

SPECIAL ISSUE ON LONG-TERM RISKS AND FUTURE GENERATIONS

How to Open Representative Democracy to the Future?

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Abstract

In recent years, various innovations aimed at counteracting perceived presentism and democratic decline have emerged. One primary concern is the issue of inadequate representation in parliaments, which has prompted the development of various proposals for reforming the selection mechanisms of parliamentarians. In this context,lottocracy (selection of representatives at random) and proxy democracy (selection models based on self-selection and flexible nominations that determine the relative influence of representatives) are candidates as selection rules to open democratic representation. Herein, I examine the normative and contextual trade-offs underpinning lottocracy and proxy democracy. While both systems outperform electoral alternatives on the dimensions under study, they induce tensions that are often overlooked. Nonetheless, clarifying the normative compromises is crucial to addressing the challenges facing democratic systems and to informing the deployment of the future of representative democracy.

Keywords: Democratic innovation; future of representation; long-term governance; lottocracy; proxy democracy

I. Introduction

Representative democracies are said to be afflicted by *presentism*, a blind spot for future-oriented policies and long-term risks,¹ blamed on the short-term incentives of institutions with a tendency to misalign lawmaking with citizens' perspectives.² Over the past decades, there have further been trends of discontent with democracy and a perceived decline in trust in representative institutions. In 2022, Europeans had an average trust in national governments of 3.6 on a 10-point scale and of 4.4 in the European Union (EU; against 4.7 and 4.6, respectively, in 2020).³ The weakening of trust in representative institutions trust correlates with a rise of authoritarianism that threatens established representative democracies: as a second-order problem, these institutions' future itself is at risk. Reinforcing democratic institutions to better align with democratic values becomes a

¹ M MacKenzie, "Institutional design and sources of short-termism" in I Gonzalez-Ricoy and A Gosseries (eds), *Institutions for Future Generations* (Oxford, Oxford University Press 2016). See also L Kinski and K Whiteside, "Of parliament and presentism: electoral representation and future generations in Germany" (2023) 32(1) *Environmental Politics* 21.

² D Thompson, "Representing future generations: political presentism and democratic trusteeship" (2010) 13 *Critical Review of International Social and Political Philosophy* 17. See also A Jacobs, *Governing for the Long Term: Democracy and the Politics of Investment* (Cambridge, Cambridge University Press 2011).

³ Eurofound, *Fifth Round of the Living, Working and COVID-19 e-Survey: Living in a New Era of Uncertainty* (Luxembourg, Publications Office of the European Union 2022).

necessary investment in *future generations' future*. Optimistically, the concept of representative democracy remains popular – a survey found that a median of 78% of participants worldwide believe it to be a good way to govern.⁴ In turn, proposals flourish to reform questioned representative institutions and increase their responsiveness. Some of these proposals involve enlarging the size of representative bodies, creating committees for the future within parliamentary chambers, and adopting different voting systems, such as ranked-choice voting, approval voting, or majority judgment.⁵

This paper builds on the idea that engaging citizens in the political process could reduce blind spots in risk management and better integrate long-term planning and the interests of future citizens (“the public itself needs to be engaged . . . to ensure long-term public interests are protected”⁶) and asks: how should ordinary citizens be engaged? In that vein, scholars have urged us to acknowledge representative democracies’ oligarchic drifts and reconsider fundamental democratic principles underpinning current processes.⁷ Notably, Hélène Landemore coined *open democracy*, a paradigm founded on widespread participation in lawmaking, institutionalised deliberation, and accessible representation.⁸ She makes the “case for a new form of democratic representation in which elected officials are replaced with randomly selected ones”, referred to as “lottocracy”.⁹ Others echo that a lottocratic chamber could be tasked with “legislating for the long term”.¹⁰

This paper engages with selection mechanisms for representative democracy that attempt to broaden institutions’ perspectives. While democracies historically tend to try out novel procedures that fit a particular normative ideal and evaluate other externalities after the fact, this paper benchmarks two selection procedures, lottocracy and proxy democracy, in an attempt to highlight the normative and contingent trade-offs. By understanding how different selection rules express democratic principles and respond to contexts, we shift from seeking an ultimate imperfect solution to debating how to prioritise competing objectives. In turn, citizens could make informed decisions about the values under which they institutionally live and shape the future of epistemically and procedurally responsible forms of representation that could mitigate long-term risks and survive the current turmoil.

The contributions of this paper are threefold. First, it considers the ecology of selection rules for representative assemblies (such as parliamentary chambers), introducing proxy democracy as a selection rule for representation in open democracies and comparing it to lottocracy. In proxy democracy, citizens can periodically choose to be in the legislature. Those who do not self-select flexibly nominate the self-selected citizen(s) they want to be represented by, and a legislator’s vote is weighted by the number of nominations received.

⁴ R Wike et al, “Globally, Broad Support for Representative and Direct Democracy” (Pew Research Center, 2017) <<https://www.pewresearch.org/global/2017/10/16/globally-broad-support-for-representative-and-direct-democracy/>> (last accessed 23 December 2022).

⁵ See, respectively, D Allen, S Heintz and E Liu, *Our Common Purpose. Reinventing American Democracy for the 21st Century* (Cambridge, MA, American Academy of Arts and Sciences 2022); K Vesa and T Raunio, “Encouraging a longer time horizon: the Committee for the Future in the Finnish Eduskunta” (2020) 26 (2) *Journal of Legislative Studies* 159; S Brams and P Fishburn, “Approval voting” (1978) 72(3) *American Political Science Review* 831; M Balinski and R Laraki, *Majority Judgment: Measuring, Ranking, and Electing* (Cambridge, MA: MIT Press, 2011).

⁶ T Bouricius, “Sortition: envisaging a new form of democracy that enables decision-making for long-term sustainability” in J Hartz-Karp and D Marinova (eds), *Methods for Sustainability Research* (Cheltenham, Edward Elgar Publishing 2017) p 129.

⁷ See D Van Reybrouck, *Contre les élections* (Arles, Éditions Actes Sud 2014); A Guerrero, “Against elections: The lottocratic alternative” (2014) 42(2) *Philosophy & Public Affairs* 135.

⁸ H Landemore, *Open Democracy: Reinventing Popular Rule for the Twenty-First Century* (Princeton, NJ, Princeton University Press 2020) pp 128–29.

⁹ H Landemore, “Response to Camila Vergara’s Review of *Open Democracy: Reinventing Popular Rule for the Twenty-First Century*” (2021) 20(3) *Perspectives on Politics* 1061.

¹⁰ Y Sintomer, “From deliberative to radical democracy? Sortition and politics in the twenty-first century” (2018) 46(3) *Politics & Society* 337, 352–53.

Second, it investigates how Landemore's accounts of *democratic representation* and *legitimate representation* are realised under lottocracy and proxy democracy, drawing on political and social choice theories to integrate these traditionally separate fields of study. While proxy democracy opens the way to representative institutions reinforcing the current understanding of representative values, lottocracy cannot be fully justified in that context; this paper builds on recent political theory to characterise appropriate novel interpretations of the concept of representation.¹¹ Third, it identifies a gap in the normative theory of lottocracy that raises a series of questions. Biased self-selection may impair lottocracy's promise of promoting descriptive representation: should self-selection be handled by mandates or quotas or should it be ignored? In the first case, is there a moral duty to serve as a representative or a substantive argument that those in power should not seek it? In the second case, which fairness or equity standards should replace the equality principle? In the third case, why should equality be preferred over diversity?

In the following sections, I review the literature on democratic representation and selection models. I examine open representation through the lens of lottocracy and proxy democracy and compare these selection mechanisms' normative foundations.

II. Democratic political representation

Political representation (through which certain individuals stand in for a group to perform specific functions on behalf of that group¹²) has been the subject of much controversy. While some argued that democratic representation was a "defective substitute for direct democracy" in which constituents abdicated self-government, others believed that representation allowed the many to select the competent few through periodic elections.¹³ These theories of representation have primarily focused on electoral democracies characterised by exclusive competitions for limited seats. Once acclaimed as an ultimate form of democratic representation, elections are increasingly perceived as founded on elitist principles, decried for their oligarchic drift and remoteness and criticised for experiencing high distrust and failing to focus on long-term risks.¹⁴

Looking back at John Stuart Mill, representation should provide all with an equal opportunity to "take an actual part in the government by the personal discharge of some public function".¹⁵ For Urbinati and Warren, it also plays a crucial role in "unif[ying] and connect[ing] the plural forms of association within civil society, in part by projecting the horizons of citizens beyond their immediate attachments, and in part by provoking citizens to reflect on future perspectives and conflicts in the process of devising national politics".¹⁶ Representation further induces a relationship between the represented and the representatives, the nature of which has been extensively debated. The traditional view

¹¹ See Landemore, *supra*, note 8; A Guerrero, *Lottocracy: A New Kind of Democracy* (manuscript, 2023); C Courant, "Sortition and Democratic Principles: A Comparative Analysis" in J Gastil and EO Wright (eds), *Legislature by Lot: Transformative Designs for Deliberative Governance* (New York, Verso Books 2019) p 229.

¹² A Rehfeld, "Towards a general theory of political representation" (2006) 68(1) *Journal of Politics* 1.

¹³ Citation from J Mansbridge, "Rethinking representation" (2003) 97(4) *American Political Science Review* 515. See P Rosanvallon, "Histoire moderne et contemporaine du politique" (2013) 112 *L'annuaire du Collège de France. Cours et travaux* 681 for a historical account of representation.

¹⁴ See the Triumph of Elections in B Manin, *Principes du gouvernement représentatif* (Paris, Calmann-Lévy 1997) ch 2. On the withering of electoral democracies, see, respectively, N Urbinati and M Warren, "The concept of representation in contemporary democratic theory" (2008) 11 *Annual Review of Political Science* 387, 394; L Lessig, *They Don't Represent Us: Reclaiming Our Democracy* (New York, HarperCollins 2019); Eurofound, *supra*, note 3; Wike, *supra*, note 4; Thompson, *supra*, note 2; Jacobs, *supra*, note 2.

¹⁵ JS Mill, "Considerations on representative government" (1861) 39 <<https://emilkirkegaard.dk/en/wp-content/uploads/John-Stuart-Mill-Considerations-on-Representative-Government.pdf>> (last accessed 2 January 2022).

¹⁶ Urbinati and Warren, *supra*, note 14, 391.

opposed the concept of *delegate* (mandated to fulfil the constituents' will) to that of *trustee* (trusted to exercise independent judgment), relying on the idea that constituents track and sanction the representatives' performance after the fact. However, Jane Mansbridge argued that sanction was peripheral to representation, proposing a selection model in which citizens screen candidates before they take office to choose self-motivated, honest representatives with aligned preferences.¹⁷

If political representation can be intrinsically democratic, instrumentally beneficial and understandable through a selection rationale, it is realised through selection processes with normative and empirical implications.¹⁸ Investigating novel schemes, scholars have argued for increasing “degrees of openness of the sites of power to ordinary citizens” to promote a more accurate representation of the people and their interests.¹⁹ To reason around the justification of delegating power in open, representative democracies, Landemore distinguishes between *democratic representatives* (“who [have] accessed the position of representative through a selection process characterized by inclusiveness and equality”), *legitimate representatives* (“who [have] been properly authorized to act as a representative”) and *good representatives* (“that [serve] well the interests of the represented”).²⁰ Furthermore, she notes that “if the democratic principles of inclusiveness and equality are perfectly realised, then we should see a representative body that is statistically identical with the demos”,²¹ deriving *descriptive representation* from democratic representation. Descriptive representation (the idea that a legislature “should be an exact portrait, in miniature, of the people at large”²²) has a long instrumental history of enhancing democratic processes.²³ It “speaks to the level at which those occupying positions of power reflect the population they represent” and aims to reflect the diversity of the constituents' experiences and perspectives, enhance long-term views and bring political power closer to the people.

Scholars have argued that contingent political risks associated with electoral designs, contextual political capture by special interests and the complexity of the issues at stake were standing in the way of representative institutions delivering substantive outcomes to improve present and future citizens' lives.²⁴ In contrast, cognitive diversity, inherent to descriptive assemblies, was reported to enhance the epistemic performance of a crowd when facing complex problems through deliberations as “the range of arguments considered will be broader”.²⁵ Next, ordinary citizens in the right institutional design are said to be “more likely to feel accountable to future generations [than] to . . . electors (and in some cases to the donors who finance the elections)”.²⁶

This paper builds on the assumption that engaging ordinary citizens will foster substantive outcomes (*good representation*) and engages with the procedural justification to (1) understand how lottocracy and proxy democracy respond to Landemore's interplay

¹⁷ J Mansbridge, “Clarifying the concept of representation” (2011) 104(3) *American Political Science Review* 621.

¹⁸ On normative considerations, see D Landa and R Pevnick, “Representative democracy as defensible epistocracy” (2020) 114(1) *American Political Science Review* 1. See also A Lijphart, “The political consequences of electoral laws, 1945–85” (1990) 84(2) *American Political Science Review* 481 for empirical ones.

¹⁹ Landemore, *supra*, note 8, 134.

²⁰ *ibid* 87.

²¹ *ibid* 89.

²² J Adams, *The Works of John Adams*, vol 1 (Boston, MA, Little, Brown 1856).

²³ J Mansbridge, “Should blacks represent blacks and women represent women? A contingent ‘yes’” (1999) 61(3) *Journal of Politics* 628. For a conceptual assessment of different views on representation, see H Pitkin, *The Concept of Representation*, vol 75 (Berkeley, CA, University of California Press 1967).

²⁴ Jacobs, *supra*, note 2.

²⁵ Respectively, H Landemore, *Democratic Reason* (Princeton, NJ, Princeton University Press 2012) and Sintomer, *supra*, note 10, 353.

²⁶ Sintomer, *supra*, note 10, 353 specifically writes this in the context of sortition chambers.

between democratic and descriptive representations and (2) clarify how both selection rules understand legitimate representation.

1. Lottocracy

A lottocratic assembly is composed of congress members drawn randomly to participate in the political office that rotates over fixed periods, typically informed by appointed panels of experts. Lottocracy was famously used in ancient Greece, being reintroduced by Robert A. Dahl as the mini-populous and suggested as a complementary form of representation.²⁷ They typically come with a side informational process through which the randomly selected citizens gather knowledge about the issues at stake. Recently, proposals to replace congresses with random chambers flourished and are contested.²⁸ Lottocracy is often defended for treating all more equally and being more inclusive, representative and impartial than its electoral counterpart. Lottocratic assemblies have been composed worldwide to work on topics such as climate change, constitution drafting, same-sex marriage, etc.²⁹

2. Proxy democracy

Proxy democracy is an alternative model in which citizens either self-select to be representatives or flexibly nominate self-selected citizen(s) through frequent nomination processes.³⁰ In turn, representatives have a weight equal to the number of citizens they represent, which scales their votes in congress. Nominations are fractional to allow the expression of plural preferences and choosing different representatives for different issues.³¹ Each citizen would nominate a set of representatives, specifying the capacity in which each representative is chosen (a specialist or a generalist). While all representatives would participate in all votes, dedicated, democratically selected per-issue committees would drive in-depth deliberations before voting.³² Variations of this system have been

²⁷ See, respectively, Aristotle, *Politics* (Ernest Barker ed., Oxford, Oxford University Press 1958); R Dahl, *On Democracy* (New Haven, CT, Yale University Press 2020) p 340; A Fung, "Survey article: Recipes for public spheres: Eight institutional design choices and their consequences" (2003) 11(3) *Journal of Political Philosophy* 338.

²⁸ For proposals, see, for instance, K O'Leary, *Saving Democracy: A Plan for Real Representation in America* (Redwood City, CA, Stanford University Press 2006); E Callenbach, M Phillips and K Sutherland, *A People's Parliament/A Citizen Legislature* (Exeter, Imprint Academic 2008); J Gastil and E Wright, "Legislature by lot: Envisioning sortition within a bicameral system" (2018) 46(3) *Politics & Society* 303. On concerns, see D Landa and R Pevnick, "Is random selection a cure for the ills of electoral representation?" (2021) 29(1) *Journal of Political Philosophy* 46 and L Umbers, "Against lottocracy" (2021) 20(2) *European Journal of Political Theory* 312.

²⁹ Guerrero, *supra*, note 11, 97, 257.

³⁰ Proxy democracy generalises proxy voting (J Miller, "A program for direct and proxy voting in the legislative process" (1969) 7 *Public Choice* 107) and liquid democracy. Liquid democracy is (1) area-specific, (2) transitive proxy voting with (3) instant recall that has been used sporadically around the world (see C Valsangiacomo, "Clarifying and Defining the Concept of Liquid Democracy" (2020) 28(1) *Swiss Political Science Review* 61). I only focus on the potential of fractional transitive proxy voting as an alternative mechanism for parliamentary selection, all other things being equal. In particular, I do not consider instant recall in proxy democracy for its instability but rely on a rotative system such that nominations are held periodically. For an investigation of these concepts as representative processes, see C Valsangiacomo, "Political representation in liquid democracy" (2021) *Frontiers in Political Science* 7.

³¹ The specific mechanics of fractional voting may vary, and quadratic voting may be better suited to preventing strategic behaviour while still allowing expressive nominations, as in G Weyl, "The robustness of quadratic voting" (2017) 172(1) *Public Choice* 75.

³² The approval-based multi-winner literature proposes ways to ensure a proportional representation of perspectives: see, eg, H Aziz et al, "Justified representation in approval-based committee voting" (2017) 48(2) *Social Choice and Welfare* 461.

used in political and corporate settings, but proxy democracy remains a fresh proposal with far fewer test cases than lottocratic alternatives.³³

Lottocracy and proxy democracy are committed to opening the set of potential representatives to virtually everyone, adding “to the mix of a new set of representatives, different from those we elect”.³⁴ While lottocracy works with pre-defined sizes and no direct intervention of the represented, proxy democracy theoretically admits unbounded parliament sizes and is realised through flexible nominations of those represented. Furthermore, numerous lottocratic proposals suggest relying upon single-issue bodies connected through supra-chambers and trained independently. In proxy democracy, such single-issue deliberative pools are endogenously constituted and included in the broader institution to handle trans-issue consistency.

III. Democratic, descriptive and legitimate representation in lottocracy and proxy democracy

In the remainder of this paper, I shall compare the two forms of selection models on similar grounds. First, I focus on Landmore’s account of democratic representation and its interplay with descriptive representation.³⁵ Second, I discuss how legitimate representation is mechanically derived in both models by those not included in the parliament.

I. On democratic and descriptive representation

Landmore suggests evaluating in non-electoral processes “the democratic character of a representative assembly . . . in terms of the degree to which access to that assembly . . . is inclusive and equal (or fair)”, in what is reminiscent of Robert A. Dahl’s criteria for adequate participation and equality in the decisive stage in electoral democracy.³⁶ She further asserts that perfectly democratic representation leads to statistically descriptive representation.³⁷ Let us observe how the equation coupling inclusive participation and equality to descriptive representation plays out in lottocracy and proxy democracy.

a. Inclusive participation

In electoral democracy, all overaged citizens participate mainly through voting rights that vest peripheral and indirect access to power through episodic polls. In contrast, democratic representation requires that all could virtually participate substantively in policymaking through low entrance barriers and the assurance that they could reasonably have been included for any given term. Along these lines, lottocracy and proxy democracy virtually allow any citizen to become representative, effectively removing entrance barriers to congress.³⁸

Next, lottocratic active participation is over one’s lifetime (*I may be selected to participate in policymaking throughout my life*) and happens intermittently (*when I am selected*). In contrast, citizens in proxy democracy are actively included continuously in policymaking through their

³³ Valsangiacomo (2020), supra, note 30, 71.

³⁴ Sintomer, supra, note 10, 352.

³⁵ Landmore, supra, note 8, 81.

³⁶ *ibid* 81–82; RA Dahl, *Democracy and Its Critics* (New Haven, CT, Yale University Press 1989) p 109.

³⁷ Landmore, supra, note 25.

³⁸ Neither lottocracy without mandates nor proxy democracy proposes a framework to include those who do not engage in the political processes or biased self-selection patterns based on, for example, gender, which are, however, other crucial issues for open democracy.

ability to self-select or nominate representatives per issue.³⁹ Unlike in lottocracy, citizens need not be willing to sit in congress; they can freely self-select (allowing direct inclusion) or exert their political power over influencing the legislature's composition (allowing indirect inclusion). It is unclear how many people would self-select to sit in the representative body in proxy democracy. While small congresses would include all continuously through direct and indirect participation, mechanisms would be necessary to mitigate massive assemblies – and filtering representatives could create new exclusion patterns.

Landemore notes that “if the number of seats and the frequency of rotation are insufficient for everyone to plausibly expect to rule someday, then the comparative democratic advantage of lotteries over elections becomes quite thin”.⁴⁰ Unfortunately, the chance of being included in one's lifetime in modern examples is extremely small. In the Belgium case used by Landemore, twenty-nine seats are filled randomly from a pool of 76,000 citizens, and the rotation occurs every year and a half. The probability of being selected in a lifetime is less than 2.3%.⁴¹ For a population of ten million and a congress of ten thousand members chosen yearly, the probability of any individual being selected once in a lifetime would not reach 10%. Guerrero finds that, even in a fully lottocratic American society where every political office at the local, state and national levels is held randomly, the probability of being selected in one's lifetime in any of those is about 4%.⁴² As such, only a small number of citizens would have the opportunity to participate in the policymaking process, even with frequent rotations and large parliaments in large states. This does not mean, however, that lottocracy is not inclusive. It does not favour active inclusion in the process but exemplifies passive inclusion of a broad range of perspectives: most individuals would have a high chance for their perspective and experience to matter at some point. Passive inclusiveness is not guaranteed in a majoritarian electoral framework, where some perspectives may never make it to a representative seat. It is also likely to be more prevalent in lottocracy than in proxy democracy (where all perspectives can be included, but some, being more weighted than others, could control voting outcomes).

In summary, lottocracy and proxy democracy virtually remove entrance barriers to the site of power. They differ in that active inclusiveness is intermittent through direct participation in the former and continuous through direct and indirect involvement in the latter. Passive inclusion in lottocracy allows citizens' perspectives to be represented and heard. Alternatively, self-selection and nominations in proxy democracy connect all to the site of power and allow citizens' multi-faceted interests to be represented, but

³⁹ Unlike in electoral democracy, where entrance barriers to participating directly are high, proxy democracy allows every citizen to choose whether they want to participate directly (self-selecting) or indirectly (nominating) in policymaking.

⁴⁰ Landemore, *supra*, note 8, 91.

⁴¹ The probability of a citizen being chosen at least once in a lottocratic assembly is 1 minus the probability of never being chosen. Assuming that only four out of five citizens are old enough to be selected and that the events of being selected for each term are independent, the probability of never being chosen is $(1 - 29/(0.8 \times 76,000))^m$, where m is the number of times one can be selected. We generously assume that a citizen can be chosen once every year and a half over seventy years so that $m = 70/1.5$. This probability remains comparable if we take into account that a citizen may be selected only once in their lifetime and further shrinks if we include population dynamics. Landemore, *supra*, note 8, 91 reports a probability of being chosen in one's lifetime of 67%, but, to the best of my understanding, the assembly would need to be changed every ten days to reach this probability. Other sources (L Chahuneau, “En Belgique, la démocratie par triage au sort” (*Le Point*, 25 February 2019) <https://www.lepoint.fr/politique/en-belgique-la-democratie-par-tirage-au-sort-25-02-2019-2296250_20.php> (last accessed 26 July 2023) indicate that up to 174 citizens can be sorted through a combination of a permanent assembly with twenty-four members sorted every eighteen months and three potential assemblies with twenty-five to fifty citizens called at most three times a year. Then, the probability is upper bounded by 18% in the most generous scenario.

⁴² Guerrero, *supra*, note 11, 246. Selecting at random all elected officials would still induce imbalance in the stakes each individual has a chance to participate in.

self-selection and vote weighting may lead to some views struggling to be represented and to large congresses that would necessitate limiting mechanisms.

b. Equal access, fair access or statistical representation

Another critical aspect of democratic representation is equal opportunity to share claims in exercising political power so that “the possibilities for political participation [are] equally distributed” among the citizenry.⁴³ In electoral democracies, guardrails bias who can run for office, undermining political equality and preventing parliaments from being descriptively representative. Open democrats strive for equal access to substantive power among citizens, but this is not a sufficient condition to obtain diverse assemblies. Citizens’ ability to choose whether to become representatives can prevent inclusiveness and equality from resulting in diversity: those who self-select may not be statistically representatives of all.⁴⁴

In an idealised lottocracy, a parliament of size k in a citizenry of size n is constituted by randomly sampling citizens with probability k/n . In turn, all citizens have the same chance to sit in congress, control the agenda, deliberate and vote. In addition, groups constituting the citizenry have a proportional chance of being represented. This idealised view condones the citizens’ right (given in current lottocratic implementations) to refuse the invitation to sit in parliament. Because active inclusion in lottocracy is understood as taking part directly in the policymaking process, it imposes a high participation cost that only some may tolerate. In sorted assemblies with low commitment, few citizens opt in to serve in the short-lived sorted groups: “typically, only between 2 and 5% of citizens are willing to participate in the panel when contacted”.⁴⁵

Those who self-select “exhibit self-selection bias, i.e., they are not representative of the population, but rather skew toward certain groups with certain features”,⁴⁶ hurting a priori the chances for each group to be proportionally represented. Some argue one should simply limit the causes of abstention; others insist on limiting its effects, de-biasing it to “ensure that the assembly’s eventual membership [is] representative of the population”.⁴⁷ In turn, external checks such as quotas may ensure that the sorted assembly includes a certain number of people with specific characteristics. Practitioners prescribe first sampling a large pool of people and then using quotas to stratify the final assembly of size k , de-biasing those who accepted to participate in the larger pool through algorithmic procedures.⁴⁸ Such stratified sampling is deemed necessary to “increase [sorted assemblies’] representativeness”.⁴⁹ While quotas may fail to account for “constituents’

⁴³ R Dahl, *On Political Equality* (New Haven, CT, Yale University Press 2007) p 109. See also T Christiano, “The Basis of Political Equality” in E Edenberg and M Hannon (eds), *Political Epistemology* (Oxford, Oxford University Press 2021). For the citation, see S Gosepath, “Philosophical Perspectives on Different Kinds of Inequalities” in M Wulfgramm, T Bieber and S Leibfried (eds), *Welfare State Transformations and Inequality in OECD Countries* (London, Palgrave Macmillan 2016) p 75.

⁴⁴ This was also observed in D Scheufele, “Modern citizenship or policy dead end? Evaluating the need for public participation in science policy making, and why public meetings may not be the answer” (2011) Paper#R-34, Joan Shorenstein Center on the Press, Politics and Public Policy Research Paper Series, and Landa and Pevnick, *supra*, note 28.

⁴⁵ B Flanigan et al, “Neutralizing self-selection bias in sampling for sortition” presented at the 34th Conference on Neural Information Processing Systems (NeurIPS 2020) pp 6528–39.

⁴⁶ *ibid* 6529.

⁴⁷ Climate Assembly UK, “The path to net zero: Climate Assembly UK full report” <<https://www.climateassembly.uk/report/read/final-report.pdf>> (accessed 1 January 2023).

⁴⁸ See also B Flanigan et al, “Fair algorithms for selecting citizens’ assemblies” (2021) 596(7873) *Nature* 548.

⁴⁹ Sintomer, *supra*, note 10, 340.

many-sided and cross-cutting interest”⁵⁰ and be “essentializing”,⁵¹ such “representative arrangements” are deemed valid “in the context of historical patterns of domination and subordination”. They protect an ex-ante understanding of diversity (defined a priori) and could constitute modern guardrails to support the democratic ideal. The explicit design of the quotas shall require meticulous attention to avoid being politicised (for instance, minimum thresholds over bi-partisan categories could promote mild guardrails).

Furthermore, while equal chance to access power is unattainable in such scenarios, computer scientists have developed algorithms that enforce pre-defined quotas while treating participants fairly.⁵² Some maximise the lowest probability of being selected; others sort the larger assemblies with different probabilities that depend on citizens’ attributes (such as age, gender and education) to account for different likelihoods of opting in.⁵³ Voters are not treated equally, as one’s chance of being selected depends on the self-section pattern of the rest of the group, but these elegant approaches achieve procedures that guarantee descriptive representation while promoting fair access to power.

In all, attention must be devoted to the implications of self-selection in lottocracy in different contexts. Should participating be mandatory – if so, on which grounds? Should random sampling be procedurally sufficient to suffer the cost of potentially skewed representation? Or, could stratified sampling be the best option available to guarantee equitable representation – if so, what should be the fairness principles used instead of the equality principle and how should such guardrails be normatively, empirically and politically justified?

In contrast, proxy democracy intends to enforce equal opportunity to become a representative among those who self-select. Each citizen may deal with their voting power equally through nomination, provided that opening the set of representatives to virtually everyone will supply diverse choices. Valsangiacomo notes that, unlike in electoral democracy, proxies compete for political and legislative influence and not for seats, arguing that this fundamental shift will “reduce the risk of strategic voting on the part of the voters, as well as the risk of anticipatory strategies on the part of the parties”.⁵⁴ Furthermore, marginalised voices that struggle to gather the support needed to be heard in electoral setups would be included through self-selection in parliament, automatically taking a seat in deliberation phases.

In contrast, proxy democracy does not induce equality of influence in the decisions taken in parliament, as some representatives will carry more nominations than others. Closely related to that point, proxy democracy does not enforce a preconceived notion of diversity. Self-selection and flexible nominations are intended to couple equality of opportunities to become a representative with a diverse representation of interests. Diversity is understood as ex post, resulting from popular nominations.⁵⁵ Philosophers have argued that there were reasons to believe that coupling self-selection with flexible nominations would lead to descriptive and “strongly” diverse parliaments.⁵⁶ However, they do not provide ex-ante safeguards against popular nominations. In particular, proxy democracy may drift to nominations captured by coalition-builders, charismatic leaders or

⁵⁰ J Mansbridge, “The descriptive political representation of gender: An anti-essentialist argument” in J Klausen and C Maier (eds), *Has Liberalism Failed Women?* (London, Palgrave Macmillan 2001) pp 19, 30.

⁵¹ *ibid* 30.

⁵² S Ebadian et al, “Is Sortition Both Representative and Fair?” presented at the 37th Annual Conference on Neural Information Processing Systems (NeurIPS 2022).

⁵³ Flanigan et al, *supra*, note 48 and *supra*, note 45, respectively.

⁵⁴ Valsangiacomo (2021), *supra*, note 30.

⁵⁵ Proxy democracy is not per se incompatible with ex-ante diversity – external checks could randomly sample given features from a self-selected group.

⁵⁶ Valsangiacomo (2021), *supra*, note 30. See also C Blum and C Zuber, “Liquid democracy: Potentials, problems, and perspectives” (2016) 24(2) *Journal of Political Philosophy* 162.

special interests, as in electoral democracies, which could control enough voting weight to influence legislative outcomes.⁵⁷ While counter-popular guardrails could be deployed to prevent these cases, a context prone to political capture may find its way to game the system and reduce equality to access effective power.⁵⁸

In sum, self-selection creates tension between equality and diversity. Lottocracy may solve this tension by enforcing an ex-ante account of diversity through fair, stratified sampling, arguing for a mandatory civic duty to serve when selected or trading diversity for equal chances of being selected. By contrast, proxy democracy lets citizens who did not self-select balance out the biases induced by self-selection. Proxy democrats admit an ex-post account of diversity revealed through the nominations and, in turn, cannot guarantee statistical representation. Simultaneously, proxy voting does not guarantee equality in the representatives' chances of influencing outcomes, and this may be exploited to capture political processes. External checks to guardrail endogenous behaviours might be necessary (to promote diversity against self-selection or prevent concentration of power against nominations), and they pose a crucial challenge to open democracy, similar to that faced by electoral democrats two and a half centuries ago: when and why are guardrails (such as mandates, quotas and nominations caps) justifiable?

2. On legitimate representation

Those not directly included in parliaments need to authorise the representatives, consenting to their binding power. Authorisation constitutes a necessary condition for democratic legitimacy that pretends to accommodate individuals with an irreconcilable plurality of opinions to comply with a non-consensual decision and grounds what Landmore calls "legitimate representation". Representatives in electoral democracy are authorised because they are chosen by a sufficiently large portion of the population and are held accountable through periodic elections. However, those who vote for the election's winner authorise with greater intensity than those who do not, creating unbalanced authorisation theories in electoral democracies.

Authorisation in open democratic selection rules is deeply rooted in a procedural argument according to which citizens are all included and treated equally (to the extent possible), leading to an assembly whose diversity has instrumental credentials. Accordingly, citizens of open democracy are expected to authorise their parliament for its intrinsic and instrumental credentials. Intrinsically, citizens oscillate between "ruling and being ruled" by the sheer inclusiveness of the parliament to all.⁵⁹ Instrumentally, the representative body is constituted by cognitive diversity that shall lead to better outcomes, being either more sensitive to the plurality of opinion or epistemically dominant.⁶⁰

The lottocratic assembly is selected by a voter-free process, primarily authorised via the procedural argument outlined above without a principal-agent relationship. Citizens do not exercise power when selecting a representative but consent to the power of a justly composed body and authorise it *as a whole* because it tends towards a statistical truth. Random assemblies are accompanied by knowledge-gathering and deliberative processes that may enhance lawmaking's outcomes. This instrumental justification is sensitive to the

⁵⁷ Guerrero, *supra*, note 11, 106. In the context of liquid democracy, an experiment documented extreme concentration of power; see S Becker, "Web Platform Makes Professor Most Powerful Pirate" (*Spiegel*, 2 March 2012) <<https://abcnews.go.com/International/web-platform-makes-professor-powerful-pirate/story?id=15835442>> (last accessed 26 July 2023).

⁵⁸ A Kahng, S Mackenzie and A Procaccia, "Liquid democracy: An algorithmic perspective" (2021) 70 *Journal of Artificial Intelligence Research* 1223 and P Gözl et al, "The fluid mechanics of liquid democracy" (2021) 9(4) *ACM Transactions on Economics and Computation* 1 proposed algorithmic procedures to control power concentration.

⁵⁹ Aristotle, *supra*, note 27, 117.

⁶⁰ Landmore, *supra*, note 25.

assemblies' cognitive diversity.⁶¹ Hence, mandatory participation or quotas may be necessary preconditions to outcome-oriented authorisation in lottocracy.

Beyond authorising a fair procedure, citizens in proxy democracy endorse “self-motivated agent[s] who can pursue their interests flexibly, adaptively and with internal commitment”⁶² and be political leaders during their term.⁶³ Unlike in electoral democracies, citizens who choose to be nominators have access to diverse and per-issue alternatives. Their weight in the decision is further effectively carried by their representative(s) so that authorisation is personalised through the indirect nature of inclusiveness. Furthermore, proxy democracy proposes to rely on the concept of collective intelligence applied to the selection of topically competent peers to enhance lawmaking's outcomes.⁶⁴ Proxies are expected to be authorised because they are perceived as “an especially competent set of individuals” selected through a democratic process.⁶⁵ This normative argument, however, shall carefully be confronted with the context in which proxy democracy may be deployed to look for external forces that may distort the nomination processes.

In lottocracy, those not directly included authorise a group that approaches a statistical truth. Lottocracy induces a discontinuity in the traditional theory of consent in representative democracy, basing authorisation on a voter-free procedural argument. Furthermore, while non-random democratic processes may be theoretically proposed to achieve optimal epistemic performance,⁶⁶ deliberative lottocracy is said to guarantee epistemically responsible assemblies better suited to resisting the risks of political capture. By contrast, proxy democracy reinforces how consent is understood in electoral theories: individual authorisation results from a free choice to nominate and is translated into a citizen's weight being effectively represented in parliament. Relying on voters' collective intelligence, proxy democracy may fairly bring forth competent lawmakers, but nomination processes may be captured and are at risk of being biased.

IV. Discussion and conclusion

Representation in democracy is due for an upgrade. The exact shape that this update may take has yet to be made clear. In an open democracy, lawmakers could be selected through random draws of citizens or self-selected representatives weighted by popular votes. Normatively, both proposals promise to lead to more inclusive, egalitarian and diverse representative bodies than current electoral systems. However, they lead to different readings of these principles. Proxy democracy lets citizens choose whether to directly or indirectly participate in the political craft and strengthens individualised authorisation of theoretically competent representatives. It reveals an ex-post diversity through endogenous nominations but may suffer from powerful forces capturing unbalanced influence. By contrast, lottocracy promotes only rare active inclusion but broad passive inclusion of voters' various perspectives. Different handlings of biased self-selection appeal to mandatory participation or quotas safeguarding ex-ante diversity. Lottocratic

⁶¹ *ibid.*

⁶² Mansbridge, *supra*, note 17, 623.

⁶³ See E Beerbohm, “Is democratic leadership possible?” (2015) 109(4) *American Political Science Review* 639 for a discussion about the compatibility between democracy and leadership.

⁶⁴ Recent work found theoretically and empirically that, in well-connected and apolitical setups and in the context of liquid democracy, transitive nominations were reaching per-issue competent representatives, see D Halpern et al, “In Defense of Liquid Democracy” (2021, forthcoming); M Revel et al, “Liquid Democracy in Practice: An Empirical Analysis of its Epistemic Performance” presented at the 2nd ACM Conference on *Equity and Access in Algorithms, Mechanisms, and Optimization* (EAAMO 2022).

⁶⁵ Landa and Pevnick, *supra*, note 28.

⁶⁶ *ibid.*

authorisation relies on a radically new account of voter-free procedures. Since there may not exist an ultimate form of representation, choices about the future of democracies shall be driven by the principles we ought to prioritise and the contexts from which we start. This paper hopefully clarifies how lottocracy and proxy democracy respond to values and contingency.

Practically, handling large parliaments may become necessary to foster inclusive representation in both lottocracy and proxy democracy.⁶⁷ Operating with large congresses sounds preposterous – representation was invented to accommodate large population sizes and prevent chaotic debates. However, if deliberation is at its best in small assemblies, meaningful inclusiveness mechanically requires larger ones. To allow more citizens to be included in open democratic representation, specific attention shall be dedicated to rethinking lawmaking protocols so that they accommodate large groups and are compatible with non-political commitments citizens may have while serving as representatives. For instance, congresses could work by decoupling deliberation phases from voting phases in parliaments. Small, punctual, per-issue specialised, geographically distributed committees would gather information, hear experts, deliberate and draft laws before all representatives would cast a vote at the time of the decision.

Alternatively, to limit congress size while achieving a flexible understanding of inclusiveness and diversity and minimising the influence of charm in the nomination process, one could consider using mixed selection rules that incorporate elements of both lottocracy and proxy democracy.⁶⁸ For instance, citizens could be asked to announce their availability to serve in the parliament's next term or nominate a fellow citizen to represent them. Representatives would then be drawn randomly among self-selected candidates, with a probability of being chosen based on the number of nominations received. This approach intends to prevent excessive self-selection biases or incentives for charismatic capture while promoting authorisation through a procedure in which all citizens participate.

This paper explores alternatives to mitigate first- and second-order long-term risks associated with representative democracy from democratic, legitimate and descriptive perspectives. Further normative questions (regarding the rules' symbolic and substantive implications) and practical issues (about representatives' compensations, the trustworthiness of digital platforms used for sorting citizens or counting representative weights, etc.), left for future research, still stand in the way of a panoramic view of representative democracy's future.

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⁶⁷ American founding fathers advocated for maintaining one representative for every 36,000 citizens (A Hamilton, J Madison & J Jay, *The Federalist Papers* (Oxford, Oxford University Press 2008)). Similarly, proposals are being made to enlarge the US Congress; see Allen et al, *supra*, note 5.

⁶⁸ Sintomer, *supra*, note 10, 348.