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ECOLOGICAL DEMOCRACY

CARING FOR THE EARTH IN THE ANTHROPOCENE

Odin Lysaker



“Ecological Democracy is a landmark in ecological philosophy, offering both a profound argument about how to care democratically for all existence and an indispensable critical guide to the history of green political thought. Odin Lysaker clarifies what is at stake as he re-thinks what a truly ecocentric democracy should entail”.

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“In this ambitious critical survey of the avant-garde of green social thought, Odin Lysaker proposes a vision of ecological democracy as ecocentrism in practice. On Lysaker’s pulsating synthesis, ecological democracy is envisioned as an emergent constellation of nonanthropocentric critical theory, ontological realism, a political-cosmological ontology, and ecological reflexivity joined together by and as enacting ecological love. A vital addition to the armory of green political philosophy”.

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Ecological Democracy

Ecological Democracy offers an original, thought-provoking, and engaging treatment of why and how democracy should be re-imagined in reaction to today's ecological crisis. This book explains that one needs to re-imagine both the view on nature and democratic ideals within the same framework in the Anthropocene, the present geological epoch of human-made instability in the Earth system and its planetary boundaries. This book proposes unique and challenging readings of green political theory and its development of ecological democracy in the last four decades. This book is the first to offer a systematic and detailed interpretation of the role of critical theory vis-à-vis green political theory through an update regarding current non-anthropocentric critical theorists and how they may contribute to the further development of ecological democracy. *Ecological Democracy* builds further on deep ecology, ecophenomenology, and animism by articulating an ecocentric view of nature which defends an intrinsic moral value of all existence and by formulating the democratic principle of all ecologically affected parties.

This book provides a sophisticated, convincing, and accessible argument for how to re-imagine ecological democracy as ecocentrism in practice: ecological love. To love ecologically means caring for and encountering all existence on the Earth and in the cosmos. This book is multi disciplinary and will be of great value to researchers as well as undergraduate and postgraduate students from many disciplines.

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Ecological Democracy:

Caring for the Earth in the Anthropocene

Odin Lysaker

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Preface and Acknowledgments

In my heart, through the senses and emotions, through my veins and nerve system, through every atom and fiber layers, and through my entire body, I experience a particular and significant kinship, closeness, and encounter with all existence. Through this embodied encounter, I experience interwovenness and co-inhabitation with the human and the more-than-human world. I also experience my embodied encounter as cosmological belongingness and togetherness in a wider world of mutual relations. I describe this interconnected experience and practice as *ecological love*—the love and care of all existence. Ecological love, however, involves not only my personal experience of such caring; since all humans are situated by being embodied, I believe, all people are, at least potentially, capable of opening themselves to and resonating with the love of all existence, all that matters—more than you may think. So, ecological love interconnects human nature with the more-than-human world of the entire Earth system and the rest of the cosmos.

Ecological love is the foundation for another main theme of the present monograph—*ecological democracy*. I address ecological democracy from an *ecocentric* approach to nature. Thus, both ontologically and normatively, my concept of nature includes human nature as well as animate and inanimate parts of nonhuman nature. I suggest, then, a radical, alternative, and political cosmology—*ecocentrism in practice*. I wish to contribute to re-imagining ecological democracy based on ecocentrism through new and expanded ways in which to care for Mother Earth and the rest of the universe in the Anthropocene.

Ecological love is the guiding vision of this book. My active hope—if you are not already engaged by practicing ecological love—is that your own heart might be sparked by reading about my ideas. In turn, you may recognize to a greater extent than before that you coexist and can resonate with all existence. All these parts of the planet and the universe are equally vulnerable and dependent, wonderful and strange, and dangerous and uncontrollable. My active hope is that your heart can be sparked in similar ways that some co-earthlings sparked mine to write this book—from my own heart, where everything burns and ecological love and ecological democracy matter more than you may think.

Several beautiful human souls sparked me to write this book from the heart. My appreciation goes primarily to Arne Johan Vetlesen, who sparked me by having been my supervisor for both my master's thesis and PhD thesis in philosophy at the

University of Oslo. Later, we became close friends and good colleagues. He has deeply influenced my thinking in many ways and areas. In 2015, Vetlesen published *Denial of Nature*. This monograph inspired me to look closer at the crossroads between critical theory and green political theory, among the main themes of the present publication.

I am grateful to John S. Dryzek, who sparked my writing process by commenting on a draft for the book proposal. Earlier, in 2016, I became acquainted with Dryzek when I responded to his lecture at the Arne Naess Symposium organized by the Center for Development and Environment at the University of Oslo. I then began learning about the richness and relevance of ecological democracy. I also appreciate Dryzek for inviting me to join the Working Group on Democracy organized by the Earth System Governance Project.

I am very pleased to have been an affiliate researcher at the Center for Development and Environment at the University of Oslo since 2016. I am thankful for inspirational exchanges with my fine colleagues at the center, the members of the Philosophy Reading Group, and the Arne Naess Program on Global Justice and the Environment. I especially appreciate Director Sidsel Roalkvam and Nina Witoszek for introducing me to Dryzek in 2016.

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Oslo, 2017; the Environmental Philosophy Research Group, University of Tromsø, 2017; the Arctic Centre for Sustainable Energy, University of Tromsø, 2017; the Arne Naess Symposium, Center for Development and Environment, University of Oslo, 2016; the SUM Forum, Center for Development and the Environment, University of Oslo, 2016; and the Freedom Today Conference on Axel Honneth, University College Dublin, 2016.

Smaller portions, though heavily modified and reorganized, of the material constituting this book were published earlier as “Økologisk antropologi: Heidegren/Honneth-debatten i økokrisens tid” in *Teori och person: Socialfilosofi, samhällsteori, filosofisociologi, filosofihistoria*, edited by Anna Engstam (Bokförlaget Daidalos, 2023); “Planetary Ethics: Rereading Seyla Benhabib in Times of Climate Refugees”, *Jus Cogens: A Critical Journal of Philosophy of Law and Politics*, 2023; “Sivil ulydighet i økokrisens tid: En økosentrisk tilnærming”, *Norsk filosofisk tidsskrift*, 2022; “Oceanic Cosmopolitanism: The Complexity of Waiting for Future Climate Refugees”, *Journal of Global Ethics*, 2022; “Ecological Sensibility: Recovering Axel Honneth’s Philosophy of Nature in the Age of Climate Crisis”, *Critical Horizons: A Journal of Philosophy and Social Theory*, 2020; “Ecological Love: Reflections on Morality’s Existential Preconditions”, in *Between Closeness and Evil: A Festschrift for Arne Johan Vetlesen*, edited by Odin Lysaker (Scandinavian Academic Press, 2020); and “Økologisk demokrati og naturens iboende verdi: Klimasøksmål i miljøkrisens tidsalder”, *Etikk i praksis: Nordic Journal of Applied Ethics*, 2019. I thank the editors and journals for allowing me to reprint these ideas.

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I am also fortunate to have my position at the Department of Religion, Philosophy, and History at the University of Agder, who generously funded my research stay at Uppsala University. I am thankful for the support throughout the entire writing process, especially by the Head of the Department, Reidar Salvesen, and the Vice Dean of Research at the Faculty of Humanities and Education, Gunhild Kvåle.

I owe a special thanks to my editor, Neil Jordan, and the rest of the Routledge team. Jordan enthusiastically supported and shepherded this project to completion. I also wish to thank the anonymous reviewer for excellent and inspirational suggestions. These comments greatly enhanced the quality of the manuscript.

I wish to share with the reader some personal experiences, too. I have always been engaged with the ecological crisis. Still, increasingly during the last five years or so, I have experienced a closer connection to nonhuman nature. I have done so by recognizing, appreciating, and valuing the entire cosmos, for instance, from the outlook from my cottage in the middle of the forest with its view over a lake and with the dawn on the horizon. I have further experienced that my combined philosophic and poetic practices while facing today’s ecological crisis have made me more aware of lakes, woods, horizons, dawns, and all the other wonders and the

magic of the more-than-human world. I therefore mourn and grieve, for instance, over today's sixth mass extinction, and I feel anxiety and anger when co-earthlings are harmed or become extinct. Still, my active hope is to find a personal and a professional route as a co-habitant of the universe, for example, by writing this book. In doing that, I hope to transform my mourning and anger into ecocentrism in practice: ecological love and ecological democracy. My wish is that this ecocentrism and cosmology will inspire the readers, as well, to actively interrelate with, care for, and protect all existence in their everyday lives.

Finally, my deepest thanks go to my close friends, family, and my sister, Hilde Martine Røiseland. Not least, I wish to thank my beloved partner, Ebba Katarina Tellander, for her continuous encouragement during the writing process and her inspiration to write this book from my heart. All my ecological love goes to Ebba for making my life meaningful through our encounters with each other and the magic of the rest of the universe. I also appreciate Greta Thunberg's graceful gift. I dedicate this book to Thunberg and those of us who are inspired by her unstoppable, incredible, and important engagement—by, I believe, practicing ecocentrism in virtue of ecological love and ecological democracy. We may thereby protect the entire Earth and the rest of the cosmos—everything threatened and disappearing.

Oslo, June 5, 2023

Odin Lysaker

1 Introduction

Ecological Democracy of the Anthropocene

We live in an age of crisis—an ecological crisis, which creates a democratic crisis, as well (e.g., Eckersley 1992; Barry and Eckersley 2005; Fischer 2017; Dryzek and Pickering 2019; Fraser 2022). I begin Chapter 1, therefore, by describing the ecological crisis, and thereafter I portray the democratic crisis. I further wish to explain why I hold that there exists a mutual relationship between these crises in the Anthropocene. Additionally, I try to show how the ecological model invites us to re-imagine democracy in these troubled times. Altogether, these are constituent elements of my study of the prospects for a comprehensive ecological democratization in the present geological epoch.

1.1 No One Is Too Small to Make a Difference

Today's ecological crisis involves many complex, as well as interchanging and reinforcing, aspects on all temporal and spatial scales. Nonetheless, I suggest, the ecocrisis can be portrayed as existential, planetary, and acute (Hamilton 2017, vii, 1, 9, 119). Given that, this crisis is existential since its direct and indirect impacts threaten the survival of both humans and the more-than-human world. Further, concerning its scope, the ecocrisis is planetary in terms of involving and affecting the entire Earth, and in some cases it is even linked to the universe. Finally, the environmental catastrophe is acute due to its accelerating speed and the many disastrous impacts this acceleration generates. One way in which the acuteness of the ecocrisis is grasped by Greta Thunberg in her book *No One Is Too Small to Make a Difference* is based on a speech during Extinction Rebellion's rally at the Parliament Square in London on October 31, 2018: "They keep saying that climate change is an existential threat and the most important issue of all. And yet they just carry on like before" (Thunberg 2019, 7–8). That said, it goes without saying that Thunberg and those following her have transformed their frustration and anger into mobilization and struggle. As indicated, this list of characteristics is not meant to be exhaustive. Yet, I believe, it captures some of the most central features of our ecological crisis.

By being existential, planetary, and acute, the question we should ask is how much time we have to tackle this crisis—before it is too late to do anything, at least on behalf of the humans and the good life many of us wish to continue living.

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In this regard, some researchers have tried to estimate by when the acceleration of the consequences and side effects of the ecological crisis should be decelerated. While the date is disputed—especially because it is difficult to measure, and scholars often estimate different aspects of the ecological crisis—there are some suggestions on the table. For example, in 2021, Johan Rockström and colleagues showed that “[t]ime is not on our side” (Rockström et al. 2021, 4). The reason, they hold, is because humanity “[w]ithin *this decade* [i.e., before 2030] we must *bend the global curves* of greenhouse gases emissions and of biodiversity loss” (ibid., emphasis added). Later, in 2022, the UN Intergovernmental Panel on Climate Change (IPCC) documented that the next few years are critical and that we have simply three years (i.e., until 2025) left to turn the trend of greenhouse gas emissions to limiting global warming to around 1.5°C (IPCC 2022, 2). So, the window of opportunity may close at least around 2030—at the latest. Although outside the scope of my book, the global energy crisis created due to Russia’s war on Ukraine is another reason why the window of opportunity concerning the ecocrisis now can be even smaller.

The ecological crisis further implies that we have left the former and stable geological era, the Holocene, and entered a new, emerging, and more unstable geological epoch, the Anthropocene. This concept relates to the word anthropo-, meaning human, and -cene, the standard suffix for geological epochs. The term was coined more than two decades ago (Crutzen and Stoermer 2000). Thus far, there exists no agreement around the definition of this notion. Yet, the idea of the Anthropocene has influenced many discourses. According to Paul J. Crutzen and scholars following his studies, the Anthropocene assumes that “the central role” to “geology and ecology” is now “mankind” (ibid., 17). In turn, “many ... major and still growing impacts of human activities on earth and atmosphere, and at all, including global, scales” (ibid.). At the time, Crutzen’s hypothesis was that the Anthropocene began with the Industrial Revolution in 1750. Later, however, the International Geosphere-Biosphere Program has found indication for another commencement date for the Anthropocene at 1950, namely, the Great Acceleration (Steffen et al. 2005). In both cases, among the main drivers behind the Anthropocene are both Earth system trends (i.e., carbon dioxide, nitrous dioxide, methane, stratospheric ozone, surface temperature, ocean acidification, marine fish capture, shrimp aquaculture, nitrogen to coastal zone, tropical forest loss, domesticated land, and terrestrial biosphere degradation) and socioeconomic trends (i.e., global population growth, real GDP, foreign direct investment, urban population growth, primary energy use, fertilizer consumption, large dams, water use, paper production, transportation, telecommunications, and international tourism) (Dryzek and Pickering 2019, 4–5). These trends mutually reinforce each other and have since the 1950s pointed upward—which by now appears to have been proven scientifically to be the wrong direction (ibid.). The main impacts of the Anthropocene, therefore, are anthropogenic climate change, biodiversity loss, and declining natural resources (ibid.).

While the idea of the Anthropocene was introduced by Crutzen nearly 15 years ago, it has thus far not been officially recognized by the Subcommission on

Quaternary Stratigraphy and its Anthropocene Working Group. Still, the concept of the Anthropocene has created intense scholarly and public debates, even outside natural sciences and within social sciences and the humanities (Dryzek and Pickering 2019, 12–15). Here, some scholars propose other terms than the Anthropocene. In doing so, they claim, we can arrive at more precise descriptions of the present geological epoch and its drivers. Some of the most well-known notions in this regard are the Capitalocene (i.e., capitalist power organizes and uses natural resources historically and geographically; e.g., Moore 2016); the Plantationocene (i.e., colonialism, racism, and capitalism shape the past and the future concerning who have access and who do not have access to natural resources; e.g., Davis et al. 2019); the Chthulucene (i.e., the capacity for and the need to make kin by virtue of unexpected entanglement and collaborations among humans and more-than-humans; e.g., Haraway 2015); the Homogocene (i.e., a more homogenized biosphere with lower diversity at regional and global scales; e.g., McKinney and Lockwood 1999).

Although alternative explanatory concepts of our geological era exist, some researchers support the concept of the Anthropocene by developing it further on their own scholarly terms beyond its natural-scientific origin. To give a few examples, some argue that this era generates humans' "geological agency" (Chakrabarty 2009). Further, the Earth and its history is described as a "full-fledged actor" (Latour 2014). Additionally, the assumed singular origin and the linear nature of the Anthropocene are critiqued for smuggling in misconceptions of geology and temporality (Barad 2003). The Anthropocene is also understood as created by historical heterogeneity and cultural specificity showing human-nonhuman interconnections (Tsing 2017). Despite the dispute concerning the start date and the main drivers of the Anthropocene, there is seemingly a large agreement that a new geological epoch has arrived. Also, there seems to be a large degree of consensus around the interconnections between the Anthropocene and the ecological crisis.

In this book, the Anthropocene plays a crucial role. Which, then, of the above accounts of this idea is adopted? I recognize the actual plurality of understandings of the current geological epoch. Further, I appeal to a process through which one listen to and learn from insights of all these explanations without adopting merely one of them. I also suggest that irrespective of which of the sources behind the Anthropocene one finds the most conniving, these changes in the Earth system occur to be significant to all existence on the planet. To me, therefore, by drawing on various understandings of today's geological era, they can serve as a wake-up call for re-imagining democracy (Tremmel 2019).

How can the ecological crisis generate a democratic crisis, too? From my angle, there are at least five reasons why that is so. In turn, these reasons shed light on themes that currently preoccupy many central green political theorists and their development of the model of ecological democracy. Surely, all these reasons—both as ideals and in reality—involve both strengths and weaknesses. However, I suggest, by learning from all of them, we may to a greater extent than the business as usual of liberal democracy propel prospects for ecological-democratic

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transformations and transitions. In effect, the latter framework articulates morally, legally, and politically ways in which to approach today's ecocrisis.

First, I address what I label as *the geology and the Anthropocene condition*. This aspect deals with the development of the present geological epoch. Here, ecological-democratic transformations and transitions can be hindered since today's democratic principles and practices emerged during, and thus to support democratic governance in the former geological epoch, the Holocene (Dryzek and Pickering 2019, 20). Further, to update these outdated governance forms (e.g., liberal democracy and global capitalism), geology and ecology should be recognized as an inescapable precondition of all existence. In turn, such natural phenomena should be included as part of the picture while addressing democratic engagement in the Anthropocene. For example, the current geological destabilization of the Earth system and its impacts for governance can then be better examined (ibid.; Eckersley 1992, 59–60). Importantly, within green political theory, an increasing number of scholars have in the last decade or so developed new frameworks connecting their interpretations of ecological-democratic transformations and transitions to the idea of the Anthropocene (e.g., Dryzek, Norgaard, and Schlosberg 2013; Dryzek 1997/2021, 2016; Schlosberg 2016; Eckersley 2017, 2020, 2023; Dryzek and Pickering 2019; Pickering 2019a, 2019b; Pickering and Persson 2020; Pickering, Bäckstrand, and Schlosberg 2020; Romero and Dryzek 2021; Pickering et al. 2022). Here, some propose a shift from Holocene governance to Anthropocene governance (e.g., Dryzek and Pickering 2019).

Second, I address what I outline as *the Earth system and planetary boundaries framework*. Here, ecological-democratic transformations and transitions are related to the Earth system. The Earth system and Earth system science are terms used to describe the pioneering research that Rockström and colleagues have undertaken. Perhaps the core of this inquiry deals with the recognition of the Earth as an integrated system. In this context, ecological-democratic transformations and transitions should be allied with the Earth system and its planetary boundaries. In historical hindsight, Rockström and colleagues explained that the development of the Earth system and planetary boundaries framework was partly inspired by James Lovelock's 1972 Gaia hypothesis (Steffen et al. 2020, 55–56). This idea, which Lovelock co-developed with Lynn Margulis, suggests that living organisms cooperate with their inorganic settings on Earth to create a synergistic and self-regulating, complex system that assists to uphold and preserve the preconditions for life on the planet (Lovelock and Margulis 1974; Lovelock 1979).

Noteworthy, the Gaia hypothesis and its role for the Rockströmian framework has influenced several central scholars of this book. In the field of green political theory, these perspectives are seminal to various seminal accounts of ecological democracy (e.g., Dryzek 1990, 1995, 2016; Eckersley 2017, 2023; Dryzek and Pickering 2019). I am inspired by this book because of the significance of the Gaia hypothesis to deep ecology, ecophenomenology, animism, and the evolution of an ecocentric approach to nature (e.g., Abram 1985; Capra 1996; Harding 2006).

Let us now move to Rockström himself. He says that the Earth system should be understood as:

the *integrated* biophysical and socioeconomic *processes and interactions* (cycles) among the atmosphere, hydrosphere, cryosphere, biosphere, geosphere, and anthroposphere (human enterprise) in *both spatial*—from local to global—and *temporal scales*, which determine the *environmental state of the planet* within its current position in *the universe*. Thus, humans and their activities are fully part of the Earth System, interacting with other components.

(Rockström et al. 2009a, footnote 1, emphasis added)

It is important, I believe, to underscore the holism of the Earth system idea. As I interpret it, both ontologically and normatively, this framework understands reality as integrating both biophysical and socioeconomic aspects. So, the Rockströmian outlook is not following the Cartesian idea of dualism which ontologically divides humans and nature into two different categories. Rather, he rejects the assumed split between such categories as self and other, reason and emotion, freedom and necessity, reason and nature, and culture and nature, to mention only some of the divides related to this logic and structure. Also, some argue that Cartesianism is part of a larger dualistic logic and structure in the West (e.g., Plumwood 1993, 43). Given that, I find the ecofeminist Val Plumwood illuminating, who combines insights from deep ecology and feminism as well as being a central voice in the field of green political theory and its development of the idea of ecological democracy. In her book *Feminism and the Mastery of Nature*, she holds that dualism is not simply a theoretical standpoint among philosophers, but it is even exercised in society as an ideology (ibid., 69). When dualism is practiced, it is often normatively defending instrumentalism (ibid., 142). This means that humans, perceived as the center of the universe (i.e., anthropocentrism), can limitlessly use—or, perhaps more precisely, overuse—given, limited, constantly reduced, and in some cases extinct natural resources, which are assumed to be endless (ibid., 24). In the Anthropocene, however, we know that such overexploitation of nonhuman nature cannot continue. To illustrate, the Earth's overshoot day (i.e., the calculated date on which humans' resource consumption for the present year exceeds Earth's capacity to regenerate these resources that year), which is currently estimated globally to be in July (in some countries even earlier). It should be mentioned that even today some defend ontological dualism (e.g., Dilley 2004). Yet, let me admit that in the following, I reject Cartesian dualism, an issue to which I return. In short, however, I suggest that the Earth system framework requires ontological holism. This stance comes in various styles. Later, I defend an ecocentric approach to holism, which, both ontologically and normatively, integrates organic and inorganic parts of nature. Interestingly, Rockström's Earth system framework moves beyond the planet by including *the universe*. Regarding the latter, Earth system science can be interpreted as "a mode of looking at this planet that ... *necessarily has other*

planets in view in order to create models of how this planet works” (Chakrabarty 2021, 75, original emphasis).

Rockström’s research team also relates the concept of the Earth system to the notion of planetary boundaries. This term is defined as thresholds within which the stability and resilience of the Earth system as a “safe operating space for humanity” can be gained (Rockström et al. 2009b, 472). Thus, both ontologically and normatively, these boundaries must not be overridden. The Rockström team has identified nine such boundaries. These boundaries include climate change, biodiversity loss (terrestrial and marine) (later termed biosphere integrity), nitrogen and phosphorus cycles interference, stratospheric ozone depletion, ocean acidification, global freshwater use, land use change, chemical pollution, and atmospheric aerosol loading (ibid.). Together, they safeguard the Earth system. In 2009, the year this framework was first published in the renowned science journal *Nature*, three among the nine thresholds (i.e., biodiversity loss, shifts in nutrient cycles, and climate change) were already exceeded. In 2015, an update of the planetary boundaries framework showed that a fourth planetary boundary (i.e., land use) had been transgressed (Steffen et al. 2015). In 2022, even a fifth threshold and a sixth threshold (i.e., freshwater and environmental pollutants, as well as green water, were surpassed) were overridden (Persson et al. 2022; Wang-Erlandsson et al. 2022). So, it is highly significant to trying to deescalate these processes by turning overridden boundaries into safe sustainable modes and preventing the last three boundaries from being trespassed. This, however, might be more difficult than first assumed. Recall the transition from the Holocene to the Anthropocene, from a stable geological period for the past 10,000 years to an unstable one. In the same period, “human actions have become the main driver of global environmental change”, which might push the Earth system beyond its planetary boundaries with “detrimental” or even “catastrophic” consequences for large parts of the planet (Rockström et al. 2009b, 472).

Interestingly, seminal voices in the field of green political theory have increasingly adopted and further developed this Rockströmian framework concerning ecological democracy (e.g., Dryzek 2016; Eckersley 2017, 2023; Dryzek and Pickering 2019; Pickering and Persson 2020; Romero and Dryzek 2021; Pickering et al. 2022). Although I find this development within green political theory promising, I shall later criticize what I understand as an ecocentric deficit regarding the Rockströmian concept of safe operating space for humanity. Here, despite relating the Earth system to ecological democracy, several seminal green political theorists seem to underestimate the anthropocentric premises of the Rockströmian framework. In contrast, however, some green political theorists argue that “an *ecocentric* approach could extend the idea of a safe operating space for integrated and entangled humans and non-human systems” (Pickering, Bäckstrand, and Schlosberg 2020, 10, emphasis added).

Third, I deal with what I portray as *the ecological limits and ecological freedom conditions*. Here, too, to achieve ecological-democratic transformations and transitions, I suggest, these conditions should not be undermined. The idea of ecological limits has been advanced by the group of researchers around Rockström. They are portrayed as “the role of thresholds related to large-scale Earth System

processes, the crossing of which may trigger nonlinear changes in the functioning of the Earth System, thereby challenging social-ecological resilience at regional to global scales” (Rockström et al. 2009a, 5). Moreover, this outlook builds further on and extends approaches such as “limits to growth” (e.g., Meadows et al. 1972) and “safe minimum standards” (e.g., Bishop 1978; Rockström et al. 2009a, 4–5).

Among green political theorists, the issue of limits has been increasingly addressed (e.g., Eckersley 2004, 10, 2017; Schlosberg 2016; Dryzek and Pickering 2019, 12; Pickering and Persson 2020; Pickering, Bäckstrand, and Schlosberg 2020). The limits discourse—including ecological limits—has seen a renaissance in recent years, for instance, in debates on slow growth, antigrowth, or degrowth (Schlosberg 2016, 199). Significantly, the idea of ecological limits is “not purely scientific constructs but also involve normative decisions” (Pickering and Persson 2020, 61). This indicates that “[w]hat is considered tolerable, acceptable or safe will depend on a range of normative or value judgments” (ibid.), for example, whether the nonhuman nature is protected by having an inherent or an instrumental value. So, ecological limits “need not be fixed in perpetuity but could vary over time along with changes in social values as well as ecological dynamics” (ibid.).

Due to the existence and impacts of ecological limits, I argue, the discourse on freedom is cast in a new light. I relate the outlook of ecological limits to freedom since the latter concept is often perceived as a condition of democracy theories. Perhaps the most influential understanding of freedom proposed for Holocene issues is Isaiah Berlin’s concepts of negative and positive freedom (he uses the notions of liberty and freedom as synonyms, and I therefore use the concept of freedom in this context). Negative freedom is understood as “freedom from” something through which one can define “the area within which the subject – a person or group of persons – is or should be left to do or be what he is able to do or be, without interference by other persons” (e.g., governments, corporations, and private persons; Berlin 1958, 121–122). Positive freedom, on the contrary, is defined as “freedom to” something by defining “[w]hat, or who, is the source of control or interference that can determine someone to do, or be, this rather than that” (ibid.). Berlin appears to support negative freedom since this idea of freedom safeguards pluralism in liberal democracies (ibid., 172). Charles Taylor, among others, has criticized this standpoint. In the piece “What’s Wrong With Negative Liberty”, Taylor holds that Berlin’s division between negative and positive freedom, as well as his own support of negative freedom, is problematic (Taylor, 1985, 213–214). Taylor believes that negative freedom is not as undesirable as Berlin wants it to be. Taylor here means that negative freedom in reality presupposes and therefore should accept certain aspects of positive freedom. This indicates that negative freedom is based on equal self-realization (ibid., 212, 217). As I read Taylor, this means more concretely that certain positively free conditions (e.g., language skills or knowledge) must be fulfilled in order to be able to develop and thereby to become a good citizen. So, according to Taylor, to exercise negative freedom, for instance, in a democracy (e.g., free speech and participation) presupposes that certain aspects of positive freedom are safeguarded (e.g., language skills and education).

Now, let us move to the issue of freedom in the Anthropocene. The question is, then, if Taylor’s critique of a one-dimensional negative freedom is relevant. I suggest that it is in terms of Taylor’s argument that negative freedom and positive freedom presuppose each other. Given that, in the Anthropocene, a third concept of freedom is required. We here need to re-imagine freedom to tackle today’s ecological crisis. Thus, free actions cannot supersede the Earth system’s planetary boundaries or ecological limits. Consequently, “freedom in ecological self-limitation” by making “moderation the new virtue”, as well as discovering freedom in “new social and ecological constraints”, is desirable (Willig and Blok 2020, 34, 43, my translation). Similarly, Robyn Eckersley introduces the concept of *ecological freedom* (Eckersley 2004, 107, see 13, 95). According to her, such freedom “can only be realized under a form of governance that enables and enforces ecological responsibility” (ibid., 107). Moreover, in times of ecological crisis, “people are first authentically free related to and responsiveness compared to these other forms of life” (Willig and Blok 2020, 43, my translation). Ecological freedom also seems to resonate with Rockström: “humanity [should have] the freedom to pursue long-term social and economic development” (Rockström et al., 2009a, 21). In any case, ecological freedom aims at not “unduly restrict citizens’ freedom to choose among different societal goals (e.g., economic growth), tipping the balance in favour of green outcomes and thereby undervaluing democratic procedures” (Pickering, Bäckstrand, and Schlosberg 2020, 10). Rather, “[e]volving scientific understanding about potentially catastrophic risks associated with the disruption of the Earth system casts this debate [of, e.g., freedom] in a new light” (ibid.; see Eckersley 2004). By understanding and applying the planetary boundaries framework, ecological limits are “compatible with democratic legitimacy” if spaces “for inclusive debate over what constitutes unacceptable ecological risk and over how associated planetary targets should be developed to manage this risk” are created and maintained (ibid.). Thus, we cannot have more freedom—not even democratically—than is scientifically sustainable within the boundaries and limits of the Earth system. Then, such boundaries and limits “remain *essential* for *safeguarding* ecological democracy” (Pickering et al. 2022, 9, emphasis added; see Pickering and Persson 2020; Pickering et al. 2022). I interpret the concept of ecological freedom as both descriptive and normative; it is descriptive by referring to science regarding the ecocrisis, and it is normative by understanding freedom within the planetary boundaries framework.

Fourth, I draw attention to what I outline as *the golden mean of ecological democracy between environmental democracy and eco-authoritarianism*. Such an Aristotelian perspective portrays two assumed extremes to show that a golden mean should be preferred. In the field of green political theory, these extremes are often referred to as environmental democracy (or liberal/representative democracy) and eco-authoritarianism. Environmental democracy means regimes “achieving sustainability through *reform* of *existing* liberal democratic institutions” and “*existing* democratic ... decision-making processes” (Pickering et al. 2022, 4, emphasis added; see Eckersley 1992, 2002, 2020; Schlosberg, Bäckstrand, and Pickering 2019; Pickering, Bäckstrand, and Schlosberg 2020; Romero and Dryzek 2021).

Further, environmental democracy is associated with eco-modernity or the good Anthropocene, namely, “to celebrate and advance the idea of benign human control over the natural world” (Dryzek and Pickering 2019, 10). Although knowing about the ecocrisis, promoters of environmental democracy still “believe the catastrophes can be averted and a bright future assured” (ibid.); instead of dire warning, environmental democracy stresses hope, optimism, and opportunity. Another characteristic of environmental democracy is its anthropocentric (i.e., human-centered) approach to human-nonhuman values (Pickering, Bäckstrand, and Schlosberg 2020, 4). Then, based on ontological dualism, humans and nature are divided into two separate categories. Consequently, humans are ranked over nature. From a critical angle, I believe, environmental democracy can be described as business as usual (e.g., techno-fix, geoengineering, or greenwashing).

On the other side of the specter, we find eco-authoritarianism, survivalism, and ecofascism. This standpoint can be defined as “achieving sustainability transformation through a *shift* to or *persistence* of authoritarian rule” (Pickering et al. 2022, 4, emphasis added; see Eckersley 1992, 2004, 2017; Dryzek and Pickering 2019, 60–61, 115, 149; Pickering, Bäckstrand, and Schlosberg 2020). Eco-authoritarians also criticize the representative democracy for being “too slow, compromising, cumbersome, and captured by interest groups and veto players” while endeavoring necessary sustainable democratic transformations and transitions in our age of the ecological crisis (Pickering, Bäckstrand, and Schlosberg 2020, 3). Eco-authoritarians also appeal to a “hierarchical, technocratic and centralised response” including a “strong state or ‘green leviathan’” on both national and global levels (ibid.). Further, an eco-authoritarian state can be organized in terms of “presiding over a strict regime of ecological controls and resource rationing” (Eckersley 2004, 1). Today, eco-authoritarianism has “fewer proponents than in 1970s”; yet, this outlook has undergone “recent revival” regarding China’s ostensibly capability to respond to the ecological crisis by taking “decisive action on some fronts” (Dryzek 1997/2021, 238). Although this statement was made a decade ago, China is still referred to as an eco-authoritarian regime.

In contrast to both environmental democracy and eco-authoritarianism, ecological democracy creates and maintains a “[d]ual transformation” (Pickering et al. 2022, 4). This means “achieving sustainability transformation through a parallel transformation toward democratic practices” (ibid.). Such a dual transformation can be based on various forms of democratization or deepening of existing democratic practices. Further, ecological democracy appeals to a “[r]adical ecological transformation” by being “more critical of existing liberal democratic institutions – particularly those associated with capitalist markets, private property rights and the prevailing multilateral system” (Pickering, Bäckstrand, and Schlosberg 2020, 4). To assist this ecological transformation to get started, some key proponents of ecological democracy adopt an ecocentric approach (e.g., Eckersley 1992; see Pickering, Bäckstrand, and Schlosberg 2020). This outlook, both ontologically and normatively, recognizes all that exist—human nature, living parts of nonhuman nature (e.g., animals, trees, or plants), and non-living parts of nonhuman nature (e.g., oceans, mountains, and the air). In my understanding, ecocentrism partly

argues that there is an interconnection between our ideal of democracy and our understanding of nature. So, a transformation toward ecological democracy requires that we critically reflect on our view on the concept of nature. Scholars supporting ecological democracy may choose different routes regarding the approach to nature. Yet, in this book, I follow Eckersley's argument that ecological democracy goes hand in hand with ecocentrism (Eckersley 1992).

Fifth, and finally, ecological-democratic transformations and transitions should deal with what I perceive as *the all ecologically affected principle*. The core of this argument is the following: to be affected by the ecological crisis and thus to be an affected party related to this crisis, one demands to be safeguarded from the opportunity of democratic participation or otherwise being represented (Eckersley 2004, 171, see 16, 118–120, 2020). Thus, without a voice and yet being an affected party creates a democratic deficit. Again, in the age of ecological crisis, the representative model of Holocene governance is not representative enough. So, our principles and practices of democracy need to be further democratized in line with the ideas and practices of ecological democracy. To illustrate, democracy can become more representative by representing nonhuman nature and future generations. I return to all ecologically affected principles in Chapter 5.

I suggest, then, that the above five ecological-democratic premises should be further enhanced to develop democracy in the Anthropocene. Also, we should attempt at achieving this goal by relating ecological democracy to what I, through this book, conceptualize as ecological love. In turn, we can care for the entire Earth system and all existing on it. Further, I propose a new and radical cosmology: ecological democracy as ecocentrism in practice. Subsequently, I wish to shed light on various ways of re-imagining ecological democracy in ecocentric terms. I assume that such an outlook is a particular and necessary historical moment of transformation and transitions succeeding a stronger caring for the Earth and the rest of the cosmos. To initiate this transformation and transitions, I believe, Greta Thunberg's words are inspiring: "no one is too small to make a difference" (Thunberg 2019).

Throughout the present monograph, I base much of my argument on a particular idea of existence. I sometimes use terms like all existence, all existing, and all that exist. I often link these terms to the Earth or the planet, as well as to ecological love, cosmological love, and even the universe or the cosmos. Although I return to this issue, this use of the term existence requires an explanation. I believe it is more precise to speak about existence instead of, for instance, life. Ontologically, the term life may be narrower understood than the notion of existence. So, since my study moves between various scales—from the microlevels of poetry and onto-poetics of the river via the mesolevel of the Earth system to the macrolevel of the cosmos—I need a concept that is general enough to cover all these scales. Further, I defend an ecocentric approach to nature. As I see it, this standpoint covers more than life narrower defined. Rather, life echoes another standpoint in this context, namely, biocentrism (i.e., life-centrism). Again, the term existence in its variants is helpful. Having said that, I must admit that this issue is not an easy one. For example, even Arne Naess—who's deep ecology is a member of the same family as the