ABSTRACT

Title of Dissertation:	ESSAYS ON THE EPISTEMOLOGY OF POLYCENTRICITY AND DEMOCRACY
	Aylon Reuven Manor, Doctor of Philosophy, 2023
Dissertation directed by:	Professor Dan Moller, Department of Philosophy

This dissertation investigates the epistemic properties of two institutional types, polycentricity and democracy, and explores how these ideals can be translated into concrete plans for institutional design. The dissertation consists of four papers, with the first two papers investigating the epistemic case for polycentricity and its relation to moral arguments, while the remaining two papers investigate the epistemic properties of democracy. The first paper argues that the epistemic case and moral case for polycentricity point toward different polycentric arrangements, while the second paper highlights two dimensions through which polycentric arrangements can generate epistemic value. The third paper proposes a two-stage political process using a Wikipedia-inspired platform to filter for quality information and allow all citizens to participate, while the fourth paper argues for the normative significance of "epistemic equality" in voting methods and explores its implications for alternative methods.

ESSAYS ON THE EPISTEMOLOGY OF POLYCENTRICITY AND DEMOCRACY

by

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Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2023

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Preface

The four papers that constitute my dissertation inquire into the epistemic properties of two important institutional types: polycentricity and democracy. In the context of This research, democracy is understood as a normative ideal of universal and equal suffrage; polycentricity as an ideal of "a social system of many decision centers having limited and autonomous prerogatives and operating under an overarching set of rules" (Aligica & Tarko 2012: 237).

Both democracy and polycentricity have been argued by theorists to be epistemically desirable. In the case of democracy, so-called "epistemic democrats" claim that the combination of inclusive deliberation and equal-weighted aggregation produces intelligent public decisions. In defense of their position, they appeal to well-known mathematical results, such as the Condorcet Jury Theorem and the Hong-Page "Diversity Trumps Ability" Theorem (Hong & Page 2004).

The epistemic case for polycentric governance centers on the idea of political experimentation and subsequent learning by trial and error. Theorists such as Elizabeth Anderson (1991) and Ryan Muldoon (2015) extend J.S Mill's idea of "experiments in living" to argue in favor of social and political experimentation. This line of reasoning dovetails with Justice Louis Brandeis's (1932) well known argument for the epistemic benefit of American federalism, where States serve as Laboratories of democracy.

In thinking about these epistemic arguments for democracy and for polycentricity, two philosophically important questions arise. The first question is: how do these epistemic arguments relate to the moral arguments which have been made (for democracy and for polycentricity)? One might think that the answer to the question is straightforward, namely the epistemic arguments provide additional reasons to opt for democratic/polycentric governance.

The relation, in other words, between the moral and the epistemic case for democracy/polycentricity is additive. This reply to the question is, however, too quick. To see why, we now need to introduce the second question: how should the epistemic ideals offered by theorists in defense of democracy/polycentricity be translated into concrete plans for institutional design? Reflecting on the second question brings into view the fact that the ideals of democracy and of polycentricity, as defined above, can be institutionally realized in a variety of ways. Indeed, a cursory glance at comparative politics reveals a great variety of institutional arrangements commonly referred to as democratic or polycentric.

Given that democracy and polycentricity can be realized in multiple ways, there is a need to inquire into which particular forms of democracy/polycentricity are best fit to realize the epistemic benefits argued for by the aforementioned theorists. Further, returning to the first question, there is a need to examine whether the epistemic arguments and the moral arguments offered in defense of these arrangements converge around the same ways of institutionally implementing democracy/polycentricity. My dissertation explores these questions (and a few other related ones along the way).

The dissertation consists of four standalone papers. Below, I briefly describe the four papers. For the purposes of this exposition, the four papers can be categorized into two groups. The first two papers investigate the epistemic case for polycentricity, and its relation to the moral arguments in defense of such arrangements. The second set of papers investigates the epistemic properties of democracy. These two papers engage with contemporary debates regarding the value of democracy and the prospect of electoral reform in the US.

In "Experiments in Living: moral polycentricity versus epistemic polycentricity", I argue that the epistemic case and the moral case for polycentricity that have been made do not point toward the same polycentric arrangement. The moral arguments support what I call 'laissez- faire polycentricity', while the epistemic arguments philosophers (largely the same ones) have offered support for what I call 'planned polycentricity'. Without entering the details of the argument, the basic thought is this. If you think of polycentricity from a moral perspective, particularly a liberal or libertarian one, you want the polycentric arrangement to be institutionalized in a way that maximizes individual freedom and autonomy. This is what you largely get from laissez-faire polycentricity. On the other hand, if you think of polycentricity from an epistemic standpoint, you want the polycentric arrangement to make use of ‘experiments in living’ or political experimentation as a tool to advance our societal knowledge. This is better achieved through planned polycentricity insofar as experiments, to be epistemically efficacious, must include some controlling elements put in place in order to generate data from which causal conclusions may be derived.

In "Transformative Experimentation, Perspectival Diversity, and the Polycentric Liberal Order”, I argue that there are two dimensions through which polycentric arrangements can generate epistemic value. The first, what I call the 'observational dimension', is the one highlighted by Brandeis's argument for federalism. The idea being that polycentricity allows us to observe the results of different political units and derive the causal relation between political rules/institutions and social outcomes. The second, what I call the 'transformative dimension', highlights the potential of polycentricity to increase cognitive/perspectival diversity among the citizenry. The idea being that persons' cognitive perspectives are partly shaped by the political and social environment they inhabit. The transformative dimension, in other words, relates institutional diversity to cognitive diversity. The paper explores the implication of these two dimensions to the design of polycentric systems. Planned or correlated polycentricity seems best from the standpoint of the observational dimension. Laissez-faire uncorrelated polycentricity appears superior from the standpoint of the transformative dimension. By highlighting the transformative dimension of polycentricity, the paper also brings into view an endogenous mechanism through which a society can increase its diversity internally, independently of immigration.

In “Polycentric Limited Epistocracy: Political Expertise and the Wiki Model”, I offer a novel institutional arrangement that tries to utilize the epistemic value of the Wiki platform to realize the goals of both supporters and critics of democracy. I propose a two-stage political process where an agenda is determined through a Wikipedia-inspired platform, followed by a majoritarian vote on that agenda. I suggest that the process is desirable for supporters of democracy because it allows all citizens to participate in each stage of the decision-making procedure. I suggest that the process is also desirable for critics of democracy because the Wiki-model tends to filter for quality information, resulting in epistemically respectable outputs.

In “In Defense of Voting Method Publicity”, I argue that what I call "epistemic equality", the degree to which a voting method is equally understandable to all voters, is normatively significant independently of the well-known democratic ideal of procedural equality: the degree to which the method is procedurally fair. I suggest that this reveals a hitherto underappreciated aspect of plurality voting, a method widely disliked by voting theorists and proponents of electoral reform. I further explore the implications of this normative analysis to several possible alternatives voting methods to plurality supported by theorists and activists.

Taken together, the four papers aim to enrich the epistemic analysis of political systems by bridging abstract philosophical discussions surrounding ideals of democracy and of polycentricity with institutionally oriented analyses produced by political scientists and economists. As is often the case in philosophy, the upshot of this line of research is to reveal underlying complexity not apparent upon first impression. This project invites normatively inclined scholars to confront subtle trade-offs brought into view when considering alternative institutional implementations of philosophical ideals.

Though he is no longer the official chair of my dissertation committee, this dissertation was only made possible through the generous and dedicated guidance of Brian Kogelmann. I cannot thank Brian enough for his countless contributions to my research, as well as his exemplifying a rare combination of scholarly excellence alongside good natured humor and kindness of heart. I am grateful also to Dan Moller and to Christopher Morris who have taught me much about political philosophy, and to Kalewold Kalewold, my office mate, for many hours of philosophical conversation.

I am also indebted to the faculty and staff of the philosophy department at the University of Maryland for creating a wonderful scholarly environment for graduate students. I thank my mother Sary who read and edited with love all of my work. I thank my father Yehuda for his unwavering encouragement. Finally, I thank my children, Yonatan, Noam, and Zoe, and my partner in life Hen, for fueling me with all the love I need to keep going.

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Experiments in Living:

Moral versus Epistemic Polycentricity

Abstract: A number of liberal and libertarian philosophers make the moral case for laissez-faire polycentricity—a political order centered around voluntary association. Some of these philosophers further present epistemic arguments in favor of polycentric forms of organization. Initially, one might think that the epistemic arguments reinforce the moral ones, resulting in a philosophically robust case for laissez-faire polycentricity. This paper argues against this conclusion. Through examining the intersection between epistemic considerations and institutional arrangements, I show that the epistemic arguments point away from laissez-faire polycentricity and toward alternative forms of polycentric order.

I. Introduction

The idea of a political order structured around voluntary association has long been appealing to liberal and libertarian thinkers. A number of philosophers within these traditions take this idea to the limit by proposing an institutional arrangement aimed at maximizing individuals' opportunities to create, join, and leave political communities. In defense of this arrangement—what I call *laissez-faire polycentricity*—they offer a diverse set of moral arguments. Several of these same philosophers, and a few others, further defend the idea of polycentric organization from an epistemic perspective.

It is tempting, from the standpoint of those sympathetic to laissez-faire polycentricity, to think that this second set of epistemic arguments reinforces the moral case for laissez-faire polycentricity. To borrow Rawlsian terminology, it seems like the two sets of arguments converge around one way of organizing society—laissez-faire polycentricity—in a kind of *overlapping consensus*.[1] Alas, as I shall argue in this paper, this cheerful conclusion is not well founded. For, on closer inspection, we shall see that the epistemic arguments support what I call *planned polycentricity,* a polycentric arrangement quite different from laissez-faire polycentricity.

The paper will proceed as follows. In section 2, I unpack the notion of polycentricity, noting its key institutional characteristics. In section 3, I point out the range of institutional arrangements that qualify as polycentric and highlight laissez-faire polycentricity as an important limit case of voluntarist polycentricity. In section 4, I review the moral arguments that have been offered in defense of laissez-faire polycentricity. In section 5, I review a set of epistemic arguments defending polycentricity. The hope is that these epistemic arguments reinforce the moral ones. In section 6, I consider the institutional implications of the epistemic arguments reviewed in the previous section. I argue that, contrary to initial appearances, the epistemic arguments point not toward laissez-faire polycentricity, but rather toward planned forms of polycentricity. I conclude in section 7 by restating the paper's conceptual and substantive contributions to ongoing discussions about the prospects and properties of polycentricity.

II. Polycentricity

Three broad institutional visions can be identified within modern political thought. The first, most associated with the work of Thomas Hobbes, defends the idea of a fully centralized

[1] The goal of Rawls (1993) is to articulate a conception of justice and subsequent institutional arrangement acceptable to all the different comprehensive doctrines held by the citizenry. Analogously, this paper examines the hypothesis that a single institutional arrangement (laissez-faire polycentricity) can be justified from different normative perspectives (moral and epistemic).

political order, where one body—*the* sovereign—has sole authority over the entire territorial jurisdiction.[2]

A second vision departs from Hobbes in defending a decentralized order involving a separation of powers between different centers of authority. The most familiar instance of this vision is that of Baron de Montesquieu.[3] Montesquieu argues for a tripartite system composed of a legislature, an executive, and a judiciary. The idea is that, by independently performing their functions in the constitutional order, the three branches will give rise to an equilibrium of checks and balances, where no one body gains dominance over the polity.

A third vision goes beyond the idea of separation of powers by envisioning a political order composed of a multiplicity of governance units, where governmental functions are duplicated among, as opposed to divided between, the different units. 'Polycentricity' is one label that has been used to denote institutional arrangements of this kind. This polycentric vision will be the focus of this paper.

The concept of polycentricity figures centrally in the framework for institutional analysis and development (IAD) advanced by Vincent and Elinor Ostrom in their "workshop" at the University of Indiana.[4] Paul Aligica and Vlad Tarko, two leading researchers within the Bloomington tradition, characterize polycentricity as consisting of three elements[5]:

(1) Multiplicity of Decision Centers: distinct and overlapping units of governance with some degree of decision-making autonomy that duplicate certain functions and goals.

[2] Hobbes (1996).
[3] Montesquieu (1989).
[4] For useful collections of this line of research see McGinnis (1999a), (1999b), (2000).
[5] Aligica and Tarko (2013: 737) or (2012: 257). See also Aligica (2014: ch.2), and Tarko (2017: ch.3).

(2) Institutional Framework/Overarching System of Rules: a set of rules that designate the jurisdiction of different governance units, set limits on their authority, and specify the terms of their interaction.

(3) Spontaneous Order and Evolutionary Competition: Governance units compete with one another for citizens (within the overarching system of rules) by providing different public goods, or by providing public goods more efficiently. The resulting outcome is not one that can be predicted ex ante.

To see the novelty surrounding polycentric governance arrangements, consider again Montesquieu's division of powers. It involves a multiplicity of decision centers with limited authority that operate according to a set of overarching rules, typically laid out in a constitutional document. However, the tripartite system is structured on a *division* of functions whereas a polycentric system exhibits a *duplication* of functions.[6] The distinction between division and duplication bears importantly on the third element of Aligica and Tarko's definition: competition and spontaneous order.

Consider first the notion of competition. There is a clear sense in which a Hobbesian order, formally speaking, involves no competition insofar as the sovereign enjoys a complete monopoly on all political decision-making.[7] There is then a sense in which Montesquieu's tripartite system exhibits some degree of competition insofar as no branch of government controls the full scope of political authority. Yet, there is another sense in which the three

[6] The distinction I draw here echoes Richard Wagner's (2005: 184-186) discussion about Vincent Ostrom's conception of federalism. Wagner observes that while "Most work on federalism treats it as a matter of decentralization", as "an assignment problem" solved through "hierarchical ordering", for Ostrom "federalism is a principle of association in a context where people participate in many forms and types of association".

[7] There may, of course, be forms of informal competition. For example, certain authors may write anonymous philosophical essays arguing against a centralized monarchy, as John Locke famously did.

branches of Montesquieu's system are not subject to the competitive pressures typically exhibited in a market economy. After all, in terms of their political role, each branch is the sole proprietor of the public good in question.[8] It is only in a polycentric system where the notion of market competition is fully applicable. The reason for this is rooted in the duplication of functions. Such duplication means political units face direct competition from units performing similar or identical functions, i.e., they are not the sole proprietor of some public good or service.

Consider next the notion of spontaneous order. In a Hobbesian monarchy, social order is directed by a central planner who alone determines the nature and content of law, administration, policy, and even religion.[9] In a tripartite system, social order is determined, in large part, by the decisions taken within each branch of government. In a polycentric order, social order is determined, in large part, by the result of competition and collaboration between different units of governance. The titles of 'spontaneous' or 'emergent' order are therefore more applicable to polycentric than to alternative institutional arrangements.

The distinction between polycentricity and the separation of powers illuminates the substance of debates that took place in the 1960's and 70's concerning the organization of metropolitan governance. In a seminal paper, Vincent Ostrom, Charles Tibeout, and Robert Warren (Ostrom et al. 1961) identify two contrasting viewpoints about how best to organize metropolitan governance. The prevailing view, according to the authors, identified disorganization and lack of hierarchical order as the primary problems of metropolitan

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[8] Though broadly true, there are important caveats to this general point. For example, one might reasonably characterize judicial activism and executive orders as forms of competition between the legislature and the executive and judiciary in the provision of laws and regulations. Though important, these subtleties are not enough to undermine the general distinction between decentralization and polycentricity vis-à-vis competition.

[9] Of course, this does not imply that the sovereign can accurately predict all of the consequences of these decisions.

governance. Ostrom and his coauthors offered an alternative perspective according to which polycentric organization, rather than chaotic and pathological, is an economically rational way to organize public production and provision at scale given the heterogeneity of needs and preferences among metropolitan residents.[10]

Ostrom et al. frame their interlocutors as proponents of monocentricity (what the authors call ‘Gargantua’). Yet, it is important to observe that the standard view on metropolitan governance was not a Hobbesian one hostile to any division of functions between governmental units. The problem, according to this view, is a lack of clear jurisdictions and wasteful redundancy in the form of duplication of public goods and services. The above drawn taxonomy thus helps locate the main point of disagreement between Ostrom et al. and the standard view. The key disagreement is not about whether a division of functions is desirable, but rather about whether a *duplication* of functions is publicly rational/efficient.

Another way to get at the key aspect of polycentricity is through Elinor Ostrom’s opening claim in her Nobel prize lecture (Ostrom 2009). Ostrom characterizes polycentric systems as neither “the state” nor “the market”, instead exhibiting properties of both categories. Yet, the category of “the state”, in contemporary terms, certainly is not limited to a Hobbesian fully centralized order. Montesquieu’s separation of powers is consistent with contemporary notions of the state. Polycentricity is different from “the state” because it involves not only division but also duplication. This is where “the market” comes in, as noted vis-à-vis the notions of competition and spontaneous order.

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[10] For more about the history and theoretical implications of this and other seminal papers see Tarko (2017: ch.1).

III. Degrees of polycentricity

Equipped with an understanding of the formal conditions of polycentricity, we are now in a position to make an important observation about polycentricity. Namely, there is a wide set of institutional arrangements that satisfy the formal conditions and thus qualify as polycentric. Put differently, polycentricity comes in degrees. To demonstrate this point, we can reflect on the second element of Aligica and Tarko's definition of polycentricity: the overarching rules.

The overarching rules governing a polycentric order serve three functions: (1) they constrain the authoritative reach of governance units; (2) they designate their geographical jurisdictions: and (3) they regulate the ways in which they are formed and interact with one another. Key to our analysis is to observe the many ways in which the overarching rules can be specified. More specifically, we can distinguish between more and less demanding overarching rules. As we move further toward the demanding end of the polycentricity continuum, partaking in the polycentric order involves meeting more specific requirements. Conversely, as we approach the less demanding end, relatively little is required to be a member of the polycentric order.[11]

An important point on the polycentricity continuum, for normative analysis, is the limit point of the "less demanding" end. I call this point: *laissez-faire polycentricity*. The basic idea of laissez-faire polycentricity is to enable individuals to determine their own projects and associations without instruction from a centralized unit of authority. The overarching rules are put in place to secure these freedoms. The term 'laissez-faire' seems

[11] For a more sophisticated analysis of the varieties of polycentric arrangements see Aligica (2014: 61-64). Aligica concludes this impressive analytical exercise by noting that, "in the end, if this approach is correct, one can identify not one but many multifaceted forms of polycentricity" (ibid: 64).

appropriate given the natural analogy to be drawn between such polycentric arrangements and minimally regulated markets.

I will understand laissez-faire polycentricity as a system of social organization that upholds the following two overarching rules: (1) Individuals are free to set up units so long as those partaking in and subject to that unit consent to its formation; (2) Individuals are free to enter into and exit from any unit so long as they are not under contractual obligations preventingthem from doing so.

A notable example of laissez-faire polycentricity is the scientific community. In a collection of essays entitled *The Logic of Liberty*, Michael Polanyi, a British polymath and the originator of the term 'polycentricity', attributes the epistemic efficiency of science to its organizational features.[12] Science, according to Polanyi, succeeds by virtue of the fact that individual scientists (and groups of them) are free to determine their own projects; to pursue them in the manner they deem most effective; to set up any research team they choose; and to enter and exit these teams at will (given the consent of other participating members). No single unit has authority over the practice of scientists, nor over the veracity of their findings. Instead, there is an interconnected network of units with some limited authority that overlap in scientific jurisdictions and functions. The coordination and epistemically productive cooperation between units of science is a form of spontaneous order as envisioned by Hayek and others.[13]

Another, more specific, example of laissez-faire polycentricity is Wikipedia.[14] Using our conceptual framework, we can contrast Wikipedia to the traditional encyclopedia. In the

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[12] Polanyi (1951). See also Polanyi (1962) and Tarko (2015).

[13] For an intellectual history of Hayek centered around the notion of spontaneous order see Boettke (1990).

[14] Jimmy Wales, the founder of Wikipedia, is reported to have been inspired by Hayek's "The Use of Knowledge in
Society" (1945). See Mangu-Ward (2007: 21).

latter, the product or good is produced by a single unit with complete authority over the content of the text; in the former, the text emerges as a result of a dynamic coordinating process involving individual participants who hold limited authority and who provide similar or identical functions within the system. Wikipedia is one instance of the more general 'open-source' phenomenon, a trend in information technologies and services toward polycentric arrangements.[15]

Applied to the political case, laissez-faire polycentricity is a system under which individuals and groups are free to form, associate with, and dissociate from units of governance. The relation between the different political units which emerges from these freedoms is one of mutual independence. No unit has authority over the affairs of other units, apart from the shared enforcement of the norms of exit and association. The next section reviews the moral case for such an arrangement.

IV. The Moral Case for Laissez-Faire Polycentricity

This section reviews the moral arguments that have been offered in defense of laissez-faire polycentricity. Roughly speaking, what all of these arguments have in common is the claim that to best achieve or uphold certain moral desiderata, we ought to organize our political institutions to uphold the two overarching rules that characterize laissez-faire polycentricity. I should note that most of the authors of the arguments to follow do not use the term 'polycentricity'. Nonetheless, the institutional implications of their arguments point toward laissez-faire polycentricity.

[15] For political applications of the "Wiki-model" and other organizational technologies see Noveck (2009, 2015) and Manor (2020).

In *The Liberal Archipelago* (2003), Chandran Kukathas argues for laissez-faire polycentricity by claiming it best realizes the moral ideals of freedom of conscience, mutual toleration, and freedom of association. These three moral precepts are, according to Kukathas, the normative bedrock of a free and open society marked by diversity. He summarizes his main as follows:

> [I]n a free society—which is to say, a liberal society—there will be a multiplicity of authorities, each independent of the others, and sustained by the acquiescence of its subjects. A liberal society is marked by respect for the independence of other authorities, and a reluctance to intervene in their affairs. (Kukathas 2003: 7-8).

Kukathas' conception of a liberal society corresponds to the notion of laissez-faire polycentricity. It includes a multiplicity of authorities or decision centers (freedom of association). It includes an overarching set of rules that dictates non-intervention in the affairs of other authorities (toleration). And it includes a requirement on authorities to operate based on the acquiescence of those subject to them (freedom of conscience).

Kukathas' view is similar to that proposed by Robert Nozick in part III of his *Anarchy, State, and Utopia* (1974). Nozick begins his investigation of utopia in highly abstract terms. He considers the question: what worlds would exist stably if each individual (both actual and subsequently imagined) could imagine a world (and the people who live there) in which she would most prefer living and to which she could emigrate (cost free)?

Resulting worlds, Nozick concludes, are ones where "none of the inhabitants of the world can imagine an alternative world they would rather live in, which (they believe) would continue to exist if all of its rational inhabitants had the same rights of imagining and emigrating." (p. 299). Nozick then applies the model to our actual circumstances:

> In our actual world, what corresponds to the model of possible worlds is a wide and diverse range of communities which people can enter if they are admitted, leave if they wish to, shape according to their wishes; a society in which utopian experimentation can be tried, different styles of life can be lived, alternative visions of the good can be individually or jointly pursued. (Nozick 1974: 307).

Nozick's vision, like Kukathas', includes a multiplicity of communities, each of which is at liberty to decide its own affairs. Individuals are free to join and leave existing associations and to found new ones based on their own ideals. The evolutionary nature of this societal framework is observed by Nozick, who notes the relevant analogy to the economists' notion of a competitive market. Associations compete for your membership in a way similar to firms competing for your labor. In both cases, competition drives them to compensate you in the amount of your marginal contribution (p. 302).

Nozick presents several moral reasons in favor of laissez-faire polycentricity. The first, having to do with the *just* or the *right*, plays a central role throughout the book. Nozick famously begins the book by stating: "Individuals have rights, and there are things no person or group may do to them (without violating their rights)" (p. xix). Laissez-faire polycentricity is morally preferable because, due to its emphasis on voluntary association, it best respects the inviolable rights of individuals.

The second reason Nozick offers, having to do with the *good*, is that "there is no reason to think that there is *one* community which is ideal for all people and much reason to think that there is not" (p. 310). The innate differences between people imply that the best community for each of them to live in is different. Laissez-faire polycentricity, by offering a large variety of communities, increases the likelihood that individuals will live under associations that better approach the one that is ideal for them.

The third moral reason has to do with tradeoffs between competing values (p. 312). Nozick points out that "not all goods can be realized simultaneously," and that different communities will make different compromises. Laissez-faire polycentricity thus enables individuals to choose the community that best approximates their preferred way of striking some balance between competing goods.

A different source of justification for laissez-faire polycentricity comes from work in the tradition of Nozick's colleague at Harvard, John Rawls. In *Political Liberalism* (1993), Rawls notes the problem moral diversity poses to the goal of finding just institutions to underwrite and govern a well-ordered society. Rawls's solution is to ground liberal institutions in principles embedded in the shared political culture. His hope is that these public reasons can be deemed acceptable from all reasonable points of view, thus forming an overlapping consensus among the citizenry.

Kevin Vallier (2018) and Brian Kogelmann (2017), two leading theorists in the public reason tradition, argue that polycentric institutions can best realize the Rawlsian goal of political legitimacy via public justification. Motivating their views is the thought that Rawls did not go far enough in confronting moral diversity. Vallier observes that, "In many cases, there is simply too much diversity at the national level to solve political problems, or to hope that deliberation will yield agreement." (Vallier 2018: 1123). Kogelmann observes that diversity extends beyond conceptions of the good; it exists also with regard to conceptions of the right. Pluralism about justice undermines the hope of achieving a *unitary* well-ordered society. (Kogelmann 2017: 664).

Vallier's discussion focuses on the idea of allowing individuals to *exit* political arrangements they dislike or disagree with. A right to exit, Vallier argues, is instrumental to the achievement of public justification. Vallier explores the institutional implications of this right via the notion of federalism. It is important to observe that *existing* instances of federalism may depart significantly from laissez-faire polycentricity. Nevertheless, the normative logic of Vallier's argument points toward more extreme versions of federalism that approximate laissez-faire polycentricity.

More voluntary versions of federalism are morally attractive, according to Vallier, for two reasons. First, by reducing the scope of those affected by a decision, the diversity of reasonable viewpoints that need to be accommodated (if we are to meet the Rawlsian ideal of public justification) is reduced. Polycentric units of governance, by lowering the justificatory bar for legitimacy, will be better at meeting or at least approaching it. Secondly, Vallier theorizers that voluntary forms of polycentricity incentivize better public deliberation in virtue of the fact that people retain the option of exit and have greater prospects of reaching adequate resolutions to problems facing their community.

Kogelmann (2017) begins by noting the problem justice pluralism poses for achieving the Rawlsian goal of a well-ordered society. Such societies are normatively attractive, according to Kogelmann's reading of Rawls, for three reasons. First, by having a shared conception of justice, citizens can come to justify their institutions to one another, a process Kogelmann calls *public scrutiny*. Second, well-ordered societies promote *social unity* through citizens engaging in a joint project of institutionally realizing a conception of justice shared by all. Third, well-ordered societies promote the autonomy of their citizens. Understood in Kantian terms, *full autonomy* requires that persons act in accordance with rules they would rationally give themselves. In a well-ordered-society, citizens both know and endorse the conception of justice underwriting their rules and institutions. They can thus be said to be fully autonomous given that they live under rules they would rationally legislate on themselves.

Kogelmann's insight is in showing how these three normatively attractive features, while not to be had in a monocentric system (given enough underlying diversity), can be attained (or approximated) in a polycentric one. The reduction of moral diversity, particularly justice pluralism, within each political community, enables these normative desiderata to be better approached. Each community enables its citizens to find common ground on matters of justice, allowing them to more effectively legitimate their institutions via public scrutiny. Citizens can achieve greater social unity and further approach their full autonomy.

The final moral justification for laissez-faire polycentricity I will discuss is to be found in the third chapter of J.S. Mill's *On Liberty*.[16] Mill is concerned, in this work, with the intersection between social norms and institutions and an individual's moral and intellectual development. Mill's viewpoint is typically characterized as in line with liberal perfectionism.[17] He believes that robust autonomy is a necessary component of human flourishing and excellence. He argues for the utility of what he calls 'experiments in living', claiming them to be indispensable in the exercise of individual autonomy. For Mill, one who unreflectively follows customs fails to develop and improve their mental and moral powers.

A plausible extrapolation of Mills' moral principles supports laissez-faire polycentricity via the logic of experiments in living. A given political community with a given set of rules and institutions will be hospitable to a range of experiments. Some communities will be hospitable to a broader range than others. There will, however, with

[16] Mill (2015).
[17] For a different reading of Mill see Gaus (2009).

regard to each community, be experiments that cannot be conducted in virtue of the way the community is set up. To enable the broadest range of experiments to be conducted, differently governed communities must be allowed to form. Hence, the logic of experiments in living leads naturally to laissez-faire polycentricity. Additionally, and much more directly, forming new communities as well as emigrating and immigrating might themselves be considered experiments in living, again supporting the link between experiments and laissez-faire polycentricity.

A brief summary of the arguments just reviewed. Kukathas envisions a social order made up of many units structured around voluntary association. Nozick imagines a political arrangement that allows individuals to freely migrate between the variety of communities that compose it. Kogelmann and Vallier conceive of a society with a multiplicity of units embodying different conceptions of justice and the good, where citizens are able to exit arrangements that fail to align with their values. Mill, with some extrapolation, endorses an arrangement where people are free to experiment by living in different social and political environments. All of the arguments just summarized support organizing the political order around the two overarching rules characterizing laissez-faire polycentricity which secure maximal freedom in the formation and population of political communities.

V. The Epistemic Case for Polycentricity

The previous section presented the *moral* case for laissez-faire polycentricity. Yet, one can also evaluate different institutional arrangements from an *epistemic* perspective, by asking what mode of political organization is most conducive to epistemic progress at the societal level.[18] Indeed, several of the philosophers reviewed in the previous section (and some others) take up such a perspective in presenting epistemic arguments in favor of polycentricity. This section reviews these arguments. Following this review, we will be in a position to inquire as to whether the epistemic considerations converge with the moral ones in support of laissez-faire polycentricity, or whether they point toward a different understanding of polycentricity.

Mill, who I interpreted to be presenting moral considerations for laissez-faire polycentricity, also offers an epistemic justification for polycentricity. He argues for the utility of experiments in living in the process of moral discovery, building on an analogy he draws between the utility of freedom of speech for intellectual progress and the utility of freedom of experimentation for moral progress.[19]

In the intellectual case, permitting all viewpoints to be expressed and argued is conducive to three beneficial ends: (1) it aids individuals and societies to cultivate their intellect; (2) given our fallibility, it prevents truths that are unpopular from being suppressed; and (3) it enables individuals to hold their views justifiably as a result of having them confront and respond to opposing viewpoints.

In the practical case, permitting different practices to be carried out is instrumental to the process of discovering more about the human good. The basic epistemic motivation for experiments in living is the thought that knowledge of the good is not fully attainable from the armchair. This is especially the case given the inherent uniqueness of each individual and the enormous complexity of practical life. As is the case of intellectual orthodoxies, practical

[18] This area of research is what Elizabeth Anderson terms 'Institutional Epistemology', see Anderson (2006).

[19] "As it is useful that while mankind are imperfect there should be different opinions, so is it that there should be different experiments of living; that free scope should be given to varieties of character, short of injury to others; and that the worth of different modes of life should be proved practically, when any one thinks fit to try them." (Mill 2015: 56).

orthodoxies—customs—pose a problem for progress if they are institutionalized in a way that prevents alternatives from being tested and explored. Fostering institutional diversity through political experimentation, argues Mill, furthers our knowledge of the good.[20]

Echoing Mill's remarks on the logic of moral discovery, Nozick presents an epistemic case for polycentricity. Nozick (1974) distinguishes between two ways of trying to come up with ideal institutions which he calls *design devices* and *filter devices*. The former involves "people (or a person) sitting down and thinking about what the best society is. After deciding, they set about to pattern everything on this one model" (p. 312). The latter involves setting up a filtering process that selects against institutions that have certain features.

The polycentric framework Nozick envisions is a filter device. It does not involve a-priori theorizing followed by institutionalization of the one ideal model; rather, it involves incorporating Millian experimentation at the political level where certain associations are selected against by virtue of the voluntary choices of individuals who exit them. Such an arrangement is, according to Nozick, "especially appropriate for designers having limited knowledge who do not know precisely the nature of a desired end product" (p. 314). Given the complexity of individuals and human affairs in general, it is epistemically presumptuous to assume we know enough to construct a model of the ideal society. Epistemically speaking, our situation calls for modesty, better met by an institutionally diverse filtering process. Epistemically, claims Nozick, we are closer to cavemen than gods (ibid.).

In aiming to address the problems moral diversity poses, Ryan Muldoon (2015, 2016) arrives at a position similar to that of Nozick and Mill. Muldoon argues that political legitimacy ought to be assessed from the context of *discovery* rather than that of *justification*.

[20] For more about Mill's moral epistemology and his notion of experiments in living see Anderson (1991).

This distinction, originating with the work of Reichenbach (1938) in the philosophy of science, points, according to Muldoon, to the problem with conceptions of legitimacy that evaluate institutions by comparing them to static, obtained via a-priori reasoning, conceptions of justice. A better criterion, argues Muldoon, is one that evaluates institutions according to their continued dynamic contribution to the epistemic effort of discovering good and just ways to live given changing circumstances.[21] Polycentric organization is thus preferable in virtue of its dynamic potential and epistemic utility resulting from the empirical testing of different social arrangements.

Echoing Muldoon, Julian Müller (2019) argues against the common tendency in political philosophy to propose institutional arrangements that "tame" the underlying diversity of society.[22] Instead, claims Müller, diversity can be used as a resource allowing society to improve on mere *modus vivendi* arrangements. Such arrangements, explains Müller, are deemed as acceptable tradeoffs due to certain moral or prudential considerations (typically both). As a result, "modus vivendi arrangements entail both mutual benefit and an overlapping dissatisfaction". (p. 12).

Polycentric democracy, the arrangement Müller argues in favor of, centers on the ideas of political innovation, competition, and experimentation.[23] Political experiments in living are, according to Müller, valuable for three main reasons (pp. 3-4): (i) they enable "discovering new heights", i.e., better ways of living together, better modus vivendi

[21] Muldoon's position echoes in certain respects Hayek's view about the correct criterion by which we should evaluate the state of economic sectors. After substantiating his claim that competition is a discovery procedure, Hayek writes: "we should worry much less about whether competition in a given case is perfect and worry much more about whether there is competition at all." (Hayek 1948, p.105).
[22] See also Müller (2018).
[23] "I define polycentric democracy as an institutional arrangement involving a multiplicity of polities acting independently, but under the constraints of a democratically supervised framework for institutional competition."
(Müller 2019, p. 3).

arrangements; (ii) they reduce "shallow disagreement": experimental evidence can reduce disagreement about non-normative facts: and (iii) they defuse "deep disagreement": achievable by allowing those who reasonably disagree about the right and the good to live in communities that better approximate their conception of justice and the good life.

Epistemic considerations supporting polycentricity come also from the value of p*ublic entrepreneurship*. In an essay reviewing work on the epistemic properties of democracy and markets, Kogelmann (2018) argues that polycentricity—being neither "the state", nor "the market"—is preferable from a social choice perspective. Key to his argument is the role of the public entrepreneur. Building on the work of economists in the Austrian tradition (Hayek, Kirzner), Kogelmann draws an analogy between the epistemic contribution of entrepreneurs in a market system and that of innovators in a polycentric institutional framework. As is the case in markets, a public framework that incentivizes innovative solutions via competition is best situated to coordinate between social problems and inefficiencies and solution providers.

Another proponent of polycentricity who draws heavily on the Austrian School is Mark Pennington (2011). Pennington frames his discussion in terms of comparing institutions for their robustness.[24] The two main problems institutional frameworks face are the 'incentive problem', theorized by the Virginia school of public choice[25]; and the 'knowledge problem', explicated by Hayek (1945) and further precisified by Kirzner (2015, 2018).

Pennington contends that polycentric arrangements do better in the face of these two problems. A central theme in his argument is the epistemic advantages of polycentricity. He contends with communitarians, such as Charles Taylor, Jürgen Habermas, and Michael

[24] My presentation of Pennington's argument follows a useful reconstruction of his book by Michael Bennet (2016).
[25] The classic text here is Buchanan and Tullock (1962).

Sandel, who argue in favor of deliberative democratic processes as a way of shaping the (unitary) community's common ends.[26] Pennington's response appeals to what he considers as epistemic shortcomings of democratic processes, such as rational ignorance on the part of voters[27], and to the epistemic utility of market-like arrangements which include an exit option.

Pennington replies similarly to egalitarian conceptions of distributive justice that seem to require a monocentric mode of organization able to equalize citizens across the relevant set of opportunities and goods.[28] Pennington believes that such conceptions of distributive justice, by appealing to theoretical devices such as the original position, overstep our epistemic limitations. These universal conceptions, according to Pennington, assume that we are able to significantly abstract from our particular circumstances and context. They further assume that we have a sufficient grasp of what Rawls calls 'general facts' studied in the human sciences. Pennington argues that polycentricity is epistemically preferable given our embedded selves, bounded rationality, and relative ignorance with respect to distributive justice. A polycentric system, claims Pennington, is better situated to handle the realities of reasonable moral diversity and the complexity of the social world.

VI. The Epistemic Perspective: Institutional Implications

It is time to consider the institutional implications of the set of arguments reviewed in the previous section. First a brief summary of them. Mill appeals to an analogy between intellectual and moral knowledge to justify practical experimentation through institutional

[26] For more about deliberative democracy see Gutman and Thompson (2009).
[27] For more on this issue see Caplan (2011), Somin (2013), and Brennan (2017).
[28] Rawls (1971) and Dworkin (2003) are the primary targets here.

diversity. Nozick, Muldoon, and Müller contend that polycentric organization can serve as a social technology to accumulate and filter information for normative purposes. Kogelmann and Pennington argue that polycentricity is epistemically potent by virtue of the incentives it creates for public entrepreneurship.

The question before us is: what kind of polycentric arrangement do the above summarized arguments support? At first blush, it may seem that the arguments support laissez-faire polycentricity. After all, if we think about Polanyi's conception of scientific progress, laissez-faire polycentricity seems to fit the bill. Even beyond any direct analogy to science, it may seem intuitive that to maximize what we learn about the social world, we should maximize the set of options open to the agents that populate it. And that is precisely what laissez-faire polycentricity does.

If the epistemic arguments do indeed support laissez-faire polycentricity, we have a strong case for that arrangement that is justified on both moral and epistemic grounds; we have a kind of Rawlsian overlapping consensus around laissez-faire polycentricity. Alas, as I shall now proceed to argue, this cheerful consensus between philosophical perspectives and institutional arrangements is illusory. For, on closer inspection, the epistemic arguments turn out to support a different form of polycentricity.

Before I present my argument, I need to sketch the contours of polycentric arrangements that depart significantly from laissez-faire polycentricity. I use the title 'planned polycentricity' to refer to this group of institutional arrangements.

6.1 *Planned Polycentricity*

The basic idea of planned polycentricity is to design the polycentric order in a manner that accords with certain principles or goals that the designer/s of the polycentric system seek/s to

advance or pursue. Using our analogy to markets, we might think of planned polycentric systems as regulated political markets in which the political liberties of individuals are restricted in certain ways on the basis of some conception of the good for the public and/or for individual
members.

In institutional terms, planned polycentricity involves substantial deviation from the two overarching rules that define laissez-faire polycentricity. As a reminder, the two rules concern the two liberties of creating political communities and of entering and exiting existing ones. In a planned polycentric system, restrictions are placed on one or both of these liberties. Some versions of planned polycentricity restrict the formation of new communities either in terms of their content or in terms of structural features (example: a minimum requirement of members). Other versions of planned polycentricity restrict entrance and exit according to some set of rules. Finally, some versions of planned polycentricity include restrictions of both of the above kinds.

Good examples of one type of planned polycentricity are found in the sphere of religion. For example, in the case of Judaism, religious codes have often been determined by Rabbis at a local level. These authority figures, though formally independent of one another, view themselves as engaged in a shared project of arriving at or upholding certain values. For Jewish Rabbis, the values might include consistency with foundational texts, conservation of certain norms and customs, and continual discovery of, and adjustment to the intersection between a religious worldview and changing material and social circumstances.[29]

[29] For a broad review of the religion's history see Goodman (2019). For an interesting discussion about the developmental applications of polycentricity in the case of Sunni Islam see Malik (2017).

Judaism is therefore a case of *planned* polycentricity insofar as fairly significant restrictions are applied to the content of different units. Formally independent units can be created, but to be part of the polycentric order, they must adhere to certain broadly and ambiguously defined doctrines or customs, to a certain way of life. Notably, this religious arrangement includes no restrictions on entrance or exit.

An example of a different kind of planned polycentric arrangement are the agricultural settlements of the Hutterites.[30] These communities are designed to realize a particular theory of the good. Their governing norms include the following: communal dining, worship and sharing of assets, prohibition on the use of television, radio and other forms of communication technologies with the outside world; a ban on birth control; and, of particular interest to us, a population cap of one hundred and twenty people per community.

The Hutterites are clearly a case of planned social arrangements as evidenced by the strict norms governing the content of their communities. But they are also a case of polycentric arrangements because they are designed in a way that creates separate units of governance with formal independence. Putting all of this together, we can accurately characterize the Hutterites as arrangements of planned polycentricity where the content of units as well as the freedom of individuals to enter and exit are restricted.

Finally, we may think of federal systems, as in the US or Switzerland, as exhibiting features of planned polycentricity.[31] There are two ways in which these arrangements are planned. Firstly, in terms of content, units are constrained by the federal government and constitution as to their internal political structures. Secondly, the polycentric order in the US and Switzerland do not allow for the formation of new states or cantons. In the US, for

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[30] My description of the Hutterites follows the discussion of Schmidtz (1994) which is based on the work of Ellickson (1993).
[31] See Ostrom (1991, 1987) and Wagner (2005).

example, individuals have complete liberty to enter and exit existing states, but they do not have the liberty to create new units in the federal arrangement, nor are they allowed to remove units via secession.

6.2 *The Epistemic Perspective: Laissez-Faire or Planned?*

To determine which form of polycentricity (laissez-faire or planned) best advances our epistemic interests, we need to settle two issues. First, we need to give an account of where we are currently situated relative to our epistemic goals. Second, we need to ascertain how well different arrangements perform given our situation and goals.

The epistemic goal of society, in our context, is to know more about ways of living together that are conducive to human flourishing and to justice. Part of this epistemic project is pursued via armchair theorizing, where philosophers and philosophically minded social theorists generate theories about the intersection between flourishing, justice, and social arrangements. Another part of this project is pursued empirically, where institutions are implemented, thereby providing theorists with data relevant to the criticism and amendment of the theories being tested.

The decision of how to arrange society affects both parts of the epistemic project. It affects the latter empirical aspect directly insofar as it allocates society's resources toward the testing of some theories and not of others. It affects the former theoretical aspect indirectly insofar as the scope of reasonable theorizing is arguably constrained by the distance between theoretical constructs and current institutions.

The last point is worth unpacking a little. Here we can usefully draw on the theoretical framework of Gerald Gaus's *The Tyranny of the Ideal* (2016). Gaus frames the theorizing about justice as the attempt to map out the landscape of different social arrangements, where each such arrangement is given a ‘justice score’ (p. 43). An epistemically significant factor is that of distance between social arrangements. As we attempt to map out more distant regions (relative to ours) of the justice landscape, our projections become less reliable (p. 78). The idea of distance underlies another useful notion Gaus introduces, namely that of neighborhoods of social arrangements (pp. 74-80). Neighborhoods are populated by arrangements that, while different, share some important features, making each of them more epistemically accessible to those within the neighborhood than to those outside of it.

The question we are asking, therefore, is what form of polycentricity will allow us to make the most progress in terms of mapping Gaus’s justice landscape. Polycentricity, both laissez-faire and planned, has the ability to generate a diverse set of social arrangements, a feature which may serve as a means to explore different theoretical avenues. The core feature of polycentricity that is epistemically attractive, compared to alternative arrangements, is thus the capacity to allocate our resources more efficiently (from an epistemic perspective).[32]

In assessing the epistemic merits of different arrangements, there are two parameters to keep in sight. The first is our conception of the state of our awareness of possible theories and our understanding of the dynamics of different possible arrangements. The second is the distribution of credences we have over the theories of which we are aware. I shall now say a bit more about each of the two parameters.

A way of visualizing the state of our awareness of possible theories is to think about Gaus’s justice landscape. Plausibly, our map of the terrain is partial. There are areas, i.e., possible ways of organizing our societies, which we have not thus far considered. In addition,

[32] Questions about the epistemic efficiency at the organizational level play an important role in model-based philosophy of science. See, for example Weisberg and Muldoon (2009), Zollman (2010), and Thoma (2015).

there are regions which have been considered in theory, but which have not been tried in practice. Due to their distance from the present arrangements, we have relatively little understanding of such regions. Thus, one reasonable epistemic goal we might set for ourselves is to discover new arrangements and to better understand the nature and normative properties of more distant arrangements.

The second parameter which we wish to consider is the credence we have in different theories of how the good and the right intersect with different social arrangements. Other things being equal, it is epistemically rational for us to allocate our resources toward more promising theories, in the same way that we should when pursuing a scientific question.

The two parameters allow us to draw two distinctions we can use to situate our epistemic status. We can distinguish between states in which we consider ourselves unaware and ignorant of much of the landscape of possible arrangements versus ones in which we think we have a good grasp of the landscape. We can also distinguish between states in which we are able to assign credences to our theories versus ones in which we are unable to do so. The two distinctions can be combined to form the following table:

Table 1

	Credences	No Credences
Awareness	i	ii
Unawareness	iii	iv

The four quadrants represented in table 1 cover the ways in which we can conceive of our epistemic situation vis-a-vis a Gausian landscape of social arrangements. I will now proceed to examine the relation between each of the four quadrants and the laissez-faire versus planned polycentricity distinction.

I begin with (i), in which we feel secure in our map and understanding of the landscape *and* in which we are able to assign credences to the different theories on offer. The epistemically rational way to organize our efforts would be to direct our resources toward theories with higher credences. This implies the placing of restrictions on the pursuit of low-credence theories, to the extent that they would divert valuable resources from more promising theories.[33] For instance, if we have a .8 credence that theory T_1 is the correct theory of the good, and .1 credence that theory T_2 is correct, then we should allocate more resources to exploring T_1 over T_2.[34] Moreover, since we are content with our map of the landscape of possibilities, we might also place restrictions on the pursuit of novel theories, again to the extent that such endeavors would occupy valuable resources that are better placed elsewhere. The general idea behind these restrictions would be to avoid imbalances and discrepancies between our credences and the resources deployed among theories. These restrictions indicate that, if we conceive of our epistemic situation along the lines of (i), we should epistemically favor planned polycentricity.

Turning to (ii), a situation in which we feel we have a good sense of the landscape of possibilities, but we do not have a good basis for assigning credences among theories. That is, we face a choice situation under Knightian uncertainty.[35] There are many different ways of

[33] In principle, it is possible for higher credence theories to have higher rates of diminishing returns, such that more resources ought to be directed to lower credence theories. Regardless of such possible complications, the epistemic requirement to align resources to credences and rates of epistemic return persists.
[34] Some examples that come to mind: private (T_1) versus collective (T_2) ownership of the means of production; religious tolerance (T_1) versus exclusiveness (T_2); democratic (T_1) versus dictatorial (T_2) governance.
[35] Frank Knight (1921) famously distinguished between decisions under 'risk', in which the probability of different outcomes is known and those under 'uncertainty', in which no such assignment is possible given what is known.

thinking about how to make choices under uncertainty.[36] One popular decision rule is the Laplacian principle of indifference.[37] The Laplacian principle suggests we ought to equally allocate our resources among the available theories, perhaps among the different neighborhoods along the landscape. So, if we know there are three possible theories, T_1, T_2, and T_3, but cannot assign credences to which is most likely to be correct, the Laplacian principle says to assign equal credence (.33) to each, and thereby equal resources to their exploration. Once we obtain data sufficient to assign credences, we would return to (i). Here as well, the preferred arrangement is thus planned polycentricity since we wish to place restrictions on the allocation of resources.

We next turn to (iii), a situation in which we are able to assign credences to the theories on offer, but in which we do not believe we have a good map of the landscape of possibilities. Our unawareness of possibilities creates a need for innovation and discovery which in turn points in favor of laissez-faire polycentricity, insofar as that arrangement creates both the possibility and the incentives for the discovery and trial of new social arrangements. Nonetheless, there are two remaining epistemic reasons for placing restrictions on our polycentric arrangement. The first is that, since we *can* assign credences for existing theories, we could rationally restrict people from pursuing low-credence theories.

The second reason for restricting political experimentation is pointed out by Gaus in his discussion of social experiments (Gaus 2016: 89-101). Drawing on Scott Page's *Diversity Prediction Theorem*[38], Gaus contends that the epistemic benefits of diversity are captured when that diversity exists within a perspective as opposed to between perspectives. Similar

[36] For a wide-ranging review of choice under uncertainty and ignorance in the economic context see Kelsey& Quiggin (1992).
[37] This principle also goes by the name 'the principle of insufficient reason', for an epistemically grounded justification for this principle see Dubs (1942).
[38] See Page (2008).

conclusions arise in the work of Alexander Baltag and his colleagues (Baltag et al. 2018). They construct formal models aimed at capturing the epistemic dynamics of groups. Their models indicate that the benefits of information pooling depend on the degree of convergence in members' "epistemic issues".[39] In other words, fruitful epistemic collaboration requires commonly held epistemic perspectives.

The upshot of these insights for us is that, to get quality data and make progress, it might be argued, the search has to remain within some well-defined parameters, perhaps within one or two adjacent neighborhoods of social arrangements.[40] We can conclude based on these considerations that (iii) could lead us to either laissez-faire or to planned polycentricity and that there are reasonable claims on both sides.

Finally, we turn to (iv) which is a situation similar to that of (iii) except for our inability to assign credences among the theories on offer. This inability relieves us of one of the considerations in favor of planned polycentricity, namely restricting the testing of low-credence theories. Yet the previously mentioned consideration regarding the quality of the data remains. Moreover, our inability to assign credences results in conditions of uncertainty which, as noted, could be used to justify Laplacian equiprobability assignment, in turn leading to planned polycentricity. We can conclude that, regarding the situation of (iv), as that of (iii), there are some epistemic considerations in favor of laissez-faire arrangements, but there are also compelling reasons to introduce some planning in the form of restrictions.

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[39] The notion of epistemic issues is defined in inquisitive terms, where an agent's set of issues is the questions they are interested in. Knowledge is defined (following Hintikka) as having answers to questions. The epistemic effect (knowledge acquisition) of a public announcement on an individual agent depends on her epistemic issues.

[40] Gaus frames this part of his discussion around D'Agostino's (2010) distinction between the *liberal* solution to the problem of inquiry and the *republican* solution. This distinction bears some structural similarity to our distinction between laissez-faire and planned polycentricity.

Our analysis of the four quadrants suggests that regardless of how we understand our epistemic situation vis-à-vis the landscape of possible social arrangements, there are going to be strong epistemic reasons in favor of planned, as opposed to laissez-faire, polycentricity. Moreover, given some plausible assumptions about our epistemic status (such as our ability to assign credences to theories), the epistemic case for planned polycentricity seems convincing. Given the compelling moral case for laissez-faire polycentricity, I conclude that the overlapping consensus hypothesis fails to stand up to scrutiny.

VII. Conclusion

This paper contributes to ongoing philosophical discussions about polycentricity in three main ways. The first is by offering a set of conceptual distinctions. I began the paper by sketching a tripartite taxonomy of modern political thought made up of Hobbesian centralization, Montesquieu's decentralized separation of powers, and polycentricity. Focusing on the latter, I distinguished between laissez-faire and planned versions of polycentricity. I further distinguished between moral and epistemic arguments that have been offered in defense of polycentric arrangements. Finally, in analyzing the intersection between epistemic considerations and institutional arrangements, I distinguished between our awareness of social arrangements and theories and our ability to assign credences or scores to competing theories and arrangements.

The paper's second contribution is to observe theoretical tensions associated with the polycentric vision by examining the intersection between normative perspectives (moral/epistemic) and polycentric arrangements (laissez-faire/planned). By carefully thinking through the implications of each normative perspective, I have brought into view the tension between moral arguments that point toward laissez-faire polycentricity and epistemic arguments that support planned versions of polycentricity. How to address this tension and adjudicate between these competing values is a question this paper leaves to be explored.

The third and final contribution of this paper is to take a small step in discerning the relationship between sociopolitical arrangements and epistemic progress at the societal level. It is tempting to resort to attractive turns of phrase such as ‘experiments in living’ or ‘learn by trial and error’. However, as this paper demonstrates, when we turn to the task of institutionally implementing these social epistemic ideals, we run into difficult questions and tradeoffs. Ultimately, those interested in the characteristics and prospects of polycentric systems have much to consider at both the positive and normative level.

Transformative Experimentation, Perspectival Diversity,

and the Polycentric Liberal Order

Abstract

Proponents of political experiments in living, such as Elizabeth Anderson and Ryan Muldoon, often emphasize their potential to generate useful observational data about the relation between social rules and ethically desirable outcomes. This paper highlights another epistemic dimension of political experiments: their potential to transform the cognitive perspectives of participants. I argue that this transformative dimension of experimentation offers an endogenous societal mechanism for increasing perspectival diversity. I explore the implications of this mechanism for institutional design.

1. Introduction

The idea of experiments in living, first articulated by John Stuart Mill, plays an important role in the epistemic justification of liberal institutions. Mill believed that learning more about the good life requires "testing" different ways of living. Contemporary liberal theorists, such as Elizabeth Anderson (1991) and Ryan Muldoon (2015), interpret and extend the Millian case for social and political experimentation. Legal and political theorists have similarly advocated for governance systems that permit and promote experimentation (

Another idea much discussed in the liberal tradition concerns the epistemic value of diversity. A number of social scientists and philosophers suggest, on both theoretical and empirical grounds, that heterogeneous groups and societies can use their diversity as an epistemic resource, giving them an epistemic advantage over more homogeneous groups/societies.

Political experimentation and perspectival diversity can both benefit society epistemically. Is there any systematic relation between the two, or are they separate sources of epistemic benefit? Initially, one might think that they are indeed two separate things. Diversity, or the degree of societal heterogeneity, is an exogenous fact about the composition of society. Experimentation, meanwhile, is a societal *choice* about how to organize our social and political arrangements.

One way of pushing back against the above is to point out that the level of diversity is not exogenous to our institutional arrangements because it is partly the result of our immigration policy. To increase diversity and enjoy its epistemic benefits, we need to relax restrictions on immigration, or indeed subsidize it. This interjection is surely correct. Notice, however, that it does not relate diversity to experimentation but to immigration. More broadly, it suggests that to increase its diversity, a society needs to look elsewhere for help, it cannot generate more diversity *endogenously*, in a strong sense of the term.

In this paper, I will argue that experimentation and diversity are in fact related. More specifically, I will suggest that enabling certain kinds of experimentation can in turn increase the level of perspectival diversity across society. Experiments in living, in other words, can serve as an endogenous mechanism through which a society increases its diversity. Bringing into view this mechanism, I will suggest, offers a new and important way of epistemically evaluating different forms of political organization and experimentation.

A key piece in my argument is a distinction I draw between the *observational* and the *transformative* dimensions of experimentation. Experiments can be evaluated from the observational perspective based on their potential to produce empirical data bearing on the relation between social rules and social outcomes. Experiments can also be evaluated from the transformative perspective based on their potential to change the way persons categorize and understand the world. Attending to the transformative dimension of experiments brings into view the relation between experimentation and diversity and provides a social epistemic reason to allow greater degrees of experimentation.

My argument will proceed as follows. The next section reviews the philosophical literature on experiments in living. Section 3 introduces the two epistemic dimensions of experimentation: observational and transformative. I point out the importance of attending to the latter. Section 4 fleshes out the transformative dimension by relating political experiments to the idea of transformative experience. I also unpack some of the details of the mechanism from political experimentation to perspectival change. Section 5 reviews the literature on the benefits of perspectival diversity and highlights the philosophical significance of attending to the relation between experimentation and diversity. Section 6 examines the institutional implications of the preceding discussion. There is a concluding section.

2. Experiments in Living

The modern idea of experiments in living originates with the work of John Stuart Mill. In the third chapter of *On Liberty*, Mill draws an analogy between diversity of thought, produced via freedom of expression; and diversity of practices, created by practical experimentation.[41] As in the case of thought and speech, Mill claims that experimentation and subsequent diversity in practices yields epistemic progress. In particular, he believes, the value of different lifestyles can best be judged by observing their realizations. Indeed, as Elizabeth Anderson (1991) observes, Mill considered his own lived experience to be an empirical test of different versions of utilitarianism (Bentham's and his own). His ethical conclusions are thus grounded in experimentation and observation.

An early adaptation of the Millian view to the question of political organization is captured in a well-known statement by Justice Brandeis (1932), according to which:

[41] As it is useful that while mankind are imperfect there should be different opinions, so it is that there should be different experiments in living; that free scope should be given to varieties of characters, short of injury to others; and that the worth of different modes of life should be proved practically, when one thinks fit to try them. (Mill 1991: 63).

> Denial of the right to experiment may be fraught with serious consequences to the nation. It is one of the happy incidents of the federal system that a single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.

It is natural to draw the parallel between Justice Brandeis's defense of political experimentation at the level of individual *states* and Mill's defense of experiments in living at the level of individual *people*.

Robert Nozick, another notable defender of political experimentation, makes the case in part III of *Anarchy, State, and Utopia* (1974: 297-334), for what he calls a 'meta-utopia'. The main idea underlying the conception of a meta-utopia is that our epistemic situation vis-à-vis the key social goals of justice and the good life is not one of solid knowledge and understanding. According to Nozick, when it comes to these core values, and the question of how they can best be achieved institutionally, we are more like cavemen than Gods (313-14). As Nozick explains, it is hard to believe that *one* way of living together is best for everyone, and harder still to believe we *currently* know what that way is. We should design our institutions as a 'filtering device' where practical experiments are regularly conducted and evaluated.[42]

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[42] Nozick distinguishes between 'designed' and 'filtering' devices. In the former, the planners aim to bring about a specific end-state they have in mind.

The Millian viewpoint figures importantly in recent philosophical work that finds Rawlsian public reason an unsatisfactory conception of political justification.[43] A leading theorist for this view is Ryan Muldoon, who argues that:

> Increasing diversity, rather than being a challenge to political justification, is in fact an advantage, as it increases our ability to conduct a range of experiments in living that help us better understand the nature of successful social arrangements. (2015: 180).

Like Mill, and unlike Rawls, Muldoon favors dynamic arrangements that change and evolve through continuous experimentation, rather than ones that persist stably under an overlapping societal consensus.

Echoing Muldoon, Julian Müller (2019) argues that the central error of the public reason tradition is the attempt to "tame", as opposed to use as a resource, the underlying diversity of society.[44] The polycentric democracy Müller favors centers on the ideas of political innovation, competition, and experimentation.[45] Experiments, according to Müller, are valuable for three main reasons (3-4): (i) they enable "discovering new heights", i.e., better ways of living together, better modus vivendi arrangements; (ii) they reduce "shallow disagreement": experimental evidence can

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[43] This line of criticism offered by proponents of political experimentation could also be targeted against Rawls's original theory of justice as presented in *A Theory of Justice* (1971). The focus on the view Rawls expounds in *political liberalism* (1993) is helpful for dialectical purposes.

[44] For Müller, this results in the endorsement of modus vivendi arrangements which "entail both mutual benefit and an overlapping dissatisfaction." (p. 12).

[45] "I define polycentric democracy as an institutional arrangement involving a multiplicity of polities acting independently, but under the constraints of a democratically supervised framework for institutional competition." (Müller 2019: 3).

reduce disagreement about non-normative facts; and (iii) they defuse "deep disagreement": achievable by allowing those who reasonably disagree about the right and the good to live in communities that better approximate their conception of justice and the good life.[46]

3. Experimentation: Two Dimensions of Epistemic Value

Theorists from Mill to Muldoon, in defending experimentation on epistemic grounds, focus on the *observational dimension* of experimentation. This perspective evaluates experiments in terms of their potential to produce empirical data that can be used to identify causal relationships between social variables of interest. A typical experiment, viewed observationally, might indicate how changing a rule *x* affects a metric of ethical concern *y*. For example, an experiment might try to assess the relation between legalizing the sale of drugs and public health. Or, more broadly, such an experiment may shed light on the relation between drug legalization and abstract moral categories such as human well-being and social justice. The key question, from the observational perspective, is how to design experiments such that they can produce data amenable to such causal analysis.

Notwithstanding the significance of the observational dimension, experiments can also produce epistemic value in what I call the *transformative dimension* of experimentation. From this perspective, the epistemic value of experimentation is not

[46] A similar set of arguments can be found in Vallier (2018). For a Hayekian perspective reaching similar conclusions see Pennington (2011) and Kogelmann (2018).

that it produces data amenable to causal analysis (though it might), but rather that it changes how persons see and understand the word. These changes in cognitive perspective in turn affect persons' potential to contribute to the wider epistemic society.

The transformative perspective, unlike the observational, locates the epistemic value of experimentation in the *generative* capacity of persons who participate or observe the experiment, as opposed to the impersonal data that experiments produce. In the case of the observational perspective, the data generated can, in principle, be processed and analyzed by any interested inquirer, regardless of their personal experiences. In the transformative case, the gains of experimentation accrue to persons by virtue of their personal experiences vis-à-vis the experiment.[47] Put differently, the benefit of the observational dimension is to generate data, while the benefit of the transformative dimension is to produce novel ways of processing and evaluating available data.

Another important sense in which the transformative perspective locates epistemic value differently from the observational perspective has to do with the subject matter in which epistemic progress is achieved. If we think back to the philosophers defending experimentation, they all point to the potential of experiments to uncover important insights about *justice* and *the good*. And, indeed, if experiments are evaluated from the observational perspective, their epistemic benefit is to teach us

[47] The primary transformative effects would naturally accrue to persons who undergo the experiment but they can also accrue to observers of the experiment whose perspectives change meaningfully due to witnessing the experiment.

about what rules lead to just and good outcomes. Viewed from the transformative perspective, however, experiments can be epistemically beneficial with regard to any of a great multitude of subject matters. Experiments, through transforming persons' perspectives, can lead to new ideas and thus to epistemic progress in visual art, poetry, literature, architecture, cookery, science, and many more areas of human inquiry and exploration.

As philosophers and normative social theorists, we think a great deal about justice and the good life. It is therefore quite natural for us to consider the epistemic utility of experiments in terms of making advances in these all-important topics. Without discounting the significance of making epistemic progress in justice and the good, attending to the transformative dimension reminds us of the possibility and significance of epistemic progress in areas not directly related to them.

4. Transformative Political Experiments

The previous section introduced the idea that experiments in living have the potential to transform persons who undergo them. I suggested that this hitherto undertheorized dimension of experimentation carries important theoretical implications. In this section, I want to flesh out in greater detail the mechanism by which political experiments transform persons. The exposition proceeds in two steps. First, I review the scholarly literature on transformative experience. Then, I sketch the particular transformative mechanism vis-à-vis political experiments.

Transformative Experience. The phenomenon of personal transformation is of interest to philosophers and decision theorists for several reasons. There is a puzzle about how to model the decision of whether to pursue transformative experiences within the framework of rational choice theory (Ullmann-Margalit 2006; Paul 2014; Callard 2018). Related to this puzzle is the question of whether and how transformative experiences are epistemically revelatory, i.e., are instrumental in acquiring certain kinds of knowledge (Paul 2014; Jackson 1986). Transformative experiences also raise metaphysical questions of personal identity and temporal persistence (Crone 2020), as well as ethical questions regarding authenticity and social justice (Paul 2015a, 2015b; Barnes 2015). For the purposes of my investigation, I need not enter into all the theoretical puzzles the phenomenon raises. The point I aim to establish is that certain kinds of political experiments can be plausibly regarded as transformative experiences.

To get a sense of the nature of transformative experience and some illustrative examples, I refer to the work of L.A Paul, a leading theorist of this phenomenon. In her book *Transformative Experience* (2014), she distinguishes between three related types of experiences. In Paul's terminology, an experience is referred to as 'epistemically transformative' if undergoing it gives one knowledge not otherwise obtainable.[48] An experience is labeled 'personally transformative' if it fundamentally changes your point of view, including your core preferences (p. 16). Paul uses the

[48] A classic example, referred to by Paul (p. 15), is Mary seeing color for the first time, see Jackson (1986).

term ‘transformative experience’ to denote the conjunct of the first two types, i.e., experiences that are both epistemically and personally transformative (p. 17).

Although Paul opens her book with a fanciful example of becoming a vampire as illustrating the puzzles related to transformative experiences, it is important to point out that transformative experiences are very much a part of real life. Indeed, Paul goes on to discuss realistic examples such as the experience of marriage (p. 95), becoming a parent (p. 93), pursuing a career path (p. 98), or fighting in a war (p. 53).

The term ‘experiments in living’ denotes a wide array of individual and social phenomena. If we ask the pertinent question, are political experiments transformative experiences (as understood by Paul and others), it is evident that a reasonable reply would be that some are and some are not. Consider, for example, different localities experimenting with the minimum wage rate, some setting higher and some lower rates. The rate of the minimum wage could certainly affect persons’ lives in meaningful ways, yet it does not seem likely that changes in it will lead persons to develop different perspectives about the world. Now consider an experiment in living in which a community decides to live off the grid. Here it seems reasonable to expect that the experiment will be transformative for participants and will meaningfully alter their perspectives about the world.

What accounts for the difference in transformative potential between the two experiments? A natural answer looks at the degree of social change the experiment involves. Of use here is a distinction Gregory Robson (2020: 81-88) draws between ‘moderate’ and ‘radical’ experiments. The distinction, he explains, can be cashed out as either a distinction-in-kind or a distinction-in-degree (p. 82). Experiments can be classified as radical or moderate by virtue of the *kind of rule* they change, thus capturing the notion of a distinction-in-kind. Alternatively, experiments can be classified as radical or moderate by virtue of the *number of rules* they change, thus capturing the notion of a distinction-in-degree.

Using Robson's framework, we could categorize the first experiment as moderate and the second as radical. The conclusion would be that, as a general matter, the transformative potential of radical experiments is greater than that of moderate ones. I will revisit the import of Robson's distinction in the section on institutional implications. Before proceeding to review work on the benefits of diversity, I want to flesh out the mechanism through which political experiments transform persons' perspectives.

The Mechanism. At its core, a person's cognitive output is determined by two factors: (i) their cognitive production *function*, i.e., their cognitive processing; and (ii) the *arguments* that enter into said function, i.e., perceptions, ideas, and testimony from others. For example, a person whose function includes the operation of addition and is given the perception of two apples on one side of the room and two apples on the other side will think (or, put otherwise, output the thought) that there are four apples in the room.

This brief analysis is helpful in revealing that the claim being defended is made up of two distinct causal claims. The first is that there is a causal relation between sociopolitical environment and *cognitive processing*. The second is that there is a causal relation between sociopolitical environment and *ideational inputs*. In other words, I am first claiming that the way in which persons *process* information is shaped by their social and political environment. In addition, I claim, the information persons *encounter* or are receptive to is related to their political environment.

In a paper about the implications of cognitive diversity to the status of analytical epistemology, Stephen Stich (1988) identifies three possible ways in which persons' cognitive processes may be related to their environment. One possibility is that cognitive processes are like languages: humans have an innate capacity to acquire them, but what set of cognitive processes a particular individual ends up acquiring depends on the environment in which they are situated. A second possibility is that human cognitive processes are like digestion; a set of processes that function in mostly identical fashion independently of an individual's environment. A third and final possibility is some mixture of the two former ones. This would mean that some of our cognitive processes are invariant across different human environments while others are culturally dependent. Stich suggests that while the evidence bearing on this question is hardly conclusive, the third possibility seems the most likely given currently available evidence (pp. 392-3).

Stich's taxonomy and tentative conclusion supports the link drawn between sociopolitical environment and cognitive processing. This conclusion is further supported by reflection on the significance of cognitive heuristics and biases in our modes of reasoning. Behavioral and cognitive theorists have, in recent decades, documented a long list of such items.[49] Closely related to these biases is the much-studied phenomenon of motivated reasoning, which posits a relation of causal influence between a person's preferences and her beliefs.[50] According to this hypothesis, we can expect changes in a person's utility function to subsequently produce changes in her ways of obtaining and processing information.

Of particular relevance to the issue of theorizing about justice in different political contexts is the so-called "just world hypothesis". First proposed and studied by Melvin Lerner (Lerner and Simmons 1966; Lerner 1980), the hypothesis holds that people tend to morally rationalize the reality they observe, in the sense that they attribute moral desert to situations and outcomes they encounter. The upshot of this tendency/bias is that changes in people's sociopolitical environment can lead to changes in their moral perception/reasoning, serving as one example of the political environment's effect on cognitive processing.

The familiarity bias is relevant to the second claim about a causal relation between political environment and ideational inputs. The familiarity hypothesis serves as an explanation for the widespread phenomenon of localized investment portfolios. (Huberman 2001). According to this line of explanation, individuals tend to allocate their funds to assets with which they are more familiar or about which they

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[49] The contemporary originators of this line of research are Daniel Kahneman and Amos Tversky. For a classic statement of their core insights see Tversky and Kahneman (1974). For a well-known application to microeconomics see Kahneman and Tversky (1979).

[50] Modeling this relation is no straightforward matter. As Epley and Gilovich (2016) point out, "people don't *simply* believe what they want to believe. The psychological mechanisms that produce motivated beliefs are much more complicated than that." (p. 133, emphasis in the original). Rather, they "*reason* their way to conclusions they favor, with their preferences influencing the way evidence is gathered, arguments are processed, and memories of past experience are recalled." (ibid. emphasis in the original).

are more knowledgeable, even when evidence confirms that the alternative less familiar investments have equal or greater risk adjusted returns.[51] The upshot of noting this bias to our discussion is that individuals will tend to invest their cognitive resources in better understanding ideas prevalent in *their* social environment, even when alternative ideas prevalent elsewhere offer greater epistemic returns, thus creating a link between sociopolitical context and epistemic inquiry.[52]

It is important to point out that increased interest in some phenomenon due to local circumstances need not be a manifestation of epistemic biases. Indeed, it is epistemically rational for a community to spend more of its cognitive resources on the problems and questions that it faces. For example, people who live in social environments segregated by race might expend cognitive effort to understand the causes and effects of such segregation and the possible interventions that might reduce it.

The example of segregation can also point to less direct effects a social environment can have on trajectories of intellectual inquiry. This indirect effect is exemplified by Thomas Schelling's famous checkerboard model which shows how segregation could emerge on the basis of relatively modest preferences (Schelling 1971). Schelling's abstract model opens the door more generally to an intellectual

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[51] For the cognitive foundations of this line of explanation see Heath and Tversky 1991.

[52] In the case of investments, the downside of the familiarity bias is lack of diversification which results in lower risk adjusted returns. In the social epistemic case, the downside is also a lack of diversification in the ideas examined by members of the community. Here the issue is not one of reducing risk so much as avoiding decreasing marginal returns from overly trodden paths of epistemic inquiry. For example, political theorists and philosophers working in the US (myself included) are likely to have read more about democratic theory and US politics even when they might gain more valuable insights by diversifying their cognitive portfolio.

exploration of ‘tipping point’ models and to the possibility that such models may shed light on a wide variety of social phenomena. At an even higher level of abstraction, it provides an intriguing example of the Hayekian idea of spontaneous social order that arises from human action rather than planning or design (Boettke 1990).

The preceding discussion noted several ways in which work in psychology and behavioral economics can help to shed light on the relation between social environment and cognitive production. Expanding and elaborating on this line of inquiry, Karla Hoff and Joseph Stiglitz (2016) draw on work in sociology and anthropology to enrich this account and argue that “the social context not only primes individuals… it shapes them—how they think and what they want… In a sense, prolonged (and sometimes even brief) exposure to a given social context shapes *who people are*.” (p. 26, emphasis in the original). There are, then, many ways to see and think about the relation between sociopolitical environment and cognitive production.

5. Experimentation and Diversity

The previous section substantiated the claim that political experiments have the potential to transform persons’ cognitive perspectives. The aim of this section is to explain the social epistemic significance of this transformative dimension. More specifically, I highlight the fact that society can utilize transformative political experimentation as an endogenous mechanism for increasing its level of perspectival diversity.

There is now a substantial body of scholarly work, both theoretical and empirical, pointing to the social epistemic benefits of diversity. Before we review some of these, it is important to clarify what the term ‘diversity’ denotes in the context of the philosophical discussion. The relevant parameter by which diversity is measured in the philosophical context is the degree of heterogeneity in cognitive perspectives persons use to understand the world. In formal terms, a perspective can be defined as a cognitive function mapping from external objects to an internal language (Page 2008: 31). Slightly less formally, a perspective can be described as the cognitive framework persons use to categorize objects in the world into different types of objects. A person’s perspective can thus be thought of as the ontological picture or map they use to navigate the world (Muldoon 2016: 30). *Perspectival* diversity is correlated with *demographic* heterogeneity. Thus, when theorists advocate for increasing and utilizing demographic diversity, they rely on the above well-established correlation.

The above description of perspectival diversity relates directly to my discussion in the previous section about the connection between social environment and cognitive production. It is clear that, to the extent that a political experiment qualifies as a transformative experience, the transformation it involves can be aptly characterized as a transformation in perspective, understood in the above sense of the term.

Turning to the social epistemic benefits of diversity. The work of Scott Page (2008, 2010, 2017) illustrates, primarily through formal models, how cognitive diversity can assist teams attempting to solve complex problems. As Muldoon (2018, 809) points out, the basic mechanism is quite intuitive: it is better to have additional persons who think about the problem differently than redundant persons performing similar or identical cognitive operations to solve the problem.

Importantly, the comparative advantage of diverse teams can remain even when the average competence of persons populating a diverse team is lower than that of those populating a more homogenous team. This insight is captured by Lu Hong and Scott Page's (2004) "diversity trumps ability" theorem. Muldoon (2018, 810) usefully illustrates the same point by relating the social epistemic benefit of diversity to the economic benefits of free trade generated by virtue of traders' comparative advantage as classically modeled by David Ricardo.

Complementing these theoretical results are a variety of empirical findings indicating the epistemic benefits of diversity. Muldoon (2018, 809-10) summarizes a list of such findings which include correlations between demographic diversity and success in business (higher revenues, greater profits, more innovation) as well as in public goals (more accurate jury verdicts, higher quality Wikipedia articles). He concludes the survey by noting that "in general, we find a consistent bump in both real-world and lab performance when groups are more diverse" (ibid., 810).

Interestingly enough, both those who emphasize the epistemic benefits of diversity, as well as those who highlight some of its costs, often take the presence of such diversity to be either exogenous to the model or to be a consequence of immigration policy and/or demographic trends. Muldoon, for example, describes his book as one that "starts with the goal of demonstrating that diversity is not only something that we are stuck with as *an empirical fact*, but something we should celebrate and encourage" (p. 15, my emphasis). Similarly, both Rawls (1993) and Gaus (2011) consider diversity to be a crucial background fact about society. Likewise, Hun Chung and Brian Kogelmann (2018) offer a social-choice theoretic account of public reason where perspectival diversity is modeled as an exogenous fact about the agents populating the model.

Proponents of diversity do not offer an endogenous mechanism for increasing or decreasing the level of perspectival diversity in society. If, however, experiments in living can transform persons' perspectives about the world, as I suggested they indeed can, it follows that a society's level of diversity partly depends on the degree to which it accommodates or incentivizes experimentation.[53]

Given the transformative potential of experimentation and the epistemic benefits of perspectival diversity, we can now see an epistemic argument for structuring society in ways that produce transformative experiments. Importantly, this argument can proceed independently of questions concerning the desirable rate of immigration. Equally importantly, the argument for experimentation can proceed independently of questions concerning the quality of the observational data that experiments produce. That being said, these and other considerations must be

[53] Muldoon (2015/2016, ch.2) relates Millian experimentation to perspectival diversity but does not distinguish clearly between the observational and transformative dimensions of experimentation.

attended to when it comes to the question of institutional implementation and the tradeoffs involved therein. These issues will be discussed in the section that follows.

Before I turn to questions of institutional design, I want to highlight the importance of perspectival diversity holds in the context of theorizing in political philosophy. Indeed, Muldoon's aforementioned work might be encapsulated as the attempt to incorporate perspectival diversity into social contract theory. In this, Muldoon's work serves as a leading exemplar of what Gerald Gaus (2018) calls "New Diversity Theory". A common theme running through the work of Gaus, Muldoon, and others is that diversity can be fruitfully viewed as a resource society can draw upon to make progress, as opposed to an impediment that needs to be dealt with through toleration.

In *The Tyranny of the Ideal* (2016), Gaus presents a framework for thinking through questions in what might be called meta political philosophy—the study of philosophical methodology in normative social theorizing. Gaus, building on previous work by Amartya Sen (2009), defends non-ideal theory by pointing to deep internal problems in the idea of utopian political theorizing. Setting aside the substance of Gaus's argument, his overall framework can help to shed light on the epistemic significance of perspectival diversity to political philosophy.

The goal of the political philosopher, as conceptualized by Sen and Gaus, can be described as an exploration of the landscape of possible social realities. Because the philosopher is interested in the normative appraisal of these social worlds, justice being the primary value, we might refer to this task as an exploration of the *justice* *landscape*. Two core metrics are involved in this exploration. The first is what Gaus calls a 'justice score', a grade given to each social reality based on its conformity with the desiderata of justice. The second metric is that of distance between social worlds. The distance between world *a* and world *b* represents their degree of similarity in terms of sociopolitical features. It's important to note that the distance between two worlds does not correlate fully with their justice scores. Proximate worlds may have substantially different justice scores, and distant worlds may have comparable justice scores.[54] The product of the philosophical exploration of the justice landscape can be represented as a two-dimensional graph, where distance is represented along the *x* axis and justice score along the *y* axis.

Accurately mapping the justice landscape involves two core intellectual activities. The first is to *imagine* possible social realities. The second is to *evaluate* each reality, possible and actual, based on its normatively relevant features. Let us now consider the relation between perspectival diversity and the two tasks of political philosophy.

Start with the imaginative task of thinking of ways we could organize our social and political institutions. One reason our imagination may be limited is that we have yet to observe various possible configurations of social and political life. The observational dimension of experimentation can help us make progress on that front. Another reason our imagination may be limited is that our perspectives are too homogenous. Different perspectives make salient different aspects of our social and

[54] In other words, the justice landscape is a moderately rugged one.

political fabric, in turn bringing into view different possibilities for how we might modify current arrangements. Perspectival diversity can thus expand the imaginative capacity of political theorists.

Consider next the evaluative task of assigning justice scores to possible (and actual) social realities based on their normatively significant features. Here too, the observational dimension of experiments can help us form more reliable judgments about the dynamics of social rules and outcomes. Importantly, however, to better evaluate social realities, we need to look at them from multiple perspectives. As Muldoon (2016, 39-43) points out, there is no neutral perspective or a "view from nowhere" through which social realities can be normatively assessed. Evaluating realities through a narrow perspective, whatever perspective it happens to be, will, by necessity, fail to attend to normatively significant features of that reality. The goal, to use Muldoon's terminology, is to adopt a "view from everywhere" (ibid., 45-6) through which to evaluate social realities. Perspectival diversity is therefore essential for the core philosophical task of evaluating social and political realities.

6. Institutional Implications

The preceding discussion highlighted two important distinctions. The first is between two epistemic dimensions of experimentation: observational and transformative. The second distinction, introduced by Robson, is between two kinds of experiments: moderate and radical. The purpose of this section is to explore the intersection of these two distinctions and questions of institutional design. In particular, I wish to examine how the preceding discussion can inform our choice between different forms of polycentric order.

The first point of the analysis requires distinguishing between two core ways of interpreting the idea of political experimentation in institutional terms. The first, what might be called *inter*framework experimentation, consists of a society altering its overall political framework, for example by meaningfully changing its system of constitutional order. The second, what might be called *intra*framework experimentation, consists of a society allowing or incentivizing localities and groups in society to alter their internal rules within the overall societal framework/constitutional order.

The observational dimension of political experimentation could be pursued in either of the above senses of experimentation. For example, a national government could institute a new minimum wage rate and then compare metrics of interest (e.g., poverty, unemployment, mean household income, etc.) across time, i.e., before and after changes to the minimum wage. Alternatively, a federal order could allow or incentivize localities to set different minimum wage rates and then compare the aforementioned metrics across localities. Both types of experimentation aim to net observational gains, the first through interframework experimentation, the second through intraframework experimentation.

Unlike the observational dimension, the transformative dimension of experimentation can only be benefited from through intraframework political experimentation. The reason for this has to do with the social epistemic purpose of transformative experimentation, namely increasing the overall level of perspectival diversity across society. Interframework experimentation could transform persons' perspectives but has no clear prospects of increasing the *overall level* of perspectival diversity. The idea of transformative experimentation relates directly, therefore, to the idea of political decentralization or *polycentricity*.

Notwithstanding the above subtleties, proponents of political experimentation typically conceive of the idea in intraframework terms and thus argue in favor of polycentric modes of organization. The concept of polycentricity can be defined as a social system with many partially autonomous decision centers competing and cooperating across overlapping jurisdictions and bounded by a common set of overarching rules (Ostrom et al. 1961, Aligica and Tarko 2013). The claim that polycentricity is epistemically valuable, however, is insufficiently precise, given the distinctions emphasized in this paper. More specifically, different forms of polycentricity can be expected to produce a different ratio of moderate to radical experimentation, in turn netting different kinds of epistemic gain.

In line with the above claim, we need to distinguish between two ways a polycentric order could be structured. The first form of polycentricity, what I call *correlated polycentricity*, aims to facilitate experimentation within relatively rigid (and thus tightly correlated) bounds. For example, the federal government may allow or incentivize localities to experiment with the production and/or provision of a particular good or service (e.g., public housing). The second form of polycentricity, what I call *uncorrelated polycentricity*, aims to produce significantly divergent (thus uncorrelated) experiments. For example, the federal government may permit or incentivize localities to adopt different internal constitutions and methods of public goods production and provision.

The upshot of the distinction between correlated and uncorrelated polycentricity is its relation to the observational-transformative tradeoff. More correlated forms of polycentricity have better prospects of producing observational data points bearing on the relation between social rules and outcomes, thus optimizing for the observational dimension of experimentation.[55] Less correlated forms of polycentricity, meanwhile, have greater potential to orient the perspectives of individuals and groups in different directions, thus increasing overall perspectival diversity in society by optimizing for the transformative dimension of experimentation.

The present suggestion, then, is that polycentricity can be structured in at least two different ways, each optimizing for one of the two different dimensions of political experimentation. Several points are worth noting with regard to this general claim. To begin, note that there are important non-epistemic considerations that should guide our choice of institutions. There are longstanding *moral* debates between libertarians who favor more voluntarist, laissez-faire forms of polycentricity and liberal egalitarians who defend more controlled forms of polycentricity where

[55] Note that the federal government's role in incentivizing and guiding observationally motivated experimentation may be quite substantial. For arguments to that effect see Galle and Leahy (2009) and Wiseman and Owen (2018).

some degree of central planning or redistribution is used as a tool to equalize between persons.

Similarly, one can imagine prudential or economic arguments in favor of either of the above-described forms of polycentricity. For instance, some may argue that introducing more standardization into the polycentric order. i.e., more correlated polycentricity, is desirable on grounds of reducing transaction costs. Others may argue that such standardization leads to economic inefficiency because it fails to adjust public production and provision based on local knowledge and preferences (Ostrom et al. 1961), or because it reduces the incentives for public entrepreneurship and innovation (Kogelmann 2018).

The issue of political risk management is also an important one in terms of incentivizing or allowing radical experimentation. One argument against uncorrelated polycentricity is that, by expanding the scope and diversity of experimentation, it allows for radical experiments that may lead to catastrophic results. There is no shortage of historical examples of social experiments, large and small, that, while potentially transformative to participants, led to communal or societal ruin. Historical reflection and general prudence might thus point toward more moderate experimentation and more correlated forms of polycentricity.

A final, and crucial point to be mindful of is that the distinction between correlated and uncorrelated polycentricity should not be understood to denote a binary societal choice. Rather, society can choose between a whole range of polycentric configurations more or less correlated (Aligica 2014: 61-64). Putting this and the previous considerations together, it seems reasonable to say that there are benefits and costs to designing the polycentric arrangement in more or less correlated ways.

One way of interpreting the liberal project is to see it as an attempt to strike a sensible balance between these different considerations or costs and benefits. For example, we can say that experiments are to be incentivized and accommodated so long as they do not infringe on or violate a set of basic rights. Thus, radical experiments which involve suspending and/or violating the rights of individuals (fascism/communism) fall outside the constraints of a *liberal* polycentric order. On the other hand, radical experiments which do not involve such violations, e.g., appointing political representatives by lot as opposed to election (Guerrero 2014), could be permitted within a liberal polycentric order.

7. Conclusion

At the foundations of a liberal order are two attractive ideas. The first is that if we give persons greater freedom to experiment with different ways of living together, we will learn important lessons about things we care about. The second is that if we organize our associations to be more diverse, we will do better at solving problems and challenges we seek to address. A central aim of this paper has been to clarify the relation between these two ideas. I have suggested that structuring society to produce certain kinds of experiments can function as an endogenous mechanism for generating more perspectival diversity.

This mechanism for generating perspectival diversity relies on the transformative dimension of experimentation which can best be capitalized on through more radical experiments. Experiments can also be epistemically beneficial, however, in observational terms, by illuminating the relation between social rules and social outcomes. My analysis of these two epistemic dimensions and their potential institutional implications has led me to a relatively inconclusive conclusion. At the heart of liberalism and its polycentric institutional realizations are tradeoffs, both epistemic and non-epistemic, that are difficult to adjudicate between. The task for liberal theorists is to keep in mind this complex normative picture and to continue to grapple with the many challenges it poses.

Polycentric Limited Epistocracy: Political Expertise and the Wiki-Model

Abstract**:**

Democracy has recently been criticized by several philosophers on grounds of poor epistemic performance. The proposed alternative – epistocracy – faces criticism for failing to uphold and express the core democratic values of civic equality and individual autonomy. In response, proposals have been offered that try to achieve epistocratic performance while retaining democratic inclusion. This paper raises two problems for such proposals, relating to the selection of experts and the incentive-compatibility of the system. Given these failures, I sketch what I call the Wiki-Model. I argue that the Wiki-Model (*i*) has desirable epistemic properties; (*ii*) realizes our democratic ideals; while also (*iii*) avoiding the two problems that other hybrid models face.

1. Introduction

Democracy, understood as a way of organizing our political institutions, has been the subject of recent normative debate. On one side are those who think that democracy, by giving equal voice to the politically ignorant and irrational, tends to produce suboptimal results.[56] The output of our decision-making institutions can be improved, they claim, by giving greater weight to the voices of the politically knowledgeable.

[56] Caplan (2007), Somin (2013), Bell (2016), Brennan (2016).

These critics of democracy propose a variety of alternative institutional arrangements, usually grouped under the term 'epistocracy.'[57]

On the other side of the debate are those who defend democracy as an admittedly imperfect, yet still preferable arrangement when compared to the epistocratic alternatives. Broadly categorized, defenders of democracy argue for their position in one of two ways: they claim that the inclusive and aggregative nature of the democratic process will tend to epistemically outperform epistocratic alternatives; or they claim that the democratic procedure itself is normatively desirable independently of its decision outputs and consequences. Call the first group 'epistemic democrats,' and the second 'procedural democrats'.[58]

Those who find convincing both the epistemic case for epistocracy and the procedural case for democracy are faced with the difficult theoretical task of adjudicating between two things of value: quality outputs and a normatively desirable process. Faced with this difficulty, they might inquire as to whether there is a third way, an institutional arrangement that will capture the desirable epistemic properties of epistocracy while retaining the procedural virtues of democracy. Though ambitious, such proposals have indeed been developed.[59] The goal of this paper is to develop and offer one more such proposal.

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[57] The term originates with Estlund (2003). For a list of epistocratic arrangements see Brennan (2016, 15 and 208-230).
[58] For defenses of epistemic democracy see Landemore (2017) and Goodin and Spiekermann (2018). For procedural defenses of democracy see Waldron (2005) and Saffon and Urbinati (2013).
[59] Christiano (2008, 104); Lopez-Guerra (2014); Brennan (2016, ch.8); Jeffrey (2018). This paper focuses on the latter.

Following a proposal by Anne Jeffrey (2018), I suggest the political process be divided into *setting* the agenda and *selecting* between options on the agenda. The former task is left to the "experts," the latter to all citizens. The main difference between my proposal for limited epistocracy and Jeffrey's is as follows: the arrangement I sketch in this paper aims to make use of peer-to-peer polycentric processes for the epistocratic element of the agenda-setting process. This is in comparison to Jeffrey who offers centralized mechanisms for the agenda-setting process. In slogan form, my proposal is this: agenda-setting by peer-to-peer production, decision-making by democratic vote. I shall argue that this arrangement better satisfies (compared to alternative forms of political organization) both the epistemic and the procedural desiderata noted above.

Here is how the argument proceeds. The next section reviews the case for democracy and the case for epistocracy. Having established all of the relevant desiderata to be satisfied, section 3 examines Anne Jeffrey's proposal for a limited epistocracy that purports to satisfy both camps. I present two problems for Jeffrey's model relating to the selection of experts and the incentive-compatibility of the system. Section 4 shifts the discussion from politics to encyclopedias in order to derive some organizational insights from the epistemic success of Wikipedia. Section 5 offers my proposal—the Wiki-Model—which involves designing the agenda-setting institutions along the lines of Wikipedia. I situate and motivate my proposal in relation to alternative proposals for open government. Section 6 evaluates the Wiki-Model in the light of the commitments of democrats and epistocrats. The paper concludes (§7) by suggesting that fruitful research can be done at the intersection of political philosophy, organizational economics, and technology studies.

2. On Democracy and Epistocracy

Democracy has been defended, as mentioned in the introduction, in two main ways. The first focuses on the democratic *procedure*, arguing that it embodies or expresses important values. This line of justification results in *non-instrumental* arguments for democracy. The second focuses on the quality of the *decisions* the democratic procedure generates, and on the *effects* of political deliberation and participation on individuals in society. This line of justification results in *instrumental* arguments for democracy. Epistocrats take issue with the instrumental arguments for democracy, arguing that they do not succeed; in general, though, they tend to leave untouched the non-instrumental arguments for democracy.

Non-instrumental defenses of democracy focus on some features of the democratic *procedure* that seem normatively attractive. Two such features that seem particularly important are the fact that the basic mechanism of one person-one vote is both inclusive and egalitarian, and that rule by the people, or self-rule, allows persons to realize their autonomy. Normative consideration of these two features supplies procedural democrats with two arguments for democracy: the *argument from egalitarianism* and the *argument from individual autonomy*.

Consider first the argument from egalitarianism. The thought here is that the democratic procedure represents a fair way of reaching collective decisions on matters of common concern that citizens disagree about. By giving each person's vote equal weight, the procedure respects their own viewpoint on such matters (Christiano 2018). Closely related to this is the thought that the democratic procedure satisfies the desideratum of 'public equality'. The democratic process is perceived by members of the public as one that "*publicly embodies* the equal advancement of the interests of the citizens" (ibid, my emphasis).

Consider second the argument from individual autonomy. The relevant desideratum here dates to Rousseau and the idea that we seek a political process that reconciles political authority with individual freedom. Building on Rousseau's idea, public reason theorists argue that the democratic procedure is the only one that has any hope of attaining public justification through an overlapping consensus.[60] In other words, democratic arrangements are the only kind of arrangement all reasonable or qualified viewpoints can come to accept as justified by their own lights. Democracy is therefore justified because it allows individuals to live under institutional arrangements or rules they would legislate on themselves.

In contrast to non-instrumental arguments for democracy, instrumental arguments hold that democratic procedures aid in making good decisions. Why think this? According to Melissa Schwartzberg's thorough review article, there are three mechanisms epistemic democrats appeal to that supposedly demonstrate democracy's superior epistemic status (Schwartzberg 2015, 196). First, they sometimes appeal to the *Condorcet jury theorem* which holds that, if certain conditions obtain, then as the

[60] Rawls (1993), Gaus (2010), Estlund (2007).

size of a collectivity increases the likelihood of the collectivity selecting the correct answer when given some binary proposition approaches one.[61] A second mechanism they appeal to is the *miracle of aggregation* which holds that, when we average a collectivity's estimates of some scalar value, then—again, so long as certain conditions obtain— as the size of the collectivity increases the likelihood of the collectivity selecting the correct value approaches one.[62] And finally, many appeal to Lu Hong and Scott Page's *diversity trumps ability theorem*, which says that groups of diverse, yet less-capable problem solvers can outperform homogeneous, yet more-capable problem solvers so long as certain conditions are met.[63]

We have seen that democrats can appeal both to procedural/non-instrumental and instrumental/epistemic arguments for democracy. Proponents of epistocracy generally focus on the instrumental aspects of democracy.[64] Given the focus on the epistemic performance of democracy, the case for epistocracy consists mostly in advancing a negative thesis against the epistemic efficiency of public deliberation and universal suffrage. Regarding the value of deliberation, epistocrats emphasize that this is an empirical issue.[65] The question is not, on their view, what benefits *ideal* discourse will bestow on the public. The question is what effects *actual* discourse has on its participants. The empirical data indicates that typical public deliberation falls well short of the philosophical ideals.[66] Actual discourse involves dominance,

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[61] See Goodin and Spiekermann (2018) for a thorough examination of this mechanism.
[62] For a succinct summary of the mechanism see Landemore (2012, 266-268).
[63] Hong and Page (2004).
[64] For an attempt to justify pure instrumentalism about politics see Brennan (2016, 112-139).
[65] Ibid, 62-67.
[66] See Mendelberg (2002).

rhetorical trickery, the rationalization of prejudices and biases, and an overall tribalistic mindset. As a result, argue epistocrats, the epistemic competence of individuals, and in turn the epistemic performance of the system, is not improved significantly, if at all, by public deliberation.

The issue of voter competence plays a major role in the epistocratic argument against the purported *wisdom of crowds* which democracy makes use of.[67] As we saw, the democratic case rests on the applicability of formal models such as the miracle of aggregation and the Condorcet jury theorem to the democratic procedure. Epistocrats challenge the claim that these models correspond to actual voters. In particular, both models assume *average* competence to be above 0.5. Yet, as Iliya Somin (2013) and Bryan Caplan (2007) observe, there is now substantial empirical data about the knowledge and opinions of voters which seems to undermine the competency assumption. Caplan, for example, evaluates the competency of voters on questions of political economy by comparing their answers to a set of questions to the answers of PhD economists to the same set of questions.[68] The comparison indicates that voters *systematically* depart from the views of most economists.

Given that, based on empirical data, neither public deliberation, nor the equal aggregation of votes can be expected to yield high epistemic performance, epistocrats propose alternative institutional arrangements which, in one way or another, assign

[67] For a classic examination of the phenomenon of the wisdom of crowds see surowiecki (2005).
[68] Caplan uses the "Survey of Americans and Economists on the Economy". Conducted in 1996, the survey was a collaborative effort by the Washington Post, Kaiser Foundation, and Harvard. As Caplan observes, the survey is well structured for the purpose of examining lay-expert belief differences (Caplan 2007, 52).

greater weight to the opinions of the knowledgeable than to those of the politically ignorant and/or irrational. We can therefore state the main commitment of epistocrats as follows: epistocrats want the political process to filter out inputs stemming from ignorance, biases, and irrationality, in favor of informed and rational inputs. There are many ways this can be achieved, but perhaps the main proposal is competency-based suffrage, where voters must pass some kind of competency test in order to vote.[69]

We now have in hand the commitments of both democrats (procedural and epistemic) and epistocrats. From the standpoint of institutional design, the question thus becomes: can we find a way of organizing our political institutions such that they satisfy both democrats and epistocrats? Somewhat more tendentiously, can we find an institutional arrangement that nets the purported epistemic gains of epistocracy while retaining the procedural values of democracy?[70] The next section turns to one such hybrid proposal by Anne Jeffrey.

3. Limited Epistocracy

In her paper, "Limited Epistocracy and Political Inclusion", Anne Jeffrey (2018) defends a form of government which she believes can accommodate both the epistemic and the proceduralist desiderata noted earlier. Jeffrey calls her preferred form of government 'limited epistocracy', which she defines as, "qualified rule by

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[69] For a sophisticated version of this idea see Brennan's 'simulated oracle' (2016, 220-222).

[70] The second formulation of the question is more tendentious because it assumes epistocrats are right about the instrumental question. This is a complicated matter, which in my view depends greatly on the exact form of epistocracy proposed. Indeed, I shall go on to argue that Jeffrey's proposal for limited epistocracy fails on instrumental grounds.

expert institutions, where the institutions get their political authority in virtue of their specialized knowledge and their ability to generate optimal solutions" (412).

Expert institutions holding political authority, what Jeffrey calls 'specialized institutions', are institutions that meet the following three criteria. Their knowledge is *not common*, it is knowledge that cannot be acquired or surveyed by non-experts (414). Their knowledge is *optimal*, it represents the best that can be epistemically achieved vis-a-vis the subject matter given current tools and methods (415). Finally, the outputs of the institution are *action-guiding* and are backed by coercive power (416). In short, specialized institutions are epistemically privileged bodies that get, by virtue of their epistemic authority, to issue coercive directives on the public.

Limited epistocracy made up of specialized institutions will, according to Jeffrey, better meet the epistemic desideratum of political systems. Our previous discussion concerning the epistemic shortcomings of democracy lends credence to Jeffery's contention. In line with our analysis, however, Jeffrey recognizes the presence of the second, procedural desideratum, which she calls 'political inclusion'. The problem for limited epistocracy, as Jeffrey observes, is that, "in a limited epistocracy, the epistocratic branch of government doesn't even purport to be constrained by what is acceptable to non-experts." (419). It is therefore the case that, "A defense of limited epistocracy … has to begin with an explanation of how the imposition of this kind of regime could be legitimate even when the people don't offer their consent and when it doesn't give voice to their collective will." (ibid).

Jeffrey's solution to this problem is to constrain the outputs issued by the specialized institutions such that they meet what she calls 'the Conditional Form Thesis*', which states that, "A directive of a specialized institutions adequately respects autonomy iff it is conditional in form, generating a wide scope requirement that S (if p then φ) or (if q then ψ), and both φ and ψ are actions S can do willingly without foregoing her reasonable fundamental commitments." (430). Unpacked in less formal terms, the conditional form thesis requires specialized institutions to issue their directives in ways that leave reasonable latitude for the public by offering them two or more options to choose from based on their own views and commitments.

We are now able to appreciate the broad contours of Jeffrey's proposed form of government and why it can accommodate, on her view, both the epistemic and proceduralist desiderata. To improve the epistemic performance of the system, some of the decision-making is taken away from the hands of the public and is instead given to specialized institutions with the proper epistemic credentials. To nevertheless retain the virtue of including the public in the decision process, the outputs of specialized institutions are constrained in such a way as to leave room for practical deliberation and autonomous decision-making among the public. A way of framing Jeffrey's idea in the language of democratic procedures is the following. In Jeffrey's system, the political *agenda* is determined by specialized/expert institutions. The public then gets to deliberate and choose between the *available options* appearing on the agenda.[71]

[71] This is how Goodin and Spiekermann interpret Jeffrey (2018, 126, fn. 34).

Jeffrey's proposal takes a step in the right direction. Her idea of dividing the political process to setting the agenda and deciding between available options reasonably allows for the introduction of expertise without the elimination of public participation. Nonetheless, I shall now argue that two types of problems undermine the viability of Jeffrey's version of limited epistocracy vis-à-vis the epistemic desideratum. The first problem concerns the selection of criteria by which experts are identified and selected, I will call this the *selection problem*. The second problem concerns the incentive structures put in place under Jeffrey's limited epistocracy, I will call this the *incentives problem*.

The Selection Problem

The idea behind any form of epistocracy is to give greater weight to the opinions of the knowledgeable as compared with that given to those of the uninformed. The simplest epistocratic normative principle might be this: given the need to decide on a public issue *x*, the voices included in the decision process should be limited to only those who are well-informed on *x* and on surrounding issues, theories, and frameworks pertinent to *x*.[72] Bracketing any proceduralist worries and taking a purely epistemic stance toward the suggested principle, a worry naturally emerges regarding the epistemic obstacles involved in operationalizing the principle. More specifically, implementing the principle requires successfully overcoming a

[72] Being knowledgeable about *x* alone will typically be insufficient. For example, expertise on the physical science of climate change is necessary but insufficient to forming good environmental policies. Also required, among other things, is knowledge of climate economics and budgetary constraints.

further epistemic challenge, namely identifying, regarding any issue, the relevant experts on that issue, the people who can be most trusted epistemically to arrive at the correct decision.[73]

It is therefore the case that institutionalizing the above principle of epistocracy requires establishing some set of criteria according to which experts will be selected. A variety of criteria may seem like sensible options. For example, in light of Caplan's analysis, we might consider expert in economic matters any citizen who holds a PhD in economics from an accredited institution. A selection criterion based on education can be formulated in broader or narrower terms. Instead of those with a PhD in economics, we could opt for a broader criterion by which we include anyone with a PhD. Or, more narrowly, we could include only those who have specialized in the specific subfield the particular issue involves (e.g. international trade).[74] A different approach to the identification of the knowledgeable is to administer a competency test, the purpose of which is to filter out the uninformed and to leave the decision in the hands of those who can bring relevant knowledge to bear on the issue. Finally, we could attempt to 'manufacture' expert citizens by randomly selecting some members of the public, educating them about the issues of the day, allowing them to deliberate, and then putting the decisions up to their votes.[75]

The above list of criteria for the selection of experts is by no means exhaustive. There are many other proposed (and yet to be proposed) ways of selecting

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[73] Cf. Brennan (2016, 222-26).
[74] For a suggested hierarchy of expertise along such lines see Anderson (2011, 146-7).
[75] López-Guerra (2014).

for expertise among the citizenry. The trouble is that all the different possible criteria have certain advantages and disadvantages. For example, education criteria might miss out on certain important non-academic knowledge held by citizens without the proper academic credentials. Academics might tend to follow and apply certain abstract models that are not sufficiently sensitive to the contextual circumstances in which collective decisions need to be made.[76] Indeed, an important insight of the Bloomington school of political economy is in pointing out this problematic tendency among academics who studied collective action problems. Regarding three classic models of common pool resource dynamics (tragedy of the commons, prisoner's dilemma, the logic of collective action), Elinor Ostrom (1990, 6-7) writes:

> What makes these models so interesting and so powerful is that they capture important aspects of many different problems that occur in diverse settings in all parts of the world. What makes these models so dangerous—when they are used metaphorically as the foundation for policy—is that the constraints that are assumed to be fixed for the purpose of analysis are taken on faith as being fixed in empirical settings, unless external authorities change them.

Ostrom cautions against the use of highly generalizing and simplifying models, constructed primarily for explanatory purposes, as a guide to public policy. Moreover, as Ostrom subsequently demonstrates in that book and other works through careful

[76] Cf. Hayek (1945), particularly on the importance of knowledge of time and place (521).

case studies, people solve common pool resource problems internally without the use of Leviathan or property rights.

A similar selection problem could also arise regarding competency tests. Designing a test that can be taken quickly and that will sort experts from the uninformed is a difficult, perhaps unrealizable endeavor. Not to mention the grim history of competency tests which were largely used to sort people according to race and ethnicity as opposed to epistemic merit. Finally, opting for the ‘manufacturing’ alternative requires having some confidence that we can quickly turn, through some process of education and deliberation, the uninformed and irrational into knowledgeable and rational decision makers. One might be reasonably skeptical of such hopes.[77] Moreover, one might worry that since such a scheme requires deciding on a curriculum according to which the individuals selected will become ‘informed’, the arrangement leads to a regress in terms of the selection problem, i.e., we would need to decide who the experts are vis-à-vis designing the educational curriculum.

Regardless of where we come down on any of the specific points raised above, it is difficult not to concede the fact that the selection problem is indeed a problem. From the standpoint of deciding between different criteria for selection, some form of reaching a decision on this issue will have to be established. It is here where one might worry about problems of infinite regress. If epistocracy outperforms democracy in decision making, and we are faced with the challenge of deciding

[77]A further problem with this proposal is that it seems to require carving political decision-making to single issue decisions. As Landa and Pevnick (2019, 9) observe: “It is impossible to effectively address pressing political problems one at a time because such problems are interconnected”.

between selection criteria, we should want to make this decision through epistocracy as opposed to democracy. Unfortunately, the selection criterion is itself a prerequisite of institutionalizing epistocracy.

The Incentives Problem

Proposals for epistocracy are based on the idea that the political process would produce better outputs if the inputs are restricted to those members of the public who are epistemically qualified to decide on such matters. Epistocracy thus requires reducing the scope of political authority or decision-making capability from *all* members of the public to *some* members of the public. Creating a system in which political authority is given to some and not others is in danger of setting up certain perverse incentives. In particular, when political power is restricted only to those who meet some criterion, there is an incentive for anyone who seeks political power to meet the conditions set forth by the selection criterion. For example, if power is placed in the hands of those who hold a PhD, individuals seeking political power might be further incentivized to get a PhD (or buy one illegally). On the flip side, individuals seeking truth and not political power might be discouraged from pursuing a PhD.

Turning to Jeffrey's proposal for limited epistocracy, we can examine the incentive structure this system will put in place vis-à-vis the incentives problem. Introducing expertise into our political decision-making through Jeffrey's specialized institutions appears desirable in epistemic terms. Yet it is important that the incentives facing purported experts will be compatible with the effective functioning of the system. More specifically, it is crucial that the incentives facing purported experts will be largely epistemic as opposed to political. *To improve our system epistemically, experts must be guided by a search for truth as opposed to power*.

One clear way in which this type of incentive incompatibility problem can manifest itself is if expert institutions and individuals are appointed by political channels. This can lead to epistemically regrettable situations such as Ben Carson, a neurosurgeon in training, being appointed secretary of Housing and Urban Development (HUD). This form of the problem is avoided under Jeffrey's limited epistocracy because specialized institutions (and the individuals who populate them) are not appointed politically. Specialized institutions, in Jeffrey's system, are given authority not through political appointment but through their epistemic credentials.

Though it avoids the above form of the incentives problem, Jeffrey's proposed system fails to avoid the second form the incentives problem can take noted in the first paragraph of this subsection. In Jeffrey's system, the political framework creates an incentive for inserting political forces into the specialized institutions that are supposedly independent of politics. The logic is simple, as specialized institutions come to have more coercive authority, there is greater incentive for players in and outside the institutions to utilize their power for the purpose of furthering their political agenda through the cloak of pure epistemology. Meanwhile, for those players focused on the *epistemic* rather than the *political* goal of finding the truth, there is less of an incentive to operate within the confines of specialized institutions subject to political forces that become less epistemically pure and more politicized.

The incentives problem Jeffrey's specialized institutions face is one form of the more general problem noted by public choice economists of regulatory capture.[78] This problem occurs when government agencies, created to further the interests of the public, are 'captured' by subgroups of the public who, through using the political authority of the agency, aim to promote their own interests which diverge from those of the public at large. In the case of Jeffrey's specialized institutions, the institution may be considered different in some respects from the paradigmatic regulatory agency. Nonetheless, given the political power the system places in the hands of specialized institutions, the incentives of subgroups with a shared interest will still be to 'capture' those institutions. Consequently, the epistemic reliability of those institutions is in danger of being compromised due to attempted infiltrations by non-epistemic motivations. Individuals who are driven by epistemic motivations might thus opt to conduct their work outside of such compromised institutions.

The problem with Jeffrey's proposal is that it does not specify or even sketch a way for setting up our specialized institutions in an incentive compatible way, given the primary goals on the basis of which we set up those institutions in the first place. Jeffrey does make clear that, by definition, the political authority of specialized institutions is based on their *epistemic* credentials. This is indeed the ideal we aspire

[78] See Stigler (1971); Laffont and Tirole (1991). Bagg (2018) similarly appeals to the problem of capture as a way to epistemically vindicate democracy (as compared to epistocracy).

to, yet it is difficult to successfully institutionalize this ideal. The problem with Jeffrey's proposal is therefore one of institutional design. The challenge we are faced with is how to design our epistocratic institutions in an incentive compatible way given the aim of promoting the public interest. In addition to this challenge of the incentives problem, this section also noted the selection problem—also a problem of institutional design. Our task is thus to find a way to design Jeffrey's specialized institutions, i.e., the agenda-setting process, in a way that avoids the two problems. Our path involves first a detour to the epistemology of encyclopedias.

4. Wikipedia and Polycentric Expertise

The previous section argued that Jeffrey's proposal of limited epistocracy fails to solve the selection and incentives problems. The purpose of this section is to examine the organizational structure of Wikipedia in an attempt to derive valuable insights we will then apply to the design of the political agenda-setting process. In particular, I will suggest that Wikipedia's decentralized or polycentric organizational structure is a potent remedy to the problems mentioned in the previous section.

The goal of any encyclopedia is an epistemic one, namely, to offer apt and true descriptions of a variety of topics readers might be interested in. This requires identifying what topics are of interest to readers. It further requires collecting the information pertaining to these subject matters. Finally, it requires articulating the information in a manner that is accessible and enjoyable to readers. In short, producers of a traditional encyclopedia must: (*i*) determine what entries to include;

(*ii*) determine what information to include vis-à-vis each subject; and (*iii*) ensure that the entry is well-written vis-à-vis the readers' expectations.

Each of the above three tasks presents substantial epistemic challenges for the encyclopedia's editors. To decide what entries to include, they might use a variety of methods. For example, they could consult previous encyclopedias as a guide to what entries must be included. They could consult academic journals and disciplines to categorize and subcategorize the subjects that are to be included in the encyclopedia. They could hire or consult "encyclopedia experts" who are specialists at this task of dividing large bodies of knowledge into particular entries. The decision of what information is to be included vis-à-vis some subject matter can be approached via two main heuristics. The editors could attempt to learn about the subject matter enough to be able to determine what information the entry about it should contain. Or they could instead (or in addition) ask experts in the relevant subject matter to author or edit the entry so that it contains important information about the subject. The decision of how to present the information regarding each entry can also be outsourced to relevant experts, or it could be done internally by the compilers of the encyclopedia.

All of the above methods for addressing the epistemic challenges of compiling an encyclopedia have certain flaws and limitations that are difficult to overcome. Deferring decisions to previous encyclopedias is sensible insofar as previously successful compilations of knowledge are indicative of good determinations regarding what entries to include. Yet, it is very possible that previous editorial decisions were flawed due to the limited information of past editors as well as their personal preferences and biases. It might also be the case that the topics of interest are different from those of the time/place in which the exemplar encyclopedia was compiled. Similarly, if the information included in entries is decided upon by the editors, it is likely that it will fail to capture some of the important information about the subject. Deferring to the experts is therefore sensible. Yet this presents a vexing problem we have noted vis-à-vis Jeffrey's proposal, namely, what heuristic editors should employ to identify the right set of experts vis-à-vis a subject matter. Finally, the editors could decide on how best to organize and present the information themselves, or they can defer much of this work to the experts. In both cases, it is rather difficult to determine what mode of presentation will be best from the standpoint of readers and their purposes.

The model set forth by Wikipedia is interesting because it offers promising solutions to some of the epistemic challenges faced by an encyclopedia's editors.[79] In the case of Wikipedia, the task of deciding what entries to include is left to the participants. The open nature of the platform allows anyone to start a new entry at any time and to draw connections between existing ones in the form of hyperlinks. The decision of what entries to include is thus dispersed across the Wiki community, rather than placed in the hands of select individuals. More importantly, the task of editing existing entries is likewise open to all participants. A certain small subset of privileges are reserved for administrators such as deleting a page or blocking a user/IP address from participating. The primary task of editing and adding to existing

[79] For a detailed exposition of the Wikipedia mechanism see Ayers et al. (2008).

text is left open to all. Each Wikipedia page records the entire history of revisions. It is also possible for users interested in particular pages to receive direct notification whenever anyone edits or adds to those entries. The editing of an entry is thus decentralized, setting up a dynamic iterative process where the product generated reflects the editorial decisions of a dispersed community as opposed to a few preselected editors.

The processes through which Wikipedia entries are created and edited are thus thoroughly polycentric.[80] They are fully decentralized insofar as all participants have equal decision-making capabilities (apart from the few special privileges of admins). Furthermore, the participants tend to follow certain overarching norms of attempting to make valuable contributions from the standpoint of generating well-organized, engaging, accurate, and insightful entries. Particularly important, for our purposes, is how these polycentric features of Wikipedia relate to the search for experts which putting together a traditional encyclopedia involves. Interestingly, the Wiki mechanism makes the search for experts in some sense superfluous. For the key is to get experts to reveal their information, the information itself does the work, identifying the experts is thus no longer needed or important. Put differently, what underwrites the quality of the product is not the epistemic credentials of specific individuals who create it but is rather the fact that the text undergoes continuous scrutiny by the community at large.

[80] For an illuminating exposition of the concept of polycentricity see Aligica & Tarko (2013). See also their (2012) for its intellectual history.

Notwithstanding these interesting features, one might have reasonably worried that leaving the process of writing an encyclopedia open to all comers will result in poor results from an epistemic standpoint. The two main worries have to do with the reliability and verifiability of Wikipedia entries.[81] Studies however indicate that Wikipedia, when compared with traditional encyclopedias, is, with respect to many topics, quite reliable.[82] As for verifiability, it can indeed be difficult to identify the individuals responsible for any piece of content in a Wikipedia entry, more so at least than it is in the case of a traditional encyclopedia. However, it is not clear to what extent this is a major epistemic problem. As Fallis (2008, 1667-68) observes, "We typically trust a particular encyclopedia entry not because we trust its *author* but because we trust the *process* by which the entries in the encyclopedia are produced". Fallis adds that, "The *process* by which entries in Wikipedia are produced seems to be fairly reliable." (Ibid, my emphases).

We can, at this point, see why the Wiki-Model is of interest to our examination of different political arrangements. One problem Jeffrey's proposal faces is that of devising some criteria by which individuals or institutions are designated as relevant experts, what we have called the *selection problem*. A similar problem is faced, as was noted, by the editors of encyclopedias. Wikipedia offers a solution to this problem in the form of distributing the work of identifying quality information among all members of the community, which in turn makes unnecessary the

[81] Fallis (2008, 1664).
[82] Gilles (2005). For a more philosophically nuanced discussion of such comparisons see Magnus (2009).

preliminary search for expert individuals. A second problem Jeffrey's proposal faces is that, by unifying epistemic and political authority, it creates perverse incentives, what we have called the *incentives problem*. The incentives problem is not generally a concern in the case of composing an encyclopedia.[83] Nonetheless, the Wiki-model offers a partial solution to this problem as well. To see why this is so requires thinking about the costs and benefits of exerting influence on the institutions in question.

Importantly, influencing thoroughly polycentric institutions (like Wikipedia) is more costly and less feasible than is influencing more monocentric institutions (like Jeffrey's *specialized institutions*). The reason for this is that, in a *monocentric* institution, a relatively small number of individuals have a large impact on the resulting output of the institution. From the standpoint of those seeking to influence the output, there is reason to spend resources to try and influence the decisions of the individuals with much decision-making authority. This manifests itself regularly in the political realm in the form of regulatory capture. *Polycentric* arrangements, in contrast, are more difficult to influence. There are no individuals with a great deal of authority and impact over the output. Instead, the output is the result of dynamic feedback loops between innumerably many individuals.

The Wiki-Model appears to offer some promising solutions to the problems we have surveyed vis-à-vis political institutional arrangements. This suggests that the

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[83] Although one might tell a story about how the original encyclopedists saw their epistemic project as closely connected to their political ambitions.

institutional architecture that will best be able to meet our desiderata is one that incorporates the Wiki-Model into the decision-making process. The next section fleshes out some of the details of how we might design agenda-setting institutions along the lines of the Wiki-Model.

5. Wiki Agenda-Setting

Section 3 argued that Jeffrey's proposal of limited epistocracy offers a promising way of combining expert input with democratic decision-making but that it fails to adequately address the problems of selection and incentives. Section 4 suggested that, by drawing on polycentric organizational principles, Wikipedia manages to solve problems for the encyclopedia editor that bear interesting similarity to those we face in trying to implement limited epistocracy. This section offers an institutional design proposal that aims to make use of polycentric organization in order to incorporate greater expertise into the political process while satisfying democratic ideals. By being more polycentric, it will also avoid the selection and incentives problems. Before entering the details of my proposal, it is worthwhile to situate it vis-à-vis related proposals for open government.[84] A small, but growing number of researchers coming from various disciplines, have recently been engaged in documenting, conceptualizing, and developing the idea of *government crowdsourcing*.[85] The main characteristic of crowdsourcing, according to Daren Brabham, is that:

[84] The literature I have in mind here includes: Aitamurto & Landemore (2015), Brabham (2013a, 2013b), Landemore (2015), Noveck (2009, 2015), Lathrop & Ruma (2010).
[85] The Wikipedia entry 'Government crowdsourcing' contains the references mentioned in the previous footnote as well as a good, though very brief, discussion of the concept alongside some examples.

> the locus of control regarding the creative production of goods and ideas exists *between* the organization and the public, a shared process of bottom-up, open creation by the crowd and top-down management by those charged with serving an organization's strategic interests. (Brabham 2013a, xxi, emphasis in the original).

A typical example of non-governmental crowdsourcing is the T-shirt Company Threadless. Members of the Threadless online community upload their designs to the company’s site. These designs are then scored, again by the community, on a scale of zero to five. After a week in the scoring gallery, several of the highest ranked designs are manufactured in the company’s headquarters and sold back to the community through the site. To incentivize prospective designers, winning designs award the designer $2000 in cash and $500 as a Threadless gift certificate. (Ibid, xix-xx).

An example of successful government crowdsourcing is the ‘Peer-to-Patent’ system proposed and developed by Beth Simone Noveck.[86] The purpose of this program is to allow bureaucrats in the United States Patent and Trademark Office (USPTO) to utilize the expertise of dispersed citizens in the patent examination process. As Noveck explains:

> What if the scientific and technical expertise of the graduate student, industry researcher, university professor, and hobbyist could be *linked* to the legal

[86] For a fascinating discussion of the origins of the Peer-to-Patent program and the prospects of government crowdsourcing more generally see Noveck (2009, 2015).

expertise of the patent examiner to produce a better decision? What if, instead of traditional peer review, a process of *open* review were instituted, wherein participants self-select on the basis of their expertise and enthusiasm? … The online tools available today could be employed to *connect* the government institution and the increasingly networked public to collaborate on an ongoing basis. (Noveck 2009, 5-6, my emphases).

It is clear from Noveck's explanation (especially from the words I emphasized), combined with Brabham's definition, that Peer-to-Patent is a form of government crowdsourcing in that it involves collaboration between bottom up research by the dispersed citizenry with top-down review and control by the officials in the USPTO.[87] The goal of this crowdsourcing method is to improve the process of patent examination both in terms of efficiency (cashed out as time spent by the patent examiner on each case) and in terms of epistemic accuracy.[88]

Returning to my proposal of designing the agenda-setting process along the lines of Wikipedia, we can now articulate a conceptual framework in which different organizational structures can be situated. On one end of the spectrum, we have fully *monocentric* institutions, where a select group of insulated officials make decisions.

[87] This also illustrates that the concept of crowdsourcing is closely related to the concept of coproduction, another important concept in the Ostromian framework for institutional analysis. To see how coproduction can be invoked as a response to the epistocratic challenge, see Aligica (2018).
[88] The program has indeed proved itself, as Noveck (2009, 12) notes: "At the end of the pilot's first year, 89 percent of participating patent examiners reported that the materials they had received from the public had been useful; 92 percent indicated they would welcome the opportunity to examine another application with public participation; and 73 percent wanted the Peer-to-Patent program implemented as regular office practice".

On the other end of the spectrum, we have fully *polycentric* institutions, where all participating individuals have equal decision-making power. Between the two extremes, we have partially polycentric institutions, where some hierarchy of decision-making power exists, but where individuals outside of the central institution are given some not insignificant power to influence the process.[89]

Jeffrey's conception of specialized institutions approximates the notion of a fully monocentric organizational structure (with regard to political agenda-setting). The crowdsourcing methods surveyed above can be classified as falling somewhere between the two extremes, as Brabham's definition aptly captures.[90] Wikipedia, and other similarly organized peer-to-peer production networks[91], fall, under my classification, on the polycentric extreme.

From a normative perspective the question is: what are the pros and cons of each of the three kinds of organizational structures? More specifically, why think the extreme peer-to-peer framework is the comparatively best one to go with for the purpose of political agenda-setting? I hope to answer this question in the course of specifying the details of my proposal. In general, my claim will be that crowdsourcing methods might prove effective in solving the selection problem, but they are in greater danger to run afoul of the incentives/capture problem. That being

[89] This articulation of the conceptual landscape brackets important complexities regarding formal vs. informal rules. Notwithstanding their importance, these complexities fall beyond the scope of this paper.
[90] In fact, there are a variety of crowdsourcing methods that might be applied to government. Distinguishing between those methods is not needed here. For a taxonomy of government crowdsourcing models, alongside examples, see Brabham (2013b).
[91] Relevant examples here are various open-source software projects such as Unix and Mozilla. For a classic and highly influential early discussion of the open-source phenomenon see Raymond (1999).

said, no system is perfect, and I will indicate where I think crowdsourcing as well as Jeffery's monocentric specialized institutions can do better than my proposal for Wiki agenda-setting.

As we saw in the previous section, Wikipedia operates on two core principles: (*i*) any individual can open a new entry; and (*ii*) any individual can offer revisions and additions to existing entries. Our goal is to take these two core principles and apply them to Jeffrey's 'specialized institutions'. In other words, we are interested in designing our agenda-setting institutions along the lines of the Wiki-Model. The task for these institutions is to address a political issue by assembling a list of policy alternatives from which the voters will get to choose.

Applying principle (*i*), we can design the platform such that any willing individual can open a new proposal for tackling the relevant issue. This seems desirable given that it minimizes the chance that compelling proposals will go unnoticed, as may happen in the case of more closed institutions, who are often subject to groupthink and a more limited perspective on the relevant issue. Though desirable in that respect, granting every individual the ability to offer a new proposal poses a serious practical problem, namely that the amount of proposals to be chosen from will exceed any reasonable amount. After all, the goal is to produce a list of proposal for voters to choose between. It therefore seems necessary to keep the list to a sensible amount such that voters can, if they wish, become informed about the alternatives and meaningfully select the one they prefer.

The question is therefore: how to square the practical need to keep the list of alternatives short and the desire to allow anyone to come up with any proposal they wish to put on the table? The answer that suggests itself is the following. Every individual will indeed be allowed to put new proposals on the table. However, not all proposals will ultimately go through and be represented on the ballot. Instead, all proposals on the Wiki platform will be subject to online endorsement by the participants, each participant will have the opportunity to endorse one proposal they wish to appear on the ballot. The top ranked proposals (say five), in terms of number of endorsements, will then be the ones to ultimately appear on the ballot.[92]

In some sense then, the proposed system contains two separate rounds of "voting". The first involves online endorsement of proposals used as a means to filter out proposals that need not appear on the second round of voting in which voters ultimately choose what proposal to go with. It's important to note, however, that this first round of "voting" need not be held on some specific date. Instead, individuals will be able to endorse proposals throughout the agenda-setting process by giving their secured digital signature. The technical logistics aside, this solution seems desirable because it affords everyone the chance to put ideas on the table. It shortens the list of proposals to a tractable size by again drawing on the discretion of the collective. Additionally, such an arrangement incentivizes similar proposals to split their differences and merge into one proposal as a strategy for increasing the

[92] An alternative is to set a threshold for number of endorsements needed to appear on the ballot. This seems slightly less optimal in that the number of proposals on different ballots could vary significantly. Interestingly, such a system would also open the door, logically speaking, to making the democratic vote unnecessary if only a single proposal passes the threshold.

probability of their ideas appearing on the ballot. This too might arguably be viewed as a normatively attractive feature.

At this point, proponents of epistocracy could raise the following concern. The purpose of limited epistocracy, we thought, was to insulate the agenda-setting process from public input, thereby making sure that at least that part of the political decision-making process is protected from the ignorance and irrationality of the average voter. Yet, the present proposal for polycentric limited-epistocracy reintroduces the public influence on the agenda-setting process insofar as the public at large gets to endorse proposals thereby determining which of them will appear on the ballot. The worry then, is that the proposal on offer goes too much in the direction of democratic control and will thus fail to capture the gains from expert input.

This objection is an important one. There is, I believe, room to worry about the possibility that public control of the agenda will produce inferior results, this possibility could be said to be one vulnerability of the design proposal I am sketching. Nonetheless, there are three points to be offered in response to this concern. The first is that, as mentioned, similar worries were reasonably raised regarding the idea of Wikipedia to leave full control of the encyclopedia’s content in the hands of the community. And yet, it turns out that the mechanism of continual revision by anyone produces solid results. The Wiki agenda-setting procedure may be able to produce intellectually respectable output even though some portion of the input isn’t up to expert standards. The second point worth mentioning is that, even if all members of the public get to decide what alternatives will appear on the ballot, not all members can effectively determine the content of the proposals. The content of each proposal is determined via iterated revisions, which, as mentioned, tends to filter out less informed input. That being the case, though the agenda will reflect public opinion, to some extent, the details of each proposal might better reflect the opinions of experts. In some sense then, the public will get to vote on the best versions of each proposal. The third and final point is that, the agenda-setting process can complement voting among representatives of the public and not just the public itself. In other words, the Wiki-Model can be integrated into a representative system of democracy as opposed to a direct one. Implementing it that way could serve to alleviate to some extent the worry associated with allowing full and direct public control of the political decision-making process.[93]

Notwithstanding the above mitigating factors regarding the problem, here is one aspect of the Wiki agenda-setting process that could plausibly be viewed as a disadvantage when compared to monocentric institutions such as Jeffrey's or to crowdsourcing methods as those mentioned earlier. Unlike in the case of peer-to-peer production, monocentric and crowdsourcing structures leave in place some central expert arbiters who can control the agenda both in terms of the number of proposals and in terms of their content. In Jeffrey's case, the experts may have complete control of these factors. In crowdsourcing, experts may have partial control. In conceptual terms, as we move further toward monocentrism, the problem of limiting the number

[93] It is also possible to combine Wiki agenda setting with top-down setting. For example, we could create an agenda with six proposals, three of which are derived from the Wiki process, the other three from the administrative agency. Exploring the potentialities of such mixed agenda-setting systems is beyond the scope of this paper.

of proposals dissipates. As we move further toward polycentrism, the problem intensifies. My claim is that accepting this problem is a worthwhile trade-off given the other benefits of polycentric agenda-setting. More specifically, moving toward less polycentric organization, as previously argued, increases the potential for capture.

We turn next to the second feature of Wikipedia (*ii*), according to which each individual can offer revisions and additions to any existing entry. Applying this principle to the agenda-setting process is straightforward. We simply allow any authorized individual (through some digital identification) to edit, revise, and extend any proposal on offer. As in the case of Wikipedia, some community measures will have to be put in place to protect the content of proposals from spammers and individuals seeking to sabotage the collaborative effort. As in the case of Wikipedia, therefore, the Wiki agenda-setting platform will need to assign certain frequent contributors the authority to prevent such abuse by blocking and/or removing certain things. Those contributors could be identified, as they are in the case of Wikipedia, on the basis of reputation among the online community.

Granting limited editorial authority to contributors raises a significant worry, namely that the agenda-setting process will be captured or shaped by certain interests which will use limited editorial authority in order to block political content they disapprove of. Such a result will defeat, the worry goes, the purpose for which the peer-to-peer framework is established in the first place. Here as well, the methods of crowdsourcing and specialized institutions have built-in ways of dealing with the problem. The Wiki-Model of agenda-setting appears, therefore, to be at a disadvantage.

Though worrying, there are sensible ways to mitigate this type of problem. Firstly, we can design the editorial authorities such that they are subject to overrule by the broader community. In other words, if an editor marks certain pages or content as spam, members of the community (or other members of the editorial team) can disagree with the editorial decision. We could then define certain thresholds, where given sufficient dissent the editorial decision is revoked. This would be a solution endogenous to the editorial process. Secondly, we could subject editorial decisions to legal oversight, as is already the case with regard to much of our current political process. This would be a solution more exogenous to the Wiki agenda-setting process.

Another aspect regarding (*ii*) that needs to be addressed is the question of time. In the case of Wikipedia, the revision process never stops, each entry may be continuously revised. In the case of Wiki agenda-setting, however, the revision process needs to stop at some point so that the voters get to choose what policy to go with from among those who qualify to appear on the ballot. This means that a certain date and time must be clearly set out from the outset as the stopping point of the agenda-setting process.[94] Nonetheless, an attractive feature about Wikipedia that could be carried over to the Wiki agenda-setting process is that users can view the

[94] It is foreseeable that spamming and other malicious activities will intensify significantly as the final date and time approach. This is certainly a problem, but as before it seems to be one that seems manageable via both the endogenous channels of editorial action as well as through the exogenous channels of legal oversight.

entire history of an entry in terms of its revisions. Thus, voters who are interested in some proposal will be able to freely explore the history of how the final product was produced. They can therefore find suggestions that weren't accepted in terms of how to shape the policy proposal. They can also find justifications for the policy that weren't included in the final proposal. This leads us to our next and final point regarding the content of the proposals.

Each proposal page can be expected to contain two basic elements. The first is the precise details of the proposal. For example, if the proposal concerns tax policy, the first part of the proposal should contain all the relevant tax brackets and figures, all the relevant exemptions (if there are any), all the relevant legal details (if there are important ones to indicate), and any other detail relevant to understanding what the policy is. In other words, the first element of each proposal should use descriptive language. The second element each proposal page should contain are the reasons to favor this proposal as compared to alternatives. Here there is room for normative language, where the contributors to the proposal page can put forward goals they deem desirable and explain how the proposed policy will achieve them. In terms of comparing the policy to its alternatives, those working on the proposal page can insert links to competing proposals where needed in order to alert the reader to important areas of differentiation between proposals.

This concludes my proposal for how to design Jeffrey's agenda-setting institutions along open source Wiki-Model lines. As this relatively brief discussion indicates, there is much room for further reflection on some of the important and more fine-grained details of this institutional architecture. This discussion also shows that there are legitimate concerns and vulnerabilities one can point to vis-à-vis the Wiki-Model. That having been said, the goal of institutional design is not to find and implement a perfect system. As Elinor Ostrom correctly emphasizes in much of her work, when it comes to social problems and solutions, there are no panaceas. Nonetheless, the task of institutional designers is to compare and contrast different possible architectures and to see what trade-offs each of them contains. Ultimately, one must come up with an all-things-considered judgement about which institutional design captures more of what we care about from a normative perspective. In that spirit, the next section suggests that the Wiki-Model satisfies some of the central desiderata of both democrats and epistocrats and is thus attractive from a normative perspective as compared to alternative hybrid models of limited epistocracy.

6. Evaluating the Wiki-Model

The previous section specified some of the details of my proposal. The core idea of the Wiki-Model is to design the "expert" part of Jeffrey's limited epistocracy, i.e., the agenda-setting process, as a peer-to-peer network akin to Wikipedia. The task of this section is to point out the ways in which polycentric limited epistocracy satisfies some of the key desiderata of both democrats and epistocrats while avoiding the problems of selection and incentives.

Turning first to the desiderata of democrats. The proceduralists want the political process to embody and express the equality and freedom of all citizens.

Typical epistocratic proposals fail to meet these procedural virtues because they draw sharp distinctions between the "experts" and the public. They further involve excluding the latter from some (or all) aspects of the political process. Unlike other forms of epistocracy, however, the Wiki-Model draws no sharp boundary between "experts" and the uninformed public. Furthermore, it does not officially exclude any member of the public from any part of the political process. All citizens are recognized and encouraged to contribute to any stage of the collaborative decision-making effort.

That said, although the agenda-setting process excludes no one in official or *de jure* terms, it will foreseeably tend to exclude the uninformed in *de facto* terms. Nonetheless, by retaining Jeffrey's two-tiered framework for political decision-making, the arrangement ensures that each and every member of the public will have equal say in terms of voting to choose between the available options generated by the Wiki mechanism. They will also, as we have seen, have equal say in terms of endorsing proposals to appear on the ballot. In general, therefore, the Wiki-Model appears to satisfy much of what procedural democrats find desirable about the democratic process.

We turn next to the desiderata of epistemic democrats. Epistemic democrats believe it is desirable to make the political decision-making process more inclusive and more deliberative for two main reasons. First, deliberation which includes more perspectives will make all those involved better informed about relevant data and considerations and more empathetic to other viewpoints. Second, there are certain mathematical features of vote aggregation that are highly attractive, in terms of choosing the correct alternative, if certain assumptions hold with regard to the voters.

The Wiki-Model revolves centrally around the idea of joint deliberation. It is therefore designed in a way that accommodates epistemic democrats who believe in the virtues of deliberation. As a matter of fact, it is possible to argue that the Wiki-Model, by virtue of the fact that deliberation proceeds through joint continual revision of proposals, better satisfies the goal of democratic deliberation than do more traditional forums for such discussion. The reason for this is the following. We noted, in section 2, that epistocrats appeal to the empirical literature on public deliberation to undermine the claims of epistemic democrats about the value of deliberation. Even if the epistocratic assessment is true, the Wiki-Model offers an alternative framework for joint public deliberation. Importantly, the Wiki framework for deliberation will likely not be subject to all the problems plaguing traditional face-to-face forums. Factors such as good looks, charisma, rhetorical trickery and others will be far less salient in the context of a temporally extended, digitally anchored, process of continual examination, revision, and extension of ideas. In short, the Wiki-Model satisfies the goals of deliberative democracy in a manner that avoids many of the problems toward which the epistocratic opposition point.

The second dimension of democratic procedure that epistemic democrats find attractive is the tendency of vote aggregation, under certain assumptions, to produce epistemically optimal outcomes (given the options available). These ‘wisdom of crowds’ arguments for epistemic democracy draw upon formal models such as the

Condorcet Jury Theorem. The Wiki-Model accommodates these goals insofar as it involves two stages of collective voting. First, in order to select which options (from those put on the Wiki platform) will appear on the agenda, and then, in order to choose from among the available options. In both cases, if the voters meet the conditions specified by the CJT, we can expect the results to track the political truth (however that notion is cashed out).

Another model epistemic democrats appeal to is the Hong-Page Theorem. Here the key idea is that we want to maximize perspectival diversity among the decision-making group so that intragroup communication can allow everyone to find better solutions to the social and political problems the group aims to address. The Wiki-Model accommodates the HPT insofar as all perspectives on the issue are encouraged and incentivized to participate in the agenda-setting process and the collaborative effort involved in putting proposals together. In fact, here, as before, the Wiki mechanism can plausibly be thought to be superior to the more traditional forums for democratic deliberation. For the HPT to obtain, participants have to find common ground in terms of their evaluative standards; they have to agree on what solutions better address the problems. The HPT also requires participants to be able to clearly communicate to one another the solutions they found. Both of these requirements will be harder to realize in offline settings where a variety of factors, not least of which would be lack of time, might prevent the participants from effectively communicating their solutions to one another and sorting out their evaluative standards so that they can find common ground in that regard. The Wiki mechanism affords participants greater scope for reaching evaluative consensus and effective communication.[95] It is therefore superior in terms of trying to capture institutionally the Hong and Page result.

Finally, we turn to what epistocrats want from the political process. Stated simply, epistocrats want expert opinion to take political precedence over the input of the uninformed. As we saw, the same could correctly be said of the compilers of encyclopedias. Yet, in the case of encyclopedias, creating an open source framework where all, including the uninformed, can contribute, produces epistemically respectable results. The reason for this, as was mentioned, is that the gradual process of iterated revision tends to filter out less apt information and to retain expert input. The Wiki-Model applies the same rationale to the process of constructing the political agenda. Epistocrats can find desirable the mechanism of iterated revision as a filtering mechanism of a piece with their proposed methods for distinguishing expertise from ignorance. Even better, the Wiki-Model can be expected to produce expert knowledge that is much more accessible and understandable to the lay public. Like Wikipedia, the Wiki-Model can draw on the expertise not only of those who have pertinent information, but also on those who can contribute to sorting and presenting this information in a reader-friendly way. In short, the Wiki-Model offers a fully distributed filtering mechanism for generating expert and reader-friendly political information.

[95] For one thing, participant A could help explain to participant B what participant C had in mind.

A further way of articulating the desirability of the Wiki-Model from the epistocratic perspective is to focus on the public's incentive vis-à-vis political information. Epistocrats find democracy epistemically problematic because the incentives of rational voters lead them to be ignorant or irrational about politics.[96] The Wiki-Model meets the epistocratic challenge not by denying the problem of *voter* ignorance, but rather by allowing the public to meaningfully participate in the political process by means other than *voting*.[97] The Wiki platform for agenda-setting creates a different set of incentives for the public. The expected influence of one's vote, regardless of how much one studied the political situation, is effectively zero. The expected influence of one's contribution to a Wiki proposal could track to a significant degree one's level of pertinent information.[98] The point can also be stated in terms of opportunity costs: unlike casting a vote, an activity with relatively low opportunity costs, editing a Wiki proposal involves more substantial costs. Consequently, the Wiki procedure, by raising the opportunity costs for certain kinds of political participation, functions as a sorting mechanism that incentives only the knowledgeable to participate by revealing their information. As a result, the Wiki-Model will foreseeably lead *rational* citizens to become well-informed about politics. A result that should certainly be attractive to epistocrats.

[96] The classic model of voter ignorance is Downs (1957). The voter irrationality model is Caplan's (2007).
[97] I owe this insight to Noveck (2015, 80-84).
[98] The same goes regarding the prospect of starting a new proposal.

7. Conclusion

This paper set out to develop and justify the Wiki-Model, a polycentric arrangement for setting the political agenda. I have argued that the Wiki-Model satisfies the desiderata of both democrats and epistocrats. I argued that it does so in a way that avoids the selection and incentives problems plaguing alternative hybrid models (specifically Anne Jeffrey's). In the course of sketching my proposal, I have also offered an analytical framework for thinking about organizational structures ranging from monocentric, through crowdsourcing, to fully polycentric peer-to-peer networks. The ultimate purpose of this paper is not to adjudicate all of the many trade-offs and complexities contained in these different arrangements. Instead, the goal is rather to put another idea on the table. There is, in my view, much to be gained by combining questions in political philosophy with growing research on the intersection between organizational structures and technology.

In Defense of Voting Method Publicity

Abstract: The ideal of publicity plays an important role in contemporary legal and political philosophy. Yet, to date, it has not been brought to bear on the question of voting method choice. This paper aims to fix this. I argue that voting method publicity is a well-motivated requirement which reveals tradeoffs inherent to democracy between procedural and epistemic equality. I further explore the implications of voting method publicity to the normative status of plurality voting and its possible alternatives.

Introduction

The ideal of universal and equal suffrage is typically considered to be the cornerstone of democracy. Yet, when it comes to the institutional realization of this ideal, we find that democracies vary widely in terms of the method they use to translate the votes of citizens into political outcomes. Democratic theorists thus have good reason to articulate normative desiderata to guide our choice between alternative (yet still democratic) voting methods.

To give compelling answers to the question of voting method choice, theorists draw on two main analytical perspectives. The first—social choice theory—treats voting methods as mathematical functions, examining the formal properties of different methods. This perspective is useful insofar as certain mathematical properties are thought to capture normatively significant features of group decision-making. The second analytical perspective—democratic theory focused on electoral reform—situates the question of voting method choice in a particular social and political context. The context relevant to this paper's discussion is present-day American politics. This second perspective is useful insofar as there may be substantive, context-specific social and political goals which could be hindered or facilitated through the choice of voting method.

The above perspectives generate various considerations for and against different voting methods. For example, economists Partha Dasgupta and Eric Maskin (2004, 2008) apply the tools of social choice theory (building particularly on the work of Arrow 1951) to argue for the "robustness" of majority rule.[99] They conclude, on the basis of that analysis, that majority rule is a fairer system than all of its alternatives. A different perspective on the matter is offered by legal scholar Lani Guinier. Guinier (1994) claims that majoritarian systems unfairly disadvantage persistent minorities. She argues in favor of cumulative voting as a better system to represent and advance the interests of persistent (particularly racial) minorities.

Notwithstanding differences of the above kind, both perspectives are chiefly concerned with procedural equality. The first interprets this equality independently of

[99] I thank an anonymous reviewer for directing my attention to the work of Dasgupta and Maskin.

any background social conditions. The second interprets this equality in the light of such background factors. The primary purpose of this paper is to show that the ideal of democracy, as it applies to voting methods, involves not only *procedural* equality but also *epistemic* equality. I will argue that Voting Method Publicity (VMP), the degree to which the voting method is equally understood by citizens, is a key democratic desideratum. In so arguing, I bridge philosophical discussions of publicity with political discussions of electoral reform. The theoretical upshot is to clarify the ideal of democracy and the tradeoffs between procedural and epistemic equality therein. The practical upshot is to provide a new consideration for and against different voting methods on offer.

The paper proceeds as follows. The next section presents an analytical framework for characterizing different publicity requirements and the normative arguments in their defense. Following that, I present the requirement this paper defends: voting method publicity. I situate VMP in relation to other publicity requirements in terms of both content and justification. I draw out the relation between VMP and democracy via the notion of epistemic equality. I note the distinctiveness of epistemic equality in relation to both procedural and substantive desiderata. Having presented the main argument, I turn to address two notable objections to VMP: that it expresses disrespect for the intellect of some citizens and that it leads to a reductio given the complexity of governing modern technological societies. Having presented and defended VMP, I turn to draw out its practical implications. Most notably, I suggest that VMP offers a pro-tanto justification for the use of plurality voting. I further explore the implications of VMP to some proposed alternatives to plurality. I conclude by reflecting on the normative significance of epistemic equality to a just polity.

Publicity: an Analytical Framework

The goal of this paper is to present and defend a publicity requirement that applies to voting methods. But what are publicity requirements? Put differently, what do philosophers and other normative theorists mean by the term ‘publicity’? This question brings into view a conceptual challenge captured by Brian Kogelmman’s observation that “publicity means many things to many people” (Kogelmann 2021a, p. 34).

In light of this situation, it is useful to begin our discussion by laying out an analytical framework through which we can generate a taxonomy of publicity requirements proposed in the literature.[100] This conceptual exercise will then allow us to get a clearer sense of where VMP fits within the broader normative discussion of publicity. The main tool in the analytical framework I present here is a tripartite method for characterizing publicity requirements. Characterizing a requirement, under this framework, requires answering three questions. The first is what I call the question of *object*: what is the item (or set of items), to which the publicity requirement applies? The second is what I refer to as the question of *constituency*:

[100] For lengthier overviews of the notion of publicity see Kogelmann (2021a, 2021b) and Gosseries & Parr (2021).

what group of people constitute the relevant “public” vis-à-vis the requirement? The third and final question is what I term the question of *relation*: what epistemic relation has to obtain between the constituency and the object in order to satisfy the publicity requirement?

Let us now look at how each of these three questions can help us compare and contrast different publicity requirements proposed in the literature. Starting with the question of object, we can roughly categorize publicity requirements as applying to two types of objects: *details* and *reasons*. Publicity of details concerns the *content* of rules, decisions, and actions. Publicity of reasons concerns the *considerations* that inform or motivate rules, decisions, and actions. For example, legal theorists have argued that the rule of law requires that the details of laws and regulations applying to a society be made public to members of that society (Fuller 1963; Hayek 2007). Legal theorists have also argued for judicial publicity—the idea that judges should sincerely reveal the considerations informing their verdicts (Shapiro 1987). Similarly, democratic theorists have argued that various *details*, such as budgetary allocations (Musso et al. 2006), the proceedings of legislatures and committees (Postema 2013, 2017), and the content of representatives’ ballots (Lever 2007), should meet standards of publicity. Meanwhile, political philosophers have also argued that the *considerations* informing or justifying governmental institutions and their decisions should be made public (Rawls 1971; Waldron 2001; Williams 1966). Some have even argued that strong publicity requirements apply to religious practices and beliefs (Hobbes 1994, p. 242; Rousseau 2019, Book IV, ch.8).

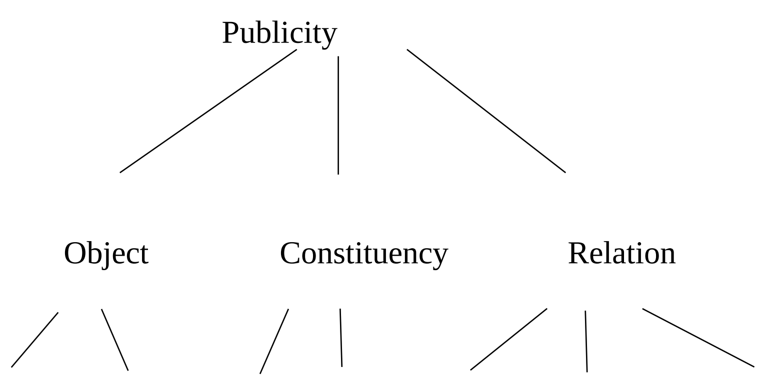
Next, we turn to the question of constituency. In the case of legal theory, the public is typically defined as all competent adults who fall under the relevant jurisdiction. Depending on the content of the requirement (in terms of object and relation), the constituency might be narrowed to relevant specialists (say patent lawyers). John Rawls, a notable proponent of publicity, famously defines the relevant constituency as all members of the polity who hold reasonable comprehensive doctrines (Rawls 1993). How to interpret the Rawlsian notion of reasonableness is a question I will not address here.[101] An important distinction to draw, vis-à-vis the question of constituency, is between the *actual* and an *ideal* public. Kant, Rawls' philosophical forbearer, likewise argued in defense of a publicity condition applying to rules and institutions. Unlike Rawls, however, Kant's notion of publicity has been interpreted as a *hypothetical* test institutions must pass. The Kantian test employs an ideally rational and moral public as the relevant constituency (Davis 1992). All the notions of publicity I will be exploring in this paper depart from Kant in addressing the actual public as their constituency.

Finally, we turn to the question of relation. Here we can break things down along a continuum which goes from less epistemically demanding requirements to stronger ones. The weakest epistemic relation, vis-à-vis publicity, is that of accessibility. Requirements of accessibility are met iff the constituency has access to the object, in the sense that they can, if they so choose, become informed about it. Put differently, accessibility is satisfied so long as the object is not kept secret from the

[101] For such an attempt see Boettcher (2004).

constituency. Another relatively weak epistemic relation with regard to publicity is that of awareness. The constituency can be defined as being aware of an object iff they know of its existence and potential relevance to certain things. A stronger relation is that of knowledge, where the constituency knows the details or reasons to which the publicity requirement applies. Stronger than knowledge is the relation of common knowledge, where the constituency knows the details or reasons, knows that other members of the public know them, and knows that other members know they know them (Celano 2013). Closely related to knowledge is the notion of understanding. I will say more about the distinction between the two (knowledge and understanding) later on. Finally, we might mention the notion of endorsement, a relation that plays a role in the Rawlsian public reason notion of publicity.[102] Figure 1 depicts the above framework for characterizing publicity requirements.

Figure 1



[102] For a classic exegesis of these aspects of Rawls see Weithman (2001).

Details Reasons Actual Ideal Weak

Moderate Strong

Accessibility Awareness Knowledge

Understanding Endorsement

Having gotten a handle on the characteristics of different publicity requirements, we now turn to examine the kinds of normative arguments that have been offered in their defense. These arguments can be broadly categorized into two types. *Instrumental* arguments claim that publicity should be achieved as a means to net some other thing of value. *Non-instrumental* arguments claim that publicity is a valuable end in itself.

We have previously mentioned the idea that laws and regulations should be made public. A central instrumental argument in defense of this requirement is that satisfying this form of legal publicity helps individuals plan and pursue their goals in a way that aligns with the rules of their society (Hayek 2007, p. 114). A non-instrumental argument for this same requirement claims that the laws and regulations governing a society form an implicit contract between the state and its citizens. Knowledge of the terms of a contract is a necessary condition for the contract to be binding. Consequently, citizens should know the rules governing their society (Fuller 1963).

In the context of democratic theory, we mentioned publicity requirements involving political transparency. Jeremy Bentham and John Stuart Mill, the originators of utilitarianism, give instrumental arguments in defense of such institutional publicity. They contend that transparency at the level of legislatures and executive agencies yields increased accountability of representatives and officials, as well as increased public trust in these institutions (Bentham 1999, pp. 30, 37; Mill 2015, pp. 227, 323). Both Thomas Hobbes and John Rawls argue for publicity of the reasons informing political institutions on the instrumental ground of increasing institutional stability (Waldron 2001, Garthoff 2016, p. 292). Rawls, going beyond Hobbes, offers non-instrumental arguments for publicity. Publicity, construed as endorsement, enables persons to live under rules and institutions they approve of, realizing their autonomy in the Kantian sense of the term (Rawls 1993, p. 77). Publicity, construed as knowledge, means people are not subject to ideologies, understood as what Marx referred to as forms of false consciousness (Rawls 2001, p. 121). Figure 2 depicts the above typology of normative justifications for publicity.

Figure 2

Publicity – Justification

Instrumental　　　　　　Non-instrumental

Planning　Accountability　Trust　Stability　　　　Social contract

Autonomy　No false consciousness

This section presented a general framework through which different publicity requirements can be categorized and understood. We saw that each such requirement is made up of three components: an object, a constituency, and a relation between the two. We unpacked each of the three components by pointing to further distinctions: details vs. reasons, actual vs. ideal public, and different grades of epistemic relations. We also explored arguments theorists have offered in defense of their respective publicity requirements. The main distinction drawn here was between instrumental and non-instrumental arguments for publicity. With this conceptual terrain covered, I now proceed to present and motivate VMP.

Voting Method Publicity

As the name indicates, the object of this requirement is voting methods. A voting method is a rule or function that receives the ballots of voters as input and produces as output a determination of a winner/s from the set of candidates or alternatives on the agenda. The constituency of this requirement are all eligible voters in a given election. The epistemic relation required between the voting method and the voters is that of understanding. As promised, I will now delve a bit deeper into the notion of understanding and examine how it relates to that of knowledge vis-à-vis publicity requirements.

In specifying the variety of epistemic relations, I mentioned both knowledge and understanding as among the "stronger" relations that might be required between constituency and object. These two notions (knowledge and understanding) are, of course, the focus of many discussions in the epistemology literature. For our purposes, however, we need not attempt a deep conceptual analysis of the terms. The reason I introduce the distinction between the two is in order to note something important about the kind of object a voting method is.

Publicity of the voting method falls, under this paper's framework, as publicity of details (as contrasted with reasons). However, voting methods are peculiar kinds of details, in the following sense. A voting method is a type of mechanism/social technology for group decision-making. Viewed as such, it becomes clearer why the relation of understanding is more apt than that of knowledge vis-à-vis voting methods. Compare, for example: "I *know* the Google search engine algorithm" with: "I *understand* the Google search engine algorithm". The language of understanding seems more natural when we are talking about mechanisms. In some sense then, we could further subdivide publicity of details into publicity of non-mechanistic information and publicity of mechanistic information. Another important aspect of the notion of understanding, one that contrasts it with that of knowledge, is the fact that it admits of degrees.[103] One can have different levels of understanding about some object or mechanism. I will say more about this scalar aspect of understanding later on.

Now that we have characterized the notion of VMP, I can proceed to present the normative case in its defense. The first thing we might observe is that VMP bears some similarity to the notion of legal publicity we have previously discussed, i.e., publicity of laws and regulations. The object of both of these notions are rules, and their constituency is in both cases the group of individuals to which the rules apply. Observing this similarity leads naturally to wondering whether the normative arguments in defense of legal publicity equally apply to VMP.

While similar in certain respects, the arguments for legal publicity do not apply in the case of voting methods. The reason for this has to do with the kind of rules to which the two requirements respectively apply. Legal publicity applies to what is sometimes called 'operational rules', rules that apply to everyday decisions, interactions, and situations. VMP applies to what could be called 'constitutional rules', rules that govern the process by which operational rules are enacted.[104]

The instrumental argument for legal publicity is that satisfying the requirement enables persons to rationally plan and pursue their goals. This argument

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[103] This point could be contested by reflecting on expressions such as "I know it well". Regardless, the key point is that the relation between persons and a social technology (like a voting method) is best thought about in scalar terms.

[104] For a classic analysis of the import of this distinction to institutional design see Buchanan and Tullock (1962).

works when we are talking about operational rules because such rules could meaningfully impact and alter persons' plans. However, when it comes to rules about the voting method, or other constitutional rules, the rules are unlikely to bear on the plans persons make.[105] Consequently, the instrumental argument from planning does not seem compelling vis-à-vis VMP.

The non-instrumental argument for legal publicity is that the laws and regulations involve an implicit contract between the state and its citizens for fair treatment. This argument rests on the fact that operational rules involve threats of the use of force. This makes appealing the idea that persons subject to these threats know the rules according to which they operate. However, when it comes to constitutional rules, the concept of an implicit contract between state and citizens is not as compelling. The contractual notion is perhaps apt in a different sense. Publicity of the voting method could be viewed as part of a social contract between citizens (as opposed to a violence wielding state and its subjects). This moves us closer to the normative case in defense of VMP which is, indeed, non-instrumental.

Electoral Publicity and Stability

Before I turn to present the non-instrumental argument for VMP, it is worth reflecting

[105] An anonymous reviewer points out that understanding of the method and subsequent prediction of the winner could bear on certain financial plans persons and institutions may make (e.g., expected tax hike). For the most part, however, understanding of the method for national elections is not essential to formulating one's plans in life. Method understanding may however be instrumentally significant for political insiders, yet they (given their incentives and opportunities) can presumably be expected to know and understand these rules.

on the *instrumental* significance of the publicity of the *electoral process*.[106] As I use the terms, the voting method is a component of the electoral process, namely the part that algorithmically translates ballots to electoral outcomes. The broader notion of the electoral process encompasses various other aspects such as the rules governing candidate and voter eligibility, campaign finance, and the particular ways in which voting itself is administered.

The degree to which the electoral process is transparent/opaque could bear significantly on social and political stability and/or polarization. Recent events in the US make this connection evident. While electoral conspiracy theories will always be on offer, their degree of uptake in the population and in major political parties may plausibly be thought to be correlated to the degree of electoral transparency. Put differently, theories about the "steal" following the 2020 presidential election were partly fueled by the opacity of electoral administration.

The above reasoning generates an instrumental case for electoral transparency. One (though certainly not the only) aspect of this transparency is the publicity of the voting method. We have thus located an instrumental case for VMP resting on the value of social/political stability. While not without merit, I put these stability-based arguments to the side. The focus of this paper is to show VMP to be a constitutive element of democracy. I therefore focus, in the rest of the paper, on the non-instrumental case for VMP to be described below.

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[106] I thank an anonymous reviewer for highlighting the significance of this aspect of voting publicity.

The Case for Voting Method Publicity

My argument for VMP aims to ground the requirement in the ideal of political equality. My primary claim is that adopting a voting method that some significant group of citizens cannot realistically be expected to understand violates the ideal of political equality. To lay some of the relevant background to my argument, I first review the role political equality plays in arguments for democracy.

As in the case of publicity, justifications for democracy come in two kinds. Instrumental justifications claim that democracy is desirable in virtue of the quality of the decision outputs it produces or in virtue of certain side-effects of the democratic process.[107] Non-instrumental justifications claim that the democratic process itself is intrinsically valuable independently of its decision outputs or associated byproducts. The most straightforward of these justifications is to claim that democracy is intrinsically valuable and that its value is sui generis. However, as Ben Saunders (2010, p. 153) notes, such a claim is unconvincing to non-democrats. The more dialectically promising alternative is to ground democracy in some other shared value.

Democratic theorists propose several ways of tying democracy to some other source of value. Some argue that democracy is the only social arrangement that respects the individual autonomy of persons (Gould 1990). Along similar lines, deliberative democrats and public reason theorists argue that democracy alone can

[107] The prime example of the former is the literature on ‘Epistemic Democracy’, see Landemore (2017). An example of the latter is J.S Mill’s claim that democratic deliberation and participation cultivates important virtues, see Mill (2015, ch.3).

produce laws and policies that meet the requirement of public justification/are the object of an overlapping consensus among the citizenry (Rawls 1993; Cohen 2002). A different justificatory path is taken by republicans who argue that democratic arrangements are necessary to realize the ideal of freedom as non-domination (Petit 1997, 2013). Finally, egalitarian democrats argue that democracy alone respects the equal status of each member of the polity.

My argument for VMP follows the fourth and final way of defending democracy mentioned above. It is therefore worthwhile to unpack and examine the egalitarian case for democracy in greater detail. A leading exponent of this line of argument is Thomas Christiano. In The *Constitution of Equality* (2008), Christiano argues that democracy (and a set of liberal rights) are grounded on the ideal of public equality. A key premise in his argument is the idea that social justice requires not only that people be treated fairly but also that people be able to see that they are treated fairly. Consequently, the ideas of publicity and transparency figure centrally in Christiano's defense of democracy. Democratic arrangements are justified, in his view, because they *publicly* treat citizens as equals for the purpose of collective decision-making.

Christiano's defense of democracy ties together the requirement of institutional publicity with the ideal of political equality. More specifically, publicity is a necessary, though not sufficient, condition for the realization of political equality. Yet, when we turn from questions regarding the scope of suffrage to questions regarding the method of aggregation, normative theorists pay little attention to the issue of publicity. Stated differently, voting theorists focus more on whether a given method treats voter inputs fairly/equally and less on whether ordinary voters “see” that it does so. Theorists thereby implicitly assume that the democratic ideal of political equality, as applied to voting methods, is fully captured by the notion of *procedural* equality.

Extending the reasoning behind Christiano’s egalitarian argument for democracy, my claim is that procedural equality of the voting method fails to fully capture the ideal of political equality. Procedural equality, I claim, is one of two elements relevant to upholding political equality. The other element we should consider is what I call *epistemic equality*. Epistemic equality requires us to design our voting method so that members of the polity stand in an equal epistemic relation to the method. The ideal of epistemic equality is captured by the requirement of VMP.

To see why VMP needs to be satisfied to affirm political equality, consider the situation in which publicity is not satisfied. In this case, voting is (by hypothesis) free and fair. All citizens are eligible, perhaps even encouraged to take part in the electoral process. At the same time, voters can be divided into two groups along a major epistemic fault line. One group of voters partake in a process they understand, they play their role in a political mechanism they find intelligible/transparent. A second group of voters provide their inputs into some decision-making black box (from their perspective) that will somehow convert all inputs into a political outcome. It is true that, in some formal sense, all citizens participate equally in this process; this is what procedural equality captures. Nonetheless, this epistemic division erodes the degree to which democratic voting affirms political equality. Put differently, it is natural to interpret an electoral system that fails to satisfy voting method publicity in non-egalitarian terms.

A related way of thinking about the relation between VMP publicity and political equality is through the notion of human dignity. In taking each person's perspective into consideration, the democratic process signals respect for the rational nature of each member of the polity. I am suggesting that respecting the dignity of citizens requires not only taking their input into consideration but also making sure that they understand the process into which they provide their input. Taking a person's expressed preference into consideration signals that we acknowledge that person's ability to reason about their own interests (or those of others they care about). Making the aggregation process understandable to that person signals that we acknowledge that person's ability to reason about the rules by which we make collective decisions.

Making the decision procedure understandable may not seem essential in terms of respecting people's capacity to reason about particular choices. Nonetheless, reasoning about the procedure itself exemplifies an important aspect of human rationality. In our more reflective moments, we turn from thinking about particular choices to thinking about the framework within which we are called to make such choices. Being unable to take this reflective step backward is epistemically limiting. Moreover, observing that one's supposed "equals" freely engage in such reflection that stands beyond one's capacity may be diminishing.

Tuck's Argument for VMP

Before turning to address some objections to the above argument, I want to clarify its relation to an argument presented by Richard Tuck in *Free Riding* (2008).[108] As noted previously, the epistemics of voting methods are seldom discussed in the extant literature, a notable exception being Tuck's aforementioned book. Tuck argues, contra the standard view in economics and political science, that voting (for the purpose of bringing about an electoral outcome) is instrumentally *rational*. His primary contention is that agents may rationally seek to contribute to the causally efficacious set of votes necessary to surpass the threshold required for electoral victory.

An upshot of Tuck's argument relevant to our discussion is that the rationality of voting depends on the likelihood that one's vote will be in the causally efficacious set. Translated in terms of agents' perspectives, the rationality of voting depends on the *perceived* likelihood that one's vote will be causally efficacious. This, in turn, relates the rationality of voting to the epistemic relation between citizens and the voting method. In particular, assuming the veracity of Tuck's argument *and* the desirability of making voting instrumentally rational, there is reason to favor more understandable voting methods, i.e., VMP.

Tuck's argument for VMP differs from mine in that his rests on the value of rationality while mine on that of equality. For reasons I will not enter into here, I find

[108] I thank an anonymous reviewer for referring me to Tuck's work.

Tuck's argument wanting.[109] The important point to note, dialectically, is that Tuck's argument is entirely complementary to my own. If one finds Tuck's view persuasive, my argument offers additional considerations in favor of VMP, increasing its normative significance relative to other voting method desiderata. If one finds (as I do) Tuck's view unpersuasive, my argument remains intact as a distinct reason to include VMP in the set of desiderata used to select between voting methods on offer.

Objections and Replies

Having presented the argument for VMP, I now turn to respond to two important objections. The first I will call the *intellectual disrespect* objection. The second I will refer to as the *publicity reductio* objection. I will address the two objections in turn.

Intellectual Disrespect

This objection runs as follows: you claim that requiring VMP rests on the idea that we ought to respect the capacity of citizens to reflect not just on the issues of the day, but also on the rules through which we decide such issues. Yet, you end up claiming that there is reason to favor otherwise inferior methods solely because some citizens will not be able to reflect on them. Does this not defeat the entire point of dignifying their rationality? Is it not disrespectful to in effect say to someone: method A is better than B, but we will go with B because you're not smart enough to understand the

[109] The reasons I am unconvinced by Tuck's argument are well captured by Brennan (2009) and Kuhn (2010).

workings of A (and why it's superior to B)? This objection suggests that the ideal of respect for persons points away from VMP and toward a focus on other procedural and substantive desiderata.

In response to this objection, it is key to distinguish between judgments about a person's cognitive *endowment* and judgments about a person's incentives/opportunity *cost*. What the disrespect objection gets right is that VMP, as defended in this paper, does involve expressive content about citizens' ability to reason about complicated voting rules. The objection goes wrong, however, in assuming that 'ability' necessarily refers to judgments about citizens' rational capacities/cognitive endowment. Instead, 'ability' could be interpreted as referring to the *cost* citizens would have to incur in order to understand the voting method used in national elections.

A political insider living in DC and a farmer growing corn in Iowa of equal cognitive endowment face substantially different opportunity costs when it comes to understanding the workings of an elaborate voting method. The reason to adopt a simple voting method for national elections need not be that the corn farmer is too simple-minded to understand more complex methods. Rather, we want the political insider and the corn farmer to participate fully as equals, not just procedurally but also epistemically, and this is best achieved by including VMP as a relevant method selection consideration.

Moreover, even if differences in cognitive endowment are assumed to exist, a person's cognitive endowment intersects with their opportunity costs in various intricate ways, in turn shaping their overall trajectory in life. Thus, to say that understanding of a complicated method is more costly to persons of lower cognitive endowment is not necessarily to say that the increase in costs is explained directly and solely by reference to those endowments.

Publicity Reductio

The objection runs as follows: If political equality requires that all members of the polity equally understand the process, why limit the requirement to the voting method? Doesn't consistency imply that the entire political process, voting and otherwise, ought to be intelligible/transparent to all citizens in a manner that satisfies the publicity requirement? Yet the processes by which a complex modern society is governed could never be rendered transparent to the citizens at large, making the normative requirement clearly infeasible/undesirable.[110]

Addressing this reductio necessitates introducing a conceptual distinction articulated by Anthony McGann in *The Logic of Democracy* (2006). McGann suggests that we, as democratic theorists, should:

> Separate the democratic process into two sets of procedures. First there are seat allocation rules, whereby the votes of the population are translated into seats in decision-making bodies, such as legislatures or

[110] Kogelmann and Stich (2021) point to similar tension between the ideals of public reason and the realities of the administrative state. See also Luban (2002).

> executives. Second, there are social decision rules, by which these bodies make binding decisions. (p. 8)

Using McGann's distinction, my claim is that voting method publicity is normatively required in the case of seat allocation rules, not in the case of social decision rules. This gets us back to the constituency question. The notion of voting method publicity, as I have characterized it, included the entire citizenry (adult and competent) as the relevant constituency. The reason for this is that this is the group of people who play that specific role (determining seat allocation) in the political process. Ordinary citizens typically do not play any direct role in the case of social decision rules.[111] The normative logic of requiring voting method publicity does not, therefore, extend to all parts of the political decision-making process. One could, in fact, argue that publicity is required in the case of social decision rules, by amending the constituency to be not all citizens but elected/appointed officials. Indeed, this would be the logical way to extend the normative principle of publicity to all parts of the political process. In simple terms: those in charge of deciding should understand how that decision is made.

To round out this point, we could also think of varying the epistemic conditions that need to be met to satisfy the publicity requirement vis-a-vis different parts of the political process. For example, when it comes to social decision rules, ordinary citizens need not understand the rules according to which such decisions are

[111] They do so in the case of referendums, which are typically structured as a simple yes/no proposition settled by majority rule, thus clearly satisfying the requirement of voting method publicity.

made, but it might be the case that the rules in question should be accessible to any citizen who wishes to inform herself about them. Indeed, a belief in accessibility as a normative requirement on constitutional information is widely held.[112] How exactly to delineate different publicity requirements in terms of object, constituency, and epistemic relations, is a complicated theoretical task I will not engage in further. The upshot of noting this theoretical complexity is that it renders the reductio objection noted above implausible.

The above reply to the reductio objection is, however, subject to the following rejoinder: you claim that the justification for VMP is non-instrumental. Yet, the principle that those deciding should understand the decision procedure seems most plausible on *instrumentalist* grounds. It is instrumentally valuable for participants in decision-making to understand the decision procedure so that they can adjust their inputs accordingly. How, then, is the normative connection between decision-making participation and decision-procedure understanding to be cashed out in *non-instrumental* terms?

Here, as is sometimes the case in moral philosophy, I cannot do much more than reiterate the deontic intuitions this paper's argument rests on in different words. I offer the following stylized micro example to pump such intuitions.

Dinner: A group of ten friends who are all PhD students agree to go out for dinner to celebrate the end of term and all the grading it involves. In their small

[112] For contrasting views about the place of an accessibility requirement in the public reason tradition see Vallier (2011) and Tyndal (2019).

college town, there are only five restaurants capable of seating a party of ten. The students agree to pick the restaurant through democratic vote, leaving open the question of what specific voting method to use. As it happens, one of the students: Alisha, is writing her dissertation on voting methods. Two other students—Macy and Gerald—though not working on voting per se, are interested and well-versed in the mathematical theory it involves. The remaining seven students are in the humanities and have little to no interest in or prior knowledge of voting theory and its mathematical components.

Having studied the topic in depth, Alisha proposes the group use a complex voting method (which we'll call Y). Alisha points out that her research indicates Y is the best method to employ given the decision-situation. Macy and Gerald approve of Alisha's proposal and eagerly await learning more about the workings of Y. Alisha, Macy, and Gerald reassure the other seven friends in the following way: "look, all you have to do is rank the five restaurants from your most to least favored. The result Y produces will best reflect what a fair outcome is given everyone's preferences.".

What can the remaining seven friends say to Alisha, Macy, and Gerald who favor using Y to pick the restaurant? They could try to object on *instrumentalist* grounds, claiming that they need to understand the method in order to vote in the manner best fitting their aims. This response may or may not hold much water. Alternatively, they could try to object on *non-instrumentalist* grounds as follows: "look, you may be right that Y is the "best" method for picking a restaurant. But we are all friends and equals here. We would all feel more like equals if we used a method we all equally understand.”.

To me, the non-instrumentalist reply captures an important and distinct aspect of equality, an aspect not fully captured by the usual notion of procedural equality. Like all non-instrumental justifications, however, there are undoubtedly some who do not share such axiological intuitions. As noted above, we have hit normative bedrock.

Voting Methods: Comparative Normative Analysis

The previous two sections defended VMP as an important factor to consider in choosing a voting method for the purpose of political elections. The aim of this section is to explore the implications of VMP for the issue of electoral reform.

Currently, the US utilizes Plurality Voting (PV) as the method for deciding national (and most subnational) elections. Strikingly, however, PV is typically regarded as markedly inferior to various other methods discussed in the literature. From the social choice perspective, it is observed (among other things) that PV is inexpressive (Wodak 2019, Maloy 2019), is not Condorcet consistent (Darlington 2017), and is susceptible to vote-splitting/spoilers (“Correcting the Spoiler Effect”, FairVote). From the democratic theory perspective, it is argued (among other things) that PV hinders the potential for multiparty competition (Disch 2002, Drutman 2019) and for the effective representation of the interests of racial minorities (Guinier 1994). In addition to these theoretical critiques, it has also been suggested that the rise and victory of Donald Trump in the republican primaries of 2016 are directly attributable to the use of plurality to determine the party's presidential nominee (Maskin and Sen 2016, 2017; Maloy 2019, pp. 131-166).

The above listed flaws of PV raise a puzzle and a worry. The puzzle is to explain the prevalence of PV given its normative inferiority. The worry is that, given the monumental obstacles involved in voting method reform, we can expect to live under a relatively terrible electoral system for years to come.

A puzzle of the above form, i.e., why do we have institution I_1 when experts widely agree that $I_2 \ldots I_n$ are preferable, can frequently be answered by appeal to the ignorance and/or perverse incentives of those who designed or continue to support I_1. Yet, it is good philosophical practice to separate the partial reasons on the basis of which persons are motivated to establish/maintain an institution from the impartial reasons that could be used to justify that institution. The fact that certain institutions are established/maintained for flawed reasons perhaps bears on the moral status of its creators/supporters. It is not, however, determinative of the institution's normative status.

Normative theorizing may also bear on the above-described despair of continuously living under bad institutions. An obvious function of such theorizing is that it allows us to critique existing institutions and propose possible reforms. Yet, another, not often highlighted, benefit of such theorizing is that it allows us to see the value of current institutions, thereby reconciling ourselves to living under them.

The later benefit is articulated by Rawls in Part I of his Justice as Fairness: A Restatement (2001). Rawls identifies four roles of political philosophy. The third one on his list he calls ‘reconciliation’ which he describes as follows:

> political philosophy may try to calm our frustration and rage against our society and its history by showing us the way in which its institutions, when properly understood from a philosophical point of view, are rational, and developed over time as they did to attain their present, rational form. (p. 3).

An upshot of this paper’s argument is that it brings into view a positive, and hitherto underappreciated aspect of PV, namely its simplicity. The rule: ‘the candidate with the most votes wins’ is the simplest rule consistent with democracy. From the standpoint of VMP, and the ideal of epistemic equality which underlies it, PV is a normatively attractive voting method. Looked at from this particular normative lens, we can solve the puzzle of plurality’s prevalence. We can likewise, following Rawls, “calm our frustration” of living under a PV system.

Notwithstanding the above remarks, a major theoretical question remains, namely: how should we think about the tradeoff between VMP and other voting method desiderata? In addition to this normative question, there is also an empirical question regarding the extent to which different methods satisfy VMP. Let me address these two issues in turn.

<u>Normative Tradeoffs</u>

The fact that certain methods do well in terms of VMP might be of little significance if we conclude that VMP is heavily outweighed by other normative considerations. The following is an argument for why VMP is a comparatively significant voting method desideratum.

Whatever normative benefits a method holds, these benefits will not be evident to someone who does not understand how the method works. For such voters, the situation is akin to being told: ”this magical black box is the best! All you and your friends need to do is enter your preferences and it will spit out a good/fair result based on these inputs”. Even if it is objectively correct that the method provides these benefits, the reasons underlying this conclusion remain mysterious from the subjective perspective of such voters. For them, endorsing the method relies on epistemically trusting those who understand its workings. As I have previously argued, from the standpoint of political equality, this creates an unwelcome epistemic division among voters.

One way of interpreting the upshot of this argument is to claim that it shows VMP to be lexically prior to all other voting method desiderata. This conclusion would lead us to pursue normative voting theory along the following lines. First, we want to identify what methods, out of the set of all methods, satisfy VMP. Then, having identified that subset of methods, we can explore their pros and cons vis-à-vis procedural equality and other substantive desiderata. This strategy is structurally similar to how we might pursue political theorizing in the light of arguments such as Christiano’s. First, we identify the set of political arrangements, out of all possible political arrangements, that satisfy core democratic requirements. Then, having identified this subset of arrangements, we may ask how well they each do in terms of other normative desiderata such as maximizing GDP, maintaining order, and preserving the environment.

Although I think there is some plausibility to giving VMP lexical priority over other voting method desiderata, I do not find this view as compelling as the "democracy first" position. The reason for this is that, as has been argued in this paper, epistemic equality is only a *component* of political equality. More to the point, voters can be unequal, vis-à-vis voting methods, in at least two basic ways. They can be epistemically unequal in their understanding of the method and also be procedurally unequal in terms of the method's registration/reflection of their political preferences. The aspiration for political equality, therefore, does not support granting one of the two aspects lexical priority over the other. Furthermore, voters (including lower understanding ones) might reasonably accept some epistemic inequality in understanding of the voting method if it delivers other important benefits, such as those enumerated previously in this paper.

The above located tradeoff between epistemic and procedural equality may not merely be a theoretical possibility. Empirical research on the responsiveness of the American political process to the preferences of ordinary citizens raises major questions as to the de-fact presence of procedural equality. Political scientists Martin Gilens and Benjamin Page (2014) describe the US as a "democracy by coincidence, in which ordinary citizens get what they want from government only when they happen to agree with elites or interest groups that are really calling the shots" (p. 573).[113]

The pertinent question—assuming the veracity of Gilens and Pages' findings—is whether lack of responsiveness can be attributed—in some meaningful part—to the use of single winner plurality voting. If we were to assume that it can be, we would have a clear case where the benefits of increased epistemic equality are outweighed by the costs in terms of procedural equality. The ideal of democracy—translated into institutional terms—consists in striking a balance between epistemic and procedural equality.

Lack of lexical priority results in a normatively complex picture. VMP, our argument suggests, is an important desideratum. Our choice of voting method should therefore be partly guided by considerations of publicity. Nevertheless, it should *not* be guided by such considerations alone or prior to other desiderata. This normative complexity underscores the need to examine how well different voting methods do in

[113] I thank an anonymous reviewer for pointing me to the work of Gilens and Page and to the particular passage quoted in the text.
[16] Following Pacuit (2019, sec. 1.1), I use the term 'profile' such that "a profile for a set of voters specifies the ballot selected by each voter."
[17] That being said, the mode of presentation could matter here as well. For example, Condorcet winners could be more easily identified via a margin of victory graph as opposed to a standard vote tally.
[18] This is not denying the utility of theorizing about these methods for purposes of voting in other contexts (e.g., committees).
[19] For more details see Pacuit (2019, sec. 2.1).
[20] See Coll (2021) for a recent survey data analysis with similar findings.
[21] For more details see Pacuit (2019, sec. 2.2)
[22] For a classic social choice text delineating some favorable properties of AV see Brams and Fishburn (1978).

terms of satisfying VMP and other normatively attractive properties. The brief survey that follows shortly attempts to gain some traction on this question.

Degrees of Understanding and Degrees of VMP Satisfaction

Before turning to the normative assessment of different methods, we need some framework through which to think about the "understandability" of voting methods and thus their status vis-à-vis VMP.

I propose the following three tier classification of understanding vis-à-vis voting methods. At one end of the spectrum is the state of *zero understanding*. This is the complete black box situation. A voter with zero understanding of the voting method will be unable to determine the winner of an election based on a voter *profile*, even if she is given ample time to do so. [114] Furthermore, if given both the winner and the voter profile, such a voter will not be able to produce any explanation for why that particular profile results in that particular winner. At the other end of the spectrum is the state of *complete understanding*. A voter who has complete understanding can, if given a profile, determine the winner of an election. Such a voter can also explain why a particular winner was selected based on a particular profile.

Between the two ends of the spectrum is the state of *partial understanding*. If given a voter profile, a voter with partial understanding might make some educated guesses about who the method declares the winner based on that profile. Similarly, when given both a winner and a profile, a partial understanding voter might be able to produce a partial explanation for why that particular winner was selected based on that particular profile. By ‘partial explanation’, I mean that this voter might be able to point to some general, if not quite precise, principles. Put differently, part of the explanation might be handwavy, incomplete, or imprecise, but it nonetheless broadly tracks some of the aspects of the voting method.

It is also important here to distinguish between two ways of conceptualizing the *degree* to which a voting method satisfies VMP. The first looks at the total *sum* of voting method understanding. On this way of conceptualizing things, an increase in the degree to which some group of voters understands the method (say from partial to complete understanding) necessarily increases the degree to which the method satisfies VMP. The second way of conceptualizing satisfaction of VMP looks at the *distribution* of voting method understanding. More equal distribution of understanding among voters better satisfies VMP.

The first, sum-based interpretation of VMP satisfaction is potentially congenial to certain instrumental justifications which may be offered in defense of VMP. The non-instrumental case for VMP defended in this paper, however, supports the second way of conceptualizing VMP satisfaction. Recall that the argument for VMP here presented rested on the ideal of political equality (through epistemic equality). Thus, from the standpoint of VMP, so understood, “leveling down” the understanding of some voters may increase the degree to which a method satisfies VMP. Conversely, an increase in the understanding of some voters may reduce the degree to which the method satisfies VMP.

Methods and Desiderata

Plurality Voting (PV), as noted, seems best from the standpoint of VMP. In terms of the above framework, PV results in all voters having complete understanding of the method. One way of seeing this is to think about what a non-theorist might say if asked to come up with a democratic method for deciding an election between three or more alternatives. It is likely that PV would be the first method that comes to this person's mind, indicating its intuitiveness and understandability. A method one comes up with immediately is likely to be one that meets the epistemic condition of complete understanding. As noted, however, PV has several, much-documented flaws. Given the assumption that VMP is not lexically prior to other voting method desiderata, it is reasonable to explore some alternatives to PV.

One important set of alternatives to PV are the Condorcet-consistent methods. Condorcet consistency is a normatively significant property. Indeed, there is plausibility to the claim that Condorcet consistency is the most important property to satisfy from the standpoint of procedural equality. The reason, as Darlington (2017) and others observe, is that Condorcet consistency captures the ideal of majority rule, arguably the cornerstone of democratic decision-making.

Some notable examples of Condorcet consistent voting methods include Schulze Beat-Path (Schulze 1997), Tideman Ranked Pairs (Tideman 1987), and the recently developed Split Cycle (Holiday and Pacuit 2020). The above remarks suggest a strong reason to consider these methods as potential alternatives to PV.

However, when viewed from the standpoint of VMP, it is unclear how understandable these methods would be to the electorate at large.

The rule: 'select the Condorcet winner as the winner of the election' is not as simple as the standard plurality rule. For one thing, it requires the use of ranked ballots and the comparison of candidates against each of the other candidates in a head-to-head. In terms of our two "tests", if given a profile, some portion of voters might not be completely sure how to apply the Condorcet rule. If given a winner and a profile, they might not be able to produce a precise explanation for why that winner was selected based on that profile.[115]

The Condorcet rule might not be as easily comprehended and applied by voters as the standard plurality rule but this potentially slight decrease in voter understanding might not seem overly worrying in terms of publicity and epistemic equality. More worrying, however, is what these methods say when no Condorcet winner exists. This indeed is what differentiates between the three aforementioned methods (Beat-Path, Ranked-Pairs, Split-Cycle). The rules used to determine the winner of profiles without a Condorcet winner add a considerable layer of complexity to these respective methods. The level of complexity in question is likely to place some substantial group of voters in the zero-understanding bracket (with respect to such profiles). The gains in terms of procedural equality therefore come at a significant price vis-à-vis epistemic equality. Consequently, opting for one of the Condorcet consistent methods seems to normatively depend on the expected frequency of no Condorcet winner profiles and on the normative value we assign to considerations of publicity and epistemic equality. Moreover, if opting for Condorcet consistent methods relies on an overwhelming frequency of profiles with a Condorcet winner, the utility of theorizing the minute details of different variants is, for the purposes of democratic theory, diminished from a practical standpoint.

Another important set of methods which could replace PV are what are sometimes referred to as ranking methods or scoring rules. Examples here include Borda Count, Plurality with Runoff, and Ranked-Choice Voting (also known as the Hare Rule or Instant Runoff). I will focus my discussion on the latter two methods because both are used in major political elections around the world and have been argued to be desirable replacements for PV.

Let me begin with Plurality With Runoff (PWR), a method famously employed in France's presidential elections. Though perhaps not as intuitive as PV, it is safe to assume that PWR fully satisfies VMP, i.e., all voters have complete understanding of the method. To fully understand PWR, voters need only know the 'top two candidates advance' rule, coupled of course with 'the candidate with more than 50% of votes wins' rule. Both rules pose no substantial challenge in terms of understandability.

The choice between PV and PWR, given their full satisfaction of VMP, turns on other normative factors. This paper will not enter into these further analyses. The upshot here is simply to observe that moving from a PV to a PWR system concedes nothing in terms of VMP and the epistemic equality it captures.

Turning next to Ranked-Choice Voting (RCV). RCV is arguably the most important alternative to PV as it has been both implemented in several US locales (Maine, Minneapolis, San Fransisco, NYC) and has received support from theorists (Drutman 2019, Maloy 2019) and activist organizations (FairVote). It is thus worthwhile to spend more time on evaluating RCV (as compared to other methods reviewed in this survey).

The relative prominence of RCV has led to some empirical work on various aspects of it. In terms of voter understanding of the method, the results seem to indicate a move from PV to RCV does involve a decrease in voter understanding, particularly among older and less educated voters. Notably, this decrease in understanding, contra Jacobs and Miller (2013,2014), is not correlated with race/ethnicity. In terms of some specifics, Neely et al. (2005) use survey data in San Fransisco to assess voter understanding of RCV. They find that 52% report understanding RCV “perfectly well”, 35% report understanding it “fairly well”, and 11% of respondents say they “did not understand entirely” the method. Donovan et al. (2019) likewise utilize survey data to compare voter understanding between PV and RCV cities. Their results similarly indicate voting method understanding being lower on average in RCV locales.

Switching from PV to RCV does seem to involve incurring some normative costs in terms of VMP. However, this conclusion is tentative and subject to revision as more empirical data comes in. More importantly, other normative factors could make RCV all-things-considered preferable to PV. That said, Nielson (2017) utilizes a controlled experimental setup to gauge voters' attitudes toward RCV, PV and their relation to fairness. The author finds that participants in the RCV treatment group were "no more likely to think that these elections produced a fairer outcome" (p. 555), and that "the vast majority of respondents, no matter what their survey treatment, preferred plurality or majority elections because they resulted in the fairest outcomes" (ibid.). Given such attitudes and the potential loss in epistemic equality, RCV may not be as normatively attractive as it initially appears to be.

A final set of voting methods to be considered are those typically referred to as grading methods. Examples here include Score Voting, Cumulative Voting, and Approval Voting. Without entering into their precise details, we can give the following comparative analysis of Cumulative Voting (CV) and Score Voting (SV). From the standpoint of publicity, CV seems preferable to SV. The rule 'the candidate with the most points wins' is significantly simpler than the rule 'the candidate with the highest mean score wins'. As teachers of statistics often observe, the notion of a statistical average can be both unintuitive and difficult to compute. Voters may only attain partial understanding of SV in terms of the two "tests". Meanwhile, all that is required for fully understanding CV is to comprehend the operation of summing up a candidate's total points across all ballots. To the degree that a polity is debating between CV and SV, publicity seems to tip the normative scale toward the former.

Turning finally to Approval Voting (AV), there can be little doubt that AV fully satisfies VMP. Indeed, this is no surprise given the similarity between AV and PV (compare: she with the most votes wins/she with the most approvals wins). The choice between AV and PV, therefore, does not turn on consideration of publicity. Further, AV has received favorable judgment from experts. In a vote among voting theorists for their preferred method, AV came in first, PV coming in last (Laslier 2012). AV thus appears to be a promising alternative to PV. Importantly, from this paper's perspective, it is an alternative which involves no normative risk vis-à-vis VMP.

Conclusion

Though it plays an important role in legal and political philosophy, the notion of publicity, prior to this paper, has not been considered with regard to voting methods. This paper offered a non-instrumental case in defense of voting method publicity. A key philosophical idea which emerged in the course of this discussion is the ideal of epistemic equality and its distinctiveness in relation to procedural equality. Tradeoffs between understandability and other normative desiderata are of growing importance in an increasingly complex world and society. Fruitful philosophical work can be done to explore the relation between equality, respect for persons, and institutional simplicity.

In addition to the more abstract discussion, the paper examined the implication of VMP to the choice between various voting methods discussed in the literature. In the first place, recognition of the normative significance of VMP can help us appreciate some of the normative rationale behind our current system, i.e., PV. As for potential alternatives to PV, our analysis identified several promising options (from the VMP standpoint), among them: Plurality with Runoff, Cumulative Voting, and Approval Voting. It likewise underscored the normative import of empirical work on voting method understandability. If nothing else, it is my hope that the paper shows voting method selection to be a normatively rich area worthy of greater philosophical attention.

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