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Introduction: Mapping the Research Field on the Democracy–Sustainability Nexus

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Abstract With each new report of the Intergovernmental Panel on Climate Change, the urgency to address climate change seems to increase. As the pressure to act rises, debates are intensifying regarding whether democracies can move toward sustainability fast enough. In this introduction to the special issue, we argue that current debates about the democracy–sustainability nexus revolve around the question of who should decide. Much of the recent debate can be structured along three opposites: experts versus laypersons, less versus more participation, and state versus market/private actor solutions. The first distinction asks whether climate change necessitates a shift of decision-making powers to scientists and experts rather than politicians or citizens. In the second debate, those who favor more participation in environmental policymaking face those who demand less. For example, whereas some promote new forms of deliberative forums, others doubt that these can be effective. Finally, there is a debate on whether markets and private actor networks might provide more efficient and effective ways to deal with the climate crisis than state regulation. While these perspectives are highly diverse and even contradictory, they are united in the belief that standard procedures of liberal democracy are insufficient to achieve sustainability.

Keywords Democracy · Sustainability · Environmental politics · Sustainability governance

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Einleitung: Mapping des Forschungsfeldes zum Nexus Demokratie – Nachhaltigkeit

Zusammenfassung Mit jedem neuen Bericht des Weltklimarats wird deutlicher, dass der Handlungsbedarf angesichts des Klimawandels immer größer wird. Mit wachsendem Druck intensiviert sich die Debatte, ob Demokratien in der Lage sein werden, den Übergang zur Nachhaltigkeit schnell genug zu bewältigen. In dieser Einleitung des Special Issue argumentieren wir, dass sich die Debatten zur Verbindung von Demokratie und Nachhaltigkeit um die Frage drehen, wer entscheiden soll. Insbesondere drei Gegensatzpaare werden in den Debatten sichtbar: Expert*innen vs. Laien, weniger vs. mehr Partizipation sowie Marktlösungen/private Akteure vs. Regierungen und Regulierung. Die erste Debatte fragt, ob die Klimakrise es notwendig macht, Entscheidungsbefugnisse von der Politik und Bürger*innen auf Fachleute zu übertragen. In der zweiten Debatte stehen sich Befürworter*innen und Gegner*innen von mehr Partizipation durch Bürger*innen gegenüber. Während die einen sich für neue Beteiligungsformate wie Bürgerräte einsetzen, zweifeln die anderen an deren Effektivität. Schließlich gibt es eine dritte Debatte, in der gefragt wird, ob nicht Marktmechanismen und private Akteursnetzwerke besser als die Regulierung durch Regierungen in der Lage sind, den Klimawandel einzudämmen. Obwohl die Positionen in diesen Debatten nicht nur sehr unterschiedlich, sondern auch widersprüchlich sind, eint sie die Überzeugung, dass die Standardverfahren liberaler Demokratie unzureichend sind, Nachhaltigkeit zu erreichen.

Schlüsselwörter Demokratie · Nachhaltigkeit · Umweltpolitik · Nachhaltigkeits-Governance

1 Introduction

“Can democracy safeguard the future?” This question, printed on the cover of a recent book by Graham Smith (2021), is increasingly debated among both social scientists and the wider public. In the light of climate change, democracy’s routines might not be conducive to the kind of far-reaching and quick decisions that are needed to prevent an ecological catastrophe. As a response, scholars have advocated more or less radical departures from existing democratic procedures to promote sustainability. While these are at times opposites, they are united in the belief that the combination of liberal democracy—characterized by the rule of law, representative party government, and limited citizen involvement in decision-making—with free markets is inadequate to achieve sustainability fast enough. For example, due to the limited length of the electoral cycle, lobbying pressure, the absence of the interests of future generations in decision-making, and nationally fragmented authority, the standard procedures of liberal democracy might deem them unfit to meet the challenges of climate change.

There is a multitude of ways to structure the huge political debate and literature on the democracy–sustainability nexus that exists. One may consider core ideational elements of the concept of liberal democracy or a crisis of liberal democracy as the

source of democracies' struggle with sustainability objectives, for instance. Here, we have chosen to focus on three prominent strategies of reform that concentrate on the question of *who should decide*, a core question in democratic thinking, of course. Adopting this perspective, much of the recent debate about how to move beyond liberal democracy's standard procedures in response to the climate crisis can be structured along three opposites: experts versus laypersons, less versus more participation, and state versus market/private actor solutions. Across these debates, many combinations of these positions exist, and even within a given perspective, scholars often disagree on the specifics. For example, those who favor more citizen involvement might promote either direct democracy or more deliberative forums, and those who seek market-based solutions can be more or less open to state regulation, subsidies, or emission-oriented taxation. Moreover, this structuring of the debate necessarily shines less light on other relevant subdebates.¹ Yet we believe that in order to provide an overview of the literature that brings different scholarships together and can serve as a foundation for this special issue, structuring the debate along these three controversies is particularly useful.

Responding to sustainability challenges such as climate change, a first group of scholars favors technocratic and sometimes even authoritarian forms of rule (for arguments within this debate, see von Stein 2022). They argue that it might be necessary to shortcut decision-making procedures in times of emergency. A form of government that fails to safeguard current and future citizens' well-being lacks legitimacy (Mittiga 2021). Therefore, the advice of scientists and experts needs to guide decision-making rather than the prolonged involvement of laypeople. In this perspective, what must be done to stop global warming is beyond doubt among experts, but defects of representative democracy prevent decisive and fast action. Less participation of ordinary citizens and the circumventing of partisan strife might be necessary to realize sustainability.

In contrast, a second group of scholars has argued that more citizen involvement is the answer to pressing problems. Liberal representative democracy should be complemented or even replaced with more participatory forms of governance because government by the people produces better results than representative or expert-based forms of decision-making. Advocates argue that deliberative/dialogical forms of participation, such as citizen assemblies and direct democracy, avoid some of the shortcomings of liberal representative democracy, which is susceptible to lobbying and is geared too much toward compromises to be able to guarantee swift action.

A third group places its hope in market-driven, technological innovations rather than political solutions. Here, the argument is that private companies will develop more efficient and more sustainable ways to produce outputs and find technologically advanced means to cut emissions, if the incentives are set in the right way. Thus, private actors and large companies rather than politicians, experts, or ordinary citizens move into focus as motors behind the required sustainability transformations. Underlying assumptions include the idea that transnational corporations might be better able to contribute to global sustainability challenges such as climate change than nationally fragmented governments and might, in some cases, have more ca-

¹ For example, environmental citizenship, green republicanism, or rights-focused literature.

capacity to do so. Governments, then, “only” need to establish a framework that steers private actors toward more sustainable modes of production.

In this introduction to the special issue, we will proceed as follows. In the next section, we discuss why democracy might be better able to achieve sustainability than autocratic rule but why this might still not be sufficient to limit global warming. The three debates on proposed solutions to the shortcomings of liberal democracy referred to above are outlined in greater detail in the following sections. Thereby, we aim to highlight opportunities for structuring the (still growing) literature and debate on the democracy–sustainability nexus provided by this thinking in opposites. The final section summarizes the contributions to this special issue and shows how they relate to these broader debates.

2 Is Democracy Better but Not Good Enough?

There are several conceptual reasons why democracies may be better than autocratic regimes at addressing sustainability challenges such as climate change, even though the empirical evidence is mixed (Bättig and Bernauer 2009; Povitkina 2018; Iwińska et al. 2019; Escher and Walter-Rogg 2020, Escher and Walter-Rogg in this special issue). First, politicians in democracies have to respond to citizens’ demands. “Representation requires” to act[ing] in the interest of the represented in a manner responsive to them” (Pitkin 1967, p. 209). Of course, governments do not mechanically respond to each individual issue, but if the public broadly and consistently favors environmental protection, politicians who stand for reelection cannot completely ignore public opinion. When the salience of the topic increases, and when parties exist that advocate sustainability, the pressure to legislate increases. Politicians need to heed the preferences of those groups whose support they need in order to stay in power, as Bueno de Mesquita et al. (2005) argue. In autocracies, this group can be small, but in democracies it is fairly large—even if power is distributed less than equally. Thus, in autocracies, it is possible to provide private goods to a rather small group of people to stay in power, but in democracies it makes sense to provide public goods—such as better environmental protection—that benefit everyone. Across policies and over longer periods of time, this incentive structure should lead to better outcomes in democracies than in autocracies.

Second, in democratic countries, the press and the public hold governments accountable. For example, governments that have signed international treaties on climate protection will have to answer publicly as to why they fail to live up to their commitments. One of the core demands of the “Fridays for Future” demonstrations is that governments must adhere to the very agreements made in the past. In a democracy, the watchdog function of public scrutiny cannot be suppressed to the same degree as in autocratic countries. As a result, governments must justify themselves if they fail to act or fall short of their own plans. A strong (and sustainability-oriented) civil society and a free press make it more likely that democratic governments take sustainability seriously (Wurster 2013). In addition, governments can be sued if they do not comply with international law or agreements they have signed. In recent years, we have observed an increase in court cases at the national

and international levels in which governments are held accountable. In one prominent German case (*Neubauer*), the German Constitutional Court found the German government's Climate Protection Act to be unconstitutional and incompatible with fundamental rights. "The fundamental rights—as intertemporal guarantees of freedom—afford protection against the greenhouse gas reduction burdens imposed by Art. 20a of the Basic Law being unilaterally offloaded onto the future."² The court ordered the legislature to change the Climate Protection Act so as to ensure a fair distribution of the environmental burdens between different generations.

Third, representative democracies are a mild form of "defensible epistocracy" (Landa and Pevnick 2020). Democracy, so the argument goes, leads to better-informed policy outcomes than either direct democracy or autocratic rule does. Ordinary citizens have limited incentives to get to know every detail of political issues, but elected politicians have to become knowledgeable across a wide range of topics (Landa and Pevnick 2020, p. 4). Hence, the professionalization of politics might be helpful to increase the quality of decision-making if, and only if, those in power have to fear losing their jobs after the next election. All else being equal, citizens in a democracy will tend to elect those deemed more competent, and repeated elections should improve the quality of this selection. Democracy as the rule of the knowledgeable, one can conclude, makes it more likely than in any other type of government that decisions are based on the best available expertise, and thus is conducive to sustainability.

At least conceptually it therefore seems reasonable to believe that (well-functioning) liberal democracies are better able to protect the environment than autocracies are.³ Whether this is the case is an empirical question. But even if the evidence unequivocally supported these arguments, it might still be the case that "better" is not good enough. In fact, there are systematic reasons why democracies might respond too slowly to environmental challenges. We do not have to subscribe to any extreme version of myopia or maintain that politicians will only seek office rather than policies to expect too guarded a reaction. In a democracy, even politicians who support sustainability might be prompted to act less decisively than necessary.

First, the public may be in favor of environmental protection in principle. However, they may oppose specific measures. For example, concrete measures that increase the costs of CO₂ emissions might face opposition, even if an overwhelming majority of citizens are worried about climate change. It is always possible to argue that a specific policy proposal is unnecessary and that another one—that incidentally affects other groups more heavily—is more suitable. Hence, an agreement on goals need not be accompanied by an agreement on measures. The gap between general and specific might push perfectly responsive governments to eschew measures that fail to garner widespread support. In addition, if the approval of governments depends on the realization of economic growth and social progress, incumbents who fail to deliver on these promises risk losing media support, lobbying and financial resources, and, ultimately, the next election.

² *Neubauer et al. v. Germany*, 1 BvR 2656/18, March 24, 2021; see specifically paragraph 117.

³ For a different perspective, see Mittiga (2021).

Second, although the benefits of environmental protection are widely distributed, the costs might be concentrated. The theory of collective action tells us that large groups find it hard to organize, whereas small and resourceful groups can overcome organizational obstacles (Olson 1971). In particular, large firms might be more able to lobby for or against policies than the citizenry at large can. For example, ending coal mining in an industrial area can be a heavy burden for this region and for specific companies. When the costs are concentrated and immediate, but the benefits are dispersed and realized in the future, collective action against environmental protection is more likely than the opposite. In addition, if lowering emissions comes at the price of a loss of existing jobs, politicians might be tempted to listen more closely to those heavily affected than to those who would reap future benefits. Lobbying is bound to be much more effective for those who hope to defend the status quo. Indeed, some scholars argue that the extensive use of carbon has been so influential in the building of our “carbon democracies” that a sustainability transformation would require disruptive change (Lederer 2021). Governments, therefore, might well hesitate to challenge vested societal and economic interests, even when those interests are at odds with long-term sustainability goals.

Collective action problems also take place at the international level, which is a third problem. Democracy is closely bound to the concept of the nation-state. It is the citizens of a state who elect their government. The laws that the government enacts apply, in turn, only to the territory that the state controls. However, environmental problems and climate change do not stop at national borders. Hence, sustainability can only be achieved on a global level. While the last decades have seen a steep increase in global trade and investments—both leading to severe trade-offs between economic well-being and environmental sustainability—the capacity of states to regulate the globalized economy remains territorially fragmented, and joint action faces severe obstacles. For example, no individual country can stop global warming alone, but if everyone else took far-reaching measures, one’s own inaction would not matter a great deal either. In the language of the prisoner’s dilemma, it might be beneficial to defect when everyone else cooperates.⁴ In a situation like this, collectively irrational outcomes are not unlikely. Of course, governments know that and, as a reaction, have used international agreements to tie their hands (somewhat). And these treaties do create a commitment that democratic governments cannot ignore entirely (see above). Yet the price for reaching an agreement of a large number of states can be to eschew any sanctions. There might be an inverse relationship between inclusiveness and enforceability. International agreements without sanctions need not be entirely ineffective to fall short of being effective enough.

Finally, even a perfectly responsive democratic government will respond to the current population in that territorial jurisdiction—but not to needs and interests of individuals and societies outside their territory nor to future generations who do not yet exist (Smith 2021, p. 9). By definition, democracy is government of (and by) the current *demos*. In general, democracies are political orders that—due to the electoral cycle—have a short-term horizon. As such, the problem does not relate only to the

⁴ Note, however, recent arguments suggesting the existence of first-mover advantages in the context of climate governance rather than of a prisoner’s dilemma (Hale 2020).

interests of future generations but to a government's possibility more generally to pursue long-term goals insofar as such goals would run counter to the short-term interest of the population. With respect to current generations in other parts of the world, the asymmetries and injustices related to questions of responsibility for and vulnerability to climate change are well known and at the center of international debates. Still, responses so far are piecemeal and consideration at the national level very limited. With regard to future generations, there are ideas about making their voices heard, and we are seeing more developments in this direction in the legal context (see above) as well as in the institutional realm (e.g., special representatives/councils). But it is difficult to balance the interests of current and future citizens. Beyond very broad concepts—upholding the right to be able to choose—it is hard to specify the interests of those who cannot speak for themselves. And how should we weigh the interest of the potentially infinite large group of future people against the comparatively tiny group of current ones? We do not have to assume that politicians are ignorant of this problem to expect democratic governments to listen to the voice of current citizens and voters more intensely than to the distant whisper of future generations. If this is the case, responsiveness indeed might lead to myopia.

3 Current Debates About the Sustainability–Democracy Nexus

As the previous discussion has shown, even without a particularly bleak view of democracy, we might still wonder if the current versions of democratic rule will be able to circumvent environmental disaster (see also Gumbert et al. 2022). Consequently, different ways of improving democracy's ability to tackle sustainability have been discussed. We identify three core debates in the literature around which these discussions span: first, the effectiveness of relying on experts to solve the problem; second, the importance of citizens and participatory democracy in addressing sustainability; and third, the efficiency of market- and technology-based solutions and actors in tackling ecological challenges.⁵ In what follows, we set out these debates in more detail, highlighting the opportunities offered by this structured perspective on current scholarship. Framing the discussion along these three debates comes with two advantages: First, it allows us to map a broad spectrum of current scholarship instead of remaining within one closed debate. Having a more refined conceptual framework will, second, help reveal what kind of evidence is necessary to address core questions regarding the democracy–sustainability nexus and thus will provide a fertile ground for advancing the conceptual and empirical research agenda.

3.1 The Effectiveness of (Scientific) Expertise

One string of solutions to the failures of democracy in the sustainability transformation suggested in research and practice focuses on the role of experts. It takes as its starting point the argument that powerful economic interests and electoral

⁵ Hence, we are most interested in responses within the framework of liberal democracy. Even if autocracies were better able to safeguard sustainability, they fall short on many other important normative values.

pressures prevent politicians from implementing sufficiently stringent sustainability policies. The move to an increased reliance on experts thus answers two of the criticisms raised above: the existence of highly asymmetric power resources in the political process and the overrepresentation of those interested in consuming today compared to those interested in consuming tomorrow. Like the debate on the democracy–sustainability nexus in general, the debate on the role of experts/science in democracy is not a new one. Contributions have explored its theoretical or empirical dimensions across levels of governance; still, it has been receiving renewed attention in recent years (e.g., Dryzek and Pickering 2019; Fischer 2000; Jasanoff 2003; Latour 1988, Ophuls 1977; Saretzki 2022).⁶

To a considerable extent, the renewed focus is a function of empirical developments, specifically perceptions of an increasing role of scientific expertise in today's governance structures and processes. This role, in turn, is seen as resulting from a growth in societal and technological complexities in parallel with a decline in governmental resources. It is more fundamentally enabled by a belief in Enlightenment ideas and the potential for learning and progress driven by knowledge-based policymaking.

To the extent that an increasing reliance on experts is seen as a solution to democracy's failure in the sustainability transformation, it is one that tends to decrease the role of democratic participation and representation.⁷ Instead of elected representatives (or of direct decision-making by citizens), this solution sets its hopes on “experts” who are sheltered from the influence of the electorate and economic interests. At least two possible strategies for such sheltering exist. Experts such as academics or public figures (e.g., respected and usually retired politicians who are seen as willing and able to think across party lines, but also religious leaders and moral authorities), who are seen as having no private interest in the matter at hand and who are willing to identify the best strategy for the wider population, can be invited to sit on such commissions. The German *Ethikkommission für eine sichere Energieversorgung* (Ethics Commission for Safe Energy Provisioning), for example, included Protestant and Catholic bishops as well as philosophers.⁸

Alternatively, the sheltering from political pressure may be attempted via a transfer of power to the judicial system (Ekeli 2007, 2023). In this case, the experts are judges or advisory bodies consulted by the courts, and the literature speaks of a constitutionalization of sustainability/climate or other related objectives. By including sustainability objectives in constitutions, courts are given the explicit authority to decide whether policies and actions are sufficient for the intended sustainability objectives. An interesting move in this regard is also to grant nature, e.g., rivers, standing in the judicial system (Pecharroman 2018). Of course, the courts can be addressed even without such an explicit integration of sustainability objectives in

⁶ Science–technology studies (STS) scholarship with its focus on the science–policy nexus is of particular relevance here (e.g., Jasanoff 2003; see also Deciancio and Siegel in this special issue).

⁷ An exception to this tendency would be the inclusion of expert consultations in citizen assemblies, for instance (see below).

⁸ Frequently, members are nominated by all parties as an additional attempt to protect the deliberative process against the dominance of party interests.

constitutions, as the case of the rejection of Germany's climate law as insufficient by the German constitutional court has shown.

Relying on experts rather than democratically elected politicians or the populace itself holds the promise of a more “rational” decision-making process, of a more comprehensive consideration of scientific insights, and of correspondingly better policy outcomes in the eyes of those promoting this solution to the perceived shortcomings of democracy in the sustainability transformation (Westra 1998, Herzog et al. in this special issue). In this context, analyses at both the national and international levels of governance have inquired into conditions for an effective uptake of expert knowledge in the political process (Young 1999).

Others, however, see the “expert strategy” as a depoliticizing of (sustainability) governance and question its appropriateness and fit with the fundamental standards of (representative) democracy (Pickering and Persson 2020). They question the underlying “technocratic imaginaries” (Machin 2020, p. 156) and depict threatening expectocracies (Siller 2010). Indeed, critical voices seem to outnumber those explicitly promoting the strategy by far. These critical voices ask, for instance, whether the assumptions underlying the strategy really hold. Will the resulting decision-making really be more “rational” and less “ideological” or “corrupt”? Can experts not also be influenced by powerful economic actors, especially in times when grant acquisition is of crucial importance for academic careers? Are experts and judges not also influenced by their own normative positions, interests, and contexts? As Machin (2020, p. 156) points out, science does not exist independent of sociopolitical realities and institutional environments with specific foci, interpretative frames, and blind spots, and thus expert counsel may “reaffirm the status quo” and “serve particular power interests” rather than foster fundamental change in policy output. Indeed, science may well foster particularly unsustainable developments such as oil and gas extraction in the Arctic, especially in the context of corresponding research funding opportunities (ibid.). In a similar manner, other scholars criticize an, in their view, naïve belief in the ability of science to provide “facts” (Pielke 2007; Stirling 2015). Such critical views are part of larger discussions about the status of different forms of knowledge in modern societies in general and in politics in particular, which are informed at least partly by postpositive scholarship: “A key question is what counts as credible, authoritative and legitimate expert knowledge” (Bäckstrand 2003, p. 27). Importantly, relevant standards and evaluations here are dynamic. As Adolf and Stehr (2014, p. 21) postulate, science itself has become a “source of contestation and uncertainty.” Given these fundamental concerns and questions, then, critical observers from different perspectives caution against the reduction in democratic controls and accountability that the expert strategy implies in their view (Fischer 2000).

Given the amount of criticism leveled at a larger reliance on experts in sustainability governance that one finds in the literature, the scarcity of scholars explicitly arguing for such a reliance is a bit surprising. Clearly, empirical developments and political debates play a large role in this field. In the end, balanced approaches and nuanced assessments will be necessary, acknowledging the role of procedures when it comes to integrating expert knowledge into democratic policymaking (Holst 2017).

3.2 The Importance of Citizens, Deliberation, and Grassroots Democracy

Another perspective that takes issue with the current setup of liberal democracies is the scholarship that focuses on strengthening the role of citizens and suggests more deliberation and direct (grassroots) decision-making (Bohn 2019) as an effective response to the sustainability crises (see Bohn et al. in this special issue). Scholarship here is varied, and different labels, positions, and nuances as well as critical accounts (see Machin in this special issue) can be identified. All research following this perspective, however, addresses what Pickering et al. (2020) call the “democracy–environment nexus,” i.e., the core question of whether and how two societal ideals, namely sustainability and democratic participation, can be reconciled (Goodin 1992). In the following, we delineate two particularly prominent research strands, specifically environmental and ecological democracy, and sketch relevant arguments and controversies.⁹

The literature on environmental democracy with its emphasis on deliberation developed in the 1990s (Dryzek 1990; Eckersley 1995; Mathews 1995; Dobson 1996). In temporal terms, it also coalesced with many local Agenda 21 processes resulting from the Earth Summit in Rio de Janeiro in 1992. Contributors to this literature argue that a greater involvement of citizens will allow both a reduction in the influence of economic interests and the fruitful use of citizens’ practical, everyday experience and knowledge. The literature evolved from the perception that environmental politics tended to leave solutions of environmental problems to the market while placing (unfulfilled) hopes in the decision-making power of elected political actors, who were supposed to set the “right” framework. Accordingly, issues of how to maintain democratic legitimacy, include citizens in the greening of societies and accountability, and ensure the accountability of corporations as well as of political actors are central to the arguments. Moreover, assumptions about the necessity of societal dialogue about the distribution of the costs of the transition, if not more fundamental questions of societal organization such as income and consumption limits, inform the literature (Gough 2017; Sahakian et al. 2021).

Importantly, many proponents of environmental democracy tend to be “friendly critics of liberal democracy” (Eckersley 2020, p. 215). In other words, they search for solutions fostering greater public engagement and participation within the normative and institutional setting of liberal democracies. Today, a central focus of this literature is on how to organize relevant processes of citizen deliberation in an inclusive, transparent, and democratically legitimate manner and therefore how to integrate them into the institutional setup of liberal representative democracy (Ernst and Fuchs 2022; Newig et al. 2011; Smith 2021). Moreover, current approaches in theory and practice focus on integrating codified types of expert knowledge with the practical, local knowledges of citizens in what Gough (2017) calls a “dual strategy,” or other ways to enable political judgment formation by citizens (Bohn and Fuchs 2019).

⁹ Within environmental political theory and philosophy, there is also a substantial literature specifically on environmental *citizenship*, combining approaches drawing on green liberalism and green republicanism.

Departing from this environmental democracy literature of the 1990s, the concept of ecological democracy (Eckersley 2017; Mason 2005; Stevenson and Dryzek 2014) started developing around the turn of the millenium. In contrast to the environmental democracy literature, this more communitarian perspective marks a shift toward more radical, bottom-up, inclusive forms of democracy, realized, for instance, in ecovillages or self-organized movements (e.g., Meyer 2015; Coles 2016; Disch 2016; Lepori 2019). For proponents of ecological democracy, the very normative foundations and institutions of liberal democracy lead to “unjust and irreversible environmental harm” (Eckersley 2020, p. 215). Ecological democracy scholars do not only question arbitrary state territorial boundaries but also show the general inadequacy of liberal democracy to protect the global commons. They further argue to extend representational mechanisms to members of minority groups, future generations, noncitizens, and also nonhuman species and ecosystems, thereby offering alternative democratic practices to overcome underrepresentation. For them, only systemic change would be able to bring the needed trend reversal. This position is in direct opposition to the environmental politics of liberal representative democracies. Or as Eckersley (2020, p. 129) puts it: “Ecological democracy is clearly a major provocation to liberal democracy.”

Eckersley (2020) most pointedly shows that the criticism by this scholarship goes further than a mere diagnosis of the shortcomings of market solutions to environmental problems and of inequalities in democracies regarding participatory power positions or political corruption. She identifies more systemic problems of a liberal democracy to be able to tackle environmental problems. Environmental injustices and ecological decline are “inevitable by-product[s] of the limited temporal, spatial, epistemological, and community horizons of liberal democracies” (Eckersley 2020, p. 218). In other words, territorial or electoral boundaries not overlapping with ecological boundaries, the lack of expertise of lay publics, and the dominance of the nation-state as the primary sovereign actor are limiting factors in liberal societies in this perspective. Building on this criticism, scholars have promoted a cosmopolitan regulatory ideal or the “all-affected principle,” according to which everyone affected by environmental risks should be able to participate or at least be represented in political decision-making beyond national borders and time horizons (Eckersley 2004). Doing so, ecological democracy challenges liberal democracy in the ways in which communities are perceived and rights are granted to whom and for what, in the understanding of traditional notions of representation through election, and thus in accountability relations and, finally, also with regard to the recognized temporality of political decisions.

The environmental democracy literature contests these arguments in turn, postulating that the efficacy of democratic regimes hinges on robust and institutionalized accountability mechanisms and checks and balances, in general, as a distinguishing feature of liberal political systems. Scholars argue that these liberal systems of governance are more adept at managing sustainable transformations in comparison to alternative forms of democratic governance due to their ability to prioritize the attainment of concrete results (Acemoglu and Robinson 2010). Critics of ecological democracy further argue that bottom-up politics may work in small local contexts but cannot be upscaled to become politically relevant on a large scale (partly re-

flected in Lee et al. in this special issue), which in turn would not effectively prevent environmental crises (Peters 2017). Further debate is evolving around the role of the state, specifically the question of to what extent a strong state is necessary to back up the cultural and societal transformations promoted by (grassroots) environmental movements (Bäckstrand and Kronsell 2015). Finally, there is the criticism that ecological democrats would foster eco-authoritarianism, specifically when ordinary people do not buy into the aim of more sustainability. Then, more systemic changes would be needed, for instance the granting of substantive environmental rights. Yet if environmental protection is not only perceived as a public and private good but is indeed elevated to an individual right, this would have the potential to override individual rights that are fundamental to liberal democracies.¹⁰

This, finally, brings the focus back to the general challenge of research focusing on reconciling the ideals of sustainability and democratic participation: The goal of more sustainability through deliberative or participatory democracy can be achieved only if this is in fact “the people’s” will. Given the current political developments of rising populism and distrust in political institutions and expert knowledge this, however, may be a difficult task.

3.3 The Efficiency of Market-Based Solutions

The political concept of ecological democracy is not only politically contested as suggested by the above-mentioned criticism. To solve the imminent climate crisis, it might also simply take too long to implement the broad structural changes proposed by this idea. According to some observers, the political discourse should therefore focus on policies directly aimed at emission reductions instead of debating fundamental social and political changes to the wider political system. In this context, the distinction between a public and a private sphere—or, rather, between the role of public and private actors—on which the concept of liberal representative democracy rests moves into focus (Cutler and Dietz 2017). According to this distinction, firms can focus on generating profits while the state provides the framework for economic activity, and it is the task of the state to shape this framework in such a way that businesses contribute to the common good. On this basis, proponents of the third solution to the difficulties of democratic states to master sustainability challenges then propose to give more room to market-based solutions and actors in these efforts.

An example of such market-based solutions are carbon pricing schemes (Gulbrandsen and Wettstad 2022). With a carbon tax or an emission trading system in place, it is argued, economic agents will start to internalize the externalities related to climate change mitigation. Effective carbon pricing will force businesses to compete for the best technological solutions to efficient carbon reduction (Jakob et al. 2020). Proponents of such a perspective further argue that businesses that efficiently reduce their emissions will eventually prevail, while companies with comparatively high carbon footprints will fade out. Market-based solutions, moreover, are expected to provide incentives for economic agents to choose among all possible options the

¹⁰ How far this would be the case is arguable, however. Future generations as well as nonhuman entities such as rivers have recently been granted rights without compromising liberal democracies.

most cost-effective strategies to emission reduction. This gives them an advantage over more direct forms of policy control, which either incentivize only a subset of possible options or, according to proponents, lead to the implementation of solutions that are too costly (Goulder and Parry 2008). The expectation that carbon pricing schemes lead to the implementation of emission reduction strategies at the lowest possible social costs is thus central to the idea of market-based solutions to the climate crisis.

Both carbon taxes and emission trading systems are highly compatible with existing models of liberal democracy. However, under real-world conditions, critics argue, the development of effective carbon pricing schemes may face strong political constraints. Most importantly, political actors may be constrained by the opposition of powerful vested interest groups (Geels et al. 2017). Further, to avoid race-to-the-bottom effects, market-based instruments require international cooperation, which notoriously suffers from free-riding and collective action problems. One of the most common criticisms is that proponents of carbon pricing systems fail to take into account the domestic and international political conditions necessary to implement their policy recommendations. Finally, critical observers underline the technological optimism associated with the belief in the market's potential to solve sustainability crises (Maniates 2020). Nevertheless, carbon pricing schemes are today widely considered to be among the most important policy instruments for climate change mitigation.

As explained above, proponents of carbon pricing schemes believe in the abilities of markets to bring about the most efficient strategies of emission reduction. Nevertheless, they rely on governmental actors to provide the necessary regulatory frameworks. A further string of market-based solutions goes a step further in that it places its hope for a sustainability transformation in private actors and market self-regulation (Vogel 2008). Driven by negative campaigning and a shift toward more conscious consumer behavior, a few decades ago firms began to engage in self-regulation by developing and implementing their own social and environmental standards (Bartley 2007; Cashore 2004). Some of these activities manifested into so-called multistakeholder initiatives (MSIs), defined “as private governance mechanisms involving corporations, civil society organizations, and sometimes other actors, such as governments, academia or unions, to cope with social and environmental challenges across industries and on a global scale” (Mena und Palazzo 2012).

According to the pundits of private governance, the emergence of MSIs in the 1990s gave rise to a new mode of global political authority and policymaking, establishing a form of private policymaking beyond the state (Giovannucci und Ponte 2005; Cutler 2010). The MSIs bring together stakeholders from different economic, social, and political backgrounds to undertake rulemaking and enforcement activities that were previously the prerogative of the state (Cutler and Dietz 2017). They operate within the structures of global value chains (Locke et al. 2013). Driven by lead firms, voluntary sustainability standards flow down global value chains to primary production sites. In turn, standard-compliant products and goods flow up the value chain until they reach the end consumer (Bartley 2020). Different from state governance, value chain-based governance mechanisms can cross national borders and, therefore, operate on a global level.

In a positive reading, MSIs offer stakeholders with different interests, including transnational corporations (TNCs), nongovernmental organizations (NGOs), and governments, a space to negotiate and settle conflict (Bartley 2007). Here, NGOs and civil society movements may play a crucial role. By threatening to make TNCs the target of negative global campaigning, they may compel them to enter negotiations about the inclusion of sustainability standards into their modes of production. By directing the focus of their political activities directly to TNCs, NGOs thus may be able to circumvent ineffective representative political procedures of state democracies. At times when governments are perceived to have few capabilities of holding corporations accountable through legal mechanisms, MSIs then could present an alternative mode of control in globalized markets. According to its proponents, private governance can be more effective than state governance because it is better adapted to the context of a borderless, global economy than territorially bound national laws are (Cashore 2004).

However, when private actors assume political roles, a democratic deficit immediately arises. In liberal democracies, public governments are subject to direct democratic control. Liberal democracies consider the actions of private actors as legitimate if they stick to the rules of the game set by elected governments. Private actors have the right to pursue their interests within state legal frameworks, yet they are not entitled to determine how the game is played. According to proponents of private governance, MSIs may overcome this democratic deficit by creating a space for inclusive multistakeholder deliberation (Scherer et al. 2006). Within this space, stakeholders with different interests turn into partners with a common goal who reach legitimate decisions not through strategic bargaining but through open rational discourse that follows the logic of appropriateness (Meidinger 2011). Legitimate political decision-making then results from evolving deliberation and rational consensus building. In this view, inasmuch as MSIs enable multistakeholder dialogues, partnerships, collaboration, and coordination, they do not only establish a new mode of control in the governance of cross-border economic activity but also contribute to the realization of democratic principles in political decision-making beyond the national models of representative democracies.

From the beginning, however, many voices have painted a much more critical picture of private governance (Gibson 1999; King and Lenox 2000). Empirical studies have assessed the effectiveness of private governance schemes in increasing the sustainability performance of certified producers. Two findings are important. First, in most economic branches, trade with products complying with private sustainability standards is still too limited to make a real difference (Grabs 2020). Second, even when producers become certified, they often fail to show substantial improvements in the sustainability of their production modes (Hatanaka 2010; Oya et al. 2018). Reasons for this lie in the focus of many of these governance mechanisms on reporting rather than on performance improvement, actual certification practices, and consumers' understandable inability to be informed about the actual value of each of a myriad of labels and standards, to name just a few. More fundamentally, research has shown that even in the MSIs, civil society and public actors rarely hold substantial influence (Fuchs et al. 2011). Some authors, therefore, see private sustainability governance as a mere "greenwashing effort." More fundamentally and

different from representative democracies, “private rules are rarely, if ever, created with participation of all of the subjects of regulation [...]” (Fuchs and Kalfagianni 2010, p. 11). Rather, rulemaking in private governance is dominated by the actors with the greatest power resources, i.e., TNCs that use voluntary sustainability standards as an additional tool to exert control over global value chains (Fuchs 2007). In a critical view, private governance and market self-regulation are therefore neither democratic nor effective in driving sustainability transformations.

Despite increasing criticism, MSIs such as Rainforest Alliance and Fairtrade are today established players in international sustainability politics. In recent years, both national governments and international organizations have established close cooperative relationships with private governance actors, regarding them as one central pillar for the design and implementation of future global sustainability policies. Different from more radical approaches discussing the nexus of democracy and sustainability (e.g., constitutionalization, ecological democracy; see above), concepts of private governance do not presuppose a fundamental change in the political system but can instead coexist with existing models of liberal democracy. This complementarity with existing models of liberal democracy increases the “institutionalizability” of private governance schemes. Nevertheless, the legitimacy and effectiveness of private governance will remain questionable due to its lack of efficiency and its weak democratic prospects. In line with current political developments, private governance schemes and MSIs will continue to play a visible role in global sustainability politics, but they are not a panacea and will not (alone) resolve the ongoing global sustainability crisis. In fact, critical observers would argue that they often prevent effective sustainability governance.

4 Overview of the Special Issue

This brief elaboration of existing literature on the democracy–sustainability nexus has shown that it is scattered around diverse arguments from different theoretical perspectives, which often remain within their own conceptual and normative debates instead of building bridges between them to allow for synergies, new ideas, and, thus, innovative policy solutions. The problem is that one can find empirical support for all the arguments stated above. This might imply that the empirical work is based on samples that are too narrow and points to the need for further systematic and analytical inquiry into what is happening. Our aim with this special issue is to bring together work along the three debates introduced above, and by doing so to point at new theoretical and conceptual questions that would stimulate a joint research agenda.

The contributions to this special issue speak to the identified debates and offer either new theoretical arguments, empirical data, or critical reflections on how to proceed and how to advance current debates as well as policy practice. Following the three debates about the democracy–sustainability nexus outlined above, the six contributions to this special issue follow this structure in an attempt to explore the question of “who should decide.” From a comparative–institutionalist perspective, Escher and Walter-Rogg first take up the special issue’s point of departure and look

at which societal system is better able to tackle the climate change challenge. Basing their work on climate output and outcome data, they answer the question of how domestic institutions affect climate performance in democracies and autocracies. They find that specific democratic institutions, such as the participation of civil society actors, matter for reducing CO₂ emissions.

Looking at developments in actor constellations and influence in specific policy fields, Deciancio and Siegel then take the baton and explore how civil society actors improved their position to influence sociotechnical imaginaries regarding Argentinian agricultural production. While this field was dominated by market actors and their specific understanding of soybean production, Argentina's return to democracy in 1983 strengthened the relations between the state and civil society and thus allowed alternative imaginaries to appear through enhanced participation. In other words, Deciancio and Siegel speak to the market versus state debate and look at the overall power tectonics between different economic, political, and civil society actors and their ability to shape societal discourses and decide about future visions that eventually translate into policy solutions.

The remaining four chapters zoom in on specific actors and the possibilities of their participation in environmental policymaking. Herzog, Lenschow, and Pollex examine *Scientists for Future* (S4F) and thus speak to the normative debate about expert versus laypeople having a say regarding environmental policies. They find, based on a survey of S4F members, that experts do not pursue revolutionary visions of policy change. The majority of S4F members do, however, believe that scientific expertise might work better in bringing about change than would an expansion of participatory practices more generally.

Building on participatory and deliberative theories of democracy, Bohn et al. focus on the potential for expanding citizen participation, particularly in complex sustainability contexts. Acknowledging that participatory processes involving laypeople may be more challenging in technological contexts such as the bioeconomy, they argue that such participation is still necessary given the broad societal implications of relevant technological innovation trajectories, and they identify criteria for how such participatory processes with laypeople could be implemented in a democratically legitimate manner.

Lee, Koch, and Alkan-Olsson then zoom in on the possibilities and limits of deliberative forums on sustainable needs satisfaction, focusing in particular on policies that respect the upper and lower boundaries of a "safe operational space." They examined 11 deliberative forums on sustainable needs satisfaction in Sweden, exploring the process of how participants in these forums identified far-reaching policy measures to address climate change. These policy suggestions were then presented to the general Swedish public in the form of a survey, which revealed that widespread support was lacking.

Finally, Machin casts a critical view on such forums or citizen assemblies. She highlights that, next to the problem that far-reaching policy reforms potentially developed by such forums and assemblies often do not find the necessary support in society, they suffer from an emphasis on consensus. Drawing on agonistic and radical democratic theory, she delineates the importance of disagreement as a crucial element of democratic, engaging, and representative sustainable politics.

With these contributions, this special issue brings together theoretical, empirical, and critical–normative contributions to improve our understanding of the democracy–sustainability nexus. It highlights the complexities involved in the evaluation of “who should decide,” which are of relevance to democratic and sustainability theory and practices. They show the potentials as well as the limits of the various attempts to improve the performance of democracy in the pursuit of sustainability transformation.

We see, on the one side, that civil society can, under certain conditions, effectively contest techno-imaginaries of powerful economic actors and that citizen assemblies may also tackle technologically complex issues traditionally considered beyond “layperson” capacities. We are also told, on the other side, that civil society actors feel that one cannot expect experts to develop sufficiently effective, if not disruptive, policy recommendations. Likewise, contributions show that when citizen assemblies are able to develop such policy recommendations, these recommendations are not supported by the broader population.

Regardless of the strategy used, then, challenges relating to the democracy–sustainability nexus remain. However, the individual contributions open up avenues for a forward-looking research agenda. They provide us with a basis for raising appropriate new and targeted questions and foreground innovative and differentiated answers to one of the fundamental challenges of our time.

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References

- Acemoglu, Daron, and James Robinson. 2010. The role of institutions in growth and development. *Review of Economics and Institutions* 1(2):Article 1. <https://doi.org/10.5202/rei.v1i2.1>.
- Adolf, Marion, and Nico Stehr. 2014. *Knowledge*. London: Routledge.
- Bäckstrand, Karin. 2003. Civic science for Sustainability: reframing the role of experts, policy-makers and citizens in environmental governance. *Global Environmental Politics* 3(4):24–41. <https://doi.org/10.1162/152638003322757916>.

- Bäckstrand, Karin, and Annica Kronsell (eds.). 2015. *Rethinking the green state: environmental governance towards climate and sustainability transitions*. London: Routledge.
- Bartley, Tim. 2007. Institutional emergence in an era of globalization: the rise of transnational private regulation of labor and environmental conditions. *American Journal of Sociology* 113(2):297–351. <https://doi.org/10.1086/518871>.
- Bartley, Tim. 2020. *Rules without rights. Land, labor, and private authority in the global economy*. Oxford: Oxford University Press.
- Bättig, Michèle B., and Thomas Bernauer. 2009. National Institutions and Global Public Goods: Are Democracies More Cooperative in Climate Change Policy? *International Organization* 63(2):281–308. <https://doi.org/10.1017/S0020818309090092>.
- Bohn, Carolin. 2019. Preference transformation through ‘green political judgement formation’? Rethinking informal deliberative citizen participation processes. *Critical Review of International Social and Political Philosophy* 2019:1–18. <https://doi.org/10.1080/13698230.2019.1698122>.
- Bohn, Carolin, and Doris Fuchs. 2019. Partizipative Transformation? – Die zentrale Rolle politischer Urteilsbildung für nachhaltigkeitsorientierte Partizipation in liberalen (Post-) Demokratien. In *Gegenwart und Zukunft sozialökologischer Transformation*, ed. Carolin Bohn, Doris Fuchs, Antonius Kerkhoff, and Christian Müller, 77–100. Baden-Baden: Nomos.
- Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. *The logic of political survival*. Cambridge: MIT Press.
- Cashore, Benjamin. 2004. *Governing Through Markets. Forest Certification and the Emergence of Non-State Authority. With Graeme Auld und Deanna Newsom*. New Haven: Yale University Press.
- Coles, Romand. 2016. *Visionary pragmatism: radical ecological democracy in Neoliberal Times*. Durham: Duke University Press.
- Cutler, A. Claire. 2010. *Private power and global authority*. Cambridge: Cambridge University Press.
- Cutler, A. Claire, and Thomas Dietz. 2017. The politics of private transnational governance by contract Introduction and analytical framework. In *The politics of private transnational governance by contract*, ed. A. Claire Cutler, and Thomas Dietz, 3–39. London: Routledge.
- Disch, Lisa. 2016. Ecological democracy and the co-participation of things. In *The oxford handbook of environmental political theory*, ed. Teena Gabrielson, Cheryl Hall, John M. Meyer, and David Schlosberg, 624–640. Oxford: Oxford University Press.
- Dobson, Andrew. 1996. Representative democracy and the environment. In *Democracy and the environment: problems and prospects*, ed. William M. Lafferty, and James Meadowcroft, 124–139. Cheltenham: Edward Elgar.
- Dryzek, John. 1990. Green reason: communicative ethics for the biosphere. *Environmental Ethics* 12:195–210.
- Dryzek, John, and Jonathan Pickering. 2019. *The politics of the Anthropocene*. Oxford: Oxford University Press.
- Eckersley, Robyn. 1995. Liberal democracy and the environment: the rights discourse and the struggle for recognition. *Environmental Politics* 4(4):169–198.
- Eckersley, Robyn. 2004. *The green state: rethinking democracy and sovereignty*. Cambridge: MIT Press.
- Eckersley, Robyn. 2017. Geopolitical democracy in the Anthropocene. *Political Studies* 65(4):983–999.
- Eckersley, Robyn. 2020. Ecological democracy and the rise and decline of liberal democracy: looking back, looking forward. *Environmental Politics* 29(2):214–234.
- Ekeli, Kristian Skagen. 2007. Green constitutionalism: the constitutional protection of future generations. *Ratio Juris* 20(3):378–401.
- Ekeli, Kristian Skagen. 2023. Constitutional rights. In *The Routledge companion to environmental ethics*, ed. Benjamin Hale, Andrew Light, and Lydia A. Lawhon, 613–622. New York: Routledge.
- Ernst, Anna, and Doris Fuchs. 2022. Power dynamics, shifting roles, and learning: Exploring key actors in participation processes in the German Energy Transformation. *Energy Research & Social Science* 85:102420. <https://doi.org/10.1016/j.erss.2021.102420>.
- Escher, Romy, and Melanie Walter-Rogg. 2020. *Environmental performance in democracies and autocracies. Democratic qualities and environmental protection*. Cham: Palgrave Macmillan.
- Fischer, Frank. 2000. *Citizens, experts, and the environment*. Durham: Duke University Press.
- Fuchs, Doris. 2007. *Business power in global governance*. Boulder: Lynne Rienner Publishers.
- Fuchs, Doris, and Agni Kalfagianni. 2010. The causes and consequences of private food governance. *Business and Politics* 12(3):1–34. <https://doi.org/10.2202/1469-3569.1319>.
- Fuchs, Doris, Agni Kalfagianni, and Tetty Havinga. 2011. Actors in private food governance. The legitimacy of retail standards and multistakeholder initiatives with civil society participation. *Agriculture and Human Values* 28(3):353–367.

- Geels, Frank W., Benjamin K. Sovacool, Tim Schwanen, and Steve Sorrell. 2017. The Socio-technical dynamics of low-carbon transitions. *Joule* 1(3):463–479. <https://doi.org/10.1016/j.joule.2017.09.018>.
- Gibson, Robert B. (ed.). 1999. *Voluntary Initiatives*. Peterborough: Broadview Press.
- Giovannucci, Daniele, and Stefano Ponte. 2005. Standards as a new form of social contract? Sustainability initiatives in the coffee industry. *Food Policy* 30(3):284–301. <https://doi.org/10.1016/j.foodpol.2005.05.007>.
- Goodin, Robert E. 1992. *Green political theory*. Cambridge: Polity.
- Gough, Ian. 2017. *Heat, greed and human need: climate change, capitalism and sustainable wellbeing*. Cheltenham: Edward Elgar.
- Goulder, Lawrence H., and Ian W. H. Parry. 2008. Instrument choice in environmental policy. *Review of Environmental Economics and Policy* 2(2):152–174. <https://doi.org/10.1093/reep/ren0>.
- Grabs, Janina. 2020. *Selling sustainability short?* Cambridge: Cambridge University Press.
- Gulbrandsen, Lars H., and Jørgen Wettestad. 2022. Carbon pricing under pressure: withering markets? *Politics and Governance* 10(1):230–234. <https://doi.org/10.17645/pag.v10i1.5437>.
- Gumbert, Tobias, Carolin Bohn, Doris Fuchs, Benedikt Lennartz, and Christian Müller (eds.). 2022. *Demokratie und Nachhaltigkeit. Aktuelle Perspektiven auf ein komplexes Spannungsverhältnis*. Baden-Baden: Nomos.
- Hale, Thomas. 2020. Catalytic cooperation. *Global Environmental Politics* 20(4):73–98. https://doi.org/10.1162/glep_a_00561.
- Hatanaka, Maki. 2010. Governing sustainability: examining audits and compliance in a third-party-certified organic shrimp farming project in rural Indonesia. *Local Environment* 15(3):233–244. <https://doi.org/10.1080/13549830903575588>.
- Holst, Cathrine. 2017. Epistocracy on Seasteads? In *Seasteads. Opportunities and challenges for small new societies*, ed. Victor Tiberius, 105–113. Zurich: vdf.
- Iwińska, Katarzyna, Athanasios Kampas, and Kerry Longhurst. 2019. Interactions between Democracy and Environmental Quality: Toward a More Nuanced Understanding. *Sustainability* 11(6):1–17. <https://doi.org/10.3390/su11061728>.
- Jakob, Michael, William F. Lamb, Jan Christoph Steckel, Christian Flachsland, and Ottmar Edenhofer. 2020. Understanding different perspectives on economic growth and climate policy. *WIREs Clim Change* <https://doi.org/10.1002/wcc.677>.
- Janasoff, Sheila. 2003. (No?) Accounting for Expertise. *Science and Public Policy* 30(3):157–162.
- King, Andrew, and Michael J. Lenox. 2000. Industry self-regulation without sanctions. *Academy of Management Journal* 43(4):698–716. <https://dx.doi.org/10.5465/1556362>.
- Landa, Dimitri, and Ryan Pevnick. 2020. Representative democracy as defensible epistocracy. *American Political Science Review* 114 (1):1–13. <https://doi.org/10.1017/S0003055419000509>.
- Latour, Bruno. 1988. The politics of explanation: an alternative. In *Knowledge and reflexivity: new frontiers in the sociology of knowledge*, ed. Steve Woolgar, 155–176. London: SAGE.
- Lederer, Markus. 2021. Climate change politics in Canada and the EU—from carbon democracy to a green deal? *Canadian Journal of European and Russian Studies* 14(2):9–28. <https://doi.org/10.22215/cjers.v14i2.2763>.
- Lepori, Matthew. 2019. Towards a new ecological democracy: A critical evaluation of the deliberation paradigm within green political theory. *Environmental Values* 28(1):75–99.
- Locke, Richard M., Ben A. Rissing, and Timea Pal. 2013. Complements or substitutes? Private codes, state regulation and the enforcement of labour standards in global supply chains. *British Journal of Industrial Relations* 51(3):519–552. <https://doi.org/10.1111/bjir.12003>.
- Machin, Amanda. 2020. Democracy, disagreement, disruption: agonism and the environmental state. *Environmental Politics* 29(1):155–172. <https://doi.org/10.1080/09644016.2019.1684739>.
- Maniates, Michael. 2020. Beyond magical thinking. In *The Routledge handbook of global sustainability governance*, ed. Agni Kalfagianni, Doris Fuchs, and Anders Hayden, 269–281. London: Routledge.
- Mason, Michael. 2005. *The new accountability: environmental responsibility across borders*. London: Earthscan.
- Mathews, Freya. 1995. Introduction to special issue on ecology and democracy. *Environmental Politics*, 4 (4): 1–12.
- Meidinger, Errol. 2011. Forest certification and democracy. *European Journal of Forest Research* 130(3):407–419. <https://doi.org/10.1007/s10342-010-0426-8>.
- Mena, Sébastien, and Guido Palazzo. 2012. Input and output legitimacy of multi-stakeholder initiatives. *Business Ethics Quarterly* 22(3):527–556. <https://doi.org/10.5840/beq201222333>.
- Meyer, John M. 2015. *Engaging the everyday: environmental social criticism and the resonance dilemma*. Cambridge: MIT Press.

- Mittiga, Ross. 2021. Political legitimacy, authoritarianism, and climate change. *American Political Science Review* 116(3):998. <https://doi.org/10.1017/S0003055421001301>.
- Newig, Jens, Katina Kuhn, and Harald Heinrichs. 2011. Nachhaltige Entwicklung durch gesellschaftliche Partizipation und Kooperation? – eine kritische Revision zentraler Theorien und Konzepte. In *Nachhaltige Gesellschaft: Welche Rolle für Partizipation und Kooperation?*, ed. Harald Heinrichs, Katina Kuhn, and Jens Newig, 27–45. Wiesbaden: VS.
- Olson, Mancur. 1971. *The logic of collective action*. Cambridge: Harvard University Press.
- Ophuls, William. 1977. *Ecology and the politics of scarcity*. San Francisco: Freeman.
- Oya, Carlos, Florian Schaefer, and Dafni Skalidou. 2018. The effectiveness of agricultural certification in developing countries: A systematic review. *World Development* 112:282–312. <https://doi.org/10.1016/j.worlddev.2018.08.001>.
- Pecharroman, Lidia Cano. 2018. Rights of nature: rivers that can stand in court. *Resources* 7:13. <https://doi.org/10.3390/resources7010013>.
- Peters, Michael. 2017. Can democracy solve the sustainability crisis? Green politics, grassroots participation and the failure of the sustainability paradigm. *Educational Philosophy and Theory* 51:133–141.
- Pickering, Jonathan, and Åsa Persson. 2020. Democratising planetary boundaries: experts, social values and deliberative risk evaluation in Earth system governance. *Journal of Environmental Policy & Planning* 22(1):59–71. <https://doi.org/10.1080/1523908X.2019.1661233>.
- Pickering, Jonathan, Karin Bäckstrand, and David Schlosberg. 2020. Between environmental and ecological democracy: theory and practice at the democracy-environment nexus. *Journal of Environmental Policy & Planning* 22(1):1–15.
- Pielke, Roger A. 2007. *The honest broker: Making sense of science in policy and politics*. Cambridge: Cambridge University Press.
- Pitkin, Hanna F. 1967. *The concept of representation*. Berkeley, Los Angeles, London: University of California Press.
- Povitkina, Marina. 2018. The limits of democracy in tackling climate change. *Environmental Politics* 27(3):411–432. <https://doi.org/10.1017/S0020818309090092>.
- Sahakian, Marlyne, Doris Fuchs, Sylvia Lorek, and Antonietta Di Giulio. 2021. Advancing the concept of consumption corridors and exploring its implications. *Sustainability: Science, Practice and Policy* 17(1):305–315. <https://doi.org/10.1080/15487733.2021.1919437>.
- Saretzki, Thomas. 2022. Herausforderungen der Demokratie: Krisendiagnosen in der Kritik. In *Vom Nutzen und Nachteil der Politischen Theorie und Ideengeschichte: Rainer Schmalz-Bruns zum Gedenken*. Schriften der Sektion Politische Theorie und Ideengeschichte der DVPW, ed. Flügel-Martinsen, Oliver, and Dirk Jörke, 215–236. Baden-Baden: Nomos.
- Scherer, Andreas Georg, Guido Palazzo, and Dorotheé Baumann-Pauly. 2006. Global rules and private actors: toward a new role of the transnational corporation in global governance. *Business Ethics Quarterly* 16(4):505–532. <https://doi.org/10.5840/beq200616446>.
- Siller, Peter. 2010. Demokratie und Klimawandel: Ökologen als Vordenker einer Expertokratie? <http://www.boell.de/stiftung/akademie/akademie-postdemokratie-expertokratie-8729.html>.
- Smith, Graham. 2021. *Can democracy safeguard the future?* Chichester: John Wiley.
- von Stein, Jana. 2022. Democracy, autocracy, and everything in between: how domestic institutions affect environmental protection. *British Journal of Political Science* 52(1):339–357.
- Stevenson, Hayley, and John Dryzek. 2014. *Democratizing global climate governance*. Cambridge: Cambridge University Press.
- Stirling, Andy. 2015. Time to Rei(g)n back the Anthropocene? STEPS Centre Blog. <http://steps-centre.org/2015/blog/time-to-reign-back-the-anthropocene/>.
- Vogel, David. 2008. Private global business regulation. *Annual Review of Political Science* 11(1):261–282. <https://doi.org/10.1146/annurev.polisci.11.053106.141706>.
- Westra, Laura. 1998. *Living in integrity: a global ethic to restore a fragmented earth*. Lanham: Rowman & Littlefield.
- Wurster, Stefan. 2013. Comparing ecological sustainability in autocracies and democracies. *Contemporary Politics* 19(1):76–93. <https://doi.org/10.1080/13569775.2013.773204>.
- Young, Oran R. 1999. *The Effectiveness of International Environmental Regimes. Causal Connections and Behavioral Mechanisms*. Cambridge: MIT Press.