeli Case of the Commission for Future Generations in the Knesset (2001–2010). Unpublished Master Thesis. Bar-Ilan University.

Locke, John (1823): Two Treatises of Government. London: McMaster University Archive. http://socserv.mcmaster.ca/econ/ugcm/3ll3/locke/government.pdf. Accessed 11 Nov 2017. (First published 1690).

Landemore, H., 2015. Inclusive Constitution-Making: The Icelandic Experiment. *Journal of Political Philosophy*, 23 (2), 166–191.

MacKenzie, M. K., 2016a. Institutional Design and Sources of Short-Termism. *In:* I. González-Ricoy and A. Gosseries, eds. *Institutions for Future Generations*. Oxford: Oxford University Press, 24-48.

MacKenzie, M. K., 2016b. A General-Purpose, Randomly Selected Chamber. *In:* I. González-Ricoy and A. Gosseries, eds. *Institutions for Future Generations*. Oxford: Oxford University Press, 282-298.

Mank, B., 1996. Protecting the environment for future generations: a proposal for a "republican" superagency. *NYU Environmental Law Journal*, 5 (2), 444-516.

Mill, J. S., 1958. *Considerations on Representative Government*. Edited with an Introduction by Currin V. Shilds. New York: Liberal Arts Press (First published 1861).

Mill, J. S., 1977. *The Collected Works of John Stuart Mill*. Vol. 18. Essays on Politics and Society, ed. by J. Robson. Toronto: University of Toronto Press; London: Routledge & Kegan Paul.

Niemeyer, S. and Jennstål, J., 2016. The Deliberative Democratic Inclusion of Future Generations. *In:* I. González-Ricoy and A. Gosseries, eds. *Institutions for Future Generations*. Oxford: Oxford University Press, 248-265.

Montesquieu, C., 2001. *The Spirit of Laws*. Transl. T. Nugent. Kitchener, ON: Batoche. (First published 1748).

Oxford Martin Commission for Future Generations, 2013. *Now for the long term* [online]. http://www.oxfordmartin.ox.ac.uk/policy/commission/. Accessed 27 June 2017.

Ombudsman Act (2007): http://jno.hu/en/. Accessed 25 Oct 2017.

Ophuls, W., 1977. Ecology and the Politics of Scarcity. San Francisco: W.H. Freeman.

Partridge, E., ed., 1980. *Responsibilities to future generations*. Buffalo, NY: Prometheus Books.

Parfit, D., 2010. Energy policy and the further future. *In:* S. Gardiner et al., ed. *Climate Ethics. Essential Readings.* Oxford. Oxford University Press, 112-121.

Parfit, D., 1987. Reasons and persons. 3rd ed. Oxford: Oxford University Press.

Pettit, P., 2012. *On the People's Terms: A Republican Theory and Model of Democracy.* Cambridge: Cambridge University Press.

Parliamentary Commissioner for Future Generations (PCFG) (2012): Parliamentary Commissioner for Future Generations. http://www.jno.hu/en/. Accessed 10 April 2017.

Rose, M., 2017. Zukünftige Generationen in der heutigen Demokratie. Theorie und Praxis der Proxy-Repräsentation. Wiesbaden: Springer VS.

Randers, J., 2012. 2052 – A Global Forecast for the Next Forty Years. White River Junction: Chelsea Green Publishing.

Rawls, J., 1993. Political Liberalism. New York: Columbia University Press.

Read, R., 2011. *Guardians of the Future. A Constitutional Case for Representing and Protecting Future People.* Weymouth: Green House.

Rosanvallon, P., 2011. *Democratic Legitimacy: Impartiality, Reflexivity, Proximity.* Princeton: Princeton University Press.

Schlickeisen, R., 1994. Protecting biodiversity for future generations: An argument for a constitutional amendment. *Tulane Environmental Law Review*, 8 (1), 181-221.

Smith, G., 2017. *Enhancing the democratic legitimacy of independent offices for future generations: The case for embedded public participation.* Conference Paper. Presented at the Institute for Futures Studies Symposium, 7-8 Dec 2017 Stockholm.

Shapiro, I., 2006. Democracy's Place. Ithaca: Cornell University Press.

Shearman, D. and Smith, J.W. 2007. *The Climate Change Challenge and the Failure of Democracy*. Westport: Praeger Publishers.

Shoham, S. and Lamay, N., 2006. Commission for future generations in the Knesset: lessons learnt. *In:* J. Tremmel, ed. *Handbook of Intergenerational Justice*. Cheltenham: Edward Elgar, 244-262.

Shoham, S., 2010. Future Intelligence. Gütersloh: Verlag Bertelsmann Stiftung.

Sikora, R. and Barry, B., eds., 1978. *Obligations to future generations*. Philadelphia: Temple University Press.

Stein, T., 1998. Does the Constitutional and Democratic System Work? The Ecological Crisis as a Challenge to the Political Order of constitutional Democracy. *Constellations*, 4 (3), 420-449.

Szabó, M., 2015. National institutions for the protection of the interests of future generations. *E-PÚBLICA*, 5, 1-21. http://www.e-publica.pt/v2n2a02.html. Accessed 10 May 2018.

Teschner, N., 2013. *Official bodies that deal with the needs of future generations and sustainable development: Comparative review.* Jerusalem: The Knesset Research and Information Centre.

Thompson, D. F., 2010. Representing future generations: political 'presentism' and democratic trusteeship. *Critical Review of International Social and Political Philosophy*. 13 (1), 17-37.

Thompson, D. F., 2005. Democracy in time: popular sovereignty and temporal representation. *Constellations*, 12 (2), 245–261.

Tocqueville, Alexis de (1835/1840): Democracy in America. https://www.gutenberg.org/files/815/815-h/815-h.htm. Accessed 18 Dec 2017.

Tremmel, J., 2019. The dispute about the climate non-identity problem – looked upon from the paradigm perspective. *In: Intergenerational Justice Review*, 5 (2), forthcoming.

Tremmel, J., 2018a. The Anthropocene concept as a wake-up call for reforming democracy. *In*: T. Hickmann / L. Partzsch / P. Pattberg and S. Weiland, eds. *The Anthropocene Debate and Political Science*. Routledge Environmental Research Series. London: Routledge, *forthcoming*

Tremmel, J., 2018b. Zukunftsräte zur Vertretung der Interessen kommender Generationen. Ein praxisorientierter Vorschlag für Deutschland. *In:* T. Mannewitz, ed. *Die Demokratie und ihre Defekte*. Heidelberg: Springer VS, 107-142.

Tremmel, J., 2018c. Fact-insensitive thought experiments in climate ethics – Exemplified by Parfit's non-identity problem. *In:* T. Jafry, ed. *The Routledge Handbook of Climate Justice*. London: Routledge, 42-56.

Tremmel, J., 2017. Constitutions as Intergenerational Contracts: Flexible or fixed? *In: Intergenerational Justice Review*, 9 (1), 4-17.

Tremmel, J., 2015a. Parliaments and future generations – the Four-Power-Model. *In:* D. Birnbacher and M. Thorseth, eds. *The Politics of Sustainability. Philosophical Perspectives*. London: Routledge, 212-233.

Tremmel, J., 2015b. The Non-Identity Problem: An Irrefutable Argument against Representation of Future Generations? *In:* J. Enders and M. Remig, eds. *Theories of Sustainable Development*: London: Routledge, 126-144.

Tremmel, J., 2009. A Theory of Intergenerational Justice. London: Earthscan.

Tremmel, J., 2006. Establishment of intergenerational justice in national constitutions. *In:* J. Tremmel., ed. *Handbook of Intergenerational Justice*. Cheltenham: Edward Elgar, 187-214.

Tremmel, J., and Wilhelm, J., 2015. Democracy or Epistocracy? Age as a Criterion of Voter Eligibility. *In:* J. Tremmel *et al.*, ed. *Youth Quotas in Ageing Societies*. Dordrecht: Springer, 125-147.¹

Tsebelis, G., 2002. *Veto Players: How Political Institutions Work*. Princeton: Princeton University Press.

United Nations. 2013. *Intergenerational solidarity and the needs of future generations*. A/68/322. Available from: http://sustainabledevelopment.un.org. Accessed 12 May 2017.

Van Parijs, P., 1998. The Disfranchisement of the Elderly, and Other Attempts to Secure Intergenerational Justice. *Philosophy & Public Affairs*, 27 (4), 292-333.

Vince, G., 2011. An Epoch Debate. Science, 7 Oct 2011, 32-27.

Warren, M., and Pearse, H., eds., 2008. *Designing Democracy: The British Columbia Citizens' Assembly*. Cambridge: CUP.

Weber, M., 1972. *Wirtschaft und Gesellschaft: Grundriss der verstehenden Soziologie*. ed. by J. Winckelmann. Tübingen: Mohr-Verlag. (First published 1921/1922).

Weidner, H. and Jänicke, M., ed., 2002. *Capacity Building in National Environmental Policy*. *A Comparative Study of 17 Countries*. Berlin: Springer.

Weiss, E., 1989. *In Fairness to Future Generations*. Tokio/New York: United Nations University/Transnational Publishers.

Wilkoszewski, H., 2008. Demographic Pressure and Attitudes Towards Public Intergenerational Transfers in Germany – How much Room Left for Reforms? *In:* J. Tremmel, ed. *Demographic Change and Intergenerational Justice*. Heidelberg: Springer, 175-205.

Wolf, C., 2009. Do future persons presently have alternate possible identities? *In*: M. A. Roberts and D. T. Wassermann, eds. *Harming future persons: Ethics, genetics and the nonidentity problem.* Heidelberg: Springer, 93-114.

Wood, P., 2004. Intergenerational justice and curtailment on the discretionary powers of governments. *Environmental Ethics*, 26 (4), 411–428.

World Bank, 2013. *Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience*. Washington, D.C.: The World Bank.