

Institutions for the Long Run: Taking Future Generations Seriously in Government

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Introduction

This article sets out the case for taking future generations seriously through our political institutions. We make three central claims. First, future people matter, and political institutions ought to reflect this. We make this case by appealing to the importance of broad political enfranchisement, and then to the more general moral significance of future people. Second, our political institutions do not yet take the interests of future generations sufficiently seriously across a range of issues, especially relating to managing risks—and considerations from economics and psychology explain why she should expect this to be the case. Third, institutional reform toward representing future people is both promising and feasible. To this end, we describe four kinds of reform which we hope will broaden the discussion. Throughout, we draw on work by Tyler John.¹

Future generations matter for politics

Representation matters for politics

A core part of today's Western understanding of democracy is that governments derive their legitimacy from adequately including the people they affect in their decision-making processes.² The

American Revolution led with the slogan 'no taxation without representation',³ and the subsequent Declaration of Independence affirmed that 'governments are instituted among men, deriving their just powers from the consent of the governed'.⁴

Yet, a government being democratic in name does not imply it represents everyone it ought to represent. Indeed, the history of Western democracy is a history of subjugated groups struggling for political enfranchisement.⁵ Women were not granted the vote until well into the twentieth century; US Congress only passed the Civil Rights Act in 1967; and today fierce discussion continues on how constitutional issues like gerrymandering discriminate in practice against certain groups.⁶

We may care about representation because we value equality, diversity, or fairness, and believe broader representation is necessary for these abstract ideals. But we should also care about representation because of its practical effects—because it shapes laws and policies. When groups are underrepresented in democratic systems, politicians have

1 Tyler John, 'Longtermist Institutional Design and Policy: A Literature Review' (forthcoming).

2 Allen Buchanan, 'Political Legitimacy and Democracy' (2002) 112(4) *Ethics* 689–719 <<https://doi.org/10.1086/340313>>; John Rawls, *A Theory of Justice* (first published 1971, Harvard University Press 2009).

3 Charles Camden, 'Speech on the Declaratory Bill of the Sovereignty of Great Britain over the Colonies' *London Magazine* (February 1768) <<http://www.notaxationwithoutrepresentation.com/>>.

4 US Congress, *Declaration of Independence* (1776) <http://memory.loc.gov/cgi-bin/ampage_>.

5 Howard Zinn, *A People's History of the United States: 1492–Present* (Routledge 2015).

6 Alex Keena, Michael Latner, Anthony J McGann, and Charles Anthony Smith, 'Gill v. Whitford on Partisan Gerrymandering' in David Klein and Morgan Marietta (eds), *SCOTUS 2018: Major Decisions and Developments of the US Supreme Court* (Springer International Publishing 2019) <https://doi.org/10.1007/978-3-030-11255-4_3>.

weaker incentives to consider their interests in constructing policy, and are exposed to a narrower range of perspectives. When groups are not represented at all, governments do not have to internalise the externalities imposed by this policy.

Consider the ‘median voter theorem’.⁷ Given some basic assumptions,⁸ the optimal strategy for a political party seeking to win power in a two-party system is to always cater to the *median* voter. Extending suffrage will shift the median voter, and by extension the voters politicians will cater to. There is large empirical literature documenting this phenomenon. For example, John R Lott and Lawrence W Kenny showed that US states that gave women the right to vote before the Nineteenth Amendment saw immediate increases in government expenditures and progressive divorce laws.⁹ Likewise, Toke S Aidt, Jayasri Dutta, and Elena Loukoianova showed that the gradual lifting of class restrictions on the voting franchise in Europe between 1830 and 1938 caused more spending on infrastructure and internal security.¹⁰

While suffrage is a very direct way to represent the interests of a group, we should not confuse it as being equivalent to representation. The US Congress did not cease to be sexist in 1920, nor cease to be racist in 1967. Therefore, more recent calls for reform have stressed the importance of demographics being represented amongst elected politicians themselves. In their seminal study, Raghavendra Chattopadhyay and Esther Duflo showed that randomly allocating local council seats to female candidates significantly increased expenditure on health public goods in India, despite the fact that women were theoretically allowed to vote in both cases.¹¹

To summarise, we can think of electoral laws greatly determining which individual preferences are counted, and then political institutions determining how these preferences are aggregated. The output is a collective decision with the potential to affect everyone, represented or not.

The voicelessness problem

However, there are cases where traditional means of political participation are not even possible. Consider the examples of animals, children, and people in foreign countries. All these groups are affected by government policies, so we should want policies that are sensitive to their interests. Yet, they are simply unable to participate in politics. They are ‘voiceless’, but they still deserve moral status. They can still be seriously harmed by political decisions.

We could rely on voters to incorporate the interests of non-voting groups into their own voting preferences, but it is hard

7 Duncan Black, ‘On the Rationale of Group Decision-Making’ (1948) 56(1) *Journal of Political Economy* 23 <<https://doi.org/10.1086/256633>>.

8 Namely, that voters and policies are distributed along a one-dimensional spectrum and we have a voting method that satisfies the Condorcet criterion.

9 John R Lott Jr and Lawrence W Kenny, ‘Did Women’s Suffrage Change the Size and Scope of Government?’ (1999) 107(6) *Journal of Political Economy* 1163 <<https://doi.org/10.1086/250093>>.

10 Toke S Aidt, Jayasri Dutta, and Elena Loukoianova, ‘Democracy Comes to Europe: Franchise Extension and Fiscal Outcomes 1830–1938’ (2006) 50(2) *European Economic Review* 249 <<https://doi.org/10.1016/j.euroecorev.2004.07.004>>.

11 Raghavendra Chattopadhyay and Esther Duflo, ‘Women as Policy Makers: Evidence from a Randomized Policy Experiment in India’ (2004) 72(5) *Econometrica* 1409 <<https://doi.org/10.1111/j.1468-0262.2004.00539.x>>.

to imagine voters adequately representing the interests of other groups whenever this conflicts with self-interest. In such cases, we require more creative solutions. A first attempt may be to look for mechanisms that indirectly affect government—mechanisms outside of voting, such as lobbying, public advocacy, and direct action.

Yet such efforts can face serious limitations. For example, evidence shows that the success of advocacy efforts crucially depends on how well funded¹² and well connected¹³ a lobbying group is. Therefore, if the point of advocacy is to induce a socially optimal outcome, we would have to assume that ‘voiceless’ groups have access to resources in line with their total moral status. However, if a one-person-one-vote system is already falling short, it’s hard to imagine a one-dollar-one-vote system doing much to correct this failure.

Yet, advocacy and direct action also face a deeper shortcoming in the context of this article. We are not concerned here with particular policy outcomes, but rather with the incentives that induce better outcomes in the first place. Especially when we consider which changes pay off over the long run, changing the *rules* of the game plausibly beats having to play the game anew every time.

As we will argue, future people make up an essential and neglected ‘voiceless’ group. Correspondingly, the failure of modern political institutions to take seriously the interests of future generations represents a moral oversight—severe, but solvable.

Future people deserve representation

In the previous section, we considered the general significance of representation in politics, and suggested that institutional reform may be the best or only way to represent certain ‘voiceless’ groups. Since future people are affected by present-day political decisions, often directly and significantly, we might think that governments are illegitimate to the extent that they are not meaningfully sensitive to the interests of future citizens, in addition to current citizens. In this section, we argue that this is the case: that future people matter morally, and (thus) deserve some meaningful amount of political representation.

Consider the pains parents-to-be will take ahead of time to make sure their child lives a comfortable life, before conception. It makes sense to ensure that money is set aside and a home is in order, and to learn parenting advice, all before the child is born. If governments should consider the interests of young children, they should presumably also consider the interests of infants soon to be born, even though they do not yet exist. But how far should this concern for future people extend?

There are two questions here. First, how should we compare the *intrinsic* moral worth of future generations with that of living people? Second, to what extent can we reliably influence the lives of future generations?

12 Gene M Grossman and Elhanan Helpman, ‘Protection For Sale’ (National Bureau of Economic Research 1992) <<https://doi.org/10.3386/w4149>>; Pinelopi Koujianou Goldberg and Giovanni Maggi, ‘Protection for sale: An empirical investigation’ (1999) 89(5) *American Economic Review* 1135–1155.

13 Jordi Blanes i Vidal, Mirko Draca, and Christian Fons-Rosen, ‘Revolving Door Lobbyists’ (2012) 102(7) *American Economic Review* 3731 <<http://dx.doi.org/10.1257/aer.102.7.3731>>.

Future people have intrinsic moral worth

It is commonplace in government policy to ‘discount’ the intrinsic worth of welfare over time, such that a year of happy life for a denizen of the twenty-second century matters, but less than a year of equivalently happy life a year from now. This is known as the ‘social discount rate’.

For example, HM Treasury uses the Green Book¹⁴ to decide whether or not to invest in projects. The Green Book has an explicit discount rate of 3.5% per annum (ie £1 of value created in 2051 is worth only £0.35 today), which then decreases somewhat after 30 years (£1 of value created in 2121 is worth £0.05 today). And we should note that the UK is relatively sympathetic to future generations compared to other countries, because its discount rate moderates over time.¹⁵ In fact, many governments set discount rates on an ad hoc basis.¹⁶

To be clear, there can be good reasons for discounting future benefits in general—irrespective of moral considerations.¹⁷ According to the ‘Ramsey formula’, we can distinguish several reasons:

Pure time preference: This is the ethical judgement that this article will focus on. The Green Book assumes 0.5%-points.

Wealth effect: Future generations may be richer than us, so their marginal utility from extra consumption is smaller. The Green Book estimates this to be 2%-points.

Catastrophic risk: Investments may be destroyed before they can be utilised in the future. The Green Book estimates this to be 1%-point.

Social discount rates also have very real implications for policy. When a government considers proposals that may only ‘pay off’ in a century, these cost–benefit analyses matter a great deal.¹⁸ For example, Social Discount Rates were at the heart of the debate between two leading figures in climate policy. William D Nordhaus used a ‘descriptive’ SDR of 5.5%, based on observed market interest rates,¹⁹ whilst Nicholas H Stern used a ‘prescriptive’ SDR of 1.4%, based on ethical judgements.²⁰ Because Nordhaus’ discount rate was much higher, it recommended a slow ramped-up response to climate change and an ‘optimal’ 3.5 degrees of warming, whilst Stern’s called for much more drastic action now.

Our focus in this article is on the ‘pure time preference’ component of social discount rates. We suggest that no non-negligible pure time preference is philosophically tenable.²¹ Our main argument

14 HMTreasury, *The green book. Appraisal and evaluation in central government* (2021).

15 Kenneth J Arrow et al, *Should a Declining Discount Rate Be Used in Project Analysis?* (2013) <http://idei.fr/sites/default/files/medias/doc/by/gollier/reep_sept_13.pdf>.

16 David J Evans and Haluk Sezer, ‘Social Discount Rates for Six Major Countries’ (2004) 11(9) *Applied Economics Letters* 557 <<https://doi.org/10.1080/135048504200028007>>.

17 Edmund Tweedy Flanagan, *On Discount Rates in the Cost-Benefit Analysis of Climate Change* (unpublished manuscript, 2011).

18 Partha Dasgupta, Karl-Göran Mäler, and Scott Barrett, ‘Intergenerational equity, social discount rates, and global warming’ (Beijer International Institute of Ecological Economics, 2000).

19 William D Nordhaus, *A Question of Balance* (Yale University Press 2008).

20 Nicholas Herbert Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press 2007).

21 Frank P Ramsey, ‘A mathematical theory of saving’ (1928) 38(152) *The Economic Journal* 543.

is very simple: even apparently modest rates *compound* over long stretches of time to yield wildly implausible conclusions about how benefits to earlier generations should be compared to benefits to later generations.

The philosopher Derek Parfit provides a relevant example. Suppose you bury some glass in a forest. In one case, a child steps on the glass in ten years’ time and hurts themselves. In the other case, a child steps on the glass in 110 years’ time and hurts themselves just as much. If we discounted welfare by 5% every year, we would have to say that the second case is over 100 times less bad than the first, such that we might prefer to injure ten children in the same way 110 years from now rather than a single child ten years from now. This cannot be right. From the moral perspective, harms and benefits matter in proportion to how good or bad they are, but not how early or late they occur. After all, Parfit notes, ‘[w]hen the future comes, these benefits and costs will be no less real’.²²

We can give positive arguments for rejecting pure time preferences, too. Geographic proximity—distance in space—does not affect someone’s intrinsic worth, or the value of influencing their life in the same way. Suppose you can improve the lives of two strangers by sending each of them money remotely. Suppose one lived 100km away from your location, and the other 1,000km away. Would this difference alone make helping the first stranger morally better? But in an important sense, time extends space: it adds a fourth dimension (temporal) to the three dimensions (spatial). So why think that a harm or benefit occurring ten years from now is more intrinsically valuable than an equivalent harm or benefit occurring 1,000 years from now? The moral philosopher Peter Singer frames a similar thought with his image of an ‘expanding moral circle’. Singer notes that human society has come to recognise the interests of progressively widening circles—from families, through tribes, nations, and ethnic groups, to strangers on different continents, and even nonhuman animals. This is an observation about the past, but it’s also a guiding principle for the future: that we should continue to grow our circle of concern as people remain outside of it. Time is a natural frontier for this expanding circle—as long as we can influence the lives of people in the future whose interests we do not take correspondingly seriously.

Our actions reliably affect future generations

Above, we argued that future people deserve moral consideration. Therefore, *if* political decisions have an appreciable effect on the lives of even a fraction of all the people yet to live, we suggest that decision-making processes should feel the weight of this responsibility—especially by representing future people in political institutions. But this leads to the obvious question: *can* we significantly and reliably influence the lives of future generations? As it happens, there are compelling reasons for believing we can. Below, we consider some key examples where we can expect efforts today to influence the long-run future.

Climate change

Once species become extinct and ecosystems collapse, there may be little hope of recovering them, irrespective of how wealthy our successors become. Polluting our oceans with plastic waste, or our atmosphere with greenhouse gases, is difficult to reverse: our grandchildren will feel their negative effects, and so will all generations hence. Yet, it is possible to mitigate the extent of this

22 Derek Parfit, *Reasons and Persons* (Oxford University Press 1984).

damage through political choices—by taxing emissions, subsidising green energy technologies, and perhaps eventually investing in large-scale geoengineering projects. To the extent that the harms of neglecting to act now will persist into the future, the benefits of acting now will last just as long. With respect to the long-run future, the question is whether decisions today could avoid or amplify ‘feedback loops’ which grow in importance over time, or whether their effects are more likely to fade with time, for natural or anthropogenic reasons. We suggest that wherever the truth lies precisely, we know enough to expect the effects of prudent climate policy to survive long into the lives of people not yet born.

Catastrophic risks

We are already familiar with salient bad news (extreme weather, forest fires) attributed to anthropogenic climate change, and these readily available examples motivate us to avoid worse and more frequent effects tomorrow. While even our best climate models leave room for uncertainty, we can be quite confident about how and when those worst effects will be felt on different emissions scenarios—and that many of us will still be alive to experience them.

By contrast, some potentially catastrophic risks to humanity are likely to occur (if they do) with less advance warning, and with fewer salient precedents. Though the precise odds are often difficult to pin down, the likelihood of a global catastrophic risk materialising in a given year or decade is low. Yet, as we consider increasingly long timescales (as we have argued is appropriate), ignoring these risks turns from imprudent to reckless. We don’t know when such events will occur, but it *does* look like the cumulative risk of catastrophe over our lifetimes and those of future generations is unacceptably high. Neither unpredictability nor low year-on-year probability imply that we should disregard the importance of preparing for these risks.

Consider that nobody could have predicted the exact timing of COVID-19, nor the form it ended up taking. But experts had warned (with good reason) that we were underprepared for the next worldwide pandemic.²³ If governments had taken some of their practical suggestions seriously, they could have saved hundreds of thousands of lives, not to mention the setbacks to other measures of human progress. But the lesson to draw from COVID-19 should be not just to protect against another respiratory pandemic, but to better protect against all plausibly extreme risks—with or without precedent.

Some of these risks are natural in origin: an asteroid collision, a supervolcano eruption, runaway climate change, or a biological pandemic even worse than COVID-19. Others are anthropogenic, such as the risk of nuclear fallout. If every incumbent government reasoned simply that the cost of preparing for catastrophic risks exceeded the benefits for the current political cycle, then with high likelihood one such risk will materialise, and our descendants will meet it unprepared, and they can blame every previous generation for failing to act.

As with the example of COVID-19, we know of several plausible ways in which additional resources could be spent to mitigate this wider range of risks. An obvious first step is to better understand the risks in order to prioritise between them. For instance, plausible causes of extreme climate change—outcomes involving more than

six degrees of warming—have received little research attention relative to the overall body of climate change research. Further, since 1991 there have been only two published climate models on the effects of a full-scale nuclear war.

None of this precludes the importance of soberly assessing the likely costs and benefits of preparing for low-probability ‘tail’ risks. We are not advocating for alarmism, or suggesting that the risks are significantly higher than most people think. It’s often just as easy to overestimate risks as to underestimate them. The point is that the ‘true’ or ‘total’ social benefits of mitigating and preparing for risks extend far beyond the lifetime of the government, or even generation, that led the way.

Existential risks

The risks we have been considering are severe but likely recoverable. But some of these risks threaten to *permanently* curtail humanity’s entire potential. These are called ‘existential risks’. Experts on these suggest that by far the most serious might be posed by rapidly developing technology. One example is the threat of an engineered pandemic escaping through an accidental lab leak or an intended act of aggression, estimated to be more than 100 times more likely to lead to an existential catastrophe than naturally occurring pandemics.²⁴ Further, some existential risk experts have raised special concern about the possibility of a powerful artificial intelligence system irreversibly set on pursuing some end which is unaligned with human values.²⁵ Existential catastrophes would be even worse than catastrophic but recoverable risks: affecting not just one generation, but the *thousands* of generations that otherwise could have lived valuable lives. For a sense of importance, the philosopher Toby Ord estimates that the chance of an existential catastrophe occurring this century is around 1 in 6—²⁶Russian roulette. Yet he is hopeful about our level of influence, suggesting that serious and widespread efforts to mitigate existential risks could halve the total risk compared to the scenario in which they are entirely neglected.

Unlike with risks from nature, it may be the case that this century matters overwhelmingly more than others for mitigating risks from human-made technology. The world has never changed so fast as it has been changing for the past century, and simply extrapolating this progress suggests we will soon accumulate so much power to transform our surroundings and ourselves that this century could prove to be our most dangerous and decisive yet.²⁷ This seems to suggest a simple argument for expecting that political interventions designed to mitigate technological risk can influence the long-run future: we have reason to believe we are living in an unusually influential time, owing to the pace of technological progress. Since technologies are developed by humans, and their development is significantly influenced by government as well as private initiative, we should expect that governments are equivalently able to steward their safe development, and that they have unusual potential influence over the long-run future.

24 Toby Ord, *The Precipice* (Bloomsbury Books 2020) 197 Table 6.1, ‘The Risk Landscape’.

25 Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford University Press 2014); Stuart Russell, *Human Compatible: AI and the Problem of Control* (Allen Lane 2019).

26 Ord (n 24).

27 See Will MacAskill, ‘Are we living at the hinge of history?’ (Global Priorities Institute working paper, 2020).

23 <https://www.ted.com/talks/bill_gates_the_next_outbreak_we_re_not_ready>.

It is worth emphasizing just how neglected some of the problems are. For instance, the Biological Weapons Convention²⁸ is the international body responsible for the continued prohibition of bioweapons, which experts suggest could pose a risk to human life at least as great as that from nuclear war.²⁹ The BWC currently has just four employees, and an annual budget less than that of the average McDonald's branch.³⁰ On the national level, the UK simply does not yet have a dedicated centre for biosecurity.³¹

In sum, the examples of climate change and extreme risks strongly suggest ways in which political decisions can reliably influence the long-run future. A third example is institutional reform: in part because well-designed political institutions can last centuries, and in part because those institutions can more effectively generate decisions which positively influence the long-run future.

The current and preceding sections have argued that future generations deserve moral consideration, and that both their quality of life and their very existence can depend on political decisions made today—combining to suggest the importance of institutions for representing future generations.

A final point: readers might object that our conclusion here cannot be right, because it would be too demanding in practice. They might further object that we made a mistake when we claimed that governments derive their legitimacy from adequately representing (all) the people their decisions affect, since this would involve representing too many people, including non-citizens. Our response is to point out that governments of high-income countries already spend around 1% of their budgets on non-citizens through foreign aid, and that opinion polls indicate that people think this figure should be higher.³² Spending less than half this amount could go a significant way to addressing the issues discussed above,³³ and the example of foreign aid suggests this is politically tractable. Beyond issues of fairness or legitimacy, mostly people simply want their political representatives to meet some minimum threshold of ethical responsibility by intervening when the moral stakes are sufficiently high, for example by giving humanitarian assistance. In some cases, the status quo might so badly imperil the lives of future people that we should consider ourselves to have this simpler duty of assistance.

The causes of institutional short-sightedness

In this section, we will further explore *why* future generations are insufficiently represented in politics, considering both the psychological reasons that motivate voters to care, and institutional reasons for why decision-makers are often biased toward the short term.³⁴

Of course, by far the most obvious reason that future generations are not represented in politics is that they cannot represent themselves.

28 <<https://www.un.org/disarmament/biological-weapons/>>.

29 Ord (n 24).

30 *ibid* 135.

31 Angus Mercer, Sophie Dannreuther, and Toby Ord, 'Future Proof: the Opportunity to Transform the UK's Resilience to Extreme Risks' (2021) <<https://www.longtermresilience.org/futureproof>>.

32 Council on Foreign Relations, 'Public Opinion on Global Issues' ch 15, U.S. Opinion on Development and Humanitarian Aid <https://worldpublicopinion.net/wp-content/uploads/2019/12/Development_Humanitarian_Aid_US.pdf>.

33 Specifically concerning extreme risks. See the budget estimates from Mercer, Dannreuther, and Ord (n 31).

34 We draw here from John (n 1).

But voters do not vote out of pure self-interest—³⁵their preferences extend to the welfare of other groups all the time, including voiceless groups like children and animals. If living voters cared sufficiently about the welfare of future generations then we would expect both political decisions and (eventually) institutions to reflect this. Yet, voters do not often consider the interests of future people, and few political institutions exist with the express purpose of representing their interests. Can we point to *special* features of the long-run future that explain this motivational failure?

Psychological factors

To the extent voters are altruistic, they are not uniformly so: various psychological factors skew and warp the people and things we care about, and these distortions carry through to the voting booth.

Less discussed, but comparably significant, are the effects of 'relational partiality': the obvious fact that we value the interests of those close to us to a far greater degree than the interests of strangers. For instance, Yan Chen and Sherry Xin Li have shown that when matched with in-group members, people are significantly more likely to show charitable concern.³⁶ This is relevant because all the people we are partial to currently exist (assuming partiality is always at least partly reciprocal). In general, the fact that people may give special weight to the interests of their friends and family, and that this is reflected in people's voting behaviour, is not an issue. This is because, among presently living people, there is no serious systematic bias in who people choose to care about. But nobody has yet met future people, so nobody is partial to them.

We might also consider how familiar cognitive biases influence how we value interventions which influence future generations. First, the 'identifiable victim effect' is a well-corroborated finding whereby people are more likely to feel sympathy for, and donate to, causes that most prominently feature a single identified person, versus impersonal statistics.³⁷ Relatedly, people react more strongly to tangible (but incidental) details in the framing of some issue. As Thomas C Schelling puts it, 'the more we know, the more we care'.³⁸ Since future people do not presently exist, we cannot point to identifiable future people, nor can we fill in details about their lives. We are forced to speak in statistical generalisations that hardly pull at the heartstrings.

Further, in assessing which causes should be prioritised, most people exhibit 'scope neglect',³⁹ whereby the monetary amount people are prepared to pay scales less than linearly with the size of the problem. As discussed, the number of people living in the very long-run future of humanity, or even the descendants of some specific citizenry, could be almost unfathomably large. Therefore, we might expect a psychological barrier to fully appreciating the

35 Bryan Caplan, *The Myth of the Rational Voter* (Princeton University Press 2007).

36 Yan Chen and Sherry Xin Li, 'Group Identity and Social Preferences' (2019) *American Economic Review*.

37 Deborah A Small, George Loewenstein, and Paul Slovic, 'Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims' (2007) 102(2) *Organizational Behavior and Human Decision Processes* 143.

38 Thomas C Schelling, 'The life you save may be your own' in Samuel B Chase (ed), *Problems in Public Expenditure Analysis* (The Brookings Institution 1968).

39 William H Desvousges, *Measuring nonuse damages using contingent valuation: An experimental evaluation of accuracy* (Research Triangle Institute 1992).

difference that future-oriented policy could make.

Institutional incentives

However, even if the electorate and politicians were fully aligned with the interests of future generations, systemic problems could still prevent long-term oriented policy from being implemented in practice.

Election incentives are perhaps the most widely discussed reason for political short-termism. Kenneth Rogoff highlights evidence of the political budget cycle, whereby government spending booms occur before a general election.⁴⁰ This can be explained by ‘imperfect information’: voters can easily scrutinise politicians’ prior records, but not their promises for the future.

A low-ability incumbent will ‘pretend’ to be high-ability by overspending today, giving the impression that they have more capital than they actually do, when really they are just borrowing from the future. This forces high-ability politicians to also overspend in order to win votes, up to a point where low-ability types cannot keep up anymore. The result is that short-termism persists even when actors are rational and voters care about future generations. Indeed, empirical evidence shows that the size of political budget cycles is closely related to how much information voters likely have available.⁴¹

Outside of elections, several institutional features can also induce short-termism. There is a vast literature on how lack of commitment devices creates problems for monetary policy and inflation to the detriment of long-term outcomes.⁴²

Four proposals

In this section, we propose four institutional reforms aimed at better representing the interests of future generations, drawing on work by Tyler John.⁴³ The proposals we mention are preliminary ideas that seek to expand the feasible set of solutions currently being considered in mainstream debate.

It is worth briefly noting what commonly proposed solutions we believe would fall drastically short in representing future generations. Lowering the voting age received a lot of attention after the Brexit referendum, and has also been cited in reference to climate change. However, it is dubious whether this will significantly extend representation to future generations, since there appears to be surprisingly little relationship between age and

discount rates or preferences for short-termist policy.⁴⁴

Likewise, there is no clear evidence that longer election cycles or term limits would significantly benefit future generations. Alexander Fourniaies and Andrew B Hall examine how term-limited legislators behave and find that, without a re-election incentive, there is no significant change in their platforms nor an increase in fiscal responsibility.⁴⁵ If anything, re-election is an important incentive for politicians to exert effort, as politicians will want to do a good job to stay in power.⁴⁶

1. Demeny voting

As noted, the fundamental issue for representing future generations in politics is that they cannot engage in politics themselves. Perhaps the easiest substitute would be to simply ask present voters to vote on behalf of future generations.

This solution is known as ‘demeny voting’ and has already been proposed in the context of parents casting additional votes on behalf of their children. Though never implemented, this idea was discussed by legislatures in Germany, Japan, and Hungary. Indeed, Reiko Aoki and Rhema Vaithianathan find that when voters are asked to vote a second time on behalf of a particular group, they will cast this vote significantly differently from their first.⁴⁷

Of course, there are reasons to doubt whether this same result will hold when demeny voting is extended to future generations. As noted, voters feel less partial to future generations in the abstract than to their children. Likewise, we should remain sceptical that behaviours shown in lab experiments will persist when demeny voting is applied to real-world elections. Nonetheless, demeny voting is appealingly simple, and may deserve further exploration.

2. Guardian protectors

If we do not believe that ordinary voters can represent future generations, even with additional votes, perhaps the solution is to create entirely new institutions with an explicit mandate.

Such new institutions could take a variety of forms. On the more extreme end, there have been proposals to create new legislative chambers, such as a ‘Futures Congress’.⁴⁸ Such institutions could also look similar to the House of Lords, having substantially less power than other legislative chambers but still putting an essential check on

40 Kenneth Rogoff, ‘Equilibrium Political Budget Cycles’ (National Bureau of Economic Research 1987) <<https://doi.org/10.3386/w2428>>.

41 Min Shi and Jakob Svensson, ‘Political budget cycles: Do they differ across countries and why?’ (2006) 90(8–9) *Journal of Public Economics* 1367; Adi Brender and Allan Drazen, ‘Political Budget Cycles in New versus Established Democracies’ (2005) 52(7) *Journal of Monetary Economics* | *Political economy and macroeconomics* 1271 <<https://doi.org/10.1016/j.jmoneco.2005.04.004>>.

42 John B Taylor, ‘Discretion versus Policy Rules in Practice’ (1993) 39 *Carnegie-Rochester Conference Series on Public Policy* 195 <[https://doi.org/10.1016/0167-2231\(93\)90009-L](https://doi.org/10.1016/0167-2231(93)90009-L)>; Robert J Barro and David B Gordon, ‘Rules, Discretion and Reputation in a Model of Monetary Policy’ (1983) 12(1) *Journal of Monetary Economics* 101 <[https://doi.org/10.1016/0304-3932\(83\)90051-X](https://doi.org/10.1016/0304-3932(83)90051-X)>.

43 John (n 1). For more details we recommend Inigo González-Rico and Axel Gosseries (eds), *Institutions for Future Generations* (Oxford University Press 2016).

44 Achim Goerres and Markus Tepe, ‘Age-Based Self-Interest, Intergenerational Solidarity and the Welfare State: A Comparative Analysis of Older People’s Attitudes towards Public Childcare in 12 OECD Countries’ (2010) 49(6) *European Journal of Political Research* 818 <<https://doi.org/10.1111/j.1475-6765.2010.01920.x>>; Michael B Berkman and Eric Plutzer, ‘Gray Peril or Loyal Support? The Effects of the Elderly on Educational Expenditures’ (2004) 85(5) *Social Science Quarterly* 1178 <<https://doi.org/10.1111/j.0038-4941.2004.00270.x>>.

45 Alexander Fourniaies and Andrew B Hall, ‘How Do Electoral Incentives Affect Legislator Behavior?’ (unpublished manuscript, 2018) <http://www.andrewbenjaminhall.com/Fourniaies_Hall_Electoral_Incentives.pdf> accessed 8 June 2021.

46 James Alt, Ethan Bueno de Mesquita, and Shanna Rose, ‘Disentangling Accountability and Competence in Elections: Evidence from U.S. Term Limits’ (2011) 73(1) *The Journal of Politics* 171 <<https://doi.org/10.1017/S0022381610000940>>.

47 Reiko Aoki and Rhema Vaithianathan, ‘Intergenerational Voter Preference Survey-Preliminary Results’ (2012).

48 Bruce Tonn, ‘A Design for Future-Oriented Government’ (1996) 28(5) *Futures* 413 <[https://doi.org/10.1016/0016-3287\(96\)00017-1](https://doi.org/10.1016/0016-3287(96)00017-1)>.

government and diminishing the influence of partisan divisions.⁴⁹ A more modest suggestion would be allocating a fixed proportion of seats in existing institutions to guardians of future generations, or organisations acting on their behalf.⁵⁰

Another alternative is to establish the position of ‘ombudsperson’, ‘an official who is charged with representing the interests of the public.’⁵¹ Although ostensibly a soft power institution, ombudspersons could conduct investigations, propose legislation, and run information campaigns.⁵² Several governments—including Sweden, New Zealand, Israel, and Hungary—have tested ombudspersons to help commit to environmental protections, with varying degrees of success.⁵³ This ombudsperson model might straightforwardly be extended to represent future generations as a whole.

3. Committees and offices

The above proposals may take decades to accrue the popular support required to be implemented. Other reforms appear more feasible in the near term.

For example, select committees wield a surprising degree of influence. Meghan Benton and Meg Russell found that about 40% of Select Committee recommendations are accepted and implemented by the government, over half of them mandating substantial changes.⁵⁴ We have already seen moves in this direction, such as the creation of an All-Party Parliamentary Group on Future Generations in the UK, the Welfare of Future Generations Act in Wales, and the Finnish Parliamentary Committee for the Future.

More technocratic bodies can also offer valuable insights to decision-makers and carry a large amount of soft power. For example, before being dismantled in 1995 by Newt Gingrich, the US Office of Technology Assessment conducted over 750 independent studies on a wide range of emerging topics, such as climate change, nuclear war, and artificial intelligence. Many prominent politicians, including Andrew Yang,⁵⁵ have called for the reestablishment of such an office to provide unbiased scientific advice to politicians.

Such internal solutions can perhaps also better address some of the technical procedures concerning future generations, such as internal discount rates and auditing processes. In the UK context, key elements include the Intergenerational Impact Assessment, the ONS’ Natural Capital Accounting, and Environmental Impact Assessments. A critical piece of upcoming legislation here is the UK Wellbeing of Future Generations Bill.

49 Bruce Tonn and Michael Hogan, ‘The House of Lords: Guardians of Future Generations’ (2006) 38 *Futures* 115 <<https://doi.org/10.1016/j.futures.2005.04.007>>.

50 Thomas Wells, ‘Votes for the Future’ (*Aeon Magazine*, 8 May 2014) <<https://aeon.co/essays/we-need-to-listen-to-our-future-citizens-here-s-how-to-tune-in>> accessed 8 June 2021.

51 <<https://oppz.gov.zm/investigations/>>.

52 Ludvig Beckman and Fredrik Ugglå, ‘An ombudsman for future generations’ (2016) in González-Ricoy and Gosseries (eds, n 43).

53 Natalie Jones, Mark O’Brien, and Thomas Ryan, ‘Representation of Future Generations in United Kingdom Policy-Making’ (2018) 102 *Futures* 153 <<https://doi.org/10.1016/j.futures.2018.01.007>>.

54 Meghan Benton and Meg Russell, ‘Assessing the Impact of Parliamentary Oversight Committees: The Select Committees in the British House of Commons’ (2013) 66(4) *Parliamentary Affairs* 772–97 <<https://doi.org/10.1093/pa/gss009>>.

55 Andrew Yang, ‘Revive the Office of Technology Assessment’ (*Yang2020-Andrew Yang for President*) accessed 8 June 2021.

4. International panels and frameworks

Many of the ways we can most reliably influence the very long-run future involve mitigating speculative but severe risks to our continued survival. By their nature, these issues are typically international in scope—as we know, highly contagious diseases originating from one country can soon become the entire world’s problem.

So it makes sense to address these problems on a global scale. Consider the Intergovernmental Panel on Climate Change (IPCC), which was established to provide policymakers with credible scientific assessments relating to climate change: warming projections on different emissions scenarios, potential novel climate risks, and proposals for adaptation and mitigation. The IPCC does not conduct its own research. Instead, it collects and reviews research from the worldwide scientific community, and underlines where there is widespread consensus on issues for which reliable evidence might otherwise be difficult for policymakers to locate.

It is possible to imagine similar panels for other issues which bear on the long-run future. Especially promising would be an intergovernmental panel on existential risks. A major barrier that remains to taking such large-scale risks seriously is a problem of credibility: it is easier to take popular action on the national level where that action is backed by internationally recognised and credible research.

International frameworks may also be necessary for adequately addressing issues that bear on the long-run future. The most severe global risks may require some amount of multilateral action, whereby every relevant actor commits to the same plan. Suppose most countries decide to closely control DNA synthesis,⁵⁶ but one major country defects, allowing cheaper and easier DNA synthesis. This coordination problem sees users flock to that deviating country and undermine the effort of other nations. 90 out of 100 countries imposing national regulation does not mean a reduction in total risk of 90%. In such instances, an international community can use sanctions and incentives to build stable coalitions, solving the coordination problem.

International frameworks have the added benefits of symbolic power and the ability to establish soft norms and precedents, as well as to help translate global goals into actionable national ones.

Conclusion

In this article, we argued that future people deserve moral consideration, and that political institutions should represent their interests. We then outlined suggestions for institutional reform in this direction.

But perhaps this is naively high-minded, and too impatient for overnight change. Institutions are like traditions: they cannot be spun out of idealistic words. Instead, they are grown over time, and the tests of time often mean they grow apart from the original visions that seeded them. We acknowledge this. Some of the reforms we proposed may not be right, and, even if they are, they could well fail in the forms we suggest. The route to progress here is a frustratingly incremental one, involving corrections of course and concessions, but keeping the long-term ideal in mind.

56 Technology allowing anyone to synthesise novel and potentially dangerous genetic code.

Although concern for the long-run future is not a new idea, only recently has a serious intellectual project emerged around it, called 'longtermism'. There are many talented people working on these problems, and we encourage readers interested in the ideas we discussed to further engage with them. We would recommend *The Precipice* by Toby Ord,⁵⁷ along with posts published by 80,000 Hours⁵⁸ and on the Effective Altruism Forum.⁵⁹ We are glad that an increasing number of people are thinking and talking about taking future generations seriously, in politics and beyond.

⁵⁷Ord (n 24).

⁵⁸80,000 Hours is a non-profit that provides research and support to help people switch into careers that effectively tackle the world's most pressing problems, with a focus on longtermism. See <<https://80000hours.org/key-ideas/>>.

⁵⁹<<https://forum.effectivealtruism.org/tag/longtermism>>.