NARRATIVES OF SCALE IN THE ANTHROPOCENE

IMAGINING HUMAN RESPONSIBILITY IN AN AGE OF SCALAR COMPLEXITY

Edited by
Gabriele Dürbeck and Philip Hüpkes
The Anthropocene concept draws attention to the various forms of entanglement of social, political, ecological, biological and geological processes at multiple spatial and temporal scales. The ensuing complexity and ambiguity create manifold challenges to widely established theories, methodologies, epistemologies and ontologies. The contributions to this volume engage with conceptual issues of scale in the Anthropocene with a focus on mediated representation and narrative. They are centered around the themes of scale and time, scale and the nonhuman and scale and space. The volume presents an interdisciplinary dialogue between sociology, geography, political sciences, history and literary, cultural and media studies. Together, they contribute to current debates on the (re-)imagining of forms of human responsibility that meet the challenges created by humanity entering an age of scalar complexity.

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On Being the Right Size

In the early twentieth century, biologists focusing on growth and size in organic life forms made some important observations. In 1923, J.B.S. Haldane gave a lecture at the Heretics Society of Cambridge University entitled “Daedalus; or, Science and the Future,” in which he discussed the prospects for scientific research and its relationship to ideology, economy, anticipation and the future. On the one hand, he observed that scientific research had little to fear from the existing political and economic systems and their alternatives: competitive nationalism, capitalism and “labor” all had reason to support the progress of science; on the other, he expressed skepticism over certain scientific advances of the time, most notably in the study of eugenics, and anticipated the world-destroying potential of radioactivity (Haldane 1924).

Haldane was a Marxist author, who worked on population genetics. In his famous essay “On Being the Right Size,” Haldane (1926) argued that plants and animals are shaped by their size and sized by their shape. The proportions of a species cannot exist beyond a certain upper and lower limit: you cannot have a mouse the size of an elephant, because the weight increases as a cube of the animal’s size and legs capable of carrying this increased weight would cease to have the recognizable proportions of a rodent. This became known as Haldane’s principle.

Haldane’s lecture is striking also in terms of the debates and policy concerns. While climate change is not on his agenda, the consideration of “the exhaustion of our coal and oil-fields” leads him to conclude that the future of industrial society will depend on an Energiewende involving wind and solar generation combined with the development of “a cheap, foolproof, and durable storage battery” (Haldane 1924, 6). Turning to the future of food, he anticipates that “a completely satisfactory diet” will be available by the 2040s through the industrial production of synthetic foodstuffs, “including the proteins” (10). Aside from his skepticism about “the commercial possibility of induced radio-activity” (7), Haldane’s vision has remarkable similarities to An Ecomodernist Manifesto (Breakthrough
Institute 2015), which suggests humans should intensify their economic activities and use their growing powers to make life better, leading to the so-called “good Anthropocene.” Finally, three years after the League of Nations was founded, Haldane considers that the increase in the power of man over nature requires the formation of an international government:

The league exists and is working, and in every country on earth there are many people, and ordinary normal people, who favor the idea in one form or another of a world state. I do not suggest that a world-state will emerge from the present league—or for the matter of that from the third international. I merely observe that there is a widespread and organized desire for such an institution, and several possible nuclei for it. It may take another world-war or two to convert the majority.

(Haldane 1924, 20)

Haldane’s idea was that the size of the government would have to match the scale of humanity’s transformative power over nature. This was the kind of proportionality many intellectuals aspired to at the time, yet it has not been his main legacy.

About a decade after Haldane’s essay, in the early 1930s, Max Kleiber (1932) proposed what would become Kleiber’s law observing that the body mass of most animals is correlated with their metabolic rate. Applying laws of physics and geometry to biology, Haldane and Kleiber were following in the footsteps of an earlier inquiry into allometry, i.e. the study of the relationship between size and shape, and D’Arcy Thompson’s *On Growth and Form* was one of the most abstract enquiries to date into the question of what form fits which size. Thompson challenged the scientific norm that assumed the linear extension of properties:

An organism is so complex a thing, and growth so complex a phenomenon, that for growth to be so uniform and constant in all the parts as to keep the whole shape unchanged would indeed be an unlikely and an unusual circumstance. Rates vary, proportions change, and the whole configuration alters accordingly.

(Thompson 1942, 205)

Leopold Kohr made the biological morphology of Thompson and Haldane the starting point of a social morphology, in which societies are shaped by their size and sized by their shape. Kohr’s work on *overdeveloped nations* (1978) was a direct critique of the post-war ideology of developmentalism, and his critique of limitless growth was radical at a time when economic growth was the main goal of both capitalism and mainstream socialism. It inspired several thinkers influential in the emergence of green thought, among them Kirkpatrick Sale, Ivan Illich and E.F. Schumacher, who also
critiqued growth, linear thinking and use of time- and context-free scientific knowledge.

It is this tradition we wish to explore in the next sections, to investigate other possibilities for the role of scale, proportion and limits in thinking about democracy and governance in the Anthropocene. We draw on Illich’s concept of “threshold” to suggest the possibility of a literacy of scales in which, rather than staging a contest between “small is beautiful” and “big is best,” we attend to what becomes possible and what ceases to be possible as we move between scales. First, it may be helpful to retrace the role of scale within the existing debates, in which the term Anthropocene has landed. Then, we turn our attention to scale in democracy.

**Paradoxes of Scale**

The Anthropocene has arrived as a keyword in environmental discourse which began to emerge more than half a century ago. Revisiting the texts and cultural interventions which shaped environmentalism, environmental politics and its interrelation with global governance, the theme of scale is recurrent and often a source of paradoxes.

One of the most important texts of post-war environmentalism, Rachel Carson’s *Silent Spring* (1962) documents the environmental impact of pesticide use on ecosystems and humans. The book sold millions of copies in dozens of countries and catalyzed a new wave of grassroots environmental consciousness and activism. Other than documenting the thinning of eggshells due to the agricultural use of *dichlorodiphenyltrichloroethylene*, the book was a radical attempt to formulate ecology as a subversive subject, transforming the discipline into a radical political project (Kroll 2002). In other words, Carson’s critique of technological control of micro- and macro-biological systems (technologically engineered control of nature and the human body) is symbolic in linking the critiques of technoscience with concerns about health and environment.

Everett Rogers’ *Diffusion of Innovations* (1962) was another popular book of the same year which presented what still remains the dominant theory for “scaling up” of innovation across the private sector and in policymaking. The fieldwork on which this influential model was based took place in rural Iowa, where Rogers had studied the willingness or resistance of farmers to adopt the very pesticides whose wider effects were the subject of Carson’s book.

Five years after *Silent Spring*, another classic of environmentalism first appeared in print. *The Whole Earth Catalog* of 1968 marked the arrival of its editor, Stewart Brand, as a key figure in the intersection between the West Coast counterculture, the military industrial research milieu that would give birth to Silicon Valley and the emerging environmental movement. The Catalog has been central to the back-to-the-land movement. Brand was struck by the question: “Why haven’t we seen a photograph
of the whole earth yet?” and was convinced that such an image would catalyze a shift to a planetary consciousness, awakening the citizens of the world to their common interest. As a prophetic vision, this was both far-sighted and, ultimately, a failure: Brand was right to anticipate that the NASA photographs would furnish the environmental movement with an icon and capture the wider imagination; yet the shift of register between the playfulness of the original Whole Earth Catalog editorial (“We are as gods and might as well get good at it”) and its recapitulation on the opening page of Brand’s Whole Earth Discipline (2009, 1), “We are as gods and HAVE to get good at it,” is an indicator that this icon had not had its intended effect over the four decades in between.

These early landmarks of the emergence of the environmental movement are notably centered on the United States. In the early 1970s, the rising tide of environmental awareness took on an international shape. The Club of Rome published The Limits to Growth (1972), speaking to a historical moment in which the long post-war period of rising and broadly shared prosperity across the Western countries was encountering its own limits and leading into ecological, economic and political crises. Drawing on the computing technologies which fascinated Brand and others around the Whole Earth Catalog, the report provided a quantified model of environmental crisis that implies the planet as the object of technoscientific management (Sachs 1992). In 1972, the United Nations Conference on the Human Environment marked the arrival of “the environment” in the sphere of global governance and the foundation of the United Nations Environment Programme and saw it take its place within the apparatus of international institutions in which the hopes of those who desired Haldane’s “world state” were vested.

To summarize, modern environmentalism is riddled with paradoxes of scale. The technological control of biological and ecological systems from micro to macro levels instigated two processes at once: on the one hand, “the success of expansion through scalability shaped capitalist modernization” (Tsing 2015, 40), on the other hand, the concern over the state of the environment at a planetary scale has become one of the main and continuing concerns of politics at all levels.

The Anthropocene as a New Scale

The Anthropocene is a multi-layered narrative, still in the making (Lidskog and Waterton 2018), with various dimensions and connections to fundamental cosmological and political concepts. Some argue that the Anthropocene is problematic or dangerous in its most general premise and propose alternative frames (cf. Swyngedouw 2015; Moore 2017; Swyngedouw and Ernstson 2018). But there are at least two ways in which the Anthropocene is framed, which do not completely preclude the relevance or usefulness of the term: “positivist” and “deconstructivist” frames of the Anthropocene (Mert 2019a; Mert and Marquardt 2021). The former regards the Anthropocene as the
new geological epoch characterized by the unprecedented impact of human species on planetary ecosystems. Influenced by natural sciences and the ecocultural, rationalist and post-positivist traditions in the social sciences (cf. Fremaux and Barry 2019), while also taking note of environmental degradation, it focuses on the human capacity to transform and destroy the planet and frames the ecological crisis as the result of historically aggregate industrial and economic activities of all humans.

Against this, the deconstructivist frame aims to show its underlying logics, problems and dilemmas. Without denying the ontological novelty that the concept represents, this framing highlights how the Anthropocene represents a continuum of co-existing rationales and bringing an end to the dichotomies such as nature/culture, human/nonhuman, rational/irrational, agency/structure and being/becoming. They range from debates in popular science and news blogs to leading scholars of environmental social science proposing to extend the conversation on the Anthropocene by cultivating “multiple interpretations of the Anthropocene [so that] the social sciences can help to extend the realm of the possible for environmental politics” (Lövbrand et al. 2015, 211).

Both frames reflect on the necessity of thinking about the scale of the environmental crisis and that of the response addressing it requires; yet, the positivist framing explicitly focuses on the scale of the required solution. It constructs the Anthropocene and the ecological crisis in a way that proposes potential solutions that span across the spectrum of modernistic imaginaries. Some argue for stakeholder involvement in making short-term decisions coupled with the input from social scientists on the desirability and plausibility of these decisions in the long term (Berkhout 2014). Others argue for large-scale human interventions to address climate change (Kintisch 2010), normalizing geoengineering solutions and even arguing that geoengineering could solve “policy dilemmas” in climate governance (Crutzen 2006), despite the critique that these policies are “rich man’s solutions” (Biermann and Möller 2019) or “the dictator’s technology of choice” (Hamilton 2013, 119). Jeremy Baskin (2019) notes that almost all key scientific papers on the Anthropocene defend or at least make geoengineering imaginable. In other words, the positivist Anthropocene narratives provide impetus to “think big” and “move fast”: to take climate change seriously, and address it realistically, is often presented as working on the largest scale possible. This has three significant implications. The first is the speed and scale that is afforded: time-consuming democratic processes can be circumvented to ensure convenient solutions to global environmental threats, if authoritative experts guide decision-making based on the available scientific knowledge. This would be more feasible and efficient, in the face of approaching doom, compared to a deep social, economic and political change bordering an ecological revolution, on which millions of individuals and hundreds of states are unlikely to agree and act (cf. Mert and Marquart 2021).
Second, what is considered realistic in terms of governance and government is largely limited to managing the effects of climate change as opposed to mitigating its progression. As Nicholas Beuret reports:

From military doctrines that seeks [sic] to wage resource wars in increasingly hostile environments, to border regimes that attempt to hold back a feared tide of climate refugees, land grabs securing agricultural land for future population growth, the marketisation of forests and the atmosphere, the proliferations of new walls and enclave societies, to the development of global agreements and national carbon budgets: all that these projects do in the end is seek to minimise how bad climate change will be. They are all bound together as political projects as attempts to secure climate change’s least bad outcome.

(Beuret 2020, 2–3)

Third, to address the problems emerging at planetary scale, political agency, economic power and level of governance have to match the scale of Haldane’s “world state”—but which “world”? In the introduction to A World of Many Worlds, Marisol de la Cadena and Mario Blaser (2018) observe that the debates on the Anthropocene sensitized the rich and powerful, as their world also came under threat of destruction in a way comparable to those worlds that disappeared on the path to development and progress. Ideally, such sensitization may provide an opening to “reconsider the requirement that worlds be destroyed,” yet, the economic and technoscientific plans and proposals to address the crisis seem to prioritize the world that is responsible for its plausible destruction (Cadena and Blaser 2018, 3–4).

Faced with the dead-end of realism, it is necessary to re-examine the “think big” and “move fast” assumption, entertaining a more paradoxical approach to scale. This might require, similar to what Beuret concludes, going beyond what can be done “realistically” and seeking practices and logics that might at first appear marginal or too small to be taken seriously.

In sum, the conception of scale in the debates around the Anthropocene highlights the scale (a) of the ecological crisis we live in, (b) of the responses that can address such a crisis and (c) of the political agency and political will that is required to ensure these policy responses. While one way of responding to the mismatch of scales is to urge for swift, “realistic,” large-scale action, another response is the opposite: to slow down and to focus on what is already happening, albeit at a smaller scale.

“The Times Are Urgent, Let Us Slow Down”

Narratives of scale operate in time as well as in space—the “zooming out” logic of Brand’s Whole Earth Catalog is mirrored in his later collaboration with Brian Eno to create the Long Now Foundation, which promotes “ten thousand year thinking.” The accelerationism of Nick Srnicek and
Alex Williams’ *Inventing the Future* (2015) is articulated in terms of space as well as time, with their critique of *folk politics* aimed at what they see as a fetishization of localism in the post-Cold War left. Concerns over speed and democracy are raised by the rise of organizing around calls for governments and international bodies to make declarations of “climate emergency” (cf. Hine and McLaren 2019). On the one hand, the goal of climate emergency mobilization is to prioritize climate change in the policy agenda and take meaningful action. On the other hand, these narratives of speed and scale also have implications for democracy. Particularly, they can at times be the justification for scientists’ and experts’ call for anti-democratic policy responses or skipping democratic processes (e.g. Shearman and Wayne-Smith 2007).

These post-political arguments highlight the urgency and severity of the ecological crisis (climate exceptionalism) while framing democracy as too slow and ineffectual (Lövbrand et al. 2015). In academic literature they have been repudiated conceptually (Niemeyer 2014; Stevenson and Dryzek 2014; Mert and Marquardt 2021) and proven empirically wrong using country-level data at large (Purdy 2015), yet they seem to influence media and citizens every so often. For instance, James Lovelock’s 2010 interview with *The Guardian* (2010) is already striking in its headline, “Humans are too stupid to prevent climate change: [...] the scientist blames inertia and democracy for lack of action” (*The Guardian* 2010). Here Lovelock states that modern democracy is one of the main obstructions to meaningful climate action and compares it to a war and suggests putting democracy on hold. Not only the militaristic tone but also the speed and scale of mobilization assumed here are noted by Isabelle Stengers:

> When I am speaking of slowing down, I am equating speed with mobilization. A mobilized army is an army that crosses the land with only one question—can we pass?—indifferent to the damage it causes. Whatever may inspire hesitations or attention must be banished within this framework of mobilization. What slows the army down is seen only as an obstacle. And, indeed, I see as a major challenge this sense of urgency that the fast transformation of the Earth may produce—we must stop quibbling, no time for that, we must act!

(Stengers 2013)

The alternative to mass mobilization for a climate emergency is captured aptly by the Nigerian activist and author Bayo Akomolafe’s (2020) return to the paradoxical African saying: “The times are urgent, let us slow down.” According to Kyle Whyte, slowing down might save us from another catastrophe. Starting from “the qualities of relationships connecting indigenous peoples with other societies’ governments, nongovernmental organizations, and corporations,” Whyte (2020, 3) argues that a relational tipping point toward dangerous climate change may have been crossed
before we reach the ecological tipping point. His argument rests on the impossibility of moving fast when the work required is relational:

While qualities like consent or reciprocity may be critical for taking coordinated action urgently and justly, they require a long time to establish or repair. [...] The time it takes to address the passage of this relational tipping point may be too slow to generate the coordinated action to halt certain dangers related to climate change. (Whyte 2020, 1)

Whyte’s call for focusing on slower, relational work resonates with Beuret’s call for paying attention to marginalized practices and logics to address the Anthropocene. This does not necessarily mean that slower processes, small-scale democracy or local environmental action is preferable to large-scale or global projects. It rather introduces a prerequisite quality to the processes, rather than insisting on a specific scale. This is where Ivan Illich’s conceptions of thresholds and counterproductivity are useful. Central to Illich’s thinking is the idea that many institutions and technologies reach a threshold where they progress from addressing a pressing social problem to negating their original usefulness. One example is transportation infrastructure (Illich 1973, 141–142), which Illich presents as having undergone two watersheds. At the first watershed, automobiles and improved roads facilitated mobility. At the second watershed, the magnifying scale and scope of the technology led to counterproductive results: the increasing focus on speed required smoother, more expansive highways demanding ever-increasing sums of tax money. Modern highway infrastructure began to dominate lifestyles, which made a car-free lifestyle impossible. Counterproductivity therefore is the pursuit of a technical process to the point of undermining its initial goals and frustrating alternatives. Counterproductive processes and institutions tend to develop effects contrary to their initial aims, not intrinsically but as the scope of operations increases. To mask this paradoxical effect, they often assume a therapeutic and compassionate image.

Medicine makes cultures unhealthy; education tends to obscure the environment; vehicles wedge highways between the points they ought to bridge. Each of these institutions, beyond a critical point of its growth, thus exercises a radical monopoly [and] deprives the environment of those features that people need in a specific area to subsist outside the market-economy. [It] paralyzes autonomous action in favour of professional deliveries. [...] This radical monopoly would accompany high-speed traffic even if motors were powered by sunshine and vehicles spun of air. [...] At some point in every domain, the amount of goods delivered so degrade the environment for action that the synergy between use-values and commodities turns negative. Paradoxical counterproductivity sets in.

(Illich 1977, 31–33)
Counterproductivity is caused by the institutionalization of technologies and economic models based on heteronomous production, which ignores use-values. It leads to commodification and manipulation of the citizenry through the creation of newly designed needs, taking away their autonomous self-guided ways of tackling the same problem (29–32). It is possible to imagine, then, that even a normative ideal such as democracy can become counterproductive when pursued beyond its use for the citizen. Given the necessity of structural transformations for life in the Anthropocene, we should turn our attention to the question: At what scale and under what conditions would democracy be able to address the requirements of the Anthropocene without becoming counterproductive?

**Decolonizing the Democratic Imaginary**

Democracy isn’t some historic cargo ship  
It’s not a Finland ferry  
Democracy is more like a little boat  
We are small animals on the boat  
World history is the sea  
And the boat is trying to make its way.  

*Den svenska demokratins historia* (“The History of Swedish Democracy”) devised and performed by Troja Scenkonst

*Den svenska demokratins historia* was a theatre production which toured Swedish high schools in 2014–2015. The show was a response to the emergence of the Sweden Democrats, a far-right party whose rise appeared to threaten the values of democracy even while invoking them. Yet the image of democracy as a small vessel of hope afloat on the vast darkness of world history is a specific representation of a Western narrative of democracy, which originates in ancient Athens, and after a long dark age, the lights really start to come on in Paris at the end of the eighteenth century, expanding to the rest of the world through decolonization and modernization. This peculiar narrative of democracy is problematic in several ways, as it remains Eurocentric, dismisses the colonial history underlying current experiences across the world, disregards the diversity of regimes that are categorized as democracies and idealizes a system that is leading into planet-wide ecological disaster at the end.

In mainstream cultural contexts, the history of other democracies is usually only glimpsed in passing. Early in his autobiography, Nelson Mandela (1994, 18) describes the tribal meetings he witnessed as a child in Mqhekezweni, the capital of Thembuland:

It was democracy in its purest form. There may have been a hierarchy of importance among the speakers, but everyone was heard, chief and subject, warrior and medicine man, shopkeeper and farmer, landowner
and laborer. People spoke without interruption and the meetings lasted for many hours. The foundation of self-government was that all men were free to voice their opinions and equal in their value as citizens. (Women, I am afraid, were deemed second-class citizens.)

The South African example is not an exception. During decolonization, colonies have appropriated democracy in many diverse and radical ways, imagining various democratic futures. This is a significantly different take than the grand narrative reproduced in the Swedish example, where democracy is assumed to have globalized through copying and pasting the Western model. This presumption is aptly called “vernaculars cross-dressed as universals” in James Scott’s 2009 study of globalization.

In other words, there were always already many democracies, and they are still with us. It could be argued that the scale of a village is incomparable to that of a large nation-state or even the whole planet. However, this is exactly the kind of scalability that we should refrain from in thinking about democracy in the Anthropocene. As Anna Tsing (2015, 142) notes, “the only way to create scalability is to repress change and encounter,” whereas democratic engagement at the planetary level requires both of these. Furthermore, it can be equally emancipating for Western democratic imaginaries to learn about the democratization experiences of large post-colonial nation-states such as India.

This brings us to the second part of the question we asked at the end of the last section: How can democratic scale in contemporary societies be reconsidered to avoid crossing the threshold that Illich warns against. Governance and international relations scholarship generally assumes that states have a high threshold of democracy, while at larger scales “the threshold of acceptability should not be as high as a well-ordered society” (Keohane 2011, 100). Scholars tend to apply nation-level democratic principles to the international level mainly because states are the main agents in present international society. However, this nation-level bias structures and limits the democratic imaginary, resulting in the assumption that the necessary infrastructure for democracy is absent at the global level, and that at best we can have a nominal democracy with some key features of national democracies, such as accountability of elites to publics, widespread participation, protection of minority rights and deliberation within civil society (Keohane 2016, 938). Yet, there is no inherent reason for democracy in the Anthropocene to be based on nation-state principles. In its historical development as a regime, democracy has been fundamentally transformed when it was being applied to a new political scale. During the American and French revolutions, the principles of an ancient, small-scale regime were reinterpreted and significantly transformed to suit the needs of larger nation-states, with an extensive demos. As the scale of democracy has changed from the polis to the nation-state, the citizen base has enlarged.
and a monarchical practice called representation was introduced as a substitute to direct participation. Many new institutions and practices have emerged and old ones have been appropriated to “invent” a nation-scale democracy. Reimagining planetary-scale democracy also requires significant structural changes (also see Dryzek and Pickering 2019; Mert 2019a; Biermann 2020).

Currently, the debates about democratizing global governance institutions focus on stakeholder participation, accountability and transparency. Policy practitioners, politicians and governance researchers who agree that not only direct participation but also representation is impossible at a global scale, encourage these as second-order democratizing principles and criteria. However, there are significant problems with these democratizing principles. For instance, Bäckstrand and colleagues (2010) note that the intense academic and corporate interest in accountability and transparency indicates that some of these measures have institutionalized in the dominant system of rules and might not address the problems they were set to address. Kramarz and Park (2016) also suggest that accountability remains a weak tool, since it is regarded as an appendage, or an afterthought to agenda-setting. Furthermore, many of these corporate and institutional accountability and transparency measures are voluntary. Yet, without the shadow of hierarchy, voluntary measures often fail to address the democratic deficit (Mert 2009). Finally, most accountability and transparency measures are geared toward disclosing information without any behavioral change on the side of the governance institutions and the corporations. As a result, accountability at the global level means accountability to a limited number of actors, often experts and the international development elite (Hardt and Negri 2004). In Illich’s terms, these measures have become counterproductive as they have ended up legitimizing and maintaining existing power imbalances and disempowering autonomous reinvention of democratic practices (Mert 2019b), rather than democratizing governance institutions. They do not increase the democratic quality of global governance by simply making governance platforms more inclusive, accountable and transparent; on the contrary, they require new mechanisms of checks and balances, specifically designed so as to ensure the continuity of the current global governance architecture (Lipschutz and Fogel 2002; Mert 2015).

In the Anthropocene, democracy requires yet another reinterpretation. A second scalar revolution is to fundamentally transform the practice and conception of democracy for the planet. The Anthropocene threatens and potentially invigorates the practice of democratic governance at once; it forces us to think innovatively about democracy, to deconstruct certain traditions and to learn from peripheral and marginalized knowledge-bases and the nonhuman environment. There is much academic work in this direction. For instance, Robyn Eckersley’s (2017) account of a hyper-reflexive
geopolitan democracy in the Anthropocene reimagines the human as the earthling, while her engagement with the new materialist “ecological democracy 2.0” (Eckersley 2020) rethinks democracy. Simon Niemeyer (2020, 25) proposes a “nested polycentrism via the upward transmission of citizen discourses formed under ideal deliberative conditions” to better connect the individual citizen with the global-level discourses and contestations. John Dryzek (2016) adds ecosystemic reflexivity, foresight and anticipation as core principles for democracy in the Anthropocene, whereas together with Jonathan Pickering (Dryzek and Pickering 2019), he details the ways in which participatory public reason, institutional self-confrontation and reform and emergent political agencies in the Anthropocene can initiate a process of reflexive social reorganization.

The conditions under which democracy will be practiced in the Anthropocene can be listed as follows (also see Mert 2019a): institutions and societies that can be adaptable under swiftly changing circumstances will be institutionally and ecologically reflexive. This means critically analyzing the results of past choices and policies from the viewpoint of socio-ecological change and reforming them accordingly. Democratic governance institutions in the Anthropocene will have to incorporate procedures that cyclically examine the results of their policies, while accountability and success in politics need to be redefined accordingly. In terms of agency, democracy in the Anthropocene requires the empowerment of the democratic citizen, making this the central identity to people’s lives rather than various other identities (e.g. the consumer, the shareholder or the entrepreneur). Managerial and technoscientific solutions can jeopardize the democratic quality of the debate if promoted as the main or the only solutions to the ecological crises. Instead, epistemological pluralism must be a building block not only for science but also for a democracy that makes it possible to discuss the various futures of the planet with previously marginal communities who have different ways of relating to nature and knowledge-making traditions (Hulme 2010). Scientific as well as political institutions should maximize the ways and capacities for participation of various objective and subjective knowledge-holders so that communities can adapt and mitigate the ecological crises in a multiplicity of ways. Finally, narratives of climate exceptionalism will have to be replaced with the recognition that “there is nothing so unique about the issues of environmental governance that puts them out of the reach of democratic deliberation” (Baber and Bartlett 2016, 167). Finally, the greatest challenge to democracy will come from the way citizens respond to the dislocations resulting from the uncertain socio-ecological conditions of the Anthropocene and feelings of loss, grief, deep uncertainty and insecurity. The survival of democratic institutions that emerged in the Holocene will depend on how they provide citizens with basic security while also providing them with narratives around which transformations that are required can be debated and agreed upon, without ignoring the material conditions under which they live.
Conclusion

The existing governing structures as we enter the Anthropocene have emerged in the steady conditions of the Holocene, where decision-making could take a long time. Yet, they were already suffering from a democratic deficit that has resulted from nation-level democratic imaginaries having pervaded global governance. This chapter has explored the ways which scale, democracy and the emergent imaginaries of the Anthropocene interact. Specifically, we have investigated narratives of size and speed and have emphasized that the dominant Anthropocene narratives provide impetus to “think big” and “move fast,” whereas what is required to rethink democracy at a new scale is to slow down and focus also and particularly on the marginal practices that provide fundamentally different relationalities and rationales than those which have culminated in the current ecological crisis. Following Ivan Illich’s ideas on thresholds and counterproductivity, we understand the Anthropocene as a new scale which forces us to rethink existing practices, including democratic practices, and as an opportunity to reconstruct novel democratic imaginaries. Some of these failures emerge when state-level practices are scaled up to the level of global governance. Others come from historical representations of democracy that understand democracy as a scaling up of an ancient European concept, yet fail to engage with colonial histories and the diversity of democratic regimes across the world. In the end, we have proposed several principles that a new scale of democracy would have to adopt to address the challenges of the Anthropocene.

Note

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Works Cited


