EDUCATION, CULTURE, AND SOCIETY

Education for Transformation

Humanistic Perspectives on Flourishing in the Anthropocene

Doret de Ruyter and
Carolina Suransky (Eds.)

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Notes on Contributors

Hanane Abaydi
an alumna of the University of Humanistic Studies (MA in Citizenship, Professionalism, and Civil Society), is a dedicated social entrepreneur, researcher, educator, and activist. She works on initiatives that foster climate-just cities and advance climate justice education. As a member of the Change Management Research Group at The Hague University of Applied Sciences, her research focuses on activism, climate justice (including the emotional dimensions), and social justice, emphasizing lived experiences of marginalized communities. Additionally, Hanane serves on the Program Board of the Amsterdam Knowledge Centre for Inequality and as member of a Supervisory Board in primary education.

Robbert Bodegraven
is CEO of the Dutch Humanist Association. He graduated in literature and business school reputation management, and has a background in (photo)journalism, before he started working for humanitarian organizations. During his work for Oxfam and War Child Holland, he was responsible for campaigns and advocacy work, and visited many conflict affected areas and countries in Africa and the Middle East. Prior to his work for the Dutch Humanist Association, he was the director of the scientific research institute for the Dutch Green party.

Deanne Boisvert
teaches at Windesheim University of Applied Sciences (Windesheim Honours College), Zwolle Netherlands and is a PhD candidate at the University of Humanistic Studies, Utrecht NL. She received a BA in interdisciplinary studies and a BSPH (public health) from the University of North Carolina- Chapel Hill. She holds a master's degree in nonprofit leadership from Seattle University. Her current research explores community resilience in the Anthropocene; and her present lecturer duties include teaching research methodologies and coaching third- and fourth-year students completing research internships and minors linked to the Sustainable Development Goals.

Isolde de Groot
is assistant professor of democratic and meaningful education at the University of Humanistic Studies and educational researcher at the Amsterdam University of Applied Sciences in the Netherlands. She holds a PhD in Humanistic Studies and has collaborated in several EU-funded international projects (e.g., Teaching Common Values Study; consultation for the Council of Europe). Recent studies

examined the democratic school experiences, political efficacy, civic purpose and futures consciousness of young adults, as well as dialogical, narrative and culturally responsive (teacher) education.

Doret de Ruyter
is professor of Philosophy of Education at the University of Humanistic Studies since June 2018. Before that time, she held a similar chair at the VU Amsterdam for 15 years. She is Assistant Editor of *Theory and Research in Education* and on the editorial board of *Journal of Philosophy of Education*. Her research interests circle around human flourishing, ideals in education, moral and citizenship education and professional ethics. For a list of publications and activities, see: https://www.researchgate.net/profile/Doret-De-Ruyter/research

Nick Hebbink
conducts PhD-research at the University of Humanistic Studies that focusses on *the educational meaning of gratitude*. His research interests include: the aims of education, moral and character education, and (the educational implications of) transformative emotional experiences of gratitude, wonder and awe. Besides his PhD research, Nick also works as a primary school teacher.

Henk Manschot
is emeritus professor. He holds degrees from the Sorbonne University in Paris, the Institut Libre de Sciences Politiques de l'Université de Paris, and the University of Groningen in the Netherlands. In 1989, he was appointed as full professor of Philosophy and Ethics at the University of Humanistic Studies in Utrecht. His expertise spans cultural philosophy and the ethics of care, with a number of academic publications in these fields. Currently, his research focusses on the intersection of humanism and ecology, the relationship between human and sustainable development, Nietzsche's philosophy in ecological contexts and cosmopolitical education.

Neha Miglani
is a sociologist of education with interests in technology, well-being and public pedagogies. She joined the University of Humanistic Studies in the summer of 2023 as assistant professor. Her work on educational technology investigates the values, institutions and symbols that undergird its increasing uptake, its institutional landscape, and the evolving role of teachers. Her project on well-being focuses on how well-being in contemporary cultures becomes an 'educational' concern, mapping the globally circulating discourses, and its embodied pedagogies. She is also interested in the intersection of technology and well-being, especially their interface with human bodies.

Patrick Nullens
is a part-time professor of leadership ethics and human flourishing at the University of Humanistic Studies, holding the endowed chair supported by the Goldschmeding Foundation for a Humane Economy. He also serves as a consultant with the Galan Group (The Netherlands), where he specializes in strategy, governance, and the integration of Environmental, Social, and Governance (ESG) principles in organisational transitions. Additionally, he teaches ethics and integrity in executive education programs, with a focus on equipping non-executive business leaders to address complex ethical challenges and drive sustainable change.

Wouter Sanderse
works as assistant professor of Education at the University of Humanistic Studies. He obtained his PhD in Moral Philosophy in 2012 at Radboud University, after which he gradually moved in the direction of the philosophy of education. His research interests include moral and character education, virtue ethics, moral educational methods, such as role modelling, habituation and dialogue and professional ethics, in particular of teachers.

Anders Schinkel
is associate professor of Philosophy of Education at the Faculty of Behavioural and Movement Sciences of Vrije Universiteit, Amsterdam. He has published on numerous topics in philosophy of education, ethics, and other fields. Among his special interests are the educational importance of wonder and the challenges of education in the Anthropocene.

Martien Schreurs
received his doctorate in 2003 at the University of Humanistic Studies in Utrecht, with a dissertation on *Bildung* in contemporary novels by Salman Rushdie and Harry Mulisch. He has since published many essays on the work of Philip Roth, Tara Westover, Thomas Mann, Salman Rushdie, and others. Since 2005, he has been a dedicated lecturer at the University of Humanistic Studies, where he also organizes debates and talks on *Bildung* and broader educational themes, both within and beyond the university. His research interests include humanism, *Bildung*, nihilism, and multiculturalism.

Fernando Suárez Müller
was born in Spain. He studied Philosophy and Literature at the University of Amsterdam. Following a brief postdoctoral position at the University

of Humanistic Studies in Utrecht, he secured a position there in 2011. His work primarily focuses on the concept of *Ecohumanism*, initially exploring its potential as a framework for organizational theory, particularly in economics. His current research focuses on the metaphysical dimensions of ecohumanism, which he argues require an idealistic foundation. He has published various books. Most recently he was editor of *Idealismus heute* (Wissenschaftliche Buchgesellschaft, 2015), and *Kracht van Humanistiek* (SWP Cahiers Waardenwerk, 2019).

Carolina Suransky
is professor of Higher Education and Social Change at the University of Humanistic Studies, specializing in the intersections of diversity, equity and inclusion (DEI), decoloniality and climate justice. Her work bridges these contexts and focuses on transformative approaches in education in an ecologically interdependent world. Her academic career spans multiple countries, including the United States (University of Michigan), and South Africa, where she is associate professor in the Department of Educational Policy Studies at Stellenbosch University. Additionally, she serves on the Advisory Board on Eco-humanism of the National Humanist Association of the Netherlands.

Pieter van Rees
is an historian and philosopher of education who specializes in democratic citizenship education. Since October 2022 he is assistant professor of Citizenship and Education at the University of Humanistic Studies. For his PhD project he studied the historical interactions between the educational sciences, policy and practice of citizenship education in the United States and the Netherlands. He is currently working on critical analyses of assessment and standardization in citizenship education and on the history of political education in social movements.

Jacco van Uden
is a professor of Change Management at The Hague University of Applied Sciences. He has a background in business and organisation studies (Erasmus University Rotterdam, NL) and holds a PhD in Humanistic Studies. The Change Management Research Group ('lectoraat') focuses not only on the 'management of change' but also addresses the question of how management ideas and practices themselves can be changed. To this end, the research group focuses on 'overlooked' topics such as bodies in organisations, activism, gossip or uncertainty. See www.lectoraatchangemanagement.nl for more information.

INTRODUCTION

Humanistic Education in the Anthropocene

Doret de Ruyter and Carolina Suransky

> Remember the old concept of "posthuman"? Posthuman! Just at the time when the Anthropocene brings the human back with a vengeance.
>
> BRUNO LATOUR[1]

1 Introduction[2]

Writing a book on humanistic education in the current era of the Anthropocene might seem surprising to some. They may wonder: isn't humanism an anthropocentric worldview and doesn't humanistic education focus exclusively on the well-being of (some) human beings who are arguably the very agents responsible for the crises that define our times? From this perspective, one might expect that meaningful educational responses to the Anthropocene would align more closely with post-humanist critique, which rejects human exceptionalism and challenges the adequacy of humanistic educational models to address planetary crises. In contrast, this book argues that humanistic education, when critically reimagined, can meaningfully contribute to an ethics and pedagogy which is rooted in relationality, care and planetary responsibility. We therefore invite the surprised, the critical and the sceptical to read this book, as they are very much part of the audience we hope to reach. They will learn that humanistic education is a strong response to the multiple, overlapping crises of our time; precisely because humans must play a central role to solve them.

Humanism has a long history, first as a philosophy and later as a (recognised) worldview. Throughout the centuries many traditions have been founded, just like in world religions. It is also a dynamic worldview – influenced by internal reflection, responding to changes in the world and by external critique. But a central tenet of all humanistic traditions is that every claim is developed by human beings – everything we know and believe comes from our own (shared) experience, feeling and thinking. This means that it is characteristic

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for humanists to be open to the possibility that what they currently believe to be true or just or good, may have to be replaced by a better idea. Critical reflection and continuous dialogue with other worldviews, scientists, activists, etc. are therefore central characteristics of humanism. And this is also true for ideas about (the aims of) humanistic education. The Anthropocene brings crises that deeply challenge our beliefs about human beings and their interactions with each other and the Earth. Thus, this book could not be written at a timelier moment.

The term *Anthropocene*, derived from the Greek *anthropos* ("human"), marks the profound impact of human activity on Earth's ecosystems. Growing attention from media, political leaders, and the public, especially during global summits, reflects the urgency of resource misuse and environmental degradation. Today's crises are so pervasive and interconnected that the term 'crisis society' may better capture our reality than Beck's earlier notion of a 'risk society'; challenges seem to have been left too long and therefore are no longer risks that can be contained or overcome but have become crises. However, while the label 'crisis' once signalled urgency and demanded immediate action, its overuse in an information-saturated world has weakened its impact. This is particularly troubling for the existential crisis that we're facing. Moreover, the dominant 'crisis' narrative, often obscures the fact that earlier warnings were ignored and allows destructive behaviours to continue unchecked.

For over five decades, scientists, policymakers, and international bodies have warned about escalating climate crises. The Club of Rome's *Limits to Growth* (1971) highlighted the unsustainable use of global resources, followed by the 1987 Brundtland Report's call for sustainable development. Since 1990, the Intergovernmental Panel on Climate Change (IPCC) has published influential Assessment Reports, with the most recent one in 2023, documenting the worsening effects of climate change. While these efforts spurred some policy and technological responses, they remain insufficient given the scale and urgency of the crisis. We focus on the ecological crisis not only because human activity is a major driver, but also because it acts as a catalyst for many other global crises. The pervasive influence of human actions is evident in both natural and social environments, and is manifest in challenges such as habitat destruction, homelessness, financial instability and forced migration.

A pressing educational challenge is to question the anthropocentric perspective that is not only evident in humanistic education but has long shaped most educational systems. The ecological crisis indeed requires humanistic educators too, to critically rethink dimensions of educational paradigms which emphasize human domination over nature, assume possibilities for linear progress and rely on technical solutions. It has become apparent that such

approaches are increasingly inadequate to address the complex and interconnected challenges of the Anthropocene, in fact they might even be a reason why we live in this era (e.g. Schinkel, 2022).

This book explores how humanistic education, which is grounded in human flourishing, dignity, responsibility, and ethical action, can offer a transformative response to the challenges of the Anthropocene. Humanistic educators aim to nurture meaning-making, political agency and a sense of co-responsibility within both human societies and the broader Earth community. Humanistic education fosters holistic development through critical reflection, ethical awareness and emotional growth. By broadening humanity's role within the web of life, it invites learners to recognize their responsibilities to both human and non-human others, and cultivate a deeper sense of interconnectedness.

In this book, scholars from the Department of Education at the University of Humanistic Studies in the Netherlands (UvH), alongside close colleagues, examine the challenges and opportunities which humanistic educators face in the Anthropocene. They discuss how humans can create conditions for individuals, societies, and the Earth itself to flourish. Collectively, they explore what it means to rethink human flourishing in the Anthropocene and how humanistic education can enhance it amid evolving global challenges. The remainder of this introductory chapter introduces three central concepts which are reflected in the title of the book and in our broader collaborative project: (1) the Anthropocene, (2) humanistic education, and (3) flourishing. These three concepts form the foundation for all the chapters, although each author approaches them from unique perspectives which are informed by research in education, the social sciences, and the humanities. Each contribution also draws, explicitly or implicitly, from humanistic values, traditions, and sources of inspiration. The chapters span diverse educational practices, from formal schooling at all levels to broader processes of self-education and moral development. Each author explores their perspective on flourishing in the Anthropocene and examines how humanistic education can respond to the era's challenges. In the second part of this introduction, we outline how these three core concepts feature across the chapters. Finally, we conclude with brief descriptions of each contribution.

2 Three Central Concepts

2.1 *Anthropocene*

The Anthropocene indicates our current epoch in which human activities have become a 'significant geological force' affecting most, if not all, of earth's

ecosystems (Crutzen, 2006). Amid widespread environmental disasters, particularly those linked to climate change, pollution, and the accelerated loss of biodiversity, including the destruction of entire ecosystems, there is a growing consensus that human activity is a major driver of these crises. As a result, the Anthropocene is increasingly viewed as an era that has followed or replaced the Holocene, characterized primarily by humanity's exploitation of the natural world. In March 2024 the International Commission on Stratigraphy (ICS) voted against formally declaring the Anthropocene as unit in the geological history of the Earth, although it has been widely adopted in scientific, philosophical and environmental discourses as well as in artistic communities. The concept is understood in different ways both within and across these different areas.

Some may find this concept too ambiguous for academic purposes. However, others, such as Paulsen, Jagodzinski and Hawke (2022) think that this ambiguity can also be an advantage when it comes to initiating dialogue between and connecting the insights of different perspectives. Paulsen and colleagues (2022) point out four interrelated debates surrounding the notion of the Anthropocene. First, authors vary in what they consider to be the starting point for this era, ranging from the Neolithic/Agricultural Revolution (ca. 11.700 years ago), the Industrial revolution, all the way to 'the great acceleration' (of population growth, consumerism, etc.) from the mid-20th century onwards and the use and testing of nuclear bombs. Secondly, objections to labelling the current era as the 'Anthropocene' include its failure to distinguish between different human societies and its reinforcement of a Cartesian separation between humans and nature, which perpetuates the anthropocentric mindset at the root of many ecological issues. Thirdly, the Anthropocene has been framed both narrowly, by emphasizing better management of resources and references to "spaceship Earth", and broadly, by highlighting the need for a more profound transformation of human-earth relationships. Finally, the fourth controversy is whether the Anthropocene should be conceptualized (and pedagogically approached) in a pessimistic manner in order to prepare us to cope with and make the best of life in a near post-apocalyptic world, or whether there is also room for a more optimistic interpretation in which we manage to create more sustainable ways of living, and perhaps even improve the quality of our relation with the natural world.

In this book, the authors consider the Anthropocene era unique in that it underscores humanity's self-aware impact on the Earth. Their perspectives are rooted in a humanist belief or hope that human influence can be consciously altered, reduced, or redirected. This potential for reflexivity brings significant responsibilities and opportunities, as it implies that humans have the power

not only to harm the planet but also to change their behaviour and mitigate further damage to the Earth's ecosystems. All chapters reflect this perspective, with some, such as Bodegraven's interview with Nimrod Aloni, and the contributions by Miglani, Sanderse, Schreurs and Suárez Müller, as well as Boisvert and Suransky, that specifically underscore humanity's self-aware impact as a defining characteristic of the Anthropocene era.

One of the central debates around the concept of the Anthropocene revolves around the long-standing modernist divide between nature and society. This debate also features in this book. Several contributors, such as Suransky and Manschot, Miglani and Nullens reference the French philosopher Latour, who contends that a rigid distinction between humanity and the natural world, a cornerstone of modernity, is no longer tenable (Latour, 2015, 2018). His interpretation of the Anthropocene extends beyond environmental degradation; he views it as a philosophical, religious, anthropological, and political concept. For him, the Anthropocene is a call to rethink fundamental aspects of human existence, how we understand our place in the world and our responsibilities to each other and the Earth. This perspective compels humanity to rethink the profound interconnections between human activities and natural processes. It requires a move beyond the dualism that positions humans as separate from and dominant over nature. Consistent with this perspective, the assumption that places both technology and society in opposition to nature must also be reconsidered. In this view, technology is not only intricately intertwined with social structures and processes, but also with the natural environment. Consequently, the Anthropocene calls for humans to rethink how they understand technological developments and their role in shaping both society and the environment. This perspective is especially central to the chapter by Miglani.

Other authors, like Hebbink and Schinkel, show the value of preserving a conceptual distinction between humans and nature. However, they too acknowledge that the relationship between the two is deeply interconnected and that nature plays a crucial role in shaping human well-being and identity. In this context, the chapter by van Rees provides an historical overview of the evolution of this relationship within education policies. The chapter by de Ruyter calls for the development of "ecological mindfulness" or the virtue of being well attuned to nature, where actions and decisions are assessed in terms of their impact on the natural environment. This perspective stresses that nature is not only valuable for its resources but also for its capacity to contribute to a meaningful life by offering aesthetic, recreational, intellectual, moral, and spiritual benefits. Moreover, it assumes that caring for and engaging with the natural environment is a meaningful and purposeful activity in itself. Finally, all authors depart from the idea that human disruption of Earth's

delicate balance has brought us to a critical juncture. They agree that we live in an era in which human activity has altered the planet's systems to the point that the very survival of Earth as a habitable environment for humans is at risk. Ultimately, this means that the Anthropocene must be understood as both a geological and cultural shift. This forces us to reconsider not just the physical impacts of human activities but also the broader social, political and technological systems that support them.

2.2 (*Humanistic*) *Education*

Living in the Anthropocene presents many challenges, including within the field of education and pedagogy, because it alters the context in which children are raised and in which teaching and learning takes place, both in formal and non-formal environments such as in the family, in schools, in training sessions and in many other learning trajectories. As members of the University of Humanistic Studies this book focusses in particular on how humanistic education can and should play a role in addressing the challenges of the Anthropocene.

To clarify what we mean by humanistic education, we begin with the education vision of our own university. The UvH aims to educate students to become academically formed professionals and societally engaged citizens who have a reasoned and lived-through vision on humane existence and a society that enables people to live a life of human dignity. They have reflected on their own position in societal and organisational (power)structures and the way in which this influences their relation to individuals and organisations. They are caring and empathic and can translate the humanistic values of freedom, responsibility, justice, solidarity and plurality in their actions as future professional practices. This moral orientation is indispensable to their pursuit of a just and caring society. To realise this, the university offers an inspiring community in which teaching and learning are seen as meaningful and meaning giving activities. All courses are expected to contribute to the intellectual, professional and personal formation of students, which are seen as interrelated dimensions of the university's education. In this vision we see the influence of three theoretical approaches to humanistic education that Aloni (2007) distinguished in his introduction to humanistic education (see also Chapter 5), namely the cultural-classic approach, existential approach and critical approach.[3]

The *cultural-classic approach* is the oldest beginning with the Greek philosophers. It is also the most comprehensive, including representatives such as Aristotle, Kant, von Humboldt, and Nussbaum. Characteristic of this approach is to aim for human excellence or perfection. The *existential approach*, of which Nietzsche and Buber are representatives, proposes that educators aim

"to arouse, motivate and encourage their students towards caring, interpretive, evaluative and creative involvement in their own lives" (2007, p. 46). The youngest approach is the *critical-radical approach*. This approach, of which Freire and Giroux are representatives, is primarily focused on improving society and the place of human beings in it by empowering people and to be emancipated.

Although the approaches differ, they do share several characteristics, as the description of the vision of education at the UvH already showed. Humanistic education is known to be distinctive for its focus on the holistic development of individuals, emphasizing personal growth, critical thinking, and the cultivation of moral, emotional, and social capacities. It is rooted in values of human dignity, freedom, responsibility, and empathy, and aims to help students flourish as well-rounded individuals who are capable to contribute to society in meaningful ways. These characteristics of humanistic education lead to critical pedagogical challenges in the Anthropocene. Before we describe these challenges, we first describe our understanding of 'education' and how it appears in the various chapters.

The term education is most commonly associated with teaching and learning activities that occur within formal institutions. According to Richard Peters, "education" is not a distinct activity or process that is separate from phenomena such as instruction, teaching, or feedback and learning. Instead, we refer to these activities and processes as "education" (and "educative" as the adjective) if they meet specific criteria (e.g., 1973, 1979). Education is, as one might say, an evaluative concept. Peters distinguishes between two sets of criteria. The first are task criteria, such as the teacher's intention to transfer knowledge or develop a student's skill by ensuring that students understand what is expected of them and can choose to engage in tasks and activities. The second are success criteria, which concern the content and goals of education. One example is that students receive comprehensive education, by gaining in-depth knowledge and understanding, and develop the ability to think critically. Peters further asserts that education is successful when the knowledge and insights that students have gained influence how they perceive and navigate the world. He captures the purpose of education with the beautiful phrase, "to be educated is not to have arrived at a destination, it is to travel with a different view" (e.g., 1973, p. 20; 1979, p. 107). Following Peters, we understand education as a formative process in which students are equipped with the knowledge, skills, values, and ideals which are deemed necessary to develop into critically thinking individuals, possessing a diverse range of knowledge, skills and dispositions or virtues that empower them to shape a fulfilling and meaningful life.

The chapters by de Ruyter, van Rees, Sanderse, Abaydi et al., as well as Bodegraven's interview of Aloni focus primarily on education in school settings.

However, while education is an intentional activity, it does not only take place in formal settings, nor is it only an activity in which adults teach a younger generation, as indicated by Hebbink and Schinkel. Firstly, education can also be provided in non-institutional settings like the family, communities or grassroots groups. The chapters by Suransky and Manschot, Nullens and Boisvert and Suransky explore educatively formative activities within alternative settings. Secondly, education is not limited to face-to-face interactions; online environments can also offer abundant opportunities for educators to engage with students and learning communities. The chapters by Miglani and by Boisvert and Suransky highlight some of these possibilities in online environments. Thirdly, educators play a significant role in adult education, as learning and personal development continue beyond legal adulthood. Adults often seek educational opportunities, and educators can contribute to their development by enhancing their insights or perspectives, thereby fostering their flourishing. Suransky and Manschot's chapter as well Schreurs and Suárez Müller's contributions serve as examples in this context. A specific group in this category is constituted by those who have the opportunity and means to implement changes, which is discussed in Nullens' chapter on leadership. Fourthly, education can be understood as a process that not only focuses on individual development but can also aim to support groups or communities in harnessing their capabilities and enable them to collectively improve their social and environmental conditions. The chapter by Boisvert and Suransky exemplifies this approach. Fifthly, education is shaped by multiple factors, including the individuals who are involved, as well as the time and place in which it occurs, both of which influence the content, methods, and available opportunities. This perspective is foregrounded in Bodegraven's interview with Aloni. Van Rees provides a historical overview of various orientations in education policy that pertain to this. More recently, technology has emerged as another significant factor that affects education. While some argue that technology is intrusive, others believe that it can enhance educational experiences. Miglani's chapter explores and evaluates this issue. Finally, students can also be formed by non-human teachers. Nature would be an apt example in the context of the Anthropocene, as is highlighted in the chapters by de Ruyter and Hebbink and Schinkel. Schreurs and Suárez Müller present another source, namely modern novels, which can have a highly formative impact on their readers.

Humanistic educators search for ways in which education can contribute to transforming the exploitative relationship humans have developed with the planet. Education and lifelong learning can foster new awareness, cultivate habits of critical reflection and practices that move away from destructive exploitation toward sustainable interactions. This will not only enable but

also empower learners to critically reflect on and revise their own behaviour and influence broader systems, including governments and industries. Thus, in the Anthropocene, humanistic education goes beyond technical solutions to engage with ecological crises as ethical and existential challenges. It can draw on a rich legacy of values like dignity, freedom and empathy, that enable educators and learners to frame ecological crises not merely as scientific or political issues, but also as ethical and existential dilemmas which require profound changes in how we live and relate to each other and the Earth. As such, these values and virtues play an important role in educative processes, which is reflected throughout the book, especially in the chapters by de Ruyter, Schreurs, Suárez Müller, and Sanderse.

Grounded in hope and human potential, humanistic educators can help learners to envision alternative futures and develop the critical and creative capacities that are needed to realize them. We argue that by fostering pluralist dialogues and engaging diverse cultural, philosophical, and historical perspectives, humanistic education can offer counter-narratives to the deterministic and often despairing discourses which surround the Anthropocene. In doing so, it can help learners to understand, adapt to, and actively shape equitable and sustainable futures. Characteristic for humanistic education is its critical spirit, also with regard to its own premises and practices. And this can be found in this book as well. In a number of chapters, humanistic education is critically assessed and educators are urged to adjust it to the problems of the current era, for instance in Hebbink and Schinkel and Bodegraven's interview with Aloni, or even called to fundamentally reconsider its principles, as can be found in the chapter by Suransky and Manschot.

2.3 *Flourishing*

Aloni (2007) proposes to use an integrative definition of humanistic education that brings together what he considers to be the best elements of the approaches he has described. As he has it Humanistic education is characterized by *general and multi-faceted cultivation of the personality of those being educated, in a climate of intellectual freedom and respect for human dignity, towards the best and highest life of which they are capable in three fundamental domains of life: as individuals who harmoniously and authentically realize their potential, as involved and responsible citizens in a democracy, and as human beings who enrich and perfect themselves through active engagement with the collective achievements of human culture* (p. 77). The description of the aim of humanistic education is what many philosophers (e.g., Alexandrova, 2017; Foot, 2001; Kraut, 2007), philosophers of education (e.g., Brighouse, 2008; Kristjánsson, 2020; Reiss & White, 2013) and psychologists (e.g., Keyes, 2002; Seligman, 2010)

call '(human) flourishing'. Although flourishing is certainly not defended by humanists or humanistic educators only, it is a certainly an aim that resonates with the anthropological premises of humanists (e.g., Manschot, 2002).

Since several decades there is increasing interest in and defence of flourishing as an aim of education. This is not only visible in the number of academic publications in which the term appears, but also in the adoption of this aim by NGO's, such as the United Nations (see for instance Nullens' chapter), UNESCO (2022), and even the OECD (2022). One reason for the growing focus on well-being and flourishing as educational goals is the emerging recognition that formal education in the Global North (though not exclusively there) is failing to serve the interests of children, society, and the environment. Particularly in neoliberal societies, education has been influenced by economic priorities which emphasize the development of human capital that is intended to benefit both the nation's economy and individuals. Students are stimulated to achieve the highest grades in school to be able to access the highest level of education to get the best economic positions. Yet, wealth and material possessions alone do not make (most) people happy or satisfied with their lives.[4]

Furthermore, the focus on economic growth and the type of lifestyle that is promoted in neo-liberal countries have detrimental consequences for the Earth and many people around the world. Therefore, both theorists and practitioners have begun to look at other aims of education, aims that are not only better for the individual, but also for social justice and environmental protection. For instance, the UNESCO Mahatma Ghandi Institute of Education for Peace and Sustainable Development published a report written by authors from around the world in which they propose to use flourishing as the key benchmark to initiate changes in education world-wide. They cite three reasons for the need to change education, namely that (a) our ecosystems are under threat, (b) social systems are breaking down – inequality is growing and poverty is increasing, (c) there are increasing levels of stress, anxiety, depression and suicide due to fragile economic systems and increasing competition and polarization (Duraiappah et al., 2022, p. 15). Furthermore, they argue that "[W]e need to adopt education practices that prepare us for a future with the ultimate objective to make this world peaceful and sustainable" (p. 15).

Before we continue with a justification of flourishing as the aim of education, we first need to be clearer about what we mean by flourishing. As this book brings together scholars from various disciplines (philosophy, anthropology, psychology and sociology) and who adhere to diverse (ethical and epistemological) paradigms, we used a definition that is the result of a discussion amongst various scholars from around the world of which there are two recent ones. In the UNESCO report a chapter is dedicated to the meaning of 'human

flourishing' and proposes a definition, which was the result of extensive literature review and discussions with academics and politicians from around the world. It is defined as

> Human flourishing is both the optimal continuing development of human beings' potentials and living well as a human being, which means being engaged in relationships and activities that are meaningful, i.e. aligned with both their own values and humanistic values, in a way that is satisfying to them. Flourishing is conditional on the contribution of individuals and requires an enabling environment. (de Ruyter et al., 2022, p. 99)

In 2024 eleven authors from around the world wrote an article about their consensus on the meaning of well-being and flourishing (as an aim of education). Their agreed definition of human flourishing is "ongoing healthy growth and functioning involving fulfilment of potential that exhibits admirable qualities and is personally meaningful, satisfying, and enjoyable" (2024, p. 123). These definitions cohere with Aloni's definition of (the aim of) humanistic education that we gave at the beginning of this section. Both definitions are general and do not explicitly refer to the impact of the Anthropocene on the conceptualisation of (human) flourishing. In their chapters, de Ruyter, Hebbink and Schinkel, Suransky and Manschot as well as Nullens do address this point.

The need to replace an economically informed aim of education because of the detrimental effects of merely/primarily economically driven human behaviour, is an important but not a sufficient defence of flourishing as the aim of education. There are two reasons to defend flourishing as an aim of education, namely that it has objective elements and that the word (at least in English) naturally applies to all sentient beings and the Earth.

First, 'flourishing' is used for conceptions of well-being or the good life that are not only subjective (having a good life) but also propose that it can be objectively described and evaluated (living a good life – a life of significance). Well-being theories can be divided into two main clusters: subjective and objective theories. According to subjective well-being theories people have a good life when they are happy and are enjoying life. People are also the (only) judge about this goodness of their life: they are happy when they say so, irrespective of whether their reasons are true or their reasons are worthy. This last element is the reason why a strict subjective well-being theory is not defended by many: human beings can enjoy something, while it harms their own interest (think of drugs) or that of others. This is also the reason why humanistic educators cannot defend such a theory. While the feeling of happiness in itself

is a good, it should be regarded as a qualified good – dependent on reasons that take into account elements of life that are objectively good for human beings. Examples of objective goods are for instance autonomy, relation and competence as defended and empirically proven by the Self-Determination Theory (e.g., Ryan & Deci, 2017), or the ten capabilities that Nussbaum (2006) presents as objective goods in which those goods are also mentioned and among which are also life, bodily integrity, practical reasoning, emotions and play. Objective well-being theories focus on those goods and define well-being as the satisfaction of those goods, irrespective of whether individuals feel happy or are satisfied with their lives. However, most well-being theories tend to combine objective and subjective elements, although they differ in whether satisfaction is an objective good itself (e.g. Arneson, 1999; Tiberius, 2013) or that it is an important dimension of a flourishing life, but not "the true essence of flourishing" (Kristjánsson, 2015, p. 13).

The second reason seems more superficial, namely that the term flourishing is used not only for the optimal well-being of human beings but for that of all living species and the natural environment. However, that the term is so widely applicable (and shares it etymological root with flowers) could make it more self-evident that education should not only focus on the flourishing of human beings as de Ruyter argues in her chapter. Furthermore, the term more readily seems to express the interconnectedness of each species' and the Earth's flourishing, a (not sufficiently acknowledged) ontological fact that Hebbink and Schinkel, Suransky and Manschot and Boisvert and Suransky explicate in their chapter. Finally, as flourishing is a verb that is connected to living things, it makes it more significant to explore how non-living entities interfere or contribute to their well-being as Miglani discusses in her chapter.

In closing this section, we mention the two broad ways in which the book deals with the relation between humanistic education and flourishing. Firstly, flourishing is proposed as the aim of education on which we have focused so far. Secondly, one can also reflect on the way in which humanistic education should aim for flourishing, which is the first part of the description of Aloni's definition of humanistic education (*general and multi-faceted cultivation of the personality of those being educated, in a climate of intellectual freedom and respect for human dignity*). There are four chapters that focus particularly on the means of education. Sanderse and Schreurs and Suárez Müller evaluate approaches of education in light of human being's (moral) attitudes towards the Earth, while van Rees describes how sustainability education has developed and Abaydi, van Uden and de Groot propose ways in which business education should be reimagined to enhance the flourishing of the natural environment and human beings.

3 Overview of Chapters

The book begins with the chapter *Education for human flourishing revisited – the necessity of ecological mindfulness* by Doret de Ruyter. In this chapter she investigates the implications of (living in) the Anthropocene for her ideas about education for human flourishing, about which she has written since 2004. The main change or addition to her ideas is the notion of ecological mindfulness as a necessary element of education for flourishing in the Anthropocene. Being ecologically mindful means that people flourish if they also take into account the impact of their planned activities on the state of the environment and believe that their activities are only worthwhile if the impact is minimal. She discusses three reasons for the necessity of (educating for) ecological mindfulness. Firstly, it is a precondition of human flourishing: it is in human beings' own interest to be ecologically mindful, because human beings can only live in a flourishing natural environment. Secondly, it is a characteristic of a flourishing life, because (a) it contributes to the possibility that all human beings can flourish, (b) one's relationship with the natural environment and contributing to its well-being are meaningful and worthwhile. In the final section she discusses the tasks of educators in enhancing students' ecological mindfulness.

In the second chapter, *On the Importance of Gratitude for Humanistic Education in the Anthropocene*, Nick Hebbink and Anders Schinkel argue that the present ecological crises reveal that our exploitative way of relating to the world undermines humans' and many other beings' potential to flourish. Therefore, education should foster awareness and understanding of the value and vulnerability of life on Earth and our dependence on the planet's goods. Gratitude experiences, they suggest, are characterized by and can contribute to such forms of awareness, types of understanding, and corresponding motivations to cherish certain goods. Moreover, experiences of *existential gratitude* can enrich our relationships with the natural world – focussing, beyond instrumental benefits, on our interconnectedness with its intrinsically valuable entities. Such experiences can provide meaning by deepening our sense of identity, and by infusing our lives with a sense of moral responsibility to care for the ecosystems we are part of. Thus, gratitude not only has the potential to enhance flourishing, but may also influence how we approach the ontological-ethical question of what it means to be and flourish as a human being. However, there seems to be a tension between existential gratitude and central elements of the modern Western worldview marked by humanism. Hebbink and Schinkel discuss how humanism can disentangle itself from these problematic elements, and explore possibilities to foster existential gratitude within humanistic education.

In Chapter 3, *Reframing Humanistic Education in the Anthropocene: Ideas Inspired by Bruno Latour's Philosophy*, Carolina Suransky and Henk Manschot explore the impact of Modernity, rooted in Enlightenment humanism, and critically reassess its values: freedom, equality, and human rights, in light of the Anthropocene. While recognizing Modernity's contributions to human flourishing, the authors underscore its environmental and social flipsides. They integrate two major critiques: ecological perspectives that highlight humanity's adverse impact on Earth, and decolonial perspectives that expose how Modernity's progress depended on the domination of colonized nations. Drawing on Bruno Latour's philosophy, they argue that his ideas offer a valuable framework to reconceptualize humanism and by extension humanistic education. Examples are Latour's concepts of Gaia and the "Critical Zone" which challenge Modernity's separation of nature and culture, and emphasize interconnectedness and the need to recognize planetary boundaries. His vision encourages a shift from anthropocentrism to a more relational humanism that values all life forms and rethinks human autonomy. The authors apply Latour's ideas to humanistic education, and suggest that humanistic education should focus on fostering relationality, interdisciplinary learning, local engagement, and sensitivity to ecological and social challenges. By integrating ecological and decolonial critiques with Latour's insights, Suransky and Manschot call for humanistic education that is inclusive, adaptable, and better equipped to address the complexities of the Anthropocene.

In the fourth chapter, entitled *EdTech in and for the Anthropocene: A perspective from Science and Technology Studies?* Neha Miglani takes the perspectives of Science and Technology Studies (STS) and implores us to reconsider how we view Educational Technologies (EdTech) in and for the Anthropocene. Reviewing literature and recent media around the Anthropocene and EdTech, Miglani problematizes the idea of treating them as established categories with stable meaning. She illustrates how EdTech co-constitutes the current imaginary of education, especially around speculative educational futures, visions of society, making of the educational knowledge, educational expertise, evidence as well as policy. By focussing on what EdTech does to our understanding of (and evolving state of) education, Miglani provides a way of thinking about what kind of EdTech we might want for education. Echoing others in this book, she calls for rethinking of the human at the heart of a humanist education, paying attention instead to complex entanglements, and recognizing that students' and educators' well-being is interdependent with more-than-human biophysical worlds of the planet.

Chapter 5 *The Tree of Knowledge must feed the Tree of Life* presents a conversation by Robbert Bodegraven (Director of the Humanist Association of the

Netherlands) and educator and philosopher Nimrod Aloni about his views on humanistic education as a transformative force. Aloni argues that humanistic education's aim is to nurture individuals into compassionate, responsible citizens who strive for a humane and just society. Aloni critiques postmodernism's relativism, which, he claims, undermines commitment to values and truth, insisting that education should cultivate critical moral judgment which is rooted in universal ethics. Aloni outlines four traditions that inform humanistic education: classical virtue ethics, Romantic authenticity, existential self-creation, and socio-political pedagogy which is inspired by Paulo Freire. Despite their differences, all these humanistic education approaches seek to develop individuals' capacities for critical thinking, social engagement, and ethical responsibility. The concept of ecohumanism emerges as Aloni's response to global ecological and social crises. This paradigm integrates humanistic and ecological values, promoting a sustainable, justice-oriented approach to education. Finally, he advocates for an "art of living" that aligns knowledge with action, nurturing a sense of responsibility toward both humanity and the Earth.

In Chapter 6, *The art of the novel as a tool for education and Bildung in the Anthropocene*, Martien Schreurs and Fernando Suárez Müller demonstrate the educational value of the modern novel. They begin with Amitav Gosh's observation that few serious writers have published novels, stories or poems about this problem. Yet this is an important responsibility that novelists should not shy away from. It requires the utmost of our social imagination (Taylor, 2003, 2008) to imagine a world where it is not the people from the poorest parts and its future inhabitants who end up paying the enormous price of climate change. How can novelists help us with that? Schreurs and Suárez contend that an analysis of Salman Rushdie's multicultural novel *The Ground Beneath Her Feet* (1999) reveals that this novel transcends Eurocentric blind spots, addresses them in a unique way, albeit without explicitly reference to climate change. But Rushdie's novel teaches us about a new way of relational thinking, about the universal connectedness of things that operates on multiple levels within this narrative universe. It is precisely in this sense, that Rushdie's novel also shows its formative role. In this literary pedagogical essay Schreurs and Suárez try to demonstrate that such literary examples can be used in education to enrich and transform our social imagination of the climate crisis.

In Chapter 7, *Slow habituation during the Great Acceleration*, Wouter Sanderse examines the role of moral education in the Anthropocene, focusing on the method called 'habituation', particularly favoured by neo-Aristotelians. In particular the period known as the Great Acceleration, which highlights the rapid increase in human activities and their environmental impacts, challenges the suitability of habituation due to its potentially slow process. It explores

whether habituation can keep pace with the urgent need to mitigate these impacts. It is argued that while habituation may not be quick enough to address imminent tipping points, its effectiveness varies between adults and children. Adults face a complex and demanding process of self-cultivation, whereas children can develop sustainable habits more quickly if they are guided by virtuous tutors. Yet, the availability of virtuous tutors and broader limitations of what education can achieve remain concerns. However, the chapter suggests that – even if it does not reduce harm in time – an education based on Aristotelian principles is still useful if it can help people to live a meaningful life in dire circumstances. Ultimately, while habituation may be far from a complete solution, it remains a crucial element in the moral education framework within the Anthropocene.

In Chapter 8, *Did we learn nothing? 50 years of policy initiatives for education for the Anthropocene in the Netherlands*, Pieter van Rees provides a qualitative historical analysis of Dutch educational policy and curricula proposals for nature, environmental, and sustainability education since 1972. Guided by the paradigm of eco-humanism proposed by Nimrod Aloni and Wiel Veugelers, the chapter asks: How did Dutch policy and curriculum makers address the challenges of the Anthropocene in formal education since 1972 and what can we learn from their apparent failure to adequately formalize education for flourishing in the Anthropocene? The analysis shows that different approaches to education for the Anthropocene were dominant in distinct periods in the Netherlands, each rooted in specific understandings of the challenges of the Anthropocene, (the preconditions of) flourishing and education. None of these approaches constituted adequate education for flourishing in the Anthropocene, van Rees claims, because they were either one-sided or limited by constraints, such as the prevalent structure of the curriculum, the need for political, societal and professional support, and the difficulty of balancing pedagogical and ecological imperatives. The Dutch attempts to formalize education for flourishing in the Anthropocene show the need to take 'realistic' constraints into account, while at the same time avoid being trapped in established educational and political structures.

In Chapter 9, *Let's Talk about Climate Justice in Higher Business Education: narrating business students' and teachers' climate (justice) emotions*, Hanane Abaydi, Isolde de Groot and Jacco van Uden explore the role of climate change and climate justice-related emotions in business education, a field which is traditionally rooted in a neoliberal paradigm of economic growth. Their qualitative research focuses on narratives from students and teachers at The Hague University of Applied Sciences (THUAS) in the Netherlands. The chapter begins with a theoretical overview which introduces key concepts in environmental

education, education for sustainable development and climate emotions. Building on work of Verlie and de Groot, the authors highlight the potential of "storying" as a tool to engage with climate justice-related emotions in higher education. Their findings reveal that emotions such as *Surprise* (e.g., disappointment), *Fear*, and *Anger* (e.g., powerlessness and frustration) are prominent in the narratives of both students and teachers. Additionally, *Fear* and *Guilt* are particularly prevalent among teachers, which offers opportunities to foster intergenerational dialogue to enhance impactful climate education initiatives. In the discussion, the authors observe that out of four types of narrative learning the primary form at THUAS business education is learning from existing stories about climate justice emotions. They suggest, however, that all four types should be harnessed to deepen understanding and engagement with climate justice. The chapter concludes with recommendations to advance the theory and practices of narrative humanistic education and emphasizes its importance in addressing the challenges of the Anthropocene.

Chapter 10, *Holistic Leadership in the Anthropocene: Integrating Ethics, Humanistic Education, and Sustainable Governance*, presents Patrick Nullens' analysis of the prominence of environmental sustainability in business careers and the integration of Corporate Social Responsibility (CSR) into core curricula of leadership programmes. Currently, profit-oriented cultures still dominate boardrooms, presenting a challenge for systemic change. Yet, ethics is evolving into a vital business leadership skill. In line with Paul Ricoeur's approach, management ethics focuses on living well with others in just institutions, shifting business leaders' perspectives toward personal well-being and institutional justice. This is fortunate, because a shift in corporate narratives and education is necessary in the Anthropocene: embracing an interpretive narrative rooted in interdependence between individuals and nature is crucial for future business leaders. In the Anthropocene, education for business professionals must embrace alternative knowledge forms like phronesis and gnosis, which diverge from the profit-driven paradigm. Incorporating a spiritual dimension, gnosis, expands understanding of meaning and interconnectedness. Modern business education must weave a tapestry of knowledge encompassing epistēmē, technē, phronesis, and gnōsis. Humanistic management education emphasizes relationship and meaning. Integrated with science and technology, it holds potential to nurture these dimensions. By harmonizing diverse knowledge realms, business leaders can effectively address Anthropocene challenges.

In Chapter 11, *Enhancing community resilience in the Anthropocene: Three network perspectives*, Deanne Boisvert and Carolina Suransky analyse how three ecologically focused networks, namely the Transition Network (TN), Dark Mountain Project (DMP) and Alaska Federation of Natives (AFN), conceptualize

and build resilience within their communities amid Anthropocene's challenges. The study is based on a grounded theory approach and involves interviews with network members and situational analyses of written materials. The study aims to understand how these networks approach socio-ecological resilience and learn to adapt to anthropogenic disruptions. Each network embodies a different perspective. Transition Network emphasizes local action, community cohesion, and ecological sustainability. DMP provides spaces for 'existential resilience', by encouraging members to engage with ecological collapse through art, literature and community. AFN represents Indigenous Alaskan interests and focuses on political advocacy, economic resilience and indigenous practices to sustain cultural identity and adapt to environmental impacts. Each network fosters learning to adapt by sharing resources and engaging in collaborative practices. TN operates like a mycorrhizal network, DMP fosters creative exchanges and collective resilience workshops, while AFN supports knowledge-sharing events that integrate Indigenous and scientific perspectives which strengthen indigenous practices. By comparing these cases, the study underscores diverse expressions of resilience: from practical local action to cultural expression to existential reflection and thus exemplify diverse approaches that communities use to build and strengthen their resilience in the Anthropocene.

The concluding chapter by Suransky and de Ruyter offers a synthesis of the key insights which were developed throughout the book. It identifies three core themes, namely relationality and human responsibility, ecological consciousness and holistic education and plural humanisms, and explores how each is addressed. The chapter also articulates central tensions, around reconciling humanism with critiques of anthropocentrism, navigating hope and despair in the face of planetary crises, and balancing global awareness with situated educational practices. Rather than resolving these tensions, the authors argue that humanistic education should hold them creatively as part of a critical, reflexive and transformative pedagogy. The chapter closes with orienting propositions to inspire renewed humanistic practices which are attuned to the challenges of our time.

Notes

1 From: *Anthropology at the Time of the Anthropocene – a personal view of what is to be studied* – Bruno Latour Distinguished lecture American Association of Anthropologists Washington December 2014 (draft for comments) http://www.bruno-latour.fr/sites/default/files/139-AAA-Washington.pdf

2 The introduction is based on a collaborative effort by all the authors of the book.

3 Aloni also describes the *naturalistic approach*, which presumes that human beings have an 'inner nature' that is essentially good and unique to individuals. Education should assist students towards actualizing their inner nature. Representatives are Rousseau and Pestalozzi.

4 There is an abundance of empirical research on the question if wealth makes people happier. Studies found that having sufficient means to sustain oneself and one's family is necessary, but that wealth does not increase subjective well-being (e.g., Diener & Biswas-Diener, 2002; Kahneman & Deaton, 2010), although it does influence people's satisfaction with their lives (Kahneman & Deaton, 2010). However, recently Killingsworth, Kahneman and Mellers (2023) found that "Happiness increases steadily with log(income) among happier people and even accelerates in the happiest group" (p. 1); only the least happy people's happiness does not increase with increasing wealth.

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CHAPTER 1

Education for Human Flourishing Revisited

The Necessity of Ecological Mindfulness

Doret de Ruyter

1 Introduction

In the past twenty years I have written various publications, also with PhD student Lynne Wolbert and colleague Anders Schinkel, in which I have defended human flourishing as the ultimate aim of education. In the first fifteen years I primarily focused on parental upbringing. My premise was that parents want their children to be able to live a good life and I defended the idea that this means raising children to be able to realise what is objectively good for human beings in a way that is subjectively good for them. I called this human flourishing (2004). For me this was the best word to express what it is to do well in life. Moreover, it immediately clarified that it was a different aim than being economically successful, being happy or having societal status, which were at that time (and still are) dominant in western societies.

In those years I have addressed various topics in relation to education for flourishing but have never participated in (educational) philosophical debates about environmental education or how sustainability as one of the United Nations' sustainable development goals should be addressed in the upbringing or schooling of children. My interest in education for the good life was primarily inspired by situations in which the upbringing and education of children were lacking and thus focused on the question, what is good for children when they are young and when they are adults? And while this also included the preconditions of flourishing, such as having sufficient food, living in a safe environment, and receiving education, I did not reflect on the necessity of a healthy, biodiverse environment and flourishing nature. However, it is clear that such an environment cannot be taken for granted, as scientists, for instance in the authoritative IPCC (the Intergovernmental Panel on Climate Change) reports, show time and again. On the contrary, the reports show that the current lifestyle of citizens of the Global North seriously affects the environment. If we continue with this lifestyle and if it would also be adopted by the majority of citizens of the world (because it is an attractive lifestyle in many ways), the planet will become unliveable for human beings. Thus, our

impact on and relation to the environment should be part of (a reflection on) education for flourishing. In this chapter I want to address this topic.

In section 2 I concisely describe the ideas about (education for) flourishing I have defended in the past years. Section 3 explores a new necessary condition, which I call (education for) ecological mindfulness. I first explain this idea and then explore three arguments for why it should be seen as a dimension of (education) for flourishing. Finally, section 4 describes what ecological mindfulness as a necessary dimension of human flourishing means for humanistic education.

While working on this chapter and reading a wide variety of articles and books,[1] I constantly realised that it was impossible to do justice to the ideas developed in the past thirty years on the ecological dimension of flourishing or environmental and sustainability education and that I therefore would have to focus on a few topics and sources. In exploring these dimensions, I engaged with Michael Hannis' 2016 book *Freedom and environment: Autonomy, human flourishing and the political philosophy of sustainability*. His book is close to my own interpretation of flourishing and uses similar sources of reference. It thereby gave me an opportunity to compare our readings of shared texts and led me to transform my rather anthropocentric view of education for flourishing into what he calls an anthropogenic one.

2 My Own Conception of (Education for) Human Flourishing

Human flourishing is an aim of humanistic education par excellence. Certainly, human flourishing is defended in other religions and secular worldviews as well (e.g., Volf, 2015), humanists defend other aims of education too (see Aloni, 2007), and I defended this aim of education long before I immersed myself into humanistic education (e.g., 2004, 2007, 2015). However, education that aims at the good life of *humans as human beings* is humanistic.

In my view human beings flourish when they can develop – and continue developing – their potentials in ways that allow them to live meaningful and worthwhile lives. This means engaging in activities and forming relationships that give meaning to their lives and that also have non-subjective value – have value beyond humans themselves (see Damon, 2009; Wolf, 2010). This is not necessarily a moral value – one's activities could also be of aesthetic or intellectual value to others, like this book.

I defend a mixed or hybrid theory of human flourishing. On the one hand, it presumes that some things are *objectively* good for human beings (and therefore need to be part of the education of children). First, there are objective goods – goods that are good for all human beings, namely health and safety,

having social relations, and intellectual, creative and physical pursuits or activities (see also Nussbaum, 2006). Second, to be able to realise these goods in a way that is good for themselves and others, people need to develop their (cognitive, physical, emotional, social, moral, and spiritual) potentials. And, finally, they need (to acquire) certain dispositions – they need moral, civic, performative and intellectual virtues and particularly practical wisdom to be able to live a flourishing life.[2] On the other hand, there are two *subject-dependent* aspects. First, I presume that flourishing is agent-relative, that is, human beings flourish in different ways, just like the species of leaf trees or ducks do. People fare well in diverse types of relationships or activities. For example, some flourish in a monogamous relationship, others do so in polyamorous relationships. Similarly, individuals with a similar technical potential may find fulfilment in very different professions – as a plumber, a stonemason or a welder. These choices are not only influenced by the availability of options but also by people's values that are in turn influenced by the culture of the family, communities and society in which they have grown up and live. Second, I assume that the person needs to be satisfied with her life overall – a flourishing person is not happy all the time, but she must experience that she is living a life that is good for her too.

Furthermore, my conception of human flourishing is perceived as belonging to the liberal (education) tradition. For, while I defend that there are objective goods, I not only believe that there are various interpretations of the objective goods that can be called good,[3] it is, in my view, also a necessary condition that people *autonomously* give meaning to the objective goods. In that case, people can live their lives from the inside, as Harry Brighouse (2006) calls it, and they can stand for the aims they set and the activities they undertake, rather than blindly adopting ideas of others or copying the lifestyle of others (e.g., Ricoeur, 1992; Sieckelinck & de Ruyter, 2009). As the term autonomy can easily lead to misunderstandings, I want to make two clarifications to the way in which I understand autonomy. First, in my conception of flourishing, autonomy is as important as having relations; it is one of the constituents of human flourishing.[4] As I will mention at various points, human beings are social or relational beings and can flourish only when they recognise their interdependency with others. Second, an autonomous person is not an anarchic person. Being autonomous actually requires having principles or ideals (see Frankfurt, 1999). These are necessary to restrict one's freedom, which enables one to make (meaningful) choices. And, as mentioned before, a flourishing life is one in which people have worthwhile relationships. This implies that an autonomous flourishing person evaluates the impact of their behaviour.

If educators pursue this conception of human flourishing, I have suggested that they have six responsibilities, namely (a) introducing children

into the objective goods by explicating which goods are objectively good and why; (b) fostering and encouraging the development of children's potentials; (c) promoting values and ideals with which children can give a meaningful and worthwhile interpretation of the objective goods; (d) cultivating virtues, particularly practical wisdom; (e) giving examples of ways in which people flourish and being exemplars themselves; (f) giving children freedom to explore what makes life meaningful and worthwhile for them.

The consequences of the Anthropocene are so profound that they must have an influence on these responsibilities – on the way in which objective goods are interpreted, the values and ideals that are promoted, and the virtues that should be cultivated. Central to this is that we have to teach children that people stand not only in interdependent relations to other human beings, but also to other sentient beings and to the natural environment. Therefore, children need to learn that their flourishing includes that they mind the flourishing of those other parties as well. This I call ecological mindfulness, which I will elucidate in the next section.

3 Ecological Mindfulness as a Necessary Element of (Education for) Flourishing

Education is future-oriented as it aims to equip young generations with the knowledge, skills and dispositions they need to be able to live a good life. Given the speed of technological innovations and opposing ideas about what is happening with and necessary for our natural and cultural world, it seems impossible to be certain of what one needs to teach the current young generation. Certainty about the future might never be achieved but that may not be necessary. Scientific research, as for instance laid down in the IPCC reports, already provides ample insights in the (profoundly) detrimental impact of human behaviour on the natural environment and the climate next to the disastrous consequences for the liveability on Earth. This gives sufficient reason to educate children that they have to mind the impact of their and their generation's behaviour and want to contribute to improving the state of the natural environment. Furthermore, situations are likely to change and therefore educators should also cultivate the habit in children that when grown up, they want to continue to acquire new information and to critically review this information as well as their own ideas and behaviour.[5]

I therefore want to add a new dimension to my conception of human flourishing, namely ecological mindfulness. The concept mindfulness is used in various ways. The most dominant one in the Netherlands, like in most countries where

mindfulness has become a popular practice to increase one's well-being, is the Buddhist interpretation.[6] In psychology, Ellen Langer's work on mindfulness is influential. She contrasts mindfulness with mindlessness and typifies mindfulness as noticing new things or as drawing novel distinctions (e.g., Langer & Moldoveanu, 2000). Ecological mindfulness, as I use it here is a combination of four dimensions, that is very similar to Langer's conceptualisation namely (a) *a just and loving gaze* or selfless *attention* (following Murdoch, 1970) to sentient beings and the natural environment, which I interpret as the intention to look to the natural environment with care (b) *openness* to new knowledge and insights about the state of the Earth, and a willingness to critically review new knowledge as well as the consequence for one's own beliefs, (c) *caring for* the natural environment, at least to the extent that one's relations with and dependence on the flourishing of the natural environment inform what one believes is worthwhile to do, (d) *the will to act* in an ecologically mindful way. Ecological mindfulness thus has a cognitive reflective, emotional and conative dimension. Education for ecological mindfulness then means that educators teach children to be *sensitive* and *sensible* in their relationships to other living creatures and the natural environment, firstly because these relationships can be meaningful to them and secondly because they should mind the effects of the way in which they live. Ecological mindfulness can be interpreted as a virtue but also as a duty, e.g., that human beings have a duty to diminish their contribution to the damage of the environment, and as a value that people endorse and take into account, for instance, in a utilitarian calculus. In other words, for my defence of its importance it is irrelevant which ethical theory one endorses.

I do not want to claim that it is impossible to flourish as a human being and be pollutive at the same time. Probably the majority of adults and certainly the people of the past previous generations flourished like that. However, one could argue that past generations were not as aware of the impact of their behaviour. The fact that the current generation of adults does have access to that information is sufficient reason to say that living a worthwhile life means being ecologically mindful. In an ideal sense one could say that human flourishing means that activities and relationships are also *beneficial* to non-human sentient beings and the natural environment. I defend a realistic (though still demanding) sense, namely that flourishing people take into account the impact of their planned activities on non-human sentient beings and the state of the environment and believe that their activities are only worthwhile *if the impact is minimal*.

In the following subsections I will defend the necessity of promoting ecological mindfulness in education for flourishing by referring to two central, complementary, characteristics of human beings (see also Manschot, 2002). The

first is their *potentials* and their aim to lead a flourishing life. Human beings in principle have the potentials to change the current negative effect of their activities on the natural environment into sustainable behaviour, which they can do for the sake of the environment, for the sake of other human beings or for the sake of themselves. The second (flipside) characteristic of humans is their *vulnerability* or fragility. Human beings are *dependent* – not only on the good intentions of other human beings but also on the state of the natural environment. We live in, interact with and are dependent on the natural world, and thus our flourishing is intertwined with (the flourishing of) other sentient beings and the natural environment.

With these two human characteristics, I will evaluate three reasons for teaching ecological mindfulness. Firstly, the quality of the natural environment can be interpreted as a precondition of human flourishing. The preconditions of human flourishing are basic conditions that need to be fulfilled to enable people to flourish. We can think of biological needs such as food and physical safety and existential needs like freedom or psychological safety. Kristjánsson provides a list of six categories of external necessities that Aristotle distinguished.[7] Interestingly, a healthy environment is not on the list, although it probably should not surprise us because pollution and depletion of resources won't have been an issue in Athens in Aristotle's time. Currently, it seems self-evident that a liveable environment should be explicitly mentioned as a basic condition that needs to be ensured to enable human beings to lead a flourishing life. It could be argued that contributing to this quality is a worthwhile activity because the state of the natural environment is a precondition for one's own flourishing and therefore in one's own interest. A second reason is that ecological mindfulness is necessary to contribute to the possibility that all human beings can flourish because they all need a healthy natural environment. This would make ecological mindfulness a constitutive element of human flourishing because flourishing means that one has the wish and will that other people can flourish as well.[8] Finally, one's relation with the natural environment or wanting to contribute to its well-being can also be seen as part of human flourishing because these are meaningful (and worthwhile) relations and activities.

3.1 *Ecological Mindfulness Is Worthwhile Because It Is in One's Own Interest*

As said, humans are dependent beings. Although adults can be self-sufficient in many ways, like earning their own income and making their own decisions even in complex existential situations, most adults depend on others too to make such decisions, and everyone is dependent on other people for their

safety, health, and freedom. For instance, adults may be able to pay for their own bread, but if the farmers stop producing grain because they can earn more money by growing corn or soy, or if transport companies or backers go on strike, one cannot buy a loaf of bread. Our dependence on the natural world is also self-evident. If crops fail because of a climate change, there won't be any bread either; without sufficient oxygen, clean water, and food we cannot live. These examples are possibly simplistic, but they are a reality and thus suitable to explain the necessity of living in an ecologically mindful way. However, the simplicity is also its weakness, for the technical ingenuity of human beings can be used as a counterargument. For instance, it might be possible to grow other types of grain or to do so using alternative methods. Predicted migrations caused by rising water levels could be averted through the construction of dams. The United Arab Emirates demonstrate it is possible to live well in extreme temperatures, which could be achievable in a sustainable way in the future and be implemented around the world. Thus, people could argue that human beings' dependency on a healthy environment doesn't necessarily give them a reason to act sustainably, because the earth is sufficiently liveable at the moment and we are still able to overcome natural disasters quite well. Furthermore, in the near future there might be good ways to avoid the negative impact of the damage we cause now (see also Sandler, 2006; Hannis, 2016).

If acting in one's individual interest is interpreted as doing and having the things that give most satisfaction in life, and if people believe that they don't have to take into account the impact of their preferences and desires on the natural environment because there will be a solution to the current damage of the planet, the personal interest of human beings is a weak argument. Living a life that one believes is best for oneself and one's dear ones could actually be a counterargument to ecological mindfulness, for the majority of lifestyles of people in the Global North require profound changes that people may not want to make. This certainly does not only apply to the (extreme) rich families whose yachts, private jets, or number of houses and cars are excessively pollutive or to teenagers who are influenced on social media to buy too many cheap goods that need to be shipped. Most Europeans are used to driving a car, central heating, eating vegetables out of season, and almost completely dependent on their high energy-consuming mobile phones and computers. Thus, self-interest in a healthy natural environment does not seem to be a suitable defence of the importance of ecological mindfulness. The argument does, however, depend on the way in which individuals' interests are interpreted. If one does so in a subjective sense and defines personal interest in terms of the satisfaction of desires or preferences, then it could certainly be the case. Yet, in aiming for flourishing, educators appeal to another interpretation of what

is in a person's interest. While this certainly includes satisfaction, as I noted in the second section, it is satisfaction with a particular kind of life – a life that is meaningful and worthwhile. Such a life does not require an abundance of material goods (see also section 4). I therefore leave this justification and move to reasons we can give when we have human flourishing in mind.

3.2 *Ecological Mindfulness Is Worthwhile Because It Contributes to the Possibility That All Human Beings Have the Opportunity to Flourish*

In my work I have focused on the flourishing of individual human beings and how educators can contribute to the possibility that every child will be able to lead a flourishing life. However, I have never presumed that human beings are independent or self-sufficient. On the contrary, having meaningful relationships is an objective good for all human beings. As I mentioned in section 2, this encloses that they want to contribute to the possibility that other people can also live a flourishing life. I presume that flourishing means that people not only maintain minimal moral standards but also want to contribute to the likelihood that other people can flourish as well. Yet, the range of people concerned could be confined to their own community or their own society. The question of what education for flourishing in the Anthropocene might involve, requires that we need to widen the span of people whose flourishing needs to be taken into account.

Educators nor other people can ensure that human beings lead a flourishing life. However, educators can share knowledge and insights, offer values, and promote skills and dispositions that enable persons to lead a flourishing life. This is a particular role of educators. Fellow human beings have a less comprehensive but still important role to play, namely ensuring that the precondition of a flourishing natural environment is satisfied for all human beings. Here we can look at two groups: a) future generations – which are often referred to because they will suffer; b) the peoples on the planet whose daily lives are currently affected by climate change.

In thinking about education for flourishing, it seems self-evident that we also take into account the future generations because education is future-oriented and involves at least two generations. However, questions around intergenerational justice are most difficult to solve (see Hannis, 2016). On the one hand, it is counterintuitive to assume that it is fair that people born in certain parts of the world between 1930 and say 2010 are entitled to use the majority of resources, and to pollute the earth in ways that are detrimental to all the generations born after us. On the other hand, how many future generations we have to take into account – and how much weight we should give each of them – depends on several factors. These include the political moral theory

one adheres to, the way in which scientific facts are interpreted and the degree of confidence that is placed in future technical solutions. Yet, while it is impossible to deny the facts that are provided by scientists, it could be argued that it takes many years before the serious impacts truly take effect and will make life nearly impossible for human beings; by that time, there will certainly be technological ways to divert the consequences.[9] And it is difficult to prove that this argumentation is invalid, for human beings have shown their ingenuity and technical prowess time and again.

However, as stated before, one does not have to focus on gradual and increasingly exponential climate changes like global warming due to CO_2 emissions that impact future generations; there are also consequences of the way we are living that are currently detrimental to the environment and the livelihood of human beings. For instance, consider the excessive use of plastic which results in microplastics contaminating the water consumed by humans and animals, and that causes massive plastic landfills. Or take our dependence on oil and gas that leads to natural disasters, such as the earthquakes in Groningen (The Netherlands), and severe environmental damage, like the oil pollution in the Niger delta. To this can be added the economic greed of companies and countries and our consumption desires that replete the natural resources (see also Hannis, 2016, ch. 7). These are sufficient reasons to argue that human beings should be ecologically mindful so that other human beings can flourish as well and thus should reflect on their lifestyle and the (economic) systems that maintain current consumer practices. Obviously, each person individually won't be able to make a difference but as I will argue later, this doesn't excuse one from reflecting on one's impact on others or being critical about the systems.

3.3 *Ecological Mindfulness Is Worthwhile Because It Contributes to One's Own Flourishing through Meaningful Activities and Relationships*

Hannis (2016) claims that living a sustainable life contributes to (or is part of) human flourishing. He first explains how and why ecological virtues contribute to the flourishing of human beings and then argues that this contribution justifies that people should develop these virtues.

He begins with MacIntyre's (1999) assumption that acknowledged dependence is necessary for the development into an independent practical rational adult (which is a flourishing adult) and expands this dependence on others towards ecological dependence. First, human beings only flourish in particular environments – we need oxygen, water, and food; there are minimum and maximum temperatures in which we can live; our adaptability is not unlimited (2016, p. 129). Second, people also have relationships with specific places, which play an important role in both their personal identity and in maintaining

community. He writes, "What can never be replaced or substituted is precisely that quality of originality or *otherness* which 'non-human nature' is so often felt to have, and which in practice we value so much, despite the conceptual paradoxes involved" (pp. 129–130). While this doesn't seem true for all human beings, say the ones who live in a city their entire life and are never in contact with the natural environment, climate change can also affect their relationship to their place if it becomes too hot to live in a city or if the city is threatened by the rising sea level.

To discover which ecological virtues contribute to human flourishing, Hannis begins from our current situation in which we do many things that are detrimental to the natural environment; in other words, he begins with ecological vices.[10] This list turns out to be quite extensive, namely greed, contentment, gluttony, apathy, and arrogance. And thus, there is an equally long list of ecological virtues. These are thrift, modesty, generosity, temperance, humility, attentiveness, and respect (pp. 146–148). Of course, these are not specifically ecological virtues but are also good dispositions in human relationships. He therefore adds, following Hursthouse, the specific ecological virtue of 'right orientation to nature', which is the virtue that helps to interpret the general virtues in an ecological manner.[11] My idea of ecological mindfulness is comparable to the virtue of right orientation to nature. However, the way in which I would phrase the purpose of this virtue is that it ensures that people take the natural environment into account in evaluating if an activity is worthwhile and meaningful.

Following Hannis' idea about the importance of place for one's identity and Sandler's view that the natural world provides us with aesthetic goods, recreational goods, and opportunities for physical, intellectual, moral and spiritual exercise and development (see also Hannis, 2016, p. 144), I also want to defend that the natural environment is an important source of a meaningful life: one's relation to and interaction with the natural environment can be meaningful, and looking after the natural environment can be a meaningful activity. Such activities also have the quality that they have a positive impact beyond oneself (see section 2), because they are not done out of interest in such activities (only). This does not have to be the case for everyone, but in education these possibilities can be explored with students, which can be(come) for some an important contribution to their flourishing.

In conclusion of this section, I want to address one major point of critique. Some may find my argument that we should be ecologically mindful because of our own and other people's flourishing to be lacking. Critics might argue that educators should teach children that the natural environment has intrinsic value and thus deserves respect in its own right. In other words, that

children should not only learn to reflect on the impact of their behaviour on nature because of the flourishing of other human beings and themselves, but that nature is *entitled* to better treatment. However, I am not convinced that non-sentient entities have rights. For instance, saying that the river Rhine has a right not to be polluted and to be able to meander as it flows does not make sense to me. Given that the Rhine itself does not have any interests, how can we meaningfully say that it has a right? To me it makes more sense to say that the Rhine should be protected because the interests of people living around the river demand that the Rhine should stay healthy. And this is what children, in my view, should learn: human beings have a basic interest in a healthy environment and therefore have a right that rivers are not polluted by heavy industry. One could have pragmatic or strategic reasons to argue that the natural environment has rights; appealing to rights of oceans and rivers does seem to have an impact in politics and the behaviour of people. However, in that case one should teach children that this is a political strategy because, in current times, rights-language has impact – it gives people reason to take a political party or organisations such as Greenpeace more seriously, which can be illustrated by big legal cases against the state.

Yet, even if one does not defend the intrinsic value of nature or the climate, a healthy natural environment is necessary for human flourishing and should therefore be protected. Hannis (2016) calls this the anthropogenic value of nature. Nature is valued "as a means to the end of human flourishing" (p. 27), but not in a basic instrumental way as simply the provider of resources. He contrasts this relation with an anthropocentric instrumental position, which gives a superior place to humanity. The anthropogenic value of nature assumes that human flourishing is *facilitated and constituted by human relationships with the non-human world* (ibidem). And I would add, teaching children that nature has instrumental value for their flourishing is something else than teaching them that it is of instrumental value to whatever type of life they want to live. Living a flourishing life means that what one does is worthwhile, and this also includes ecological mindfulness. And finally, as mentioned before, while nature is instrumental to our flourishing, it has to have quality to have that role.[12]

4 Ecological Mindfulness as a Dimension of Humanistic Education for Flourishing

I have given two reasons why educators should promote ecological mindfulness: it protects a precondition of human flourishing, and it is an aspect of

human flourishing. Combined, they lead to the responsibility of educators to promote that the new generation (a) is able and willing to reflect on whether the activities they (like to) undertake and that are meaningful to them are also worthwhile in light of their impact on the natural environment, because flourishing people believe that their activities are only worthwhile *if the impact is minimal;* and (b) explores what kinds of meaningful relationships with the natural environment they could have and which activities in the natural environment could be meaningful for them.

The pursuit of human flourishing in education is already a step in the direction of improving the natural environment. Currently, the dominant aim of education is the cultivation of human capital in order to enhance economic growth (see for instance Nussbaum, 2010; Ergas, Gilead & Singh, 2020, pp. 47–55). Students learn the knowledge, skills, and dispositions that are needed to increase GDP of nations and they (are made to) believe that they serve their own interests best by making a good living and gaining material wealth.[13] The belief in the necessity of economic growth is an important source of the deplorable state of the earth. Even clean ways of living are not always as clean as they seem. Take, again, the use of the internet or social media to interact. This does not require people to step into a car or to fly to a conference, but the data centres that are needed to keep people connected use an exorbitant amount of electricity. Flourishing as the aim of education is not focused on the economy but on human beings and their environment. Students learn the knowledge, skills, and dispositions with which they are able to live a meaningful and worthwhile life and should learn that this doesn't require material wealth and many possessions, as has been empirically shown (Easterlin, 1974; Kasser, 2002; Layard, 2011). Of course, economic preconditions are important, but this does not mean that one has to adopt the idea that economies need to grow *beyond what people need* to be able to flourish. Furthermore, in education for flourishing, other preconditions, such as a liveable environment, should also be taken into account, as I argued in the former section. In my view this means that economic growth is not the prime driver but is one of the dimensions that has to be considered in defining the goals of education that follow from the aim of human flourishing. This means that other preconditions and elements of flourishing can trump economic growth, such as a healthy natural environment as well as safety and sufficient food.[14]

Becoming ecologically mindful requires that one acquire knowledge, underwrite particular values and have the virtue or will to act in a particular way. First, students need to acquire knowledge about the natural environment. They also need to learn that there are diverse views on the interpretation of facts but that they should trust scientists more than politicians when it comes

to the facts (which is different from what needs to be done with the facts or how one should respond to the facts). Education should also elucidate how certain practices have a detrimental effect on the natural environment, which in turn has consequences for peoples all over the world and future generations (although this is more controversial). Second, education has to make students aware of their dependence on and the value of a healthy natural environment. It should stress their responsibility to take good care of the natural environment and make students enthusiastic about a good relationship with the natural environment. Students will be confronted with diverse ideas about which values should prevail and have to find their own way by critical reflection. Here it is important that they are given freedom to explore what they believe to be meaningful and worthwhile to be able to develop and take a position autonomously. This does require having ideals, as I wrote in section 2. In my view educators may promote (though not impose) the values they believe to be related to ecological mindfulness with which students can form their own ideals. Thirdly, education should foster virtues or students' will to act in a way that aims to minimise the impact of their activities on the environment. For this, students need to practice dealing with their own pollutive desires and with dilemmas and clashes between incompatible values, particularly in situations in which the values are also incommensurable. Think, for instance, of the importance of earning an income that necessitates one to work in a highly pollutive factory or think of the tradition of bonfires at Easter versus the CO_2 impact. They also have to learn to mediate between various loyalties – for instance between ideas of their friends, parents, teachers, and influencers – and be able to decide themselves what they value and will want to do.

Finally, I would like to stress that educators should aim to prevent students from becoming cultural or social relativistic about the value of ecological mindfulness. Education for flourishing in the Anthropocene asks for norms that are absolute and universally binding, whether or not everyone agrees with them. For it requires changes from all people around the globe. Yet, it is also important to make a difference between universal norms and ideals. Ideals are necessary for autonomy and confine people's freedom, but which ideals the person has should be regarded as part of their discretionary power. Norms, on the other hand, confine people's freedom and autonomy, irrespective of their assent – everyone has to follow them. Universal norms are minimal moral and legal rules that are necessary for maintaining a liveable (global) society. In my view the universal norm is that all children (learn that they) should aim to diminish their contribution to the damage of the natural environment. This is quite demanding if taken seriously. For, aiming to diminish one's negative impact doesn't mean merely reflecting on one's ecological footprint. It means

that one seriously considers how one should change one's lifestyle and to convincingly attempt to do so. For some this might seem rather minimal. Shouldn't we have a duty to stop damaging the environment? I don't believe that this is a realistic expectation, and therefore it should not be defined as a duty or a disposition everyone must have but rather as an ideal that is highly important to pursue but cannot be demanded. For instance, we cannot realistically expect everyone to stop eating meat, to stop working in a polluting factory or to buy non-organic clothes. However, one can demand of people to make considered choices that include weighing the effect of their behaviour on the environment and to act correspondingly. This means that people won't always make green choices, but the effect will certainly be significant.[15] Furthermore, it is likely that if people increasingly do this, the economic and political systems that currently hinder systemic changes will (have to) change as well.

To conclude, including ecological mindfulness as a dimension of education for flourishing in the Anthropocene is, in my view, the apt response of humanistic educators. Humanists will, or, if not, should realise that human beings are not impervious to climatological changes and the withering of the natural environment; human beings need a healthy natural environment for their flourishing. Furthermore, living in the Anthropocene and an age where information is abundant and easily accessible calls for a rethinking of humanistic education. Such education should aim for students to become critical thinkers who do not only reflect on their own lifestyle but also consider how they can contribute to the ecological mindfulness of political and economic systems. Some might argue that this makes humanistic education an activistic type of education or that it pushes students towards a green left-wing party. This could be the case, and there are certainly humanists who defend an activistic education (e.g., Aloni et al., 2020), but it does not necessarily follow from my proposal. My claim is that humanist educators should include ecological mindfulness in their education because it is characteristic of a flourishing human being and as I have written in section 2, there are many ways in which people can flourish. Vegans or conscientious objectors of flying or driving are certainly examples, but so are people who only buy second hand clothes, who insulate their house or separate their waste.

As mentioned at the beginning of section 3, this aim could also lead to feelings of helplessness and anxiety. Therefore, teachers should teach students that they have to be realistic in their expectations of what their ecological mindfulness can achieve. Of course, they may be idealistic in their aspirations, which could lead to meaningful and worthwhile activities, but they need to learn for what they, as individuals, are and can be held responsible. Another fear or critique could be that ecological mindfulness restricts the freedom and autonomy of human beings too much and that it therefore runs against

the core of humanism. I have already argued that autonomy requires values and ideals to confine one's choices. However, there is also another argument that is educationally relevant, and for this I return to Hannis. Hannis draws on both Taylor's notion that restricting the freedom of a person is problematic if it diminishes one's possibility to pursue an end that is significant and Raz's view that the condition of autonomy requires an *adequate* range of options, or, in my words, a range of meaningful options (2016, pp. 66–71). As I have argued at several points in this chapter, abundance is not a meaningful option (even though it is desired by many people), nor is careless behaviour. Therefore, by teaching ecological mindfulness, humanistic education teaches students that they can live a good life without unmeaningful options – or, better said, that they will live a better life without them.

Notes

1 I have read many articles and books to get an overview of ideas and positions, but in the end have used only a part of them. However, it is correct to say that the works of Michael Bonnett, Philip Cafaro, Randell Curren and Ellen Metzger, Ronald Sandler, Anders Schinkel (and the work they draw on), and the chapters of the other authors of this book, have formed me too. Thus, I stand on their academic shoulders as well.

2 I should note that while I defend that virtues are necessary for human flourishing, I do not consider myself a virtue ethicist nor do I defend a neo-Aristotelian account of human flourishing.

3 This is due to two reasons. First, there are various types of values that each can influence the way in which a person gives meaning to an objective good, for instance moral, religious, social, economic and aesthetic values. Second, people have different values and value things differently and thus there is diversity in conceptions of the good life (e.g., Raz, 2003).

4 This is similar to the Self-determination Theory that also argues that autonomy and relatedness are two needs that have to be met (next to the need for competence) for the optimal functioning of human beings (e.g., Chirkov, Ryan, Kim and Kaplan, 2003). Thus, there are two axes: autonomy – heteronomy; dependence – independence.

5 To be sure, this also requires that public services present information in a comprehensible and honest manner.

6 See Wamsler and Brink (2018) for a Buddhist interpretation of ecological mindfulness.

7 These are: Close parental attachment and good upbringing/education; Good government, ruling in the interests of the people, and a just constitution; Enough wealth; A complete life; Health, strength and minimal physical beauty; Friends and family (Kristjánsson, 2020, p. 35).

8 In addition to ecological mindfulness, the principle of justice is another important reason why people in the Global North should reflect on the way in which they currently live and which consequences their pursuit of a flourishing life has on other human beings in the world. This is not only an individual responsibility but also requires systemic (political and economic) changes that can only be achieved at a national level. In this chapter I don't have the space to elaborate on this principle.

9 Certainly, the detrimental impact of the climate change on crops is visible around the world, but starvation and (sometimes massive) migration are not as yet caused by that, but by war, economic exploitation and injustice.

10 For this he uses Philip Cafaro's work.

11 Hursthouse also suggests that this virtue is better able to defend ecological values and virtues: "The contrast here is between, on the one hand, trying to ground intrinsic/inherent value/worth/considerability in a few 'x-making characteristics' and, on the other, just starting with an indefinite range of reasons taught for responding, in the broadest sense, to nature, in certain ways. These include, at least, wondering at, looking hard at, finding out more about, rejoicing in, understanding why other people spend their whole lives studying, being anxious to preserve, not dismissing or ignoring or destroying or forgetting or assuming one can always put a price on … everything in the natural world" (2022, p. 225).

12 I seem to defend a consequentialist ethical theory. This is true, but restrictedly so. In my view 'the right', i.e. the minimal moral rules necessary for peaceful cohabitation or the deontic dimension of morality, provides the boundaries of what can considered to be meaningful and worthwhile ('the good'). If one's ideas about what is a meaningful or worthwhile relationship or activity do not "pass through the sieve of the universal and constraining norm" in Ricoeur's words (1992, p. 215), they are morally wrong (or even immoral) and therefore cannot be seen as conducive to or constitutive of human flourishing.

13 To be sure, there are also counter-initiatives, like the UN Sustainable Development Goals, which aim to ensure that values that improve the liveability of all human beings around the world are pursued by governments, citizens, and in education.

14 Interestingly, this is also adopted by the OECD. Stevenson (2022) argues that the focus on economic growth, also in education, was successful, but has led to increased inequality and has been detrimental to the climate and biodiversity (p. 3). It should therefore be replaced by another focus. The OECD has started a programme that investigates how human flourishing, defined in line with Kristjánsson's theory (2020), particularly the competences of adaptive problem solving, ethical reasoning and aesthetic perception, can be implemented as the aim of education. See also: https://www.oecd.org/pisa/about-pisa/hpst.htm

15 Making certain practices illegal might be more effective, for instance banning free plastic bags in supermarkets or reducing the maximum speed. Yet, this doesn't make it less important to cultivate particular habits and teach children that their flourishing is interconnected with the flourishing of others.

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CHAPTER 2

On the Importance of Gratitude for Humanistic Education in the Anthropocene

Nick Hebbink and Anders Schinkel

1 Introduction

The present ecological crisis that marks the Anthropocene makes it clear that modern Western societies' exploitative way of relating to the world undermines humans' and other beings' flourishing on this planet.[1] In the short term, the ecological challenges we face urgently demand swift political action and technological innovation. But long-term sustainability also – and more fundamentally – requires changes in people's outlook on life and relation to the (natural) world, and therefore also corresponding changes in education. To illustrate our point, imagine that we succeed in reducing greenhouse gas emissions quickly and sharply, so that the worst climate change is avoided. By itself this would do nothing to change the reliance of Western economies on the exploitation of the natural world and human beings as resources. Nor, importantly, would it change the implicit ways in which people who grow up in Western societies are likely to come to perceive and otherwise relate to the world. That is to say: structural and ideological relations to the world go hand in hand, and both levels must be addressed to effectuate proper changes. Education influences the ideological level – i.e. the level of what people perceive, think, believe, feel, and want, rather than the level of economic and political structures – directly, and the structural level only indirectly. But reconsidering how we educate is one possible point of entry if we wish to effect structural change.

There is a further reason to attend to the role that education may play: as flourishing is in part constituted by having meaningful relationships that one experiences as intrinsically valuable, is it not conceivable that an attitude that involves perceiving the world mainly in terms of 'resources' also diminishes one's own potential to flourish? Consider how even sustainability-focused education may in some cases impoverish students' relation to nature – e.g. by making one think about trees as useful carriers of CO_2, where one previously encountered these entities through awe and wonder as ultimately mysterious but intrinsically valuable beings. This issue seems to be of particular importance for *humanistic education*, which aims to promote *human flourishing*.

The question remains what way of relating to the world can be considered a desirable alternative to the aforementioned exploitative relation, and how such a relation can be brought about. In this chapter, we will investigate if and how gratitude can contribute to this. In another paper (Hebbink, de Ruyter, & Schinkel, 2025), we argue that gratitude experiences can further people's awareness and understanding of the value and vulnerability of various goods in our life, and of the manner in which our lives are embedded in a web of interdependent relationships with such goods. As such, gratitude experiences not only have the potential to enhance flourishing, but may also alter how we conceive of our own flourishing. Indeed, when we think about ourselves as part of nature's intricate web of interconnected relationships, this also has a bearing on how we approach the ontological-ethical question of what it means to be and flourish as a human being. We intend to investigate what this implies for humanistic education in the epoch of the Anthropocene.

This chapter proceeds as follows. Section 2 outlines challenges for education in the epoch of the Anthropocene. In section 3, we discuss the value of gratitude for education in the Anthropocene. Section 4 focuses on the tension between existential gratitude and central elements of the modern Western worldview that appear to bear the mark of humanism. The implications of our findings here for humanism are discussed in section 5. The concluding section 6 offers a proposal for the fostering of existential gratitude within humanistic education.

2 Challenges for Education in the Anthropocene

In thinking about the Anthropocene it is helpful to separate, as far as possible, the question of its definition from the question as to its causes and moral significance. Relying on a maximally descriptive, 'geological' definition, rather than one laden with normative assumptions, enhances clarity and thus facilitates discussion, particularly regarding its moral implications. That said, there is no denying that the concept of the Anthropocene arose in response to concerns about negative effects of human actions on the planet and the biosphere. The Anthropocene, whatever we take its starting point to be (see the introduction to this volume), is the (proposed, as yet unofficial) epoch in world history characterized by a profound human influence on planetary, life-supporting systems, such as the nutrient cycle and global climate systems. "The cumulative impacts of human activity rank alongside other planetary-scale geological events in Earth's history" (Lewis & Maslin, 2018, p. 5).

We do think this new phase in the Earth's history has moral significance. Rather than conceiving of *humanity* ('anthropos') as an abstract collective

agent, guilty of producing harmful ecological consequences, we will focus on specific harmful ways of relating to the world developed by *some* human populations, particularly in the Western world in recent centuries. These are exploitative ways of relating to the world, underpinned by an objectifying and instrumentalizing outlook, in which the world is perceived primarily in terms of controllable, instrumentally valuable 'resources'. Focussing on ways of relating to the world that need to change also enables us to formulate corresponding challenges for education.

In this vein, Michael Bonnett (2021, 2023) argues that modern Western cultures are dominated by a so called *metaphysics of mastery*; a "deeply anthropocentric and manipulative" way of relating to the world "that achieved a particular potency in the *modernist humanism* that arose in Enlightenment thinking" (2023, p. 2; emphasis added). Bonnett points out that the problem here is not so much that humans focus on how the world may serve their flourishing, which leaves room to perceive the world in a receptive, non-manipulative manner, and to engage in proper reciprocal relationships. The problem is that in modern Western societies, the 'assertion and satisfaction of the human will' predominates. We view the world – and particularly the non-human natural world – as a collection of objects to be controlled and manipulated, as resources to be used and consumed. We can take this line of reasoning one step further and argue that this exploitative way of relating to the world may hinder human's and other beings' flourishing in three main ways.[2] First, it may cause environmental disasters detrimental to flourishing, especially if a focus on short-term benefits blinds us to the long-term consequences of slowly accumulating negative side-effects. Second, the 'metaphysics of mastery' undermines humans', animals' and entire ecosystems' flourishing by treating them as resources – e.g., (modern) slavery, intensive livestock farming, deforestation. Third, such an exploitative outlook impoverishes the quality of people's relation to the world, perceiving the world mainly in terms of useful resources instead of intrinsically valuable relationships marked by interdependence.

Highlighting different levels of what makes the 'metaphysics of mastery' problematic, these three issues pose three corresponding challenges for education, understood broadly, including childrearing, formal and informal education: its indirect and long-term effects challenge us to live more sustainably; its immediate moral implications challenge us to foster morally responsible relationships with the world; and the inherent poverty of this way of relating to the world challenges us to seek richer, more deeply meaningful ways of relating to the (natural) world. Technological developments and political action can help us address the first two challenges – e.g., through clean energy alternatives and rights for non-human agents. But to some extent success in addressing these

two challenges will depend on meeting the third, because it seems implausible that we can cultivate a truly sustainable, let alone a genuinely moral way of living without also addressing the underlying third challenge of improving the quality of our relation with the world; we must care *about* the (natural) world before we can care *for* it.

This in turn means there is a special role for education to invite or challenge (young) people to attend to the world in specific ways, and to become aware of and reflect on their outlook on life and the ways in which they relate to the world. As Bonnett (2023, p. 6) writes:

> [O]ne of the chief tasks of education for sustainability must be to break the hold of anthropocentrism and the metaphysics of mastery so as to allow and encourage the essentially receptive/responsive (i.e. poetic) modalities of perception and understanding required for a wholehearted engagement with emplaced nature. … They require modes of attentiveness that are open, affective as well as cerebral – and that are capable of founding a systemic wisdom in relation to the natural world achieved through participation in the fluid reciprocal relationships that constitute it ontologically as distinct from, say, an essentially spectatorial engagement that reveals what constitutes it causally.

Some of these phrases – 'the natural world', 'spectatorial engagement' – require a brief comment here (see also section 4). They deliberately invoke a human-nature or culture-nature binary, and as such Bonnett may seem to expose himself to the critique that this is itself a modern Western fiction, since humanity does not stand apart from nature but is – as we have also emphasized – inextricably part of it. Our position, and Bonnett's, is that it is at the same time true that this 'great divide' (Bonnett, 1997, 2021, p. 80) is a fiction, a way we have construed culture and nature that flies in the face of our actual inseparability from nature, but also that this fiction is a relational and psychological reality that has very real effects. In the modern Western world (though not only there), people have really come to stand at an experiential distance from the other-than-human world, feeling disconnected from and sometimes exalted above it. Moreover, this divide constitutes a frame of mind that finds (material and institutional) expression in how we actually relate to the world, in how we attend to it and to other beings. This means that there is genuinely something we need to try to overcome through – among other things – education.

This is not going to be easy, however. For while we have thus far considered education as a possible solution to the issues posed by the Anthropocene, it has also been argued that education is in fact part of the problem (Schinkel, 2022).

Wallin (2022) speaks of the '*Educacene*' in this regard, arguing that modern education – including the field of *Education for Sustainability Development* – shapes people to perceive the world primarily in terms of resources, thereby contributing to the development of an exploitative relationship to the world. Likewise, Orr (2004) argues that we face an 'educational challenge' (p. 27), pointing out that "the problem *of* education" is that it "alienates us from life in the name of human domination" and "separates feeling from intellect" (p. 17), among others.

The implication is that if we want to use education to change how human beings relate to the world, we also need to change how we educate. Orr (2004) offers many insightful suggestions, but here we focus on one that is intimately connected with how we (learn to) attend to the world and (therefore) at the same time constitutes a link with gratitude. Echoing Rachel Carson's claim that "it is not half so important to know as to feel", Orr stresses the educational importance of *wonder* in relation to the natural world (pp. 23–24). In a similar manner, and with attention to the role of wonder, we will investigate if *gratitude* can play an educational role in the Anthropocene.

3 The Educational Value of Gratitude in the Anthropocene

3.1 *The Concept of Gratitude*

Investigating the educational value of gratitude in the Anthropocene requires clarity about the concept of gratitude, especially in light of the lack of conceptual consensus in the literature (Gulliford et al., 2013). Moreover, it might strike one as odd to consider that gratitude can play a role in reshaping humans' relation to the natural world, as some people may think of gratitude first and foremost as an interpersonal phenomenon. Indeed, some authors (Manela, 2016; Roberts, 2004, p. 63) argue that gratitude necessarily involves (1) a beneficiary who is grateful for (2) a benefit, and who directs his appreciation towards (3) an intentional benefactor assumed to be responsible for this gift – given its three components, this is sometimes called *triadic gratitude*. Yet, in a previous paper (Hebbink, Schinkel, & de Ruyter, 2023), we have defended the view that it makes sense to use the term 'gratitude' in absence of an intentional benefactor – this is sometimes called *dyadic gratitude*. Instead of emphasizing the benefactor condition, our conceptualization foregrounds the specific set of experiential elements that characterize gratitude's phenomenology. Gratitude is an appreciative response that construes its object as a (metaphorical) *gift*. The good is conceived of as a 'gift' because of its gratuitous (i.e. contingent, unearned and uncontrollable) nature. In gratitude, we become aware that

certain goods in our lives might just as well not have been available to us and may not remain available to us forever. Besides, it includes the realization that such goods cannot be understood solely as an achievement of ourselves, as they depend on forces which are beyond the scope of our complete control. We have argued that gratitude is characterised by a receptive-appreciative mode of attentiveness,[3] an acknowledgment of our (inter)dependency[4] in relation to something other – or larger – than ourselves as individuals, and a motivational impetus to cherish, celebrate and promote the good in our lives.

This conception of gratitude is simultaneously specific enough to be distinctive (e.g., from feeling gladness or appreciation) and broad enough to be inclusive regarding the full range of experiences that are indicated as 'gratitude' in ordinary language. Our conceptualization also opens up possibilities for secular people to experience gratitude in relation to nature, without the irrational personification of non-personal causes of benefit (e.g., the universe) that such gratitude would involve according to Roberts (2004, p. 63). Indeed, it makes perfect sense to feel gratitude for the favourable life conditions on our planet when we consider the contingent, unearned and uncontrollable nature of this good. Such gratitude does not personify Earth, but simply involves the acknowledgement that our opportunities to flourish are in a very fundamental sense dependent on it. Thus, it is fully rational to interpret the conditions for life on Earth as a metaphorical gift, and to feel motivated to cherish this precious and fragile good.

3.2 *The Educational Value of Gratitude in the Context of the Anthropocene*

Building on the phenomenological qualities we identified, we have also argued that gratitude has potential[5] *educational value* (see Hebbink, de Ruyter, & Schinkel, 2025). We can learn from gratitude experiences, as they can make us more aware of the things that are valuable in our lives, help us understand the contingency and vulnerability of these goods, and make us realize our (inter) dependency in relation to them. Besides fostering completely new insights, gratitude can also deepen and emotionally charge existing understandings. For instance, while most people 'know' in a factual sense that we are dependent on (certain conditions on) planet Earth, gratitude experiences may make us really understand the significance of this metaphorical gift in light of both its vulnerability and its relation to our flourishing. As such, gratitude may fuel this understanding with a commitment and motivational force that were previously lacking.

The previous indicates that gratitude can contribute to fostering some aspects of the outlook on life required for a sustainable way of living. Indeed,

it seems paramount that people understand that their lives are dependent on certain fragile conditions on our planet and are motivated to cherish this precious good. However, it is not clear whether this is sufficient to transcend the predominant view of nature as a resource. Gratitude might merely make us realize the value and fragility of natural 'resources', thereby motivating us to *manage* them carefully. Can gratitude also play a role in reshaping people's relation to the natural world, e.g., by encouraging us to rethink the ontological-ethical question of what it means to be and flourish as a human being?

3.3 *Rethinking What It Means to Be and Flourish as a Human Being*

Here, we will elaborate a more detailed example of an experience of *existential gratitude* (Lacewing, 2016, p. 146). Such gratitude takes our existence or some aspect of it – in awareness of all that (and who) upholds one's existence and one's flourishing, and in our example more specifically the richness of our situatedness in the natural world – as its object. We will provide a distinctly lyrical example, to make it particularly clear how one's relation to the natural world changes. We are aware that our example may not be an ordinary experience for many people, especially for those living in circumstances that make it difficult to appreciate nature, let alone life itself, as a gift. However, this does not detract from the illustrative power of this example, as it indicates the meaning of similar, more subtle existential gratitude experiences.

Picture yourself wandering through a forest on a warm summer day. A few light beams penetrating the canopy create a magical spectacle, while an orchestra of birds treats you to their symphony. When you encounter some signs of drought, you are reminded of news reports on rising forest fires around the world. You imagine how a fire might one day destroy this beautiful forest, and what horror this would cause for the animals trapped in it. Remembering experts' warnings that climate change and forest fires can cause a reinforcing feedback loop, you ponder what the Earth would look like without forests – what a tragic loss would this be! – and what other catastrophes might follow. Then the sound of a subtle breeze playing with the trees' leaves awakens you from your worrisome thoughts. Reawakened with a sense of awe and wonder, you once again look around the wonderful forest scenery and feel a profound sense of gratitude. Appreciating the existence of this forest and the opportunity to connect with it as a precious gift that enriches your life, you feel you want to protect this fragile good and to celebrate its beauty. Then you consider how you and the forest are both part of a much larger, intricate web of interdependent relationships that composes the ecosystem of planet Earth as a whole. Contemplating your dependency on conditions for life maintained by a fragile balance of numerous uncontrollable forces, the focus of your gratitude shifts

to our planet. You realize that Earth not only sustains your own life and that of your loved ones, but also allows a vast diversity of life forms and ecosystems to flourish, making it a fascinating place to live. What a gift to be a part of this beautiful planet, and to be able to explore some of its numerous mysteries. You feel motivated to cherish this good; not just by opening up to, connecting with, and celebrating its beauty, but also by taking responsibility as Earth-inhabitant to *care* for your home.

So how does one perceive and relate to the natural world in this example of existential gratitude? While there is, in a sense, an acknowledgement of the instrumental benefits that the forest and planet Earth provide, they are not perceived *as* means to those benefits, but as beautiful, intrinsically valuable entities we feel profoundly connected with. Moreover, one does not merely position oneself as a passive recipient in relation to the natural world – shaped by its forces, dependent on the sustenance it provides, and blessed with the opportunity to enjoy its beauty – but instead intends to actively engage in a reciprocal relationship with nature by opening up to its wonders and by adopting a caring role. Indeed, the felt connectedness is so profound that it involves at least a momentary alteration in one's sense of self; while still experiencing oneself as a somewhat discrete, individual locus of control, one comes to understand oneself as a part (an inhabitant) of the larger interdependent whole of planet Earth. All of this seems to imply that existential gratitude has a bearing on the ontological-ethical question of what it means to be and flourish as a human being, and how our flourishing relates to the flourishing of the natural world.[6]

Relations to the natural world marked by gratitude contrast starkly with the exploitative mode(s) of being characteristic of the Anthropocene. Existential gratitude, for instance, does not construe the natural world in terms of resources, but rather makes us aware of and fosters (engagement in) relationships characterized by something akin to *love*. Such intrinsically valuable relationships contribute a richness and meaningfulness to experience that exploitative relations lack. Moreover, our very own flourishing is intrinsically bound up with the flourishing of whom or what we love and feel connected with; in this sense, what we feel connected with becomes part of who we are. In contrast with exclusively use-oriented relationships, we do not stop caring about whom or what we feel connected with as soon as it is no longer available to us. Thus, existential gratitude in relation to the natural world can also provide us with meaning – an important component of flourishing – by deepening our sense of identity, and by infusing our lives with a sense of moral responsibility to care for the ecosystems we are part of.

4 Tensions between Gratitude and the Modern Western Worldview

We have argued for the educational value of gratitude in the context of the Anthropocene. Experiences that make us gratefully aware of our dependency on a vulnerable natural world can motivate us to respond to sustainability-related challenges such as climate change. Moreover, existential gratitude may help move us away from the exploitative mode(s) of being characteristic of the Anthropocene and it can contribute to fostering richer, more intrinsically valuable ways of relating to the natural world, and a corresponding improvement of the moral quality of how we treat other beings and ecosystems. All of this assumes, however, that existential gratitude towards the natural world is a viable 'option' for people today, but it is not clear whether this is the case, particularly in modern Western societies. This question arises especially if we conceive of such gratitude not just as a momentary experience but as a *disposition* or "enduring basic attitude that pervades one's whole life" ("einer dauernden, das ganze Leven durchziehende Grundhaltung", Bollnow, 1992, p. 59). This is a genuine question, because important aspects of 'the modern (including so-called 'post-modern') Western worldview' – i.e. the sensibilities, perceptions (of self and the natural world) and fundamental (pre-reflective) relations to the world fostered by the conditions of life in the modern world and its corresponding mentalities – are conceptually and psychologically in tension with existential gratitude.

To analyse this tension in depth would require a book, but we can outline its essential elements here, and Bollnow's discussion of gratitude provides a useful starting-point for doing so. Bollnow (1992, pp. 61–62) suggests three possible causes for an actual waning of gratitude: (1) The rationalisation of the world, which means that 'everything has its price', that the value of every thing, service or effort is precisely measured, and that therefore no exchange leaves a residue of indebtedness. Thus, there is no room left for gratitude, since this presupposes less than absolute exactness and less than complete control; (2) We (in Western societies at least) live in a welfare society that takes care of all our needs or enables us to buy whatever we need, and as a result gifts lose their value and gratitude its point; (3) The modern Western mentality, best expressed in early modern and Enlightenment philosophy, is subjectivist and individualist; it sees the autonomous individual as basic, and reconstructs the rest of the world on the basis of this isolated consciousness.

Apart from the third point, it seems to us that Bollnow's explanations suffer somewhat from excessive concreteness coupled with an ideologically coloured perception; the first point is clearly an exaggeration, since even our highly rationalised world leaves plenty unmeasured and unaccounted for, and

the second (apart from being untrue about many less fortunate members of welfare societies) assumes a rather narrow view of gifts. However, on a more abstract level Bollnow's suggestions take on a much more plausible aspect, as we explain in what follows.

Remember that we conceptualize gratitude as an appreciative response that construes its object as a gratuitous good and as a (metaphorical) gift, and that gratitude therefore implies an acknowledgement of the contingent, uncontrolled and unearned nature of this good, and an awareness of dependency (for that good) on something other than ourselves. It is not difficult to see how the rationalisation of the world – which is a much broader issue than Bollnow made it appear to be – is in tension with gratitude, understood in this way. Max Weber famously spoke of the 'disenchantment of the world' ("die Entzauberung der Welt") (Weber, 2002, p. 488) to summarize the meaning and effect of the ever-growing intellectualisation and rationalisation characteristic of modern societies. These did not mean, he emphasized, that people have greater knowledge of their life conditions – in fact, we all depend on the correct functioning of countless things only a few experts understand – but rather "the knowledge or faith that, if one wanted to know, one could at any time find out, thus that there are in principle no mysterious, unpredictable forces at play, that one could rather – in principle – control all things by calculation" (p. 488).

As later authors like Merchant (1980), Berman (1981), Bordo (1987), Plumwood (1993) and (in philosophy of education) Bonnett (2004, 2021) have argued, expanding on Weber's work, the success and concomitant influence of modern Western science on the modern mentality – on how we 'view' the world, even (and most importantly) at an unconscious level – have resulted in a sense of being (as human beings) apart from nature and in control of nature, nature being perceived as either an obstacle to overcome or a resource to be exploited. And it is this sense of control, both in concrete interventions in nature and in the long run of societal development (the ideal of progress, attained through the advance of science and technology), that is in clear tension with the ability to experience existential gratitude. The reason for this is that whereas gratitude presupposes a deeply felt awareness of dependency, the sense of control obscures the fact of dependency. That it has indeed done so for a long time is noted by Plumwood (1993, p. 6):

> Much modern environmental wisdom from such thinkers as David Suzuki has as its main theme the message that humans are animals and have the same dependence on a healthy biosphere as other forms of life. On the surface, it is puzzling that an apparent truism should find so

> much resistance and should need to be stressed so much. But the reason why this message of continuity and dependency is so revolutionary in the context of the modern world is that the dominant strands of Western culture have for so long denied it, and have given us a model of human identity as only minimally and accidentally connected to the earth.

It is important to note this has a descriptive or factual as well as normative dimension: the modern worldview not only makes it difficult for people to see their factual dependency, but also includes a sense of entitlement: the Earth is there for us to exploit to serve our needs – hence Bonnett's (2004, 2021) expression 'metaphysics of mastery'.

In the above we already connected Bollnow's first point with his third – i.e. the rationalisation of the world with the modern mentality – but we can say a bit more about this modern, subjectivist and individualist mentality, captured so nicely in the central liberal-humanist values of freedom, autonomy, and self-fulfilment. In his third point Bollnow implicitly referenced the Cartesian doubt that 'necessitated' the reconfirmation of the existence of the external world on the basis of the primary indubitable fact of our doubting and thinking. This doubt clearly illustrates how, philosophically, 'man' and nature had become alienated from each other. In Kant's philosophy – also a highlight of the humanist tradition – this finds expression in human beings' special dignity, which derives from their being creatures endowed with reason, members not only of the realm of nature, subject to natural laws, but also of the realm of freedom, subject to the moral law which we give ourselves (the original meaning of 'autonomy'). Kant famously described 'Enlightenment' as "man's emergence from his self-incurred tutelage", tutelage[7] being "the inability to use one's understanding without another's guidance" (Kant, 1977, p. 53, our translation). But this notion of autonomy operated equally beyond the sphere of human interaction, because reason was also not to approach nature "like a pupil, who has recited to him whatever the teacher [i.e. nature] wants to say, but like an appointed judge who compels witnesses to answer the questions he puts to them" (Kant, 1998, p. 109; cited, from a different translation, in Bonnett, 2021, pp. 13–14). Here, incidentally, we also see the theme of mastery or domination of nature again. In short, in modern philosophy we see in distilled form what is also a pervasive aspect of the modern Western mentality and worldview, namely the alienation of humanity from nature, humanity's splendid isolation as unique knowers of the world – yet from a position 'outside' of that world (Berman, 1981; Riley-Taylor, 2002). Again, this is not a mindset hospitable to existential gratitude, since it foregrounds our uniqueness and control, rather than embeddedness and dependency.

Finally, it is worth pointing out some connections between the foregoing and Bollnow's second point about the welfare society as enabling people to buy whatever they need. It seems more apt, though, to say that modern capitalist societies may meet most (yet not all of) people's basic needs, but also transform people into consumers, people who believe that all their needs and desires can be fulfilled through consumption. There is an important link with (perceived) autonomy here: as critic Benjamin Barber writes, consumerism is "a kind of soft imperialism in which those who are colonized are said to 'choose' their commercial indenture" (Barber, 2007, p. xxxi, cited in Norris, 2011, p. 7). Through consumption we choose, create and express our identity, we fill and fulfil ourselves (Norris, 2011, pp. 8–9). Even 'sustainability' or ecologically conscious living – itself often a 'Romantic' reaction to the modern mentality and its separation of humanity from nature, thinking from feeling, and so on – is a 'lifestyle choice', with nature as a consumption good (see the chapter *Consuming nature* in Holden, 2016). The tension with existential gratitude arises here especially because the 'goods' consumed are not experienced as contingent and as 'gifts', but as available on demand. This, in turn, even diminishes our appreciation of them as goods. Ironically, building on recent findings in the field of positive psychology, today 'gratitude' itself is sometimes conceived of as a kind of consumer good, marketed as a self-help tool to foster certain psycho-social benefits. However, while interventions such as writing a 'gratitude diary' may yield certain positive effects, it is questionable if such an instrumental approach leaves space for actual feelings of gratitude. When individuals pursue gratitude solely for the sake of its benefits, this controlling, goal-oriented focus on the attainment of personal benefit may in fact hinder sincere gratitude experiences. Indeed, genuine gratitude rather requires an open, receptive mode of attentiveness that foregrounds the contingent, gratuitous nature of its object, and our dependence on this gift.

We have sketched how and why aspects of the modern Western worldview and mentality – including its supreme values (freedom, autonomy and self-fulfilment) and articles of faith (the belief in human progress through exercising control over, among others, the natural environment) – are in tension with existential gratitude, in particular in relation to the natural world. These values are also central to humanism, but it does not follow that humanism is therefore also necessarily at odds with such gratitude. How and how far humanism may disentangle itself from (or may be shown not to be tainted by) these problematic aspects of the modern worldview will be discussed in the next section, as a basis for exploring the possibilities for a revaluation of gratitude in humanistic education.

5 Humanism, the Modern Worldview, and Possibilities for Existential Gratitude

To what extent can humanism be disentangled from the problematic aspects of the modern worldview highlighted above? Is humanism unavoidably in tension with existential gratitude? We will explore this issue in an abstract sense by building on analyses of the relation between humanism and environmentalism; these analyses illuminate how humanism relates to (the aforementioned problematic aspects of) the modern Western worldview, and more specifically to the natural world. In a particularly enlightening paper, Hinchman (2004) points out that, during the end of the 20th century, environmental theorists targeted humanism for its role in the development of the modern Western worldview and corresponding exploitative relation towards the natural world. While agreeing that aspects of the modern worldview – roughly resembling those indicated in our analysis in section 4 – are problematic, Hinchman argues that these theorists are mistaken in blaming this on humanism. He stresses that:

> humanist and environmentalist critiques of modern society overlap, despite sharp differences on certain issues. Both are essentially trying to preserve their supreme concerns – *humanitas* and freedom, or nature, the land, biodiversity, and wilderness – from objectification and reification. Both resist the way in which these concerns have been drawn into a world of commodities, and forced to justify their existence before the bar of functional utility within the vast 'life apparatus' of a modern economy. (p. 16)

Whereas humanists criticize the modern worldview for posing a threat to our humanity by restricting our freedom, environmental theorists argue that the humanist ideal of freedom "absolves the moral subject from concrete obligations and restraints, especially toward non-human nature" (Hinchman, 2004, p. 18). However, Hinchman argues that such environmentalists misrepresent humanism's moral value of freedom. He suggests that, when seen in its eighteenth-century context, Kant's apparently nature-hostile dualism and exaltation of human freedom and autonomy, must be interpreted as an attempt to 'rescue humanity' and ethics from mechanistic psychologies (p. 10). Thus, from this perspective Kant was actually trying to preserve a space for moral responsibility – a prerequisite also for any environmental ethic.

To flesh out the notion of 'freedom', Hinchman turns to Taylor's *Ethics of Authenticity*. He takes Taylor to demonstrate that while the notion of

'self-determining freedom' places decisions within subjects, the substance of these decisions "is anchored in objective factors, including obligations to the natural world" (p. 18). Taylor points out that whereas the value of freedom and associated ideals of autonomy, self-fulfilment and authenticity presuppose that people can make *meaningful* choices and can define their identity in a meaningful manner, this in turn requires a *self-transcendent* 'horizon of significance' – i.e. a background of intelligibility that allows differentiation between significant and insignificant matters in light of meaningful relationships with the world (Taylor, 1992, pp. 37–41).

Hinchman recognizes that humanist thinkers have employed radically different notions of freedom, connected only by their insistence that human existence is not simply 'the product of external influences' (Hinchman, 2004, p. 12). Therefore, it remains possible that some of these *are* in tension with an acknowledgement of dependency and with existential gratitude. But at least Hinchman has, with Taylor, shown that a notion of freedom is conceivable that is not vulnerable to the same critique. Freedom, as understood by Taylor, is not at odds with acknowledgement of dependency on factors that transcend us and that lie beyond our control, but rather presupposes it. In fact, Taylor even stresses the importance of recognizing the claims that the natural world makes on us, but points out that people in modern societies lack the "languages of personal resonance" and sense of belonging to the natural world required for this (Taylor, 1992, pp. 89–91). To fill this lack, he suggests that, in modernity, "the loss of a sense of belonging through a publicly defined order needs to be compensated by a stronger, more inner sense of linkage" (p. 91), the articulation of which he believes is of paramount importance in our present world. We would argue that gratitude may well contribute to (the articulation of) such an inner sense of linkage. Gratitude's acknowledgement of our embeddedness in a web of interdependent relationships does not detract from freedom, as understood by Taylor, but may in fact help us articulate the horizons of significance that are *given* to us, and that give meaning to our freedom.[8] In other words, gratitude involves an invitation to exercise our freedom in choosing how we live our lives in a responsible manner in light of the interdependent relationships with the world that give shape to our lives.

Taylor's notion of freedom also provides a necessary first step to vindicate humanism from the most common environmentalist critique, namely that it is inherently anthropocentric (in the normative sense of always prioritizing human interests over those of other species). Taylor (1992, p. 68) points out that unrestrained self-determining freedom can indeed result in extreme anthropocentrism. But Hinchman (2004) argues that "humanism does not need to denigrate nature and treat it as a sphere of heteronomy in order to

validate freedom" (p. 16), and that "hardline homocentric definitions of freedom (for example, as control over nature) are outside the mainstream" (p. 18).

However, it is a fact that humanism is characterized by anthropocentric language, which it may have to change in order to avoid contributing to the exploitation of non-human living beings. For instance, the central humanistic value of *human* dignity does give the impression that humans possess a special kind of dignity that other animals lack. Indeed, while the ideal of human dignity is far from realized in the present world, other animals are treated in particularly degrading, unrespectful and – with a more telling term – *inhumane* manners. Yet, while many humanists in past centuries have held – and some still hold – the belief that human beings are superior to other animals and/or deserve a central place in the world, many and perhaps most contemporary humanists reject such ideas. Rather than emphasizing human centrality, such humanists believe that central to humanism is the notion of *human responsibility*, which should extend beyond the individual self and fellow humans to include a sense of responsibility for other animals and planet Earth (McKanan, 2019, pp. 20–25).[9] And this notion, of course, presupposes that of human freedom.

An important related question is whether the ideal of '*human* flourishing' as the overarching aim of humanistic education is tenable in light of the critique of anthropocentrism. Again, hardline anthropocentric interpretations of this ideal may not be mainstream. Hannis (2016, p. 27), for instance, points out that human flourishing can be understood "*as facilitated and constituted by human relationships with the non-human world*. These include relationships characterised by subjective human experiences of intrinsic value in nature". And in Chapter 1 of this volume, de Ruyter mentions that she has transformed her anthropocentric view of human flourishing as the aim of education into an anthropogenic conception. As long as the focus remains on human flourishing, however, the flourishing of other beings can only partly be accommodated by a humanist ethic. Apart from the fact that, if one is genuinely concerned about the flourishing of other beings, it is strange to insist on approaching this through the promotion of human flourishing, there is simply no perfect congruence between human flourishing and that of other beings (or ecosystems, or the natural world as a whole).[10]

Building on Hinchman and Taylor, however, we can envisage a form of humanism that *fully* abandons normative anthropocentrism; this would retain a special regard for what makes us human, including freedom and moral responsibility, but it (and an education inspired by it) would not exclusively seek to promote *human* flourishing. Gratitude can play a role here, as suggested in Bonnett's (2021) call for "a transcendence of [modernist] humanism that allows us to be more human – through participating in the gift of the given" (p. 10).

6 A Proposal for Fostering Existential Gratitude in Humanistic Education

We have argued that humanism need not be vulnerable to the environmental critique of the modern worldview, and that experiences of gratitude can play an important role in anchoring human freedom in the (natural) world. The final question we wish to address is what possibilities there are to foster existential gratitude within the framework of humanistic education. Given the difficulties the modern Western worldview poses for experiencing existential gratitude (in particular towards the natural world), it seems that certain elements of the modern Western worldview must somehow be interrupted. This would be one of the main challenges for humanistic education.

Two paradigmatically 'interruptive' types of experience are *wonder* and *awe*. Though suddenness and unexpectedness are not conceptual prerequisites of wonder and awe, they are modes of consciousness we tend to be thrown into, and which interrupt our ordinary perception of the world. Hence, wonder has been described as a potentially morally (trans)formative experience (Schinkel, 2021, p. 137) and awe as a potentially epiphanic experience (Kristjánsson, 2020, p. 131). Wonder is characterized by an open receptive mode of attentiveness, and an acknowledgement of the uncontrollability, contingency and vulnerability of the world (Schinkel, 2021, 2025). It is 'essentially *other-acknowledging*' (Hepburn, 1980, p. 14) and "helps move distant objects within the circle of a person's scheme of ends" (Nussbaum, 2001, p. 55). As such, wonder can be thought of as realising the experiential ingredients required to conceive of – or to open up and receive – the goods provided to us by the natural world as gifts. As Moore (2005, p. 227) puts it:

> we have a great capacity to wonder at the world that ticks and sighs around us, and it may be that we will find the fulfilment of our potential as human beings in our awareness of the astonishing world, our care, and our thanksgiving.

Similarly, awe is a self-transcendent state that connects us with a greater whole that is experienced as ineffable yet truly great in a normative sense. For awe, therefore, the connection with the experience of nature's intrinsic value may be even more direct than for wonder, so a connection with gratitude is also likely. Hlava and Elfers (2014) even state that "the profound feelings of awe associated with some (…) experiences suggest that gratitude may even be in response to the very feeling of awe" (p. 442). But while awe and wonder are object-centred modes of consciousness that help us to perceive the intrinsic

value of its objects, gratitude foregrounds our (inter)dependent relationships with its 'objects' and constitutes a particular way of integrating such relationships into one's sense of identity and conception of one's own flourishing. Gratitude thus involves a normative step beyond awe and wonder.

So, by interrupting our common modes of experiencing the world – modes likely to be tainted by the metaphysics of mastery – wonder and awe make space for the possibility of experiencing existential gratitude; moreover, they *invite* that experience by making us receptive to the intrinsic value of the natural world. At the same time, they are modes of consciousness with an intimate connection to (existential) meaning and are part of that special suite of traits that makes us human. Therefore, they offer a promising avenue to the fostering of existential gratitude within the framework of humanistic education.

Unfortunately, however, the modern Western worldview also diminishes our opportunities to experience wonder or awe. "Humanists have decried the 'disenchantment' of the world, the waning of mystery, awe, and unrepeatable, ineffable experience, attributing it to the triumph of instrumental reason" (Hinchman, 2004, p. 17). And "there are (…) reasons to think that current education systems in the Western world constitute a particularly hostile environment for the experience of wonder" (Schinkel, 2017, p. 540; see also Orr, 2004, pp. 23–24). So are we in the same predicament as with gratitude? We think not. Wonder and awe are more tightly bound up with the human condition – with our cognitive limitations and spiritual proclivities – than gratitude. The boundless mystery in the world will almost inevitably penetrate our mind from time to time, disrupting our everyday perception of both the world and ourselves. And though falling short of amounting to an appreciation of intrinsic value in the (natural) world, they do heighten our susceptibility to it, thereby opening up space for transformative gratitude experiences.

In this chapter, we have suggested that (existential) gratitude is worth fostering to realize the aims of humanistic education, particularly in relation to the challenges of the Anthropocene. It can sensitize us to our vulnerability as an animal species dependent on the maintenance of certain life-conditions on planet Earth, deepen and enrich our relationships with the natural world, and support a sense of moral responsibility to care for the world.

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Notes

1 This also holds for non-western (post-)industrial and/or capitalist societies, but because we are interested in humanistic education we focus on western societies.
2 Note that Bonnett (2023, p. 3) also implicitly mentions these three issues.
3 Note that the term 'receptive' does not so much imply that gratitude is a passive mode of being, but rather indicates an openness to the world that requires an interplay between active and passive components.
4 Gratitude always involves a sense of dependency, which can in some cases be included in a more encompassing awareness of interdependency; this is perhaps especially the case in profound cases of dyadic gratitude.
5 The educational value of gratitude is conditional on the epistemic accuracy and moral appropriateness of its implicit perceptions.
6 Note that awe and wonder also played a role in this example; we will return to this in section 6.
7 Other translators also use 'dependency' or 'minority'.
8 Taylor (1992, p. 39) explains that horizons are 'given' in the sense that they originate from sources beyond the self.
9 These humanists (commendably) attempt to hold out the tension inherent in the paradoxes of human exceptionality: we alone have moral responsibility, because we are special, and we are special, but not superior; we are not above, but part of nature, and we are part of nature, yet uniquely morally responsible (see Schinkel, 2023).
10 See Schinkel (2025) for a more extensive argument.

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CHAPTER 3

Reframing Humanistic Education in the Anthropocene

Ideas Inspired by Bruno Latour's Philosophy

Carolina Suransky and Henk Manschot

1 Introduction

In this chapter, we will explore the enduring legacy of Modernity as rooted in the ideals of Enlightenment Humanism and as such significantly shaped the trajectory of humanity. Modernity's foundational principles, namely freedom, equality and the rule of law, heralded a new era of human progress. This greatly fostered democratic governance, enhanced individual autonomy, and promoted the inalienable dignity of every individual. These values, which are enshrined in the Universal Declaration of Human Rights, have inspired countless movements and transformations worldwide. However, as we navigate the complexities of the Anthropocene, it becomes increasingly clear that the very principles that were meant to propel humanity toward progress, demand critical reassessment in the era of the Anthropocene.

In this chapter, we recognise the multifaceted legacy of Modernity by acknowledging its profound contributions to human flourishing, but we also address several fault lines that have emerged in its wake. Central to our analysis are two critical perspectives that challenge Modernity's narratives: ecological and decolonial critiques. The ecological critique highlights the devastating impact of human activities on the Earth's climate, and so underscores the need to reconsider the human-nature relationship in light of the Anthropocene. Decolonial critique, on the other hand, exposes a deep-seated link between Modernity and colonialism and reveals how the advancements of Modernity in Europe were inextricably tied to the exploitation and domination of colonized nations.

We believe that the work of French philosopher Bruno Latour offers a valuable lens through which to understand and navigate both these critiques. Latour challenges anthropocentric worldviews which are ingrained in Modernity and advocates for a radical rethinking of the relationship between humans and the Earth. We believe that his ideas, particularly his concept of Gaia and his critique of the modern separation between nature and culture, provide

a constructive framework to reconceptualize humanism in an era where the boundaries between the human and the non-human appear to become increasingly blurred.

This chapter foregrounds Latour's emphasis on the interconnectedness of all life forms, and his call for a new ecological culture, to reimagine how humanistic values, and concomitant educative practices, can inspire humanists to address the challenges of the Anthropocene. By integrating Latour's philosophy with ecological and decolonial critiques, we aim to examine the intertwined negative realities that Modernity produced in addition to its positive contributions; realities that continue to contribute to both ecological degradation and social inequalities. Our analysis serves as a foundation to rethink humanistic values that emerged from Modernity and prove to be problematic in the context of the Anthropocene. We believe that Latour's insights can help to critically reimagine these values when trying to address the challenges of ongoing ecological crises and the persistent legacies of colonialism. We will end the chapter by exploring some actual educative practices which flow from Latour's ideas and argue why we believe that these are relevant for humanistic educators who want to address the challenges which emerge in the Anthropocene.

2 A Brief Historical Retrospect: The Legacy of Modernity and Enlightenment Humanism

Modernity has longtime proved to be a dynamic and transformative ideology that produced much good for human beings. Its core values of freedom and equality and the rule of law as the basis of humane coexistence, the founding values of democracy as governance for and by the people, the inalienable dignity of every human being; all are fruits of an enlightened Humanism that emerged in Modernity and transformed societies from the 18th century onwards. A growing body of natural and social science-based knowledge made it possible to permeate ever deeper into the workings of matter that could be harnessed to enhance human flourishing by significantly raising the standards of living of those who could benefit from these developments. 'Decent' living conditions became regarded as essential dimensions of a humane life. They became enshrined as inalienable human rights in the Universal Declaration of Human Rights that are still referred to in struggles across the world.

We note that many of these ideas resulted from critical reflections from within traditions of Modernity itself. Philosophers like Rousseau and Nietzsche for instance added the value of emotions to the somewhat too rationalist

beginnings of the idea of autonomy and independency and explored more embodied ideas of the human. The heritage of Marx, Weber and Dewey, for instance, opened different critical reflections on individualist biases. We do not deny the many positive contributions of these developments. From a humanist perspective, the core values of humanity that emerged with Modernity are not obsolete, quite the contrary, but we believe that under the conditions of the Anthropocene they need to be critically rethought. Not only the ecological crisis made this obvious, but also appeals of, for instance, the global anti-racist Black Lives Matter movement, feminist organizations and the LGBTQ+ community.

In this chapter, we foreground two forms of criticism of Modernity that we consider crucial in the Anthropocene. The first form of critique comes from an ecological perspective. In recent decades, it has become increasingly clear that the global ecological crisis is closely related to human behaviour. Research in the Earth sciences shows how the climate balance, essential for all life on Earth, has been severely disrupted by humans, who have become the largest and most influential destructive force on the planet. Many scientists conclude that human-induced ecological damage signifies that the Earth has officially entered a new era, which they named the Anthropocene. While the International Union of Geological Sciences (IUGS) rejected a proposal in 2024 to officially declare an Anthropocene epoch,[1] there are many geologists who will keep endorsing the term and the IUGS acknowledged:

> The Anthropocene as a concept will continue to be widely used not only by Earth and environmental scientists, but also by social scientists, politicians and economists, as well as by the public at large. As such, it will remain an invaluable descriptor in human-environment interactions. (IUGS, 2024)[2]

It is in this manner that we value and use the concept in this chapter.

The second form of critique on Modernity comes from decolonial thinkers who argue that modernity and coloniality are two sides of the same coin (Quijano, 2000; Escobar, 2007; Maldonado-Torres, 2007; Mignolo, 2018). They understand Modernity-Coloniality as a hybrid concept and argue that Modernity's advancements in Europe were made possible by exploiting and dominating colonialized nations. Following Mignolo (2015), Mpofu and Steyn (2021) argue that prevailing constructs of the 'human' began with the "durable handiwork of (male) European humanists of the fifteenth and sixteenth centuries who needed convenient and powerful tools for classifying themselves and categorising others. The male Westerner, as the Christian and paradigmatic human,

entered into relationships on grossly unequal terms" (p. 1). They also point out that "the paradox of Western modernity is that the rhetoric which announces freedom, happiness, progress and development has marched hand in hand with the logic of coloniality" (p. 2). In the same vein Chatterjee (1993) infers that the rule of 'colonial difference' was thus the core of colonialism. Chatterjee's notion of colonial difference refers to the strategic bifurcation which was imposed by colonial regimes, where European powers applied modern institutions and liberal ideals to themselves while governing colonized populations through a different logic: one that was based on essentialized cultural difference, hierarchy and control. This epistemological and political dualism enabled the simultaneous affirmation of Enlightenment values for the colonizers and their denial to the colonized. In resistance to such systematic oppression, liberation and civil rights movements were formed. They reinterpreted and transformed enlightened human values for their own situation. Even today the symbiotic relationship between colonialism and Modernity is evident. The motto 'Black Lives Matter' for example, refers squarely to the legacy of a double standard: in spite of its assumed moral universality, human dignity and flourishing apparently do not apply to everyone to the same degree.

3 Fault Lines with 'Modernity'

We consider both abovementioned forms of critique together, despite their different focuses, because they address common or closely linked aspects of Modernity. Both reveal how Modernity compelled separations between humans and non-humans as well as among humans themselves. Modernity entrenched a dynamic where humans, through objectification and instrumentalization, became further removed from the idea of their intrinsic connection with the Earth. Simultaneously, it particularly dehumanized people in the colonies, viewing them as targets of exploitation. Both criticisms highlight the relationship between these behaviours, which Europeans presented as civilized. Earth scientists Lewis and Maslin therefore chose the European colonization of the Americas as the beginning of new and far-reaching connections between economics and ecology. They argued that worldwide colonialism caused formerly separate ecosystems to become intermingled, changing food chains in such a way that they began to contribute to a "rapid, ongoing, and radical transformation of life on Earth, without geological precedent" (Lewis & Maslin, 2015, p. 174). The clash between the "old" and "new" worlds, the genocide of First Nations peoples, and the establishment of large-scale plantations where enslaved people were forced to work are historical developments

that continue to influence today's climate crisis. Although the era of modern colonization has ended, its aftermath persists in the form of contemporary global inequalities. Its ongoing legacy highlights the first fault line we aim to foreground which arises from the interplay between ecological and decolonial perspectives on modernity. Their interconnectedness clarifies that the climate crisis is deeply rooted in both the ecological separation between humans and non-humans and in skewed human relations, where the exploitation of both the Earth and human beings is central.

A second fault line with modernity becomes visible when we examine it through an epistemological lens. This epistemological fault line is characterized by two interacting factors. Firstly, the dominant tenets of modern science were characterized by a Cartesian dualism (mind/body, human/nature), which led to the creation of distinct scientific disciplines: natural sciences that study the physical world, and human sciences that focus on human behaviour and society. This separation and ensuing fragmentation, became obstacles to study the complex, interconnected nature of ecosystems. French geochemist Jérôme Gaillardet (2022, 2023), for instance, shows how modern scientific methods can be reductionist and anthropocentric. His research points to the limitations of this divided approach, by showing that ecosystems operate as interconnected wholes, where human actions, natural processes, and the environment are all deeply intertwined. We agree with Gaillardet that the anthropocentric bias in modern sciences stems from a reductionist outlook, where human concerns are often privileged over non-human entities and ecological systems. This bias obstructs a fuller understanding of the consequences of human activity on the environment and limits efforts to address ecological crises, as associated with the Anthropocene.[3]

The introduction of modern sciences into colonial contexts brought about a second disruptive factor from an epistemological perspective. This is evident for instance in the work of Jean and John Comaroff (2012) and Achille Mbembe (2021), who highlight that colonialism should not be viewed solely as a geopolitical phenomenon but also as an epistemological one. Their analysis reveals that colonialism imposed particular ways of knowing and understanding the world, which had profound effects on the knowledge systems of colonized peoples. The imposition of modern knowledge systems and rationalist epistemologies on colonized populations marginalized or even eradicated alternative ways of understanding the world. This process established a hierarchical structure of knowledge that elevated Western scientific thought above others, enabling colonial powers to control both the substance of knowledge and to produce and share it. Educational institutions like schools, universities, and research centres became key spaces where this dominance over knowledge was maintained and reinforced.

Decolonial scholars identify the second form of knowledge domination as epistemic violence. Epistemic violence refers to the harm that is inflicted on marginalized knowledge systems and perspectives through dominant power structures (Mignolo, 2015; Smith, 2021; Spivak, 1988). This violence is both symbolic and material and is manifested in clashes between different cognitive and axiological systems, i.e. systems that underpin differing forms of knowledge and values. Symbolically, epistemic violence results in the delegitimization and silencing of Indigenous and local knowledge systems, often by framing them as irrational or unscientific. Materially, this has profound consequences, for example, when ecological management practices based solely on Western scientific models fail to account for sustainable Indigenous land-use systems, which leads to environmental degradation or community disempowerment. In the field of education, the exclusion of alternative epistemologies can perpetuate alienation and unequal access to knowledge, and reinforce structural inequalities that persist across generations. Epistemic violence can contribute to historical trauma as it alienates students from their local cultural heritage and ways of knowing. Generations of learners have been, and continue to be, taught to devalue their ancestral languages, stories and practices, which fosters an internalized sense of inferiority. This disruption of identity formation can lead to feelings of shame, disconnection and diminished self-worth, all of which can negatively affect educational achievement and overall well-being. For communities that grapple with colonial legacies, the dissonance between lived experience and the taught curriculum can echo across generations, thus deepening the impacts of historical injustice. One example of marginalized epistemology is Traditional Ecological Knowledge (TEK), a knowledge system which is deeply embedded in local contexts and ecological relationships. Berkes (2012) for example, highlights how TEK contrasts sharply with Western scientific approaches and advocates for its integration into contemporary ecological policies and practices. This would create more resilient and equitable strategies to address climate change by recognizing and valuing diverse forms of knowledge.

We believe that the abovementioned fault lines with modernity, and the entangled realities they continue to produce, call for the development of new perspectives in all spheres of life, not only within the sciences, but also within worldviews as meaning-making frames. This would include the need to rethink Humanism and concomitant humanistic educational practices, in order to help to bring about change. With this challenge in mind, we sought out philosophers and social theorists who can inspire humanists to move in new directions. Among the several inspirational thinkers we found, one of the most prominent is the French philosopher Bruno Latour. In the next paragraph, we

will briefly introduce some of Bruno Latour's ideas that are particularly relevant to the arguments in this chapter.

4 Latour's Philosophy and Political Ecology

Bruno Latour (1947–2022) was a multifaceted French philosopher. Starting as an anthropologist and philosopher of science, he evolved into a transdisciplinary, engaged thinker on the ecological crises of our time. Latour argued that the culture of Modernity, in which humanity is seen as the measure of all things, has burdened us with misleading visions of the relationship between humans and the Earth. He critically analysed the Modern anthropocentric worldview, laying a foundation for a radically new ecological culture. Latour was inspired by climatologist James Lovelock who noted the disruptive impact of human activities on Earth when in 1972 he proposed to rename the Earth 'Gaia' (Margulis & Sagan, 2023). According to the 'Gaia hypothesis', which Lovelock further developed with biologist Lynn Margulis, the Earth's biosphere maintains optimal conditions for life through complex interactions among living organisms, the atmosphere, oceans, and the Earth's crust. Related to these scientific insights, anthropologists like Philippe Descola,[4] philosophers and social theorists such as Bruno Latour, Baptiste Morizot, Isabelle Stengers and William Connolly developed philosophical critiques of the separations between humans and non-humans and the dominant role this played in modern philosophy and science.

The Gaia theory served as an important starting point for Latour who embraced the idea that everything on Earth exists within a network where living and non-living beings are intertwined and interdependent. Rooted in Greek mythology, Gaia on the one hand represents the Earth as a mythical, divine and living entity that, on the other hand, is composed of scientifically researched, interdependent, and interacting ecosystems, with Earth as a whole being the largest living entity. The Gaia hypothesis sparked significant debates within academic communities and beyond; some view it as a useful metaphor to rethink the essential characteristics of the Earth, while others criticize it for its anthropomorphism and lack of conclusive scientific evidence. Latour critically appreciated the concept of Gaia as it captured interconnectedness beyond traditional binaries and boundaries, such as those between humans and non-human actors like animals, trees, rivers, mountain ranges, and entire ecosystems. Gaia helped him to conceptualize the Earth as a dynamic system in which humans are deeply embedded. It inspired him to focus on the agency of non-human life which challenges traditional anthropocentric views of the

world. He adopted the idea of Gaia as an 'actor', a living entity that does not allow itself to be reduced to a passive object, a backdrop, or a mere resource for human ambitions (Latour, 1999, 2004, 2015). Instead, he proposed to see Gaia as a capricious and unpredictable 'adversary' with whom humans interact and must learn to cope on all levels: scientifically, culturally, philosophically, as well as in the realms of politics and economy. Latour called the Anthropocene "the most decisive, philosophical, religious, anthropological and political concept produced as an alternative to Modernity" (Latour, 2014, p. 32).

Following Lovelock's lead, and in conversation with the earlier mentioned geochemist Gaillardet, Latour argues that humans should realize that all earthly life occurs within a fragile biosphere, a thin layer, which they called the 'Critical Zone'. This zone extends from the atmosphere to the Earth's interior and is a layer no thicker than a few kilometres (Latour & Weibel, 2020). The cohesion and cooperation of all life forms within this layer is the outcome of a billion-year evolutionary process of creation and self-regulation that produced the qualities and interactions which characterize current earthly life.[5] Latour stresses that although Modern values of freedom, autonomy and sovereignty have seen many edits in history, what remains intact is that they do not adequately acknowledge planetary boundaries within the Critical Zone, that is, acknowledging the limits that a living Earth places on human intervention.

One of the ways to make such human intervention visible is by calculating the 'Ecological Footprint,'[6] which measures the ecological assets required by a given population or product to produce the natural resources it consumes and to absorb its waste. A footprint can be calculated on many levels ranging from the individual to the global. An international comparison of footprints strikingly shows that, notwithstanding local differences, humans in the 'Global North' far exceed the Earth's capacity to absorb waste and generate new resources. At the same time, the standard of living in the Global North, as captured by scores on the United Nations Development Program's (UNDP) instrument of the Human Development Index (HDI),[7] is high. The HDI measures three key dimensions of human development: life expectancy, education, and standard of living. Scoring high on these dimensions presuppose living conditions which significantly contribute to the possibility to live flourishing human lives. However, a comparison with the scores on the Ecological Footprint also shows that the ways of life in the Global North massively contribute to the Earth's demise. This paradox highlights that the basic preconditions we generally associate with human flourishing, like increased life expectancy, education, and a higher standard of living, simultaneously contribute to conditions that endanger human existence. This contradiction raises profound concerns

about the sustainability of modern lifestyles, especially when the broader population fails to sufficiently account for planetary limits. By highlighting its ecological cost, we question modernist tendencies in the belief in linear progress and development and the application of universal criteria to measure well-being, signifying that certain aspects of human development (health, education, income) are universally valuable and can be objectively assessed.

Latour argues that we need a new vision to help us to break free from these through-effects of 'modernity' and lay a foundation for a new ecological culture which encompasses all domains. This includes scientific knowledge about the Earth, economic rationality and political conceptions of popular sovereignty to philosophical narratives and performances, the ways in which art, theatre and literature deploy their creativity and how we teach and learn about the existential relations between humans and the Earth. The distinctiveness of Latour's vision is that he positions the Anthropocene present as a great transformative process that requires a much broader cultural shift than prevailing political and cultural diagnoses reveal. Inspired by Elias, Latour speaks of the necessity of a turnaround in 'civilization', similar to the turnaround that took place in the fault lines between the Middle Ages and Modernity (Latour & Schultz, 2022, p. 54).

Such shift towards an ecological culture has far-reaching implications. If the Earth is not merely a passive object but a network of active players, each with their own interdependent capacity for action and importance in the process of life, then what does that imply for the way humans situate themselves in that process and how they coexist with other players? To find out, Latour believes that it is necessary to make 'the voice of Gaia' better audible to humans. He formulates key questions that underpin his ideas about a new political and cultural ecology. These are questions such as: how do humans remain capable – anthropologically, culturally, and politically – of ensuring that life can continue to generate itself? How do we keep the earth habitable for humans and continue the process of life that has formed over billions of years?

In Latour's view, the natural and social sciences, philosophy, the humanities, worldviews and art all play crucial roles not only in mapping current situations, but also in actively changing them. Such changes require deep reflections on how people experience ecological crises. He argues that not only rational scientific knowledge, but also experiences, emotions, and expectations are vital in shaping how humans rethink their position on Earth in relation to the agency of all other life forms. In the following section of this chapter, we discuss how Latour's ideas can inspire us when we rethink Humanism and humanistic education in the Anthropocene.

5 Latour as a Source of Inspiration to Rethink Humanism and Humanistic Education in the Anthropocene

As we argued earlier, we believe that living conditions in the Anthropocene require humanistic traditions to paradigmatically shift from an emphasis on autonomy towards relationality and the cultivation of new human dispositions within complex ecological processes. While still valuing the uniqueness and dignity of each human being, we think that Latour's philosophy can help to imagine and practice such a shift. We underpin our conviction based on four contiguous perspectives. Firstly, by adopting the idea of 'Gaia', Latour emphasises the need to understand earthly life not only scientifically, but simultaneously relate to its mythic, narrative and experiential dimensions. His emphasis on 'plural ways of knowing' connects well with humanism. After all, humanism aims to cultivate the development of the whole person based on the recognition that humans are complex beings who can develop intellectually, but also foster their social, moral, and emotional capabilities. Humanism values and addresses such deep understanding of the human condition. This makes Latour's ideas particularly interesting for humanists because he explicitly invites us to reconsider the altered human condition in the era of the Anthropocene. He proposes to rethink the value of relationality, not only between humans, but far beyond human-human relations when he adopts the notion of Gaia. The profound interconnectivity which underpins Gaia, challenges humanistic ideas of autonomy and with it humanistic education's traditional emphasis on individualized learning experiences which are generally best tailored to the needs, interests, and strengths of individual learners, that seek to empower all learners to fulfil their unique potential in order to flourish in life. Latour's ideas may inspire humanistic educators to develop new educative opportunities that help learners to deeply understand and experience what it means to place a much broader relational understanding, not only of the human-human, but also of the earth-human interconnectedness at the core of a holistic humanist pedagogy.

Inspired by Latour's work, we believe that this would require a shift that goes beyond fostering and teaching 'respect for nature' and a 'sense of stewardship of nature' as important conditions for human flourishing, towards perspectives in which dichotomies are fundamentally questioned and rethought. Latour's ideas can help to consider such a fundamental shift towards renewed 'planetary consciousness'. By advocating a broadened and relational understanding of reality, he encourages epistemic humility and new ways to understand empathy as an expression of interconnectedness of all life forms. In this context, Latour (2015, 2017) introduced the idea of "geo-stories".[8] These are

narratives that illustrate how human activities reshape the planet in ways that affect both the environment and social structures and thus challenge the traditional separation between nature and culture. By telling these stories, Latour seeks to foster a greater awareness of ecological entanglements. He captures this as 'symmetrical composition' (S-composition) and argues for a more inclusive approach to storytelling that considers the agency and influence of non-human entities, such as geological forces or environmental conditions, alongside human actors. Here he also introduces the notion 'geopathy', which is a form of sensitivity which challenges anthropocentric perspectives that prioritize human agency above all else. It expands the scope of human agency and points to reciprocal relationships, emphasizing how human actions shape, but are also shaped by the Earth's dynamics. With regard to humanist traditions and values, this would call for a greater recognition of the Earth's role as active participant in shaping the course of history and societies.

A second and related perspective is Latour's approach to transdisciplinary learning. The idea is that breaking down traditional disciplinary silos and fostering interaction between different knowledge systems, encourages co-creation of knowledge and actively promotes transdisciplinary learning. An illustration on how this approach could work in humanistic education, is Latour's notion of the "Seven Planets", in which he describes different ways to perceive and respond to the Earth (Latour, 2019).[9] He depicts these different "planets" not as literal celestial bodies, but as metaphorical representations of how diverse scientists, groups and cultures view the world and its challenges. Each planet reflects a set of beliefs about how the Earth functions and what that requires from human beings. The *Planet Globalisation* represents a worldview which is associated with globalisation, with a focus on economic growth and free trade. The *Planet Security* emphasises self-defence against external threats, whether environmental, political or social. This mindset can lead to increased militarisation, border controls and protective measures to insulate populations from global risks. The *Planet Modernity* encapsulates the ideals of progress, technological advancements and human exceptionalism that defined modern history. The *Planet Vindication* represents those who argue that they have been wronged and left behind by the globalised world and its power structures. It is a planet of resistance where marginalized people demand justice and seek to reclaim autonomy over their land and resources and identities, resisting (neo)colonialism and exploitation. The *Planet Anthropocene* acknowledges the profound impact humans on the Earth and recognising that we currently live in a new epoch that is shaped by human activities. The *Terrestrial Planet* represents a political ecology where humans recognise their embeddedness in the Earth's systems and take active responsibility for their interactions with

the environment. Finally, the *Planet Exit* represents those who believe in "exit" strategies through technological solutions, secession from global systems, or other forms of withdrawal. Latour uses these seven metaphorical representations of the Earth to explore how varying perceptions and narratives about living on Earth influence political, economic, and social responses to crises. The concept of the seven planets aims to encourage deeper reflection on the value of diverse knowledge systems and strategies when try to understand, teach and learn about life on earth. The seven-planet approach places the human-earth relationship at the core of interdisciplinary learning processes, instead of engaging with knowledge that is produced in traditional disciplinary silos. By fostering interaction between different knowledge systems, Latour's ideas and projects provide insights and reflexive methodologies for transdisciplinary learning, that emphasise the importance of collaboration and dialogue in processes of co-creating knowledge.

A third value of Latour's philosophy that could inspire the renewal of humanism and humanistic education, is his emphasis on raising consciousness of what it means to live in the concrete local. His focus on local change is a way to address broader social and environmental issues. This emphasis aligns with his critique of the universalizing tendencies of Modernity. Latour argues that solutions to complex problems should not be imposed from above, but rather emerge from within the contexts in which they are situated. Such an approach requires people to focus on the specific relationships and interactions that occur within their own localised settings. They would need to examine how multiple local networks of human and non-human actors are, or could be, involved in generating change. People would be encouraged to (re)connect with the actual place where they live. In this sense, Latour's approach to local change also emphasises the importance of democratic participatory decision-making that involves a wide range of stakeholders, including both human and non-human actors as a way to open up possibilities to reimagine democracy in the Anthropocene.

Latour's critique of modern universalism and his focus on the importance of the local, also throws new light on a related and fourth dimension of Latour's work when rethinking Humanism and humanistic education in the Anthropocene, namely, how to understand and address the legacy of colonialism and its continuities. Here we return to the argument that coloniality and Modernity are symbiotically related. In conversation with African philosophers in Dakar in 2022,[10] Latour discussed his critique of Modern universalism in the context of colonial legacies by endorsing Séverine Kodjo's[11] idea that it is: "not a question of systematically rejecting everything that comes from the West, but of grasping how the concepts or paradigms produced by Western *epistemology* may or

may not be relevant to understanding local scientific *realities*" [Latour's italics]. Latour continued by arguing that "in the colonial model, [modern – our insertion] Reason [with a capital R] is powerful because Science [with a capital S] is everywhere, at once, like a surface entirely covered by the empire of truth". Latour rejected the idea of such universal 'truth' and suggested that we need to "revalorize scholarly practices, knowledge and know-how originating in societies that had been depreciated, or even forbidden, by the colonizer". Instead of declaring universality as declared from above, Latour advocates building local, but interconnected "networks that have to be developed segment by segment, mesh by mesh, with every gain being fought for, translated, captured, knotted". Such practices would allow us to achieve "a certain distance [...] from all forms of totalization, and [to] begin to compare what we might simply call vectors of extension". Here Latour (1993) refers to how scientific and technological developments extend their influence beyond their initial context by forming hybrid networks of interactions. These "vectors of extension" demonstrate that discoveries, inventions, or decisions – such as technological innovations or local political actions – do not remain confined to their original and specific domains. Instead, they expand outward and interact with broader networks of both human and non-human actors. For Latour, this challenges the modernist assumption that science operates independently of social and political influences. Vectors of extension reveal how science, politics, and society are deeply intertwined. Latour suggests that understanding (global) connectivity through these vectors of extension, would allow people to abandon claims of the modern Universal as a form of totalization. He suggests that embracing the idea of Gaia can help to reinterpret the universal-particular divide because unlike the Modern 'empire of truth', Gaia signals a "very relative universal, very connected [Earth]" unlike the old Universal, which was based on the impossible epistemology of "the view from nowhere".

It is at this point in his Dakar talk that Latour explicitly addresses colonial legacy in the context of the current climate crisis in the Anthropocene. He declares: "I understand the scepticism with which groups striving to decolonize themselves from the weight of the first universal, that of Reason, welcome this second universal, that of the ecological totality supposedly imposed on 'us all'". In this context he warns:

> What we can no longer obtain in the form of obedience, dependence and subjection by appealing to Reason, the countries of the North are now ready to impose in the name of the indisputable demands of the planet! Hence the horror of many decolonial thinkers at this call for a "we all" that resembles like a brother of the "everywhere at once" of Reason.

> Ecology, in this sense, can become a new avatar of colonialism, and the "planetary" a pale substitute for globalization.

Latour's critique of Modern Universality connects with the idea that colonialism and Modernity are symbiotically related and with Chatterjee's referral to the rule of 'colonial difference'. Claiming for instance that human dignity is a universal value is defendable but becomes problematic when it overlooks the ways in which colonial practices and racism have shaped, and continue to shape, societies across the world. This oversight – or denial – ignores the performative realities which are created by longstanding racism in (neo)colonial practices. Such double standards highlight a discrepancy between the ideal of universal human dignity and the realities of systemic racism and inequality. We believe that such inconsistency also calls for a more critical and inclusive approach to Humanism, and by extension, humanistic education, to rethink its orientation and practices concerning historical and contemporary racism and the injustices it perpetuates.

6 Exploring Educative Practices Inspired by Latour's Work[12]

Heat waves, flash floods, massive forest fires, and droughts: Latour observes that people worldwide are overwhelmed by the multitude of ecological crises they currently witness. Yet, they simultaneously aspire to create new horizons and visions of the future, driven by hope and creativity. This duality forms a crucial foundation of Latour's approach when he co-created new educational practices, blending scientific approaches with art forms.[13] Together, these practices become complementary vehicles for representation and reflection, inviting us to understand and experience reality in new ways (Latour, 2015, 2018). Visual art, theatre, film, music, and drama enable people to bodily experience how contemporary challenges affect every fibre of their being. However, the magnitude and ferocity of climate change can be so overwhelming that people may feel ill-equipped to address such massive issues. Therefore, in his approach to art, Latour pays close attention to the confusing emotions triggered by climate crises. His interventions often start with these emotions, integrating them into a focus on how people can become actively engaged and motivated to work confidently toward a new ecological future. One of Latour's final contemplations offers a profound illustration of his views. A few months before his death in October 2022, he was asked what advice he would give his one-year-old grandson, Lilo, if he could look forty years into the future. In his answer, Latour depicted himself as a representative of his generation, acknowledging

his personal co-responsibility for contributing to the current crisis. He stated, "We know the house is on fire, and yet we appear unable to change". Latour explained that he expects the next twenty years to be very challenging and advised Lilo to prepare well for the potential disasters that may ensue due to the slow response of previous generations.

According to Latour, good preparation includes not only relevant scientific research, but also the use of therapeutic tools to help humans resist despair. Latour thus co-created several educative practices that emphasize the importance of teamwork through transdisciplinary collaboration. Working alongside scientists and people from the fields of art, literature, music and theatre, he developed numerous practices to enhance cultural transformation. Through theatre, Latour, particularly in collaboration with Frédérique Aït-Touati and with Chloe Latour, developed several artistic practices that focus on human agency in the Anthropocene and their role in ecological systems. These practices aim to motivate collective action by making the consequences of human activities more visible and immediate (Latour & Aït-Touati, 2018). Creating theatre together, such as stage plays, or engaging in other artistic expressions, allows individuals to become more emotionally involved as community members, thereby broadening their scope of action and engagement. To illustrate the objectives of these practices, we will briefly discuss three examples: the "Parliament of Things", the "Exhibition", and the "Atelier".

Our first example is the 'Parliament of Things',[14] which is a simulated conference that challenges modern distinctions between nature and culture. In Latour's parliament, both humans and non-human actors are given a voice in political decision-making processes. By including non-human life forms, Latour suggests that they too should have a say in decisions that affect them. In this way, he extends his ecological vision to the realm of culture and politics and opens up new possibilities to think about ethics and sustainability. This methodology allows for the presentation of new ideas about the Earth but can also lead to new forms of inquiry in which renewal can take shape.[15]

The second example of Latour-inspired work forms is the 'Exhibition'. He co-organized several of them around questions such as 'how do changes in culture come about?'[16] To address these questions, people from a broad range of knowledge and art domains work together. Through images, stories, events and activities, each domain foregrounds how radical change occurs in specific historical periods. The juxtaposition of all these perspectives gives visitors more insight into how diverse change can be and prompt new reflection on how such turnarounds may take place in the Anthropocene.

A third educative practice of transformational work is called the 'Atelier'. Because of its relevance for this chapter, we will discuss this example in some

more detail. An Atelier mobilizes people in their own local situation and helps them to seek the knowledge and tools they need to actively engage in local transformation processes. Its practices include cartography activities in which groups explore how they can creatively map aspects of their own daily lives. The central question that underpins an Atelier is: how can we make the earth habitable again, starting from the actual place where we live? Individually and collectively, people reflect on how they can better connect with their specific place on earth, in a renewed ecological culture. Their reorientation generally requires them to obtain new knowledge about their own local environment and how, for instance, architecture, urban planning, regional management, but also education, culture and philosophy can contribute to change. Ateliers focus on the issues that need to be considered locally, participants often map and explore geological and biological problems of a specific territory, but also include social and political entanglements of their lives when the group jointly tries to construct new horizons. An Atelier can be supported by a consortium of experts such as architects, urban planners, soil experts, theatre directors, political scientists, cartographers and others. These specialists are on call when local questions warrant their involvement. In a series of workshops, often spread out over several months, different competencies are connected and developed. In a demanding process, people learn to cooperate while also confronting each other when they have different views and/or interests. Ateliers are all about asking new questions, inventing new answers, and creating new language for new experiences.

One of the aims of an Atelier is to develop democratic competencies by creating inclusive spaces for collective reflection, participation, and action. By integrating scientific knowledge with artistic expression, Ateliers aim to help participants develop critical thinking and problem-solving skills. They also emphasize the importance of dialogue and negotiation, allowing individuals to express their perspectives, listen to others, and co-create solutions. Through these practices, Latour's Ateliers aim to foster a sense of shared responsibility and empower participants to engage more effectively in democratic processes, ultimately contributing to a more informed and active citizenry. Workshop participants can experience that they are not alone with their questions and concerns, and that they can do something about their concrete situation. New sensitivities for the earth can grow as they work together. Connecting lived experiences, scientific knowledge and artistic dimensions offer ways to become more sensitive to what we experience but do often not yet have words for. Besides working with local communities, Latour and his partners also facilitated Ateliers for high schools which actively involve students and teachers.

7 Concluding Remarks

This chapter explored the enduring legacy of Modernity, rooted in Enlightenment Humanism, which profoundly shaped human lives by championing values like freedom, equality, and the rule of law. While these principles fostered democratic governance and individual autonomy, we argue that they require critical reassessment in the Anthropocene – an era which is marked by the devastating impact of human activity on the Earth. We examined two key critiques of Modernity and Enlightenment Humanism: an ecological critique, which foregrounds the consequences of human behaviour on the planet, and a decolonial critique, which examines how Modernity's progress was intertwined with the exploitation of colonized nations and peoples.

Bruno Latour's philosophy played a central role in our effort to rethink humanism, humanistic education, and the human-nature relationship in the Anthropocene. We find his ideas inspiring because they challenge anthropocentrism and advocate for a new ecological culture that recognizes the interconnectedness of all life forms. We emphasized how Latour's concepts, particularly his idea of Gaia and his critique of the separation between nature and culture, can inspire a more adaptive and responsive humanism and humanistic education to address the challenges of the Anthropocene. We argued that his transdisciplinary approach, emphasis on local change, and critique of Modern universalism provides a foundation to develop new humanistic educational practices that can deepen our understanding of human-earth interconnectedness and promote collaborative, inclusive educative approaches which address ecological and social crises. By integrating Latour's insights with humanistic values, we advocated for a shift towards a more relational and inclusive approach to humanistic education – one that is better equipped to address the intertwined ecological and social challenges of our time.

Notes

1 After fifteen years of discussion, the IUGS decided on the 20th of March 2024 that the Anthropocene will not be declared an official geological epoch in the Earth's timeline. This ruling followed a vote by the ICS Subcommission on Quaternary Stratigraphy (SQS), but is also challenged see e.g., https://www.iugs.org/_files/ugd/fifc07_23c6f9e723bc47b9b5fdcd300f806f25.pdf?index=true

2 After 15 years of discussion, the IUGS decided in March 2024 that the Anthropocene will not become an official epoch in Earth's geological timeline. However, this ruling is challenged, see e.g., https://www.iugs.org/_files/ugd/fifc07_40d1a7ed58de458c9f8f24de5e739663.pdf?index=true

3 We will continue the discussion on this topic in part five of this chapter.
4 See: Descola, Par-delà Nature et Culture, Paris 2005.
5 See for instance https://www.youtube.com/watch?v=OTeNn_mxhwk
6 See: https://www.footprintnetwork.org/our-work/ecological-footprint/
7 See for instance https://hdr.undp.org/data-center
8 In his book Facing Gaia: Eight Lectures on the New Climatic Regime (2017)
9 See also: http://www.bruno-latour.fr/sites/default/files/162-SEVEN-PLANETS-CZpdf.pdf
10 Sadly, at that point in time, Bruno Latour's illness prevented him from discussing this in person. All quotes which appear in this segment are from a translated transcription of his unpublished talk in Dakar which was held on the 22nd of March 2022. The paper is titled "*How not to unify too quickly that which nonetheless "embraces" "us all". The enigma of Gaia presented by a modern anthropologist to African philosophers*". This paper, in possession of his daughter Chloe Latour, was shared with the authors of this chapter. With collaborative partners, including the authors of this chapter, S-Composition intends to work on extending Latour's thoughts on colonial legacies and eco-justice.
11 Séverine Kodjo-Grandvaux is a philosopher and researcher known for her work in African philosophies. She is an associate researcher at Paris 8 University's Laboratory for Studies and Research on Contemporary Logic and Philosophy.
12 To further explore Latour's work and its translation into educational arrangements, visit the European University for Transition network, to which the authors of this chapter contributed: https://eu-4-transition.essec.edu/home
13 Much of this innovative work is currently done by the French Collective S-Composition, led by Chloé Latour and Jean Pierre Seyvos. see: https://s-composition.eu/
14 Which Latour introduced in his book 'We Have Never Been Modern' (1991)
15 See also Face á Gaia, (2015) Chapter 8 'Au Theatre des négotiations' p. 329 (French edition).
16 Each exhibition has been accompanied by a catalogue. A fine example is entitled CRITICAL ZONES, The Science and Politics of Landing on Earth, edited by Bruno Latour and Peter Weibel, ZKM Press, Karlsruhe. 473p.

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CHAPTER 4

EdTech in and for the Anthropocene

A Perspective from Science and Technology Studies

Neha Miglani

> How can we simultaneously be part of such a long history, have such an important influence, and yet be so late in realizing what has happened and so utterly impotent in our attempts to fix it?
>
> BRUNO LATOUR, Agency at the Time of the Anthropocene (2014)

1 Are We Still in the Anthropocene? And Why Does It Matter for EdTech?

After 15 years of discussion, the geologists at the International Union of Geological Sciences (IUGS) have recently, and somewhat controversially, decided that the Anthropocene is *not* an epoch (Witze, 2024). The controversiality of this decision is indicative of several interests – the long running quest to bring the Anthropocene to a vote, a network of international organizations working on the issue, and, not the least, the problems of scientific evidence and technologies used to gather the evidence. Adrian Ivakhiv, a professor of environmental studies, notes that while the idea of the Anthropocene is a theoretical construct, it needed clear empirical measurements – a precise definition, a precise starting point etcetera – to be assessed in reference to what is known (Ivakhiv, 2024). In this scientific quest of evidence, notes Ivakhiv, the entire process moved, "from a global scale proposal … of what makes the present different from the past to a temporally specific date … and a specific site that best encompasses the criteria associated" (para. 14). The richness and complexity of the Anthropocene, in a way, was lost to the geological quest for measurement and (pre-defined) criteria, too specific to reflect the concept's original purposes. This instance of how science became, in Ivakhiv's words, "a victim of its own tendency to reduce its claims to the most indexically clear image" (para. 19) is a great example of what technologies (of 'scientific evidence' in this case) *do*, among other things. As scholars of Science and Technology Studies (STS; elaborated in section 3) have long established,

technologies can entirely reframe the way we see, understand, or prove the problem itself. If technologies can reframe the problem(s) of the Anthropocene itself, then how do we analyse educational technologies in and for the Anthropocene?

Ivakhiv's reflections also underscore some of the embedded political concerns in this decision. One of the long-standing members of the IUGS, Erle Ellis, for example, resigned from the group in 2023, denouncing a key decision as "bad science" with regressive political implications (Ellis, 2023). However, as Ivakhiv notes, declaring this as 'bad science', implicates the process for delineating all the past geological epochs that "followed more or less the same procedures, but with much lower political stakes" (para. 15). While the debates around the Anthropocene have always been politically charged, what this case also highlights are the entanglement of scientific evidence (and technologies we use for that) with politics of the time. As other scholars have shown, and I will discuss in this chapter, a very similar statement can be made about the entanglements between education, the technologies we use for education, and the politics of our time.

I start with this case of one of the key decisions around the Anthropocene because of two reasons. One, it problematizes the idea and the evidence around the Anthropocene. As I will elaborate later in this chapter, how we understand and frame the Anthropocene is a crucial starting point to reimagine education and, more specifically, educational technologies, in the times ahead. And two, this case aptly highlights how technology intertwines with the social and political in (re)framing the problem and possible solutions. This provides a solid reason to think with the ideas of STS. And for these two reasons, this case provides an excellent starting point for discussing how to think about educational technologies (EdTech[1]) in and for the Anthropocene.

If we were to look at EdTech as one of the many technologies in education, then a critical question is to investigate how EdTech is (re)forming, (re)defining and (re)inscribing education itself. In other words, what does EdTech 'do' to our ideas and understanding of education. Inspired by the thrust of this question and drawing literature from Science and Technology Studies (STS), education, and related public media I show how EdTech is deeply entangled with our how we imagine education for our society. Given that STS is deeply linked with sociology of knowledge processes, it touches the very core of education. Reviewing the literature, I show these (re)imaginations along the lines of (1) the speculative futures and visions of society; (2) making of educational knowledge, particularly around teaching, learning and pedagogical practices; (3) the production of evidence in education and its utilization in governance

and policy; and (4) the navigation of scientific expertise through an application of STS in classrooms.

This chapter is based on a purposive review of four key sources or literature. First, it relies on the analysis of some of the classic STS texts to both bring an orientation to STS as well as reflect on some of the key findings and interpretations.[2] Second, I systematically reviewed the rapidly growing literature at the intersection of STS and formal education. I started with keyword searches on google scholar and classified the relevant pieces by categories discussed in section 5. Third, I followed the relevant latest developments on the Anthropocene and EdTech on major media sites (Nature, Guardian, NYTimes etcetera). And fourth, I also followed research from specific authors and international consortiums doing research on EdTech, such as Project RED (Reconfigurations of Educational In/Equality in a Digital World) and Code Acts in Education. These reviews led to other sources that were referred to.

In what follows, I first outline how technology has been related to the concept of the Anthropocene from different perspectives, not just in its definition, but also in various responses to it. This is by no means a comprehensive review of the rapidly growing and multi-disciplinary literature of the field[3] but an attempt to highlight some of the key ideas that might be relevant for EdTech. I then delineate what is STS, why it is chosen as an orienting framework and what affordances it provides for imagining EdTech. Taking the case of EdTech, next I broadly trace technology as an 'actor' in the field of education. Based on the literature investigating EdTech from an STS perspective, in the next section I reflect on what it means for our understanding of education. The final section offers further reflections on how to consider educational technology *in* and *for* the Anthropocene by building on the analysis which I developed in the preceding sections.

2 Technology, Humans, and the Anthropocene

> The paradox of "the environment" is that it emerged in public parlance just when it was starting to disappear. (Latour, 2012)

The coupled trajectory of human civilization and planetary states is undeniably intertwined with technology. Indeed, scholars have called technology as the 'linchpin' in the idea of the Anthropocene (Jørgenson & Jørgenson, 2016). The Dutch Nobel laureate, Paul Crutzen, who popularized the term Anthropocene, argued that the Industrial Revolution, with its invention of the technology of steam engine, could be the seen as the starting point of this epoch.

Others have placed this starting point at the dawn of the first nuclear test explosions in 1945, or even further back to the beginnings of agriculture as a fundamental technology of interacting with and modifying nature (Jørgenson & Jørgenson, 2016). The idea of the Anthropocene, however, has been studied first as a *geological* concept, but also, as a deeply intertwined *cultural* concept (Trischler, 2016). In its multi-disciplinary and varied cultural interpretations, the Anthropocene has become something to celebrate, to be hopeful about, to be extremely wary of, a source of existential anxiety, and one of the causes of the ongoing crisis of well-being – all at the same time.

While the geological community has been primarily concerned with the scientific evidence, possible markers, and periodization of the proposed 'new epoch', scholars from various other disciplines or fields (social sciences, humanities, arts, and media) have developed a deep interest in Anthropocene as a 'cultural' concept and its broader societal ramifications. However, as Trischler (2016, p. 312) argues the *geological* and *cultural* conceptions "are inextricably interwoven and can only be fully understood by stressing the linkages" between them. Linking it to the industrial revolution, for instance, some anthropologists contest the term Anthropocene as it implicates all of humankind and obscures the concrete responsibility from specific industrialist countries and vested capitalist interests (Malm & Hornborg, 2014). Donna Haraway (2015, *as cited in* Trischler 2016) extends this notion, insisting that to speak of the Anthropocene means speaking of the 'Capitalocene'.

Much like the definitions of the concept of Anthropocene, the various responses to it have also been replete with references to technology. In a spectrum of these responses, on the one hand there is the notion of the 'Good Anthropocene' that takes up the challenge of navigating the threats by using unlimited human creativity (Dash, 2019). Taking an optimistic view, advocates of the Good Anthropocene take responsibility of the 'Age of Humans' claiming that the environment will be what we make it (Ellis, 2012). In a publication titled, *An Ecomodernist Manifesto*, the authors claim that "a good Anthropocene demands that humans use their growing social, economic, and technological powers to make life better for people, stabilize the climate, and protect the natural world" (ecomodernism.org, 2015). Many of these proposals, including the one made by Crutzen to inject 1.5 million tonnes of sulphur dioxide particles into the atmosphere in order combat global warming, have been heavily critiqued for being techno-utopian, advocating bad science, and promoting potentially questionable forms of geo-engineering (Hamilton, 2016).

On the other end of the spectrum, STS and other scholars defend the idea that technology is deeply entangled with social organization. While the advocates of the Good Anthropocene see climate disruptions as a treatable side

effect of the 'modernization' process, scholars such as Bruno Latour (1993) show how 'modernist' notions persist in our imagination. It is argued that the collective imagery of technology rests on the sharp divide between 'nature' and 'society'. Building on this notion, Edwards (2002), for instance shows how technological infrastructures of railways or motorways not only shaped where people could travel but also defined what is considered being 'in nature' as regions outside the urban landscape not accessible by modern transport. STS scholars emphatically call for a very un-anthropocentric reading of the Anthropocene by decentring humans rather than equipping them with the power to engineer the earth (Latour, 2014).

Thus, neither the idea of nor the solutions to the Anthropocene are stable and our conception(s) of technology is one of the key factors in which one can make sense of it. Considering this difficulty, in the next section I argue that STS provides a useful way of dealing with the complexities involved.

3 Why STS? Why Now? – An Un-Anthropocentric Stance

STS is an interdisciplinary field which deals with the inseparability of science and technology from social structures and practices. The origins of STS are generally traced to the 1970s, particularly around Kuhn's 1962 classic study, 'The Structures of Scientific Revolution' (Kuhn, 2012). Tracing the so-called 'objective practices' of scientific knowledge, some of the earlier STS studies (e.g., Latour, 1988; Latour & Woolgar, 1979) demonstrated that the sharp divide between an objective 'laboratory' and a messy, 'world' outside the laboratory was a social (and material) construction. In doing this, STS has essentially focused on how scientific knowledge gets made, how scientists and others are able to convince others of its claims, and what goes into the processes of stabilising such knowledge. Originally deployed in the social studies of science, STS now has offshoots in historical, post-colonial, feminist, and development studies scholarships, among others. While an exhaustive overview of the field is beyond the scope of this chapter, I highlight some of the key traits identified in the works of STS.

Most importantly, STS studies have challenged the enlightenment discourses of objectivity and rationality and highlighted the social practices which enabled science to make such claims. Scholars have emphasized, for example, how scientific facts are often shaped by factors such as cultural values, power dynamics, and institutional interests (Latour, 1988), and technological decision-making is often complex, uncertain, and influenced by factors beyond purely rational considerations (Jasanoff, 2015). Critiquing modernity,

STS scholars have challenged a teleological view of progress, arguing that technological development can have unintended consequences and can exacerbate social inequalities and environmental degradation – much before the debates of the Anthropocene became popular (Latour, 1993). They have called for pluralism of knowledge instead of privileging 'scientific' knowledge, and relatedly, democratization of expertise recognizing that knowledge production is a collaborative and distributed process involving multiple stakeholders. One of the established approaches in the field of STS is Actor Network Theory (ANT) developed primarily by Bruno Latour (2005) and Michel Callon. ANT is not simply a theory since it does not try to explain the world before empirically studying it (Law, 2009). As Fenwick and Edwards (2011) put it, ANT is more of a sensibility which also suggests analytic methods that pay attention to the mess, and ambivalences that order phenomena. Key to ANT, and to STS more broadly, is the acknowledgement of the material – the non-human or more-than-human – as actors. Giving some sort of 'agency' to non-humans, and challenging the traditional divide between, object-subject and nature-culture also capture some of the key critiques of STS.

The current conditions of the Anthropocene (however disputed) have forced us to look at the interconnected nature of humans with other beings and the earth. At the same time the interpretations of the Anthropocene have tied us temporally to earth systems when it is visible that human actions in the past have consequences for earth and in turn, human life on earth in the future. Perhaps no other approach so centrally examines these concerns as STS. As STS scholars argue, an ecosystem cannot simply be seen as a passive background or simply an extractable and controllable resource. For instance, climatologist, Schellnhuber crucially notes[4] that the industrial revolution was not born of the ingenuity of humans only, but also the ingenuity of fossil fuels that took several million years to form. Echoing this notion from a historical perspective, subaltern and postcolonial studies scholar, Dipesh Chakrabarty (2009) notes how human history and natural history cannot be seen as independent but interwoven into an integral 'geohistory'. Unlike some of the popular conceptions, STS does not emphasise socio-political construction of 'scientific facts' to render them false. On the contrary, that is what makes them true. In their classic work, 'Laboratory Life', Latour and Woolgar (1979) conducted an ethnography of how scientific facts were constructed at the Salk Institute in San Diego to precisely highlight how human subjectivity (among other things) resulted in good science. This messy, political, impure, and subjective nature of (the science of) the Anthropocene is becoming more and more visible. The controversial 'Climategate' episode in 2010 in which some email exchanges between climate scientists were leaked (Pearce, 2010) serves a classic example

of this. Climate sceptics saw the emails as evidence that scientists 'make up facts', and global warming is not happening, while scientists became defensive about subjective decisions discussed in those emails. For STS scholars, this is precisely how science is done (in messy, socio-political, and subjective ways), and what the technologies of science do. As I will discuss in detail in section 5, the same sensibility when applied to the case of EdTech, reveals how education is *made* by the seemingly neutral and objective technologies. But first it is important to take a closer look at the case of EdTech within education.

4 The Case of EdTech: Tech as an 'Actor' in Education

The landscape of formal education has been replete with discourses and materialities of EdTech, especially, Information and Communication Technologies (ICTs) in the last century. Psychologist, Sidney Pressey, most famous for inventing the first 'teaching machine' wrote in 1933 that "there must be an industrial revolution in education, in which educational science and the ingenuity of educational technology combine to modernize the grossly inefficient and clumsy procedures of conventional education" (pp. 582–583).[5] The familiarity of this sentiment in the current discourse, the belief in the ability of (Ed)Tech, and its comparison with industrial revolution, are useful contours of EdTech in the Anthropocene. Ever since, the interest, implementations, and research around EdTech have significantly increased worldwide. The waves of technological advances (with their promises) have come and gone – from TV and smart boards in classrooms, to one device per child policies, from online, on-demand courses to self-paced adaptive learning, and now, artificial and generative intelligence.

The COVID-19 pandemic was considered by some as the 'game-changer' for EdTech, with no historical precedent. At a time of global health emergency, the turn to remote education using online lessons, mobile apps, and online software, television or radio was obvious, even though bumpy. As many scholars noted, the pandemic exposed some of the legacy and critical issues in education, and EdTech in particular (see, for example, Bruillard, 2020; Williamson et al., 2020). 'An EdTech Tragedy', as one of the UNESCO reports called it, left a global majority of learners behind, and education was diminished even when technology was available and worked as intended (West, 2023). However, the pandemic also continued to be a great opportunity for the EdTech industry (Lahm, 2020), and for those who believe in (the power of) EdTech to call for its further use – building more infrastructure globally, further training of teachers etcetera. This obvious fallback on technology is similarly seen and planned for

in other emergencies (as anticipated to intensify in the Anthropocene) such as climate, and environmental disasters or even large-scale migration and political unrest. One of the effects these emergencies have had (especially COVID-19) is narrowing the polarized discourse on EdTech. Even the fiercest critics of EdTech in classrooms are now discussing its meaningful implementations, and governments, more aware of simplistic and opportunistic claims of the industry (Williamson et al., 2020).

Whether we like it or not, digital technology is a major player in formal education. To varying degrees, schools and universities are replete with digital devices, display screens, projectors, with lectures available live online or downloadable, information systems and servers to access, navigate, and store all sorts of data, not to mention wi-fi, apps, emails, and data management systems. In the Anthropocene this critical reliance on technologies for the most fundamental aspects of all educational work, including research, higher education and schooling makes one question the relationship with technology even further.

While there is an increasing academic interest at the intersection of education at large and the Anthropocene, only a few scholars are beginning to pay attention to 'EdTech' and the Anthropocene. Most of this attention is towards EdTech's, and especially digital devices' relation to the environment. Even though EdTech in relation to sustainability has been a focus area for UNESCO, Selwyn (2021) notes that EdTech in Education for Sustainable Development is generally seen as the solution and not as the problem. Instead, Selwyn (2018) points to the various aspects of EdTech such as the mostly rare raw ingredients for digital devices, environmentally harmful practices of manufacturing digital devices, the energy greedy infrastructure and the environmental cost of disposing digital hardware. Noting similar 'unsustainable effects' of EdTech, notable recent works (e.g., Crawford, 2021) point to how planetary states interweave with history of technology and extraction. Scholars ask several questions and propose future research agendas towards a 'planetary approach' to EdTech (Macgilchrist et al., 2021). Given this implied role of EdTech in deterioration of the environment, Selwyn advocates for 'EdTech within limits' (2021), and 'digital degrowth' (2023). Piattoeva (2021) highlights the entanglements of (ed)tech and ecosystems, wherein technology shapes how we understand ecosystems, while simultaneously depending on and damaging these ecosystems. Taking an STS approach to the issue, she calls for decentring technologies and humans to understand their deep relationality with the earth systems. These are important and critical discussions for understanding EdTech as it relates to the Anthropocene.

This chapter takes a similar STS approach as Piattoeva (2012), but instead of focussing on environmental dependencies of EdTech, it problematizes and complicates what we understand by the terms Anthropocene and EdTech. In the spirit of STS, it highlights how (ed)technology is deeply entangled with the organization of education. With focusing on what EdTech *does* to our understanding of (and evolving state of) education, it provides a way of thinking about what kind of EdTech would we want for education.

5 How EdTech (Re)Imagines Education: An STS Lens

With a new wave of technologies in education – artificial and generative intelligence, social media, wearable technologies, and increasingly several 'intimate' and 'intrusive' technologies, there is renewed interest in studying technologies and societies through an STS lens (Gorur et al., 2019). Based on the reviewed literature, I highlight how EdTech reinscribes different and additional meanings into our understanding of education and is deeply intertwined with the social and political contexts in which it unfolds. This is not an exhaustive review of rapidly growing literature on STS and education[6] but a systematically curated set of works that point to different aspects in which EdTech co-constitutes the larger educational imaginary. Rather than an outright critique or a full-scale advocacy of EdTech, my aim is to sensitize us towards how it restructures our very understanding of education.

5.1 *Speculative Futures and Visions of Society through Education*

One of the strongest and most persistent imaginaries of EdTech is about the future that it will create, if implemented successfully. These include the recurring attempts to 'revitalise' education especially with the latest forms of ICTs that would change the basic processes of education and in effect, 'revolutionize' it. In a classic piece capturing this, Winner (2009) reminds us of the collective 'amnesia' in this regard. "No one looks back upon the past century of ongoing edu-tech innovations … with any great sense of accomplishment. Nobody says fondly, 'remember those wonderful educational films of the 1950s'" (p. 588). STS scholars have meticulously captured these imaginaries as well as cyclical events of 'hype' in EdTech around the world. Chan (2019), for example, investigates the globalized discourses of EdTech in the context of Peru. The speculation of a project such as 'One Laptop Per Child' (OLPC), in which Peru invested $300 million, was presented as, "plainly self-evident that … would only enhance a child's natural capacity for self-learning" (p. 165). Comparing

EdTech markets with financial speculative markets, Chan notes the "strategic promissory grammar" of an innovation that might be years away from making a tangible product but can drive stock prices "by virtue of promise alone" (Sunder Rajan, 2006, *as cited in* Chan, 2019). Even though some of the producers of EdTech reckon the natural hype cycle of products – in which after a peak of inflated expectations, and a trough of disillusionment, things are supposed to plateau – Chan argues, that there is an explicit erasure of the past. There is no consideration, for instance, of a particular technology's relation to the past projects. The promissory grammar of OLPC documented here is very similar to how AI is being promoted in the current times with an amnesia about the previous educational technologies, that might still be very relevant.

As Winner (2009) reminds us, 'educational research' itself is an accomplice in this futuristic hype and amnesia. Scores of research studies tend to focus on conducting pilots on the most cutting-edge technologies, capturing simplistic indicators like time spent on the software/hardware or at best, improvement in scores on standardized tests. "Almost invariably, the conclusion of the 'innovate and measure' ritual is that the initial outcomes were very promising, enough to merit additional research and, of course, additional funding" (p. 590), notes Winner. What is really forgotten in these fascinations with the 'latest' are the real needs of children and teachers that might not need any technological interventions.

Similarly, technological inventions and interventions are strongly tied to the visions of the society at large. For STS scholars this inherent coupling of society and technology is obvious, as they do not see technology outside of social arrangements. The concept of 'sociotechnical imaginaries' that represent visions of a 'good society' offers a helpful framework for this. Sociotechnical imaginaries frame possible ways of imagining the future, and exclude alternative ways of envisioning progress, attainable through, (and supportive of) advances in science and technology (Jasanoff, 2015). Williamson (2018), for instance, uses sociotechnical imaginaries to empirically trace the emergence of four Silicon Valley start-up schools. He illustrates how these schools represent a shared cultural discourse among philanthropic funders, technology entrepreneurs, and software engineers, who collectively "offer technical and corporate solutions to the seemingly intractable problems of public education" (p. 219). Relatedly, Chang (2019), shows how the work done by non-profit actors in California, and their use of digital technology, creates contrasting and competing visions of desirable educational futures. He illustrates how competing ideas of 'achievement', and 'civic engagement' are utilised for a 'twenty-first century' educational reform. Chang details a *Silicon Valley vision* aimed at reducing inequalities in test-based achievement gaps utilising pitches, networking

and gift-exchanges vis-à-vis an *Oakland vision* that aspired to address systemic environmental, economic, and educational inequities by using web platforms to enhance multi-lingual practices and local culture. Thus, by documenting the visions of multiple futures, these scholars invite others to make explicit the inherent politics embedded in such visions of EdTech. The everyday practices of education are influenced not only by the larger visions but, as I discuss next, also by how EdTech imagines pedagogy.

5.2 *Making Educational Knowledge: Learner, Teacher, and Pedagogical Practices*

The core of STS work sees knowledge as socially constructed while equally paying attention to the construction and ordering of the world in which that knowledge can hold valid and true (Jasanoff, 2004). Several scholars have focussed on how knowledge about learner, teacher, and pedagogy/didactics itself is (re)constructed in various uses of EdTech. While in the 20th century the dominant attempts to model and classify learning processes was through the expertise of psychological sciences (Rose, 1990) and a psychological gaze at the learner (Popkewitz, 2012), it is argued that in the current century the expertise of computational models and data science dominate how learners should be imagined (Williamson, 2016a). Taking an example of an EdTech incubator in Israel, (Ramiel, 2019), for example shows how the learner is constructed as a technology 'user', an idea that has been central to the development of computer technology. "Much effort is devoted to thinking, defining, explaining and imagining the users: who are they? What do they want or need? What is their 'pain'? What are their off- and on-line habits?", he notes (p. 492). By drawing on the STS idea of the 'configuration of the user', Ramiel argues that in the case of EdTech the 'userization' might promote 'learning' but not 'educating'.

Investigating the rise in datafication in the Danish context, Ratner, Andersen, and Madsen (2019) show how teachers get configured as data users in the making of Danish national test data visualizations for schools. Rather than assuming that data visualizations provide neutral or objective observations, they explore them as "situated, socio-material, and contingent achievements" (p. 25). They show how a private organization and the Danish Ministry, work towards enabling infrastructures and pedagogical use of data for teachers. In doing so, the authors highlight how teachers become the key 'mediators' that connect visual representations of progression with realities of the school, and at the same time inherently presume that a commitment to such data is important for teaching.

"Given the availability of granular levels of billions of data points generated by students from across the world, some of the big EdTech companies have become 'methodological gatekeepers' who can carry out new forms of

educational research using large-scale datasets, and data science methods" (Williamson, 2016b) to then feed this data back into some form of pedagogical best-practices. In this context, Williamson asks, if big EdTech data companies, (for instance, Pearson) with their aims to fill a gap in existing understanding of learning processes, are beginning to own educational theory. By highlighting the credibility of big data as a valid source of educational knowledge and well-resourced commercial research centres that have this capability, Williamson is pointing to a political economy dimension of educational theorizing. This theorizing of pedagogical practices through big data is also deeply intertwined with educational evidence produced especially, though not solely, for policy and governance. I discuss this next.

5.3 *Educational Evidence, Governance, and Policy*

In the recent years the production and availability of 'evidence' has become a key concern for educational actors, ranging from policy makers to parents. The production of such evidence and its claims to scientific objectivity has been of active interest to STS scholars. Gorur (2011), for instance, explores what goes inside the making of PISA (Programme for International Student Assessment), one of largest global standardised assessment of student learning outcomes that uses the latest and innovative technologies. Seen by the world as a marker of national competitiveness, Gorur asks, "[h]ow does [PISA] acquire a 'voice from nowhere' …, and become a modern-day Oracle that countries might consult for policy advice?" (p. 76). In classic ANT style she observes the 'PISA laboratory' to see how scientists classify and order the world outside into definable categories and what sociomaterial inscription devices they use to order and preserve that data. Using depth interviews with senior officials from PISA, Gorur shows the various risks that are taken in decisions about what should be tested, uncertain foundations about correlation between PISA scores and country's development/prosperity, the limitations of what can be measured, complexity of translating test items into different languages, and using statistical techniques that make difficulty of a question or the context of a student irrelevant. In essence, Gorur shows that far from being an accurate representation of some 'reality out there', PISA is 'performative' and PISA knowledge is 'fabricated'.

At a student level, the ability of educational software to be adaptable to learners' needs has been seen as one of the key achievements of the latest EdTech. Høvsgaard Maguire focuses on mundane practices within the complex infrastructures of Danish education to trace the generation and calculation of evidence through adaptive testing of students. Building on the STS notion of 'framing' she argues that all testing is a way of framing in that it brackets "a limited number of actions to be undertaken in an infinite world of possible relationships" (Callon, 1998, p. 254 *as cited in* Høvsgaard Maguire, 2019). While

several scholars discuss "teaching to the test" and the narrowing of the curriculum in relation to standardized testing, she takes the analysis a step further. She shows how students are increasingly expected to *adapt to the test*, while teachers face the new task of making students adaptable to the algorithm. This includes focusing on the fine-tuning of test execution and managing or preventing so-called "unruly" test behaviour.

Given these rapid changes globally around standardized testing, several scholars have noted the new forms of governance and the politics of digital datafication. Drawing on a relational view of 'infrastructure' from STS, (Williamson, 2016a) notes that public policy instruments consist of technical and social components. While educational governance is always partly technical, Williamson insists, that educational policy instruments are also "bearers of values and interpretations of the social world … and privilege certain representations of problems to be addressed" (p. 125). In mapping, 'digital education governance', Williamson (2016a) shows the focus on centres of visualization and anticipation that are premised on the presupposition that educational (much like economic) performance can be measured, monitored, predicted in terms of statistical fluctuations of risks, pre-emptive and preventative actions, and local and global comparisons. While not new or novel, these practices of digital datafication in educational governance employ policy instruments to constantly audit learner data. In this recursive arrangement, learner produced data is used to calculate, compare, and predict aggregate outcomes, and this ideally loops back to classrooms in some forms of pedagogical interventions based on algorithmically determined global norms. Similar to a point made in a previous section, Williamson thus argues that "data produce the learner as much as the learner produces the data" (p. 139).

In a very different context of the creation of a large-scale educational database in India, Gorur and Dey (2021) focus on the ontological politics – the ways in which practices enact realities – to highlight how digital platforms themselves are "implicated in struggles over the power to define what counts in education" (p. 69). Highlighting the voices of different users of the data platform, the authors reverse the common trope of 'user-friendly technologies' to show how the various users are *made* technology-friendly by tactics of persuasion, and rearrangement of relationships of trust. Other scholars have shown how educational governance with the advent of rapid digitization has evolved into 'governing by numbers' (Piattoeva, 2015), 'governing by evidence' (Decuypere et al., 2014), and primarily concerned with being statistically comparable (Gorur, 2013).

5.4 *Navigating Scientific Expertise in Classrooms*

The co-production of science, technology and society has been of immense interest to several teachers of science who attempt to bring it to their

classrooms. Controversy mapping is one of the great examples of this. According to ANT, controversies should be recognized as important empirical occasions for investigating the production and stabilization of social and political entities as much as scientific and technological ones (Latour, 1992). Termed as an educational version of ANT, controversy mapping makes use of digital cartography to engage with ongoing controversies as they unfold (Venturini, 2010). This is intended to produce an appreciation of contested nature of the object/thing at the centre of disagreements, making it hard to privilege one form of reasoning/evidence over others (Elam et al., 2019). Thus, controversy mapping is supposed to help people appreciate complexity of issues and expand their capacity for thought and reflection.

Elam and colleagues (2019) follow the implementation of controversy mapping in Swedish classrooms. They note how the 'digital bias' of the mapping tools students were provided with (web crawlers, data visualisation tools etc.) proved helpful. While constructing these controversy maps students were encouraged what might be characterized as 'moments of hesitation' as they had to explore if data from certain websites promised to enhance the quality of their controversy maps or not. The vision of democratic citizenship encouraged students to act as mediators of controversies describing, interpreting and representing them in a form communicable to others rather than breaking complex issues into different parts. However, the authors show that the focus of the intervention shifted away from interdisciplinary engagement to mastering the technology. Several teachers while welcoming the digital literacy the project brought, felt tensions when science classrooms were crossing disciplinary boundaries.

Controversy mapping with its sophisticated use of digital technologies and more than transactional digital literacy for students, highlight the possibilities of teaching-learning the messiness of science and scientific expertise. Elan et al. also note that "if digital tools and methods are to be understood as increasingly valuable citizen equipment for analysing the mutual entanglement of science, technology and society today, then this technology in turn should not escape growing scrutiny" (pp. 74–75). Indeed, the technique of controversy mapping encourages students to assess how digital technologies themselves might be implicated in the construction of the controversies.

6 EdTech in the Anthropocene for (Not Just) Humanistic Education

> Our sin is not that we created technologies but that we failed to love and care for them. It is as if we decided that we were unable to follow through with the education of our children. (Latour, 2012)

In the previous sections I spelled out the various ways in which (a) technology is deeply tied to the idea of the Anthropocene, (b) the idea of the Anthropocene in and of itself as partly a socio-political construction, and (c) how the orientation of STS is useful towards an understanding of technology and for our case, EdTech. With the help of various empirical works, I then illuminated how EdTech (re)imagines some of the core concerns of education. By framing this within the broad scope of STS, my main aim, has been to 'defamiliarize' some of the common sense around EdTech. It is only when we begin to see both the idea of the Anthropocene and EdTech in its complex socio-political-material ways that we can try to imagine EdTech in and for the Anthropocene. As the problems with defining and proving 'the age of the human' reveals, defining and proving the effects of EdTech are equally intractable. Our aim for the future of EdTech therefore is not to simply critique it but to offers the participants of EdTech "arenas in which to gather" (Latour, 2012, p. 246). If we now know that the promises (and the problems) of EdTech are 'constructed', then it means they are fragile and "in great need of care and caution" (p. 288).

This imaginary of EdTech in/for the Anthropocene then is deeply tied to, in Piattoeva's (2021) words, "how we will unlock the modernist sentiment" (para. 14). Based on the review discussed above, I draw three key reflections. Firstly, much like in the case of the Anthropocene, we need to soften the rigid boundaries between what is already, strictly 'natural' and what is 'human made' (and therefore, progressive). For EdTech, this translates to moving away from seeing the latest innovations in technology as a leap into a futuristic and necessarily 'better' world. The techno-solutionist approach of EdTech is far too self-assured, deeply tied to market logics, and as history has shown us, bound to produce the never reachable 'next big thing'. Not all innovations are worthy of being urgently brought into a classroom. In this context, we not only need a move towards 'slow computing' but also an intentional use of EdTech. Revisiting the key aims of education, even as they keep changing, is critical for weighing the need or utility of any EdTech (Winner, 2009). An argument for technology just for the sake of technology or even technological literacy might not be sufficient. However, we must equally be cautious of falling into the traps of simply stripping away anything 'technological' from education with the idea that all knowledge is 'naturally', inherently present in the learner and perhaps, only needs some sort of uncovering by other (adult) human beings. Rather, as STS scholars have painstakingly shown, we must situate ourselves in the network of associations we have with all other beings and materials. This also means re-assessing some of the 'scientific evidence' around EdTech or the extreme desire for (only) data/evidence driven educational policy by realizing that objective knowledge is also a "strange imbroglio of politics, science,

technology, markets, values, ethics, facts" (Latour, 1999, p. 19). The responsibility of 'care and caution' in making sense of scientific evidence around EdTech is not just on educators or policy makers but equally on the scientific community producing it.

Secondly, it requires what Keri Facer (2021) calls a rethinking of the human at the heart of a humanist education. Human beings, and therefore, students and educators are already deeply entangled with each other and other forms of technological intelligence. While these entanglements are uneven, they fundamentally change the nature of human interactions and our interactions with other things. These interactions, educational or otherwise, will only intensify as we become enmeshed with algorithmic intelligence of search engines, logistics of knowledge production and learning enhancements through databases. We must recognize that students' and educators' well-being is interdependent with more-than-human biophysical worlds of the planet. In Facer's words, the old idea of "the autonomous human child … educated to achieve success in an economy detached from the biosphere and assessed as separate from others … makes no sense in this analysis (if it ever did)" (2021). Thus, the conception of education and EdTech more specifically would benefit from moving away from a preparation of a world that is already known and having a competitive edge, towards a practice of encounter and revelation in specific socio-economic contexts.

Thirdly and relatedly, it also follows from the discussion above that much like with the case of the Anthropocene, education and EdTech too is not 'entirely' about humans. One of the aims of education, and especially relevant for EdTech, then also becomes to understand our precarious position in the web of networks of the larger earth systems. Education (with or without EdTech) then can work towards creating a room for 'matters of concern' rather than 'matters of fact' (Latour, 2004). As Decuypere (2019) notes that we need to think about not only STS *in* education but also STS *as* education. Among other things, he notes a move towards teaching and learning about dealing with uncertainty (as opposed to just describing it) and 'interfering' in educational realities to show how things could be otherwise. Specifically, for EdTech this might include literacies around data and technology, to include the intertwined dimensions of the technical, the social and the ethical in addition to mere usage of a software or statistical, algorithmic capabilities. The example shared in the previous section around controversy mapping in high schools and universities could be a great way to bring high-end technology (like digital cartography) to bear upon the contested nature of scientific knowledge and deprivileging ideas from a specific discipline (see: Venturini & Munk, 2021). As Trischler (2016) highlights in the case of the Anthropocene, inculcating technologies that encourage multi/transdisciplinary approaches would also be a

fruitful use case of EdTech. Finally, as Latour (2012) noted, much like our children, technology, and in our case EdTech, will be flawed and go wrong at times, but just as we do for our children, we must care for them and work towards improving them.

Notes

1 In this chapter, I use the term 'EdTech' to refer primarily to ICT (Information and Communications Technology) components and usages in education.
2 These include texts from Latour (1993, 2005, 2014), Latour and Woolgar (1979), and Jasonoff (2004, 2015).
3 Particularly missing are some perspectives from philosophy of technology. See, for example, a special issue discussing this perspective: https://link.springer.com/article/10.1007/s10699-020-09772-z
4 https://www.youtube.com/watch?v=Z-n_44M2nLw
5 See also: *Teachers and Machines: The Classroom of Technology Since 1920* by historian, Larry Cuban (1985).
6 Concerted efforts to map STS, and ANT, work within education can be seen in a few special issues in academic journals, for example, *Discourse: Studies in the Cultural Politics of Education* (2019, issue 40(1)) and *Educational Philosophy and Theory* (2011, issue 43(1S)).

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CHAPTER 5

The Tree of Knowledge Must Feed the Tree of Life

A Conversation with Nimrod Aloni about Humanistic Education

Robbert Bodegraven

Nimrod Aloni is a notable Israeli educator and philosopher whose work deeply engages with humanistic and democratic educational principles. Aloni has authored many influential books and articles, including *Enhancing Humanity: The Philosophical Foundations of Humanistic Education* (2007) and *Empowering Dialogues in Humanistic Education* (2008), where he explores the role of Humanistic education in fostering a humane and inclusive society through the transformative power of learning. For this chapter, Robbert Bodegraven, Director of the Dutch Humanist Association (Humanistisch Verbond), discussed with him his ideas on how humanistic education can cultivate a humane and just society. The interview is supplemented by quotes from Aloni's work that are framed in the text.

The newspapers are full of it on the day I speak to Nimrod Aloni in April 2024.[1] The Israeli army bombed a refugee camp in Gaza; thousands of people flee, and dozens do not survive the attack. In the fight against Hamas, the Israeli government decided to bomb the most populous area on earth, Gaza. The nearly two million inhabitants are not spared in the process.

"In Israel, we are in the throes of grief, pain, and anger. After the Hamas attack on October 7th,[2] committing a monstrous journey of massacre, burning, raping, abusing, and kidnapping hundreds of innocent citizens, the first response was one of retaliation and revenge", says Aloni via an online link from Oregon, USA. "The community united, the enemy had to be punished. We empathized with the victims, their family, and friends, we closed ranks. And that's where

the problem arose. Because we forgot that our enemy is also human. Human beings like us".

Aloni has often written about the long-standing struggle between Israel and Palestine. His appeal is always the same. "All it requires", he wrote in the Israeli newspaper Haaretz on 28 June 2010,

> is a simple step away from a tribal mentality and family feeling toward a universal moral awareness. (…) In other words, to look at the other, even if he is a stranger or an enemy, as a human being in the full sense of the term, exactly like you and your near and dear ones.

1 Focus on Humanism

Nimrod Aloni, who shares his name with a distinguished general in the Israeli army, is a professor emeritus of Philosophy at Tel Aviv's Kibbutzim College of Education and a visiting professor at Columbia University, Concordia University in Montreal, Wagner College in New York, and the University for Humanistic Studies in Utrecht, the Netherlands. Aloni does not mind the confusion that sometimes occurs with his namesake but agrees that the two could not be much further apart in their views on humanity. Nimrod Aloni is an open and staunch humanist, and thus an outspoken critic of the violence of the Israeli army against the Palestinian people. Naturally, he also abhors the violence used by Hamas against Israeli civilians. October 7, 2023, is also etched in his memory.

In the many books and articles Aloni has written, his focus is always on humanism. He specializes in how humanistic education should be advanced – not only in schools and universities but in the broadest possible sense. Education starts with children, Aloni believes, but continues as lifelong learning. How that should be done and what it is good for are the subjects to which he has devoted his life.

> As a normative worldview, humanism means regarding human beings as sovereign individuals who are responsible for their destiny, attributing to all people an unconditional self-value equal to that of their fellow men and women, and striving to establish a just, democratic, and human social order, which is committed to the sanctity of human life and the furthering of human equality, freedom, solidarity, growth and happiness. (Enhancing Humanity, p. 63)

In your books, you write that the need for humanism and humanistic education is greater than ever. Can you elaborate on that?

"I teach students and regularly speak to people about the meaning of humanism. What I notice is that there is much contradiction. 'Surely we are all human beings,' I hear, 'so everyone is a humanist, right?' I call that ideological banality. It is as if everyone is culturally educated and interested because everyone is part of a culture. However, I see culture, like humanism, as a challenge, something that requires effort – an achievement, as Spinoza wrote in his Ethics, quite rarely accomplished.

In ancient times, they already knew this. The Greeks called it *paideia*, the Romans *humanitas* – the challenge to become as fully human as possible. We are all equal, but not everyone takes up that challenge. What bothers me is the trite platitude of those who talk about humanity and humane action without taking ethical and political consequences seriously.

It is ultimately about the distinction between right and wrong. I know it seems forbidden in our era to be judgmental – it is not politically correct – but I think judgments of right and wrong are essential. Democracy cannot exist without them. So, I challenge everyone to be demanding in this regard. We must resist the idea that everything is relative. Twentieth-century thinking, especially postmodernism, has put us on the wrong track".

Please explain.

"Postmodernism takes a very critical position. The outcome is that nothing is really of value anymore. It deconstructed everything; the rhetoric is amazing. It even deconstructed language until all those words ended up meaning nothing. But if everything is equal, or meaningless, what do you stand for? Postmodernism is like a forest in which you can no longer see the trees. As Dostoevsky, and later Nietzsche from a different vantage point, put it, 'If everything has the same value, how do you still shape the world?' Postmodernism was basically an attack on truth, on justice, and on beauty.

Of course, truth cannot be fixed. Socrates already knew that. No one, no scientist, and no philosopher can claim to know The Truth. But there are however many truths, sensible positions, and rationally and morally justified or valid stances. The starting point must be that there is still a great deal we do not know. But the ideal is that we seek beyond, that we strive for more knowledge, more justice, and more beauty. Postmodern intellectuals deny that. 'Why go to all that trouble', they say, 'why read poetry, why struggle through a thoughtful essay when you can also watch a reality TV show?' I see postmodernism as a betrayal of the intellectual task of seeking both value and truth in life".

In your work, you write that in addition to "ideological banality", we suffer from "ethical nihilism". Nihilism was considered the main enemy of a humanistic way

of life in the Netherlands when the Humanist Alliance was founded. How do you understand it?

"I was studying the work of Nietzsche. He discussed the tragedy of nihilism. First, humans needed God to find stability and meaning in their lives, but it involved sacrificing human dignity, freedom, and reason. Then humans destroyed God – to restore human dignity – but, Nietzsche said, we failed to put a new challenging and demanding humanist ethic in its place. And now humans are stuck and lost, without a new source of life. Humanity failed to be victors of both God and Nihilism. According to Nietzsche, this is a catastrophe. I agree with him".

Aloni hastens to say that he never starts with philosophical theories in his work. "Humanists are empathetic to begin with. They care about other persons; they try to help others make the most out of life. Humanism is relational for me, not theoretical. One recognizes humanists not by the fine words they speak, but by their actions, especially actions for the weak, the forgotten groups, the voiceless".

> Humanistic education always strives towards a fuller and more sublime human existence through nurturing qualities unique to human beings and making their lives better, more meaningful, moral and happy. In other words, it is an education that helps people – of both genders and all groups and communities – to actualize their humanity and reach their best, as individuals who actualize their potential, as involved and critical citizens in society and as human beings who develop and expand their humanity through an educational encounter with the best achievements of human culture. (Enhancing Humanity, p. 59)

You emphasize empathy, while many people associate humanism first and foremost with individual freedom. Don't you?

"Humanism wants to humanize, to enable people to fully develop their humanity. This requires freedoms. Everyone should be able to develop economically, culturally, and socially. That's what humanistic education must ignite. But that does not happen without empathy".

2 Liberation from Ignorance

Humanistic education, says Aloni, is where everything starts. It is the field of Aloni's lifetime devotion. He had been on sabbatical in Montreal in 1992 and initially had no idea what he wanted to do when he returned home to Israel. Wandering through the library, he discovered that books on humanistic

education could be categorized into no fewer than four different sections. Some approached it from virtue ethics, some from romantic naturalism, some through the lenses of existentialism, and still others from the vantage point of a radical and critical socio-political concern. They all differed greatly in approach. Aloni read Rousseau, Carl Rogers, Abraham Maslow, Sartre, Camus, and Paulo Freire and became fascinated by these diverse perspectives. Thus, he found a new task for himself: to bring these perspectives together and create a coherent approach.

In his book *Enhancing Humanity*, a standard work in the genre, he elaborates on that task. Educating ourselves and each other in humanism, Aloni writes, means education in intellectual freedom, moral judgment, and democratic citizenship. For Aloni, it all began in Classical Antiquity. The Greeks strove to educate individuals to become developed and virtuous human beings. The Romans continued with their *artes liberales*, which also focused on the intellectual, moral, and civic abilities of individuals. The classical ideal of humanistic education, in which knowledge is imparted to understand the world and to judge when choosing between good and evil, can still be found in numerous contemporary pedagogical approaches.

A second approach to humanistic education has its origins in Romanticism, Aloni analyzes. More precisely, with Rousseau, who protested the obsession with encyclopedic knowledge and authoritarian teachers. Human's natural authenticity should take central space, and by making room for that in playful ways, people would develop into complete and full human beings. The good life, Rousseau said, is naturally within us. We only need to let it blossom.

Aloni distinguishes a third and fourth approach that contribute to humanistic ways of life. With the existentialists, Aloni discovers that each person is an individual and thus free to create their own identity, living authentic life not so much in the sense of self-realization but in the form of self-creation and self-fashioning. Human beings need teachers, but not those with a preconceived curriculum; rather, they need teachers with the skills to empower the sense of personal agency of their students and to bring out the good in life. In this way, everyone can form their own identity and make room for the urge for freedom that we all carry within us.

Finally, the fourth approach intertwines humanistic education with socio-cultural and political-economic conditions. Under the slogan "pedagogy must become more political and politics more pedagogical", the class struggle became central to this approach. The Brazilian Paulo Freire became its figurehead.

Aloni saw that while the four pedagogical approaches differ, they also have important similarities. They all strive for humanization, pointing the way toward self-actualization, a dignified life, and concern for the shared

good in which individual talents can be freely developed. In addition, all four approaches aim to liberate the individual from ignorance and prejudice. Through humanistic education, the individual is freed from a herd-instinct-driven mass. Those principles, Aloni believes, are as valuable as ever.

You developed a 21st-century definition of humanistic education. But first, could you elaborate a little more on what you think humanism is?

"Humanism focuses first and foremost on bringing our humanity to fruition. We are all sovereign individuals and responsible for our own lives. At the same time, we are tasked with taking care of one another. A humanist wants to flourish not only themselves but also wants the same for others. Everyone is equal and deserves equal opportunities. That is why humanism is committed to creating a fair, democratic, and humane society".

Based on the four humanistic approaches and the definition of the humanistic worldview, Aloni proposes the following definition:

> Human education is characterized by general and multi-faceted cultivation of the personality of those being educated, in a climate of intellectual freedom and respect for human dignity, towards the best and highest life of which they are capable in three fundamental domains of life: as individuals who harmoniously and authentically realize their potential, as involved and responsible citizens in a democracy, and as human beings who enrich and perfect themselves through active engagement with the collective achievements of human culture. (Enhancing Humanity, p. 77)

3 Garden of Eden

"In doing so, we must always be alert to the pitfalls", Aloni continued. "There have been so many revolutions. And often, the new rules and powers are just as bad as the old ones. Critical humanist pedagogy must, therefore, heed the words of Paulo Freire, who said that our greatest challenge is not to free ourselves from oppressors, but to free ourselves from our urge to oppress others".

> The initial premise of Freire and other critical pedagogues is the realization that the fate of youth is mainly determined not in the education system, but rather in the social-political arena. It is determined in the policies that decide the extent to which all humans have equal opportunity to achieve a worthwhile and flourishing life. Its point of departure is the critical understanding that poverty and illiteracy, crime and drugs, wars and social gaps,

> ecological destruction, slavery, discrimination against women and minorities, technocratic thinking, political tyranny, and interpersonal alienation – these are all human made evils, arising from immoral power structures and social inequality, effecting the lives of the majority of the world's children and directly or indirectly affect the development of children on the physical, emotional, mental, social and moral levels. (Ecohumanism, Democratic Culture and Activist Pedagogy, p. 7)

That sounds like a relevant task at a time when inequality in the world is growing, the climate crisis is exacerbating the gap between rich and poor, and political movements that create enemy images are on the rise. What is the response of humanistic education?

"In any case, good humanistic education tries to ensure that tomorrow's leaders do not make the same mistakes as today's leaders. But you are right, the challenges are great. I like to use the metaphor from the Biblical creation story. In the Garden of Eden, there were two trees: the Tree of Knowledge and the Tree of Life. Humanistic education offers knowledge but cannot be only theoretical. In this, I follow Aristotle, who already said that education must lead to change in the world. So, the Tree of Knowledge must nourish the Tree of Life. Otherwise, it is meaningless.

In education, therefore, teachers must bring daily realities into the classroom. Concrete challenges must have a place. Teachers need to set themselves up as vulnerable role models so that students are invited to bring their own vulnerability to the classroom. Education needs to develop a critical outlook on each other's choices, including those of teachers. In this way, students develop sensitivity to the complex challenges of everyday life. At the same time, knowledge is instilled so that the emotional meets the intellectual. The outcome is life skills".

> Humanistic education is first and foremost the development of the human spirit and a training for the art of life – directed towards full and successful actualization of every individual's personality, and closely linked to the most sublime, both in the individual's personality and in human culture.
>
> (…)the acquisition of knowledge should not be regarded as the supreme goal and certainly not an exclusive one. We should regard it not as an end to itself but as an important means for the overall and multi-faceted nurturing of the students' personality, in order to bring him closer to a meaningful, good and honorable human life. In other words, in the framework of

> humanistic education we must regard the Tree of Knowledge as the Tree of Life both for those being educated and for society as a whole. (Enhancing Humanity, pp. 111–112)

And how does 'the art of living' help humanization, and how does it help against exclusion, ecological destruction, and inequality?

"Education, whether for children, youth, or adults, must touch learners in their soul. Plato said that you must learn to love what is worth loving. Again, knowledge alone is not enough. One's whole personality must be affected. That is why humanistic education is holistic and relational; students are set in motion in such a way that they become more idealistic and realize they must do something for personal edification and world betterment. If you teach someone to swim and dive to the bottom of the sea and show them its beauty, they will never want to stay on the surface. The whole purpose of humanistic education is to give an experience of deep-sea diving from time to time. Of course, that often doesn't work out and you don't reach everyone. But if I can touch twenty percent of the students in this way, I am satisfied. They then become drivers of change".

> We believe Ecohumanism is the timeliest and most appropriate paradigm for addressing our educational task. It consists in combining the humanist commitment to human dignity, social justice, and democracy with the ecological commitment to climate stability, biological diversity, and sustainability of natural resources. (…) It requires us to learn how to live with others and not at the expense of others; stopping the exploitation of both the human and the other species than human; enabling others – human beings and other living species – to sustain themselves at their best, in accordance with their nature and in harmony with the rest. (Ecohumanism, Democratic Culture and Activist Pedagogy, p. 3)

You are asking quite a lot of teachers.

"Sure. Only the very good teachers can do that. If the teacher's soul is empty or shadowy, then nothing moves within students. So, the first requirement of a teacher is life experience, a personality that students can emulate. The true teacher is someone who stands firmly in their shoes and is willing to row against the current.

When it comes to the education of children, Kant already understood that teachers face a great challenge. Parents want their children to grow up to be

successful citizens, even if the society in which they become successful is corrupt. Additionally, those in power – politicians, religious, or economic leaders – do not want children to become overly empowered, as that would threaten their position of power.

In that force field, teachers must stand firm. They are the ones who must provide knowledge that teaches you to think critically and teach morality that helps you lead a good life. They help realize Kant's ideal: to develop as freely and fully as possible to contribute to a humane society in the future. Kant is about transformation toward greater humanity. Humanistic education follows that ethic".

> In the most general terms we can say that the basic characteristics of the teacher-educator worthy of the name comprise broad education and erudition in the field of teaching that enable him or her to place this knowledge in a broad intellectual and ethical context. These consists of a caring attitude, openness and respect for the students and an interest in their development and wellbeing; an aspiration towards quality and development in the diverse spheres of life and the ability to inspire the students with this aspiration; a didactical and pedagogical ability to inculcate knowledge and develop moral virtues and life skills; and of course, teachers who in their speech and manners will constitute examples of humanistic values and virtues. (Enhancing humanity, p. 105)

4 Coalition against Pessimism

Aloni did his research not only in academia but also has extensive practice-based experience. He was closely involved in developing the Bialik-Rogozin School in Tel Aviv, a school for migrant children, where some 50 different nationalities are together in school. It is a place where he tried to shape humanistic education. Until recently, this school was an international example of successful multicultural education. The children's results were above average, and educators and policymakers from around the world visited the school to learn from its success. The 2011 Oscar-winning documentary about the school, "Strangers No More", added greatly to all that attention.[3]

Aloni says, "We tried to make humanistic education concrete there. Especially after that Oscar-winning film, it received a lot of attention. The sad thing is that it has since completely disappeared. This kind of initiative, where we assume the equality of all children, gets little priority. Neither do the Shared Life Education programs, where we created bilingual curricula in both Hebrew and Arabic. With the current political winds in Israel, all of that is under pressure".

Are you pessimistic then? After a period of construction, it turns out that the ideal of humanistic education can disappear in an instant under the pressure of extreme forces.

"Yes, I am very pessimistic. I'm not a prophet, but I see the world moving downhill. After the two world wars in the 20th century, the revolutions, and the Holocaust, we thought it couldn't get any worse. And now look at what is happening in Israel. Look at the ecological disaster taking place. Or look at the storming of the U.S. Capitol by a 'white supremacy' gang and supporters of a sociopathic president.[4] Nobody thought that was possible, and yet it happened.

On top of that comes technological development. No matter how hard we try, our daily lives are irrevocably determined by the Internet, by our smartphones. These are much more powerful than ideologies because they intervene directly in our daily lives".

You seem to have given up on the ideal of humanistic education altogether.

"No, I still try to connect, to build coalitions with others who have humanist ethical and pedagogical standards and demand different behavior from those in power. In my classes for students, I make room for lessons in empathy, contemplative pedagogy, mindfulness, and ecohumanism. Like in the 1960s, we are trying to awaken a counterculture in this way. In that, I find hope. Maybe, just maybe, it will help".

5 Ecocentric Education

Can you elaborate on that countermovement?

"Well, it starts with the realization that we must protect our culture, our health, our nature, and our habitat to academically, educationally, and politically fight for sustainable futures. There are more important things than becoming multimillionaires. What I have come to realize better in recent years is that the ecological crisis must become central. The future of our young people is threatened. The ecological crisis taught me that fighting for human rights alone is no longer enough. We need a more comprehensive ideology, more comprehensive education".

It seems that violence and devastation against humans and violence and devastation against nature have quite similar motives and characteristics: rising from egoistic and greedy pursuit of self-aggrandizement, social status, economic profit and other forms of superiority and privilege; showing

> moral disregard for the dignity and wellbeing of others and to the common good in the social and natural environments; present populist propaganda as rational discourse; and falsely justify socio-environmental injustices. Acknowledging the nature and scope of these elements [...] it is clear to us that as engaged and critical educationalists 'the known demands of us' to form a new holistic and integrative educational paradigm for empowering the younger generations and teaching them to successfully address the multidimensional crisis of the twenty first century. It involves a worldview, ethical stance, and activist pedagogy that would enable educators to cultivate in the young and equip them with insights, sensitivities, and abilities for facilitating a thriving and just life in the face of manifold global risks. (Ecohumanism, Democratic Culture and Activist Pedagogy, p. 2)

"Therefore, I began to broaden my view of education. We expanded the anthropocentric perspective in education to an ecocentric approach. It is no longer just about the flourishing of human potential but about the well-being of nature as a whole. Humanistic education may convey a little more humility about human beings.

I think education should help restore balance. The Tao, the ancient Chinese doctrine, motivates me in this regard. In it, everything is about balance. When that balance is disturbed, destruction and chaos ensue. To counter these disruptive developments, we must work together. Not seek out the contradictions but bridge them. A sustainable environment is not politically right or left; I approach it scientifically and pragmatically. A good balance is necessary for growth and a flourishing life. And it is inclusive because everyone benefits.

In education, therefore, we must connect plural categories. Humanistic ethics, social justice, citizenship, democracy, and the rule of law are all connected and should be approached in that way. To make a humane life possible for everyone, I believe that the knowledge and ethics central to education should focus on protecting and improving ecological and social structures to make quality of life possible in the long run as well. Thus, with ecohumanist education, I hope to prepare today's young people to face the issues of the future".

> It is crystal clear to us, as it is for many others in the world, that it is not acceptable to perceive crises and challenges lying ahead as separate arenas. In turn, they should be seen as comprising a system in which they are intertwined and affect one another. In light of the Ecohumanistic outlook, we offer ethical, holistic education that aims at empowering the younger generations and instructing them to successfully address the challenges of

> the 21st century. We present an educational paradigm that seeks to cultivate sensitivities, sensibilities, capacities, and dispositions; enabling the students to enjoy environmental sustainability, humanistic democracy, social justice, physical and mental health, a sense of belonging and cultural educational affluence. (Ecohumanism now so there will be a tomorrow, p. 4)

You have been committed to humanistic education for a lifetime. At the same time, you live in a country with a government that you heavily criticize for its policies. Has your mission to educate people to be leaders who practice humanist ethics failed?

"The situation in Israel makes me sad. It's terrible. And sometimes I think that I failed. I spoke about humility. We have not been able to prevent the current situation with humanistic education. It seems that fundamentalist and fascists groups are gaining power in my country and the risk of losing our democratic culture is real and scary".

You are now emeritus and spend a lot of time with your family in the United States where you also currently reside. Will you be returning to Israel?

"Our plan was to spend half the year in Israel, with one of my sons, and the other half in Oregon, with my other son. Living in Oregon, in the homestead developed by my younger son, I am learning how to work with nature. I chop wood, work in the fields, raise chickens, create garden beds, taking care of fruit trees, and involved in the manifold practices of running a farm. Skills I didn't develop before. I'm learning how to bake a loaf of bread. I have had a life in academia and education. But I see no reason why I should live that life to the end. So, I am giving myself the opportunity to learn new things, to develop other sides of my humanity.

But my other son and my grandchildren live in Israel. He has also developed and running a homestead and we want to be close to him and fully experience the duties and pleasures of grandparenting. This is the reason for splitting the life between Israel and Oregon. And there is the tragic sense of orphanhood – feeling betrayed and alienated by our homeland. Socrates said that your country, your culture, is like a parent. I am Israeli through and through; I am fused with the culture and the landscape. But in the current situation, I don't know if I can go back, if I want to go back. It is an existential dilemma".

You come from a political family; your mother was Minister of Education under Yitzhak Rabin. What if they ask you to become Minister of Education?

"Then I would have to go back. But one can only be a successful minister of education with the support of the Head of Government. That seems impossible

to me now. That is my first reservation. In addition, I must be humble here. The fact that I am a good teacher and academic does not mean that I would be a good minister. My talents may not be sufficient".

Your power to change things would increase with it.

"Yes, it would. Maybe it's not a bad idea either. Who knows".

Notes

1 The conversation took place on the 24th of April 2024.

2 Media coverage of the Israeli-Palestinian conflict and the war that began on October 7, 2023, presents a range of perspectives, often reflecting differing or even opposing views on the nature of the conflict. For a factual overview, one may consult for instance: https://www.britannica.com/event/Israel-Hamas-War#ref1320682

3 The documentary is produced and directed by Karen Goodman and Kirk Simon of Simon & Goodman Picture Company. For more information, see https://www.strangersnomoremovie.com/

4 For more information, see https://www.history.com/this-day-in-history/january-6-capitol-riot. The first two paragraphs read: On the afternoon of January 6, 2021, a mob of President Donald Trump's supporters descend on the U.S. Capitol, attempting to interfere with the certification of electoral votes from the 2020 presidential election. The rioters assaulted the Capitol police force and ransacked the complex, destroying property and sending members of Congress and their staff into hiding in offices and bunkers. A protester who was shot by police died and approximately 140 members of law enforcement were assaulted.

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CHAPTER 6

The Art of the Novel as a Tool for Education in the Anthropocene

Exemplified by Salman Rushdie's the Ground Beneath Her Feet

Martien Schreurs and Fernando Suárez Müller

1 Introduction

Climate change affects all aspects of life, and all academic disciplines must deal with this challenging reality. The humanities have been paying attention to the ecological crisis in what is called 'environmentalist humanities' (Buitendijk, Cahillane, et al., 2024; Kluiving, Liden, et al., 2021; Weidner, Braidotti, et al., 2019). And more specifically, literary studies have been analyzing literature from an environmental perspective (Adkoli, 2024; Newcomb, 2024; Caracciolo & Marcussen, 2023) that also encompasses ecocritical education (Wilson, Schmidt-Haberkamp, et al., 2024; Goga, Guanio-Uluru, et al., 2023; Garand, 2007). It is in this context that in 2016, Amitav Ghosh in his book *The Great Derangement* argued that European novelists are ill-equipped to deal with climate change. According to Ghosh, Eurocentric blindness can be traced to two fundamental assumptions on which our modern imagination is based. Firstly, the belief "that Nature is moderate and orderly" (Ghosh, 2016, p. 29) and secondly, "the individualistic imaginary in which we are trapped" (p. 181). He believes that this is why the European art of the novel is an exponent of modernization and cannot properly be used for environmental education. But, in our view, there is a way of looking at literature that is less dismissive of the European tradition and that opens up a perspective in which western and non-western traditions enrich each other and enable a general sense of humanity. Literature – especially the novel – can be seen in the light of what Johann Wolfgang von Goethe called 'world literature' (Weltliteratur), a merging together of traditions guided by general existential concerns and interests that bind humanity together (Noyes, 2021; Strich, 1949, p. 31).

We suggest that Goethe's proposal to use a more inclusive perspective of world literature, opens a way for literature to play a more creative role in modifying the social imaginary that shapes the 'Anthropocene'. Coined by Paul Crutzen, this term refers to "a proposed geological epoch dating from the commencement of significant human impact on Earth until now" (Crutzen,

2000, pp. 19–21). 'Significant impact' here can be understood in many ways. For Charles Taylor, it is mainly the social imaginary of modernity that is responsible for climate change. And by 'social imaginary' Taylor means the ways in which people imagine their social existence and how they fit together with other beings (2007, p. 171). He defines the social imaginary of modernity as a culture of disenchantment with the world that starts with the conception of a mechanistic worldview that is basically instrumentalist towards nature (2024, p. 31). Ghosh seems to concur with Taylor when he takes climate change to originate in a 'Eurocentric blindness' that refers to nature as a predictable order capable of being controlled by an autonomous subject.

But according to Mikhail Bakhtin, not all European literature was trapped in this subject/object-dichotomy (Bakhtin, 1981, pp. 259–422). For him, the European novel developed an imaginary of dialogism that refigures the polyphonic structure of the social world. According to Baktin the novel not only emphasizes the "internally dialogic quality of discourse" but also "the dialogic quality of the phenomena related to it" (p. 269). Bakhtin also speaks of "dialogic hybrids": Not only people, but also natural things and events start to interconnect and to respond to each other (pp. 76–82). In this way the world becomes one vibrating web of interrelations, a "zone of dialogic contact" (p. 45), where, everything resonates in a "dialogized heteroglossia" (p. 272), bringing about an "interillumination" of phenomena, as he calls it (p. 363). By its own structure, the novel offers an alternative to the modern monologic imaginary. At the same time this dialogic background also encourages critical thinking of the modern social imaginary. The novel, at least in some of its manifestations, could be read as a counter-movement or counter-modernity that transcends the modern image of a world of predictable and deliverable things. Contrary to what Ghosh claims, it should then be possible to argue that the modern belief in predictability actually was questioned in large parts of European literature. The dialogic dimension of the novel made it possible for European literature to develop a critical concern for the way humanity relates to the world, opening itself to a more humanistic perspective on reality. By 'humanistic perspective' we mean a way of thinking that connects the dots between diverse human traditions without abolishing plurality. In this perspective different traditions can share points of commonality, which makes it possible to compare and interrelate positions. This goes beyond the north/south or east/west divide and opens itself to the exuberant imaginaries of pre-modern and non-western cultures. This could explain why the concept of 'world literature' – Goethe introduces the word in 1827 (Eckermann, 2011) – appears at a time when confidence in the predictability of nature and the rationality of the subject started to decline. Climate change concerns the whole of humanity. So, the question that Ghosh

incites us to answer in his book can be reformulated: How can the art of the novel, taking into consideration Ghosh's interpretation of European literature, constitute an inspiring source for humanistic education in the sad reality of the Anthropocene? This question is particularly relevant at a time when the humanities – particularly literary studies – are trying to help reshape the way humans engage with nature.

In the first part of this chapter, we want to critically examine Ghosh's approach to European literature in order to come to an alternative understanding of it, illuminating the way the critical potential of the art of the novel can contribute to create a new imaginary for modernity. We will show how in Voltaire's *Candide* the erratic side of nature exposes the uncertainties of life and the limitations of human rationality. Here the modern belief in an orderly nature and in the power of subjectivity starts to evaporate. In the second part, we elaborate on Ghosh's intriguing claim that the art of the novel should try to uncover a 'wild limitless world' of unprecedented possibilities (Ghosh, 2016, p. 10). As we will illustrate with a passage from Thomas Mann's *Magic Mountain*, we contend that the critical and dialogic imagination of the novel as described by Bakhtin brings about a critical consciousness that paves the way for reshaping the modern social imaginary in such a way that subjectivity and nature become more fluid. This can be understood as a step towards the 'wild limitless world' Ghosh is thinking about. In the third part we take up current thoughts on Bildung developed by Iain McGilchrist (2021) in order to interpret this wild space of fluidity as a field of resonances, which we then, in our interpretative fourth part, illustrate with a reading of Salman Rushdie's novel *The Ground Beneath Her Feet*. Rushdie inherits the critical tradition from the west and the exuberance of imagination of the east and takes us to an inner world of resonances. In the conclusion, we will come back to the art of the novel, which we think can be an inspiring and creative force for reshaping, by way of literary education, the social imaginary of modernity.

2 On Modern Beliefs

If it is true that, as Ghosh says, our modern belief in an orderly state of nature and our individualistic imaginary blinds us to the deeper ecological and overarching social networks in which we are engaged, then the question arises how we can imagine a world in which those principles are no longer self-evident. We believe, as we will expand in the next section, that world literature can contribute to such a renewal of imagination. The examples given by Ghosh of challenges to this modern belief in an orderly state of nature are earthquakes,

typhoons, tornadoes and tsunamis. These, of course, are not instances of recent climate change. Earthquakes have been around as long as the earth, but such an objection to these examples would miss the point Ghosh wants to make, which is that earthquakes show that nature is not an object humans can bend at will.

Ghosh adopts the idea that the human/nature dichotomy must be rejected, and that agency is not an exclusively human quality: natural entities can be agents in a similar way to humans. Nature as a whole makes 'choices' and sets boundaries to our actions, challenging us to react or respond in a certain way. With philosopher Bruno Latour (2017), Ghosh argues that nature is an *actor*:

> This (…) is one of the uncanniest effects of climate change, this renewed awareness of the elements of agency and consciousness that humans share with many other beings, and even perhaps the planet itself. (Ghosh, 2016, p. 85)

An insight into nature's agency can help us feel and understand climate change from 'within'. What becomes painfully palpable in all natural disasters, Ghosh reiterates, is that nature can be capricious, and this will certainly intensify as climate change advances.

These wild and unpredictable sides of nature were not taken into account when modern colonial powers started to expand around the globe, and cities such as Hong Kong, Singapore, Jakarta and New York were built. Colonization was motivated by trade interests, which warranted logistical advances such as ports and infrastructure. Just a couple of centuries later we see the flipside of these engineering fantasies: major cities will be the first to be affected as sea levels continue to rise. In this sense the sea is indeed an actant that defies technological modernity. The Fukushima disaster taught us what can happen if policymakers and urban planners continue ignoring the unpredictability of nature. This blind hubris, Ghosh says, is inseparable from the modern belief in progress (2016, pp. 159–217). So, Ghosh convincingly shows that modernization was founded on the belief that nature is stable and controllable.

However, Ghosh's story is not complete; there is another 'hidden modernity', as Stephen Toulmin argued, popping up in the 'works of the spirit' (in philosophy, religion and fine arts), especially in literature (Toulmin, 1992). In our view, the first time the enlightened beliefs about the stability of nature were challenged in a novel was after the 1755 Lisbon earthquake that largely destroyed the city. Voltaire, in his satirical 1759 masterpiece *Candide*, referred to this event, and showed the need to distance ourselves from the superficial optimism of Enlightenment. In his philosophical novel he refutes Leibniz, who

called our world the best possible world. But, when Voltaire recalls the Lisbon earthquake, he expresses a despair through his main characters, which shows that only with reticence he is prepared to abandon the idea that nature often lacks reason. Pangloss still presupposes that there should be a 'sufficient reason' for the earthquake; Candide responds by saying that the world, as they knew it, as an orderly structure, has indeed come to an end: "'What can be the sufficient reason of this phenomenon?' said Pangloss. 'This is certainly the end of the world', cried Candide" (Voltaire, 1966, p. 21).

As an advocate of enlightened science and technology, Voltaire always criticized religious people who saw the invisible hand of God when something ominous happened. He sought refuge in natural science, which demonstrated the stability and rationality of the world. Voltaire never fully distanced himself from this belief in a mechanistic order of nature. However, the example of the earthquake in *Candide* shows ruptures in this belief in such orderly and stable nature and it forced Voltaire to acknowledge that there is an unpredictable agency of nature. Albeit inadvertently, Voltaire became one of the first modern European novelists to question the regularity of the mechanistic order, thereby also being the first to cast doubt on humanity's ability to control the world through engineering. His novel *Candide* showcases nature as a highly untamed actor, that can never be fully dominated by our subjectivity. In this sense, Voltaire makes a pioneering step towards a new literary modernity that *counters* this mechanistic imaginary of a closed and stable natural order, thus also raising doubts about the modern belief in the robustness of subjectivity.

3 On Counter-Modernity

It is not possible to discuss the full richness of modern literature within the limits of this chapter, but we will give an example of this alternative modernity countering the imaginary of stability that was composed almost two centuries later. In *The Magic Mountain* (1924) Thomas Mann refers to the same earthquake and echoes the same aporia as Voltaire. Here too, human beings are confronted with a wild and untamed actor that transcends their understanding. Both nature and humans are depicted as fundamentally unstable, which is emphasized by the setting, the sanatorium in which all the characters find themselves. One of the central characters, the Enlightenment philosopher Ludovico Settembrini, in his debates with his pupil Hans Castorp, refers to crucial questions that confront us when we explore the relationship between mind and nature. Here, Settembrini explicitly cites the Lisbon earthquake as an example of our confusion when we try to reconcile this disaster with the

idea that nature is an orderly and predictable entity. The following passage from *The Magic Mountain* illustrates our point:

> Settembrini interrupted him, closing his eyes, and shaking his small swallow hand in the air.
> Besides, you are confusing two catastrophes. You are thinking of the earthquake of Messina. I have in mind the one that visited Lisbon in the year 1755.
> Pardon.
> Well, Voltaire was outraged by it.
> Outraged? That is – how do you mean?
> He rebelled. Yes. He declined to accept that brutal fatum et factum. His spirit refused to abdicate before it. He protested in the name of reason and the intellect against that scandalous dereliction of nature to which are sacrificed thousands of human lives, and three quarters of a flourishing city. (Mann, 2003, p. 385)

As befitting their thoughtful role, the narrator in *The Magic Mountain* does not take sides in this discussion around the poles of mind and nature. What Mann, however, does show, is what kind of aporias humans get caught up in when the idea of a predictable and determined natural order is abandoned. Subjectivity itself, and in fact all philosophical positions, become unstable and in need of cure in a sanatorium. So, if modernity is characterized by an enlightened optimistic belief in progress that presupposes the stability of nature, how different is this picture of the world from that represented in the modern novel! The instability of both reality and subjectivity become a highly debated issue in twentieth-century European literature with Joyce, Kafka, Hesse, Camus, Houellebecq, to name a few authors, at the forefront of this exploration.

As Ghosh emphasized, the belief in nature's stability is inseparable from the scientific-technological worldview in which westerners have been socialized. In the European world, there is a prevailing belief that all problems – including the climate crisis – can be solved through technology, despite warnings that climate problems are increasingly beyond our control. As long as people in the west do not notice the harsh effects of climate change on their own skin, as most Africans and Asians already experience, their belief in a world that is stable and orderly will continue to prevail under the prosperous and technological conditions they live in. This belief may even be largely an unconscious one, which might be the main reason why confidence in technological solutions still plays a major role in the mindset of most people in the west.

Why are they unable to see the world in a fundamentally different way? As we said before, we think Charles Taylor's term 'social imaginary' can help us characterize this collective delusion. Taylor describes the term:

> I am thinking of the ways in which they imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations which are normally met, and the deeper normative notions and images which underlie these expectations. (Taylor, 2007, p. 171)

We live at a time which Anthony Giddens, taking up a concept of Ulrich Beck (1986), characterizes as a period of 'high consequence risk' (Giddens, 1991, pp. 122–123). Our daily consciousness, however, is still functioning under the conditions of the old social imaginary. This, in our view, is the point Ghosh is trying to make: the reluctance of politicians and policy makers to initiate major societal changes stems from an outdated social imaginary of Enlightenment that puts all trust in technology and analytical thinking. But this mindset overlooks the fact that, meanwhile, both nature and human subjectivity have become high-risk agents, fundamentally unstable and unpredictable.

Ghosh argues that this narrowing down of vision extends to European literature, which he claims still adheres to the Aristotelian unity of place and time, as in modern realistic literature. Ghosh refers especially to Karl Ove Knausgaard as a contemporary case that exemplifies the closedness of the modern imaginary: "It is precisely by excluding those inconceivably large forces", he says, "and by telescoping the changes into the duration of a limited-time horizon, that the novel becomes narratable" (2016, p. 81). But, as we have said, we believe the European novel has already opened a space for a counter-modernity to break down the unity of place and time, by which the modern novel reveals the inherent instability of both nature and subjectivity. We suggest that it may be possible to distinguish two main movements in the modern novel, one constituting a steadfast trend towards realism, and another stream of imagination giving free rein to fantastic literature.

So, according to Ghosh, one of the defining features of the European novel is its focus on subjectivity. By drawing us inward into the realm of subjectivity, novels tend to diminish the role of nature: "Insofar as the idea of the limitlessness of human freedom is central to the arts of our time, this is also where global warming will most obdurately resist them" (Ghosh, 2016, p. 213). Despite its aesthetic merits, Ghosh argues, the European novel remains confined within the boundaries of the modern social imaginary. However, it is possible

to interpret this inward focus on subjectivity as a sign revealing the instability of our inner world. Subjectivity has become what Zygmunt Bauman (2000) and Beck (1986) have called 'fluidity'. As we have shown in Voltaire and Mann, the shattering of nature goes along with doubts about the robustness of the subject. In our view, it is from Voltaire onwards, that the rigidness of classical modernity is progressively abandoned, and the modern novel evolves into what Goethe, some decades later, termed 'world literature', a type of literature that appeals to humanity, because it triggers a general reflection about what Milan Kundera (1986) and Stephen Toulmin (1992) have called the uncertainty of our existential condition on earth.

In our view, there is in the European literary tradition a tendency towards developing a counter-modernity that could be exemplified by many modern novels. They show how faith in a determined, mechanistic order is lost, and how, at the same time, the subject's finite rationality is transcended. Ghosh's hope that literature might open a 'wild limitless world' of unprecedented possibilities and might view the world "with clearer eyes than those that preceded it" (2016, p. 217) is both conditioned, and in a certain way realized, in many modern novels. These works of counter-modernity expand beyond the old, closed social imaginary of an objectivized, inert nature, allowing us to perceive new possibilities of relating to the natural things in the world (Alma, 2020; Toulmin, 1992).

4 Ineinsbildung

Ghosh argues that as long as we remain focused on the idea of the flourishing or Bildung of individuals, we will remain blind to the forces of climate change and to the wild world which exceeds the scope of inward individuality (Ghosh, 2016, p. 213). He contends that addressing the collective dimension of climate change requires thinking beyond the narrow frames of individuals and nations. Instead, we must envision Ghosh's mysterious 'wild limitless world' in which the boundaries between subjects and natural entities dissolve, and individuals appear to be deeply intertwined in ecological collectives. He believes this vision is unattainable within the scope of our modern European imaginary. But, as we have been suggesting, in our view the European novel already made a step towards a counter-modernity by dismantling the rigid boundary between reality and subjectivity, thus expanding the horizons of our imagination. The dissolution of the stability of both nature and subjectivity is part and parcel of the art of the novel of the last two centuries. This means that a type of Bildung that focuses on the counter-modern aspects of the novel could help us redefine our modern social imaginary.

Ghosh's claim that the boundary between subjectivity and nature needs to dissolve in order to show how deeply intertwined individuals are with ecological collectives, in our view very much resonates with the position of the Scottish philosopher Iain McGilchrist, who tries to redefine what a humanistic *Bildung* in our current time could mean. When individuals intertwine with collectives, this, according to him, relates to an overarching vision that encompasses the entirety of reality (McGilchrist, 2021, p. 279). What is being enacted is a transformation of our cosmology. *Bildung*, he says, should therefore be understood as *Ineinsbildung*, as a perspective that recreates reality as an intertwined totality. *Bildung* should open us to the holistic world perspective of our right brain hemisphere, where our intuitive and synthetic thinking takes place. Here the world is imagined as a large entanglement where things resonate with each other and interpenetrate:

> Bildung is an 'Ineinsbildung' (or Bildung of the inner world), a reflection on the totality and a reenactment of it by way of a synthetic procedure, which is related to our imagination: I understand this to mean that imagination is creative in the most literal sense, since it is the faculty that precipitates into being whatever is, and would otherwise only exist in potentia. Coleridge invented the rather cumbersome term 'esemplastic power' to describe the work of imagination. In fact he took Schelling's almost equally cumbersome term Ineinsbildung (…). What this idea suggests is (…) not just a process of shaping, but 'the organic interpenetration of parts, and the formative union of shaping and being shaped' (NB: thereby transcending the subject-object divide). (McGilchrist, 2021, p. 1027)

We believe this is indeed what *Bildung* today can explore. In particular, it can show how the European novel in its counter-modern aspects starts to dissolve the rigid distinctions between nature and subjectivity, thus allowing for a new imaginative space – a new entangled or responsive cosmology – to emerge. In our view, the counter-modern elements of the European novel of the last two centuries, opened a way to reinvent the world. To see what this amounts to, let us examine, by way of an example, how this image of a responsive world takes shape in Rushdie's *The Ground Beneath Her Feet* (1999), a novel that integrates the literary traditions of the east and the west. In this novel, we find both the critical stance of European counter-modernity that dissolves nature and humanity, and a premodern or non-European imaginative exuberance that sees the world as a space of resonance, and that in turn introduces a responsive cosmology.

5 *The Ground Beneath Her Feet*

In a departure from what we have said above, we can nuance Ghosh's claim that the European novel remains tied to the imaginary of an ordered world and stable subjectivity. As we mentioned earlier, there are countless modern novels in which subjectivity and nature are disintegrated. At the same time, we do not want to set aside Ghosh's point that in literature we need a new imagination that reinvents the world in order to address the challenge of climate change.

In our view, non-European novelists such as Salman Rushdie, Gabriel García Márquez and Mohamed Mbougar Sarr, captivate contemporary audiences because they inspire us to reimagine a new cosmology, challenging modern worldviews on nature and subjectivity that in the European novel have already begun to dissolve. Many events depicted in non-European novels are characterized as miraculous because they contradict the European conventions of a stable natural order. For this literary genre the term 'magical realism' was coined, but, it seems much more appropriate to speak, with Todorov, of 'fantastic literature' because these novels strongly incite the imagination to redefine reality (Todorov, 1975, p. 25). According to Todorov, novelists of such 'fantastic literature' (both European and non-European) use specific literary procedures to question the boundaries of reality. The fantastic, he says, indicates a twilight zone that originates between the ordered world of facts and the domain of miraculous events.

It seems to be characteristic of Rushdie's fantastic novels that the boundaries between life and death, east and west, sick and healthy, nature and culture, spirituality and materiality intersect and interpenetrate. *The Ground Beneath Her Feet* exemplifies different levels of meaning, which constantly intertwine. Rushdie's story, in our view, illustrates what can be called a 'relational ontology', a worldview in which entities do not exist as atomic realities but are always interconnected. The title, *The Ground Beneath Her Feet*, can be understood in both a literal and figurative sense. The 'ground' literally refers to the ground that falls away beneath the feet of the main character, Vina Aspara. During an earthquake, she finds herself in a ravine that unexpectedly opens up. From the beginning, both subjectivity and nature seem to be unstable places. But apart from this literal meaning, the 'ground beneath her feet' also has a metaphorical meaning. In a figurative sense, these words refer to a search for destination, for a home, for a place of safety – a search that runs through all the central characters' lives. Throughout the challenging journey of their lives the main characters come to better understand both themselves and the world around them. The novel shows us a process of *Bildung*. But this *Bildung* is in fact, as we will see, an *Ineinsbildung*, because it is mediated through the *music* the

main characters create, and the resonances with the world effectuated by their creations.

Let us first immerse ourselves deeper into Rushdie's story to understand this point. Vina Aspara rises to fame as a world-renowned singer, engaging in love affairs with Ormus Gama, an Indian singer, and Rai, an Indian photographer, who also serves as the story's narrator. She has known both men since childhood, with Ormus falling in love with her early in life. Together, they form a lifelong duo, bound by their love and shared passion for music. After Vina is struck by the earthquake at the beginning of the story, she continues to exist in the novel as a ghostly presence. Ormus, driven by his love for her, dedicates himself to making music day and night in an attempt to bring her back from the realm of the dead. However, the story of their impossible love is told by Rai, who also has a lifelong love affair with Vina. This portrayal of Ormus' impossible love for Vina is a contemporary retelling of the European literary myth of Orpheus and Eurydice, where the central theme is the power of music and resonance, which we will explore further on in this chapter.

The novel covers many themes, including the history of pop music, decolonization, the relationship between east and west, migration, love, among others. Each of these themes warrants special attention, as the intricate interplay of these topics is both the novel's greatest strength, but also its greatest challenge. As a reader, one gets the impression that the novel feels saturated, with too many 'voices' competing to be heard. The most powerful 'voice' is a natural one, the deafening violence of the earthquake that kills Vina, at the very moment in her life she becomes a pop star. Yet it seems this was bound to happen, just like many other events that unfolded inevitably in her turbulent life. For instance, she recounts to the narrator, Rai, how as a child she became trapped in a spinning cage at a fair. The ride whirled around so violently that she was certain she would die. The operator, distracted and inattentive, failed to stop the ride, leaving Vina trapped in a cage for what felt like an eternity. Vina recalls:

> Now I know what it's like to be inside a laundromat appliance, she joked, but what she was talking about wasn't funny. She was talking about being out of control of your little bit of the world, of being betrayed by what you counted on. She was talking about panic and the fragility of being and the skull beneath the skin. (Rushdie, 1999, p. 438)

Such feelings of instability of the inner life, and of loss of control of the world reappear constantly in the novel. Another recurring element is the concept of 'combat zones' which unexpectedly emerge throughout the story. Here is how Rushdie describes them:

> In combat zones there is no structure, the form of things changes all the time. Safety, danger, control, panic, these and other labels constantly attach and detach themselves from places and people. When you emerge from such a place it stays with you, its otherness randomly imposes itself on the apparent stability of your peaceful home-town streets. (Rushdie, 1999, p. 420)

This dissolution and decimation of both the natural order and subjectivity, however, creates space for a renewal of the world as a place in which everything is connected to everything else. Rushdie's works constantly teach us about a universal connectedness of things. It is in this sense that Rushdie's novel shows its formative role. He frequently illustrates how changes in one part of the world are connected to shifts occurring elsewhere, suggesting a cosmic law of interconnectedness that operates on multiple levels. For instance, through the political division of nations and cities, he demonstrates how separations in one region reverberate across the globe, shaping lives in distant places and rendering them similarly vulnerable to fragmentation:

> You can't keep dividing and slicing – India-Pakistan, Maharashtra-Gujarat – without the effects being felt at the level of the family unit, the loving couple, the hidden soul. Everything starts shifting, changing, getting portioned, separated by frontiers, splitting, re-splitting, coming apart. Centrifugal forces begin to pull harder than their centripetal opposites. Gravity dies. People fly off into space. (Rushdie, 1999, p. 164)

Indeed, when the solid ground beneath our feet falls apart, anything can happen. Most importantly, new connections can appear! Time and space begin to blur, giving rise to interactions between events that, at first glance, seem unrelated. These connections begin with disruptive experiences that fracture both the world and individual subjectivity. When Rai, for instance, recounts the fatal fire at his family's home, he creates a reality by mixing figurative elements with literal experiences of loss: "The destruction of your childhood home – a villa, a city – is like the death of a parent: an orphaning" (Rushdie, 1999, p. 168). The dissolution of the worldly order implies a decimation of subjectivity that, as we see, creates a kind of alienation, an 'orphaning'. Here Rushdie continues to write in the mode of the European novel that is critical of modernity. Simultaneously he reimagines the world as a connected totality – a reality of deep interconnectivity.

In the novel, this tangling of the literal and figurative, of the small and the larger world, of the inner and outer world, makes ultimate moments of

creativity – and even ecstasy – possible. For instance, Ormus conceives his songs as mirroring the interconnectivity of the world: "as points at which his inner life intersected the life of the greater world outside, and calling those points of intersection 'songs'" (Rushdie, 1999, p. 183). Behind the dissolution of a predictable nature and a rational subjectivity, slowly another worldview becomes visible, one of interconnectedness and resonance, of intersecting voices and songs. In these scenes, normal things suddenly become actants, which ignite other things and people, thus recreating a field of general interconnectivity. The so-called 'points of intersection' are 'songs', which as a totality become a *resonating sphere*, a piece of music, a world that has its own interiority, its own 'inner life'.

Ormus can only excel in his music after leaving his familiar environment in Bombay in which he grew up and in which he always felt at home. He has to abandon the ordered world and open himself to the unknown. Years before, his great love, Vina, did likewise: she went to the other side of the world, because she had to respond to a calling coming from the world to abandon the orderly structures of her life. Later, Rai, the narrator, also escapes his family environment after bravely exposing the scams and fraud of India's most powerful and wealthy person. The underlying theme here is that music and a deeper resonance with the world emerge when the characters feel the calling to break away from the structured confines of their surroundings.

As musicians, Vina and Ormus now gain access to the world of inspiring subcultures and entrepreneurs. Rai too finds himself in a society that resonates with his photography, a world of inspiring models and artists. But in his journey, he also encounters poor people, refugees, and situations – even wars – that inspire him to expose all these atrocities through his lens so that horrific events may not go unseen. He wants to expose: "What Actually Happens" (Rushdie, 1999, p. 14). Rai constantly feels the world calling him from all directions, and this sense of urgency becomes the driving force in his life. He uses the metaphor of marriage to understand his responsive relationship with life and the world. "Something requires me to leave. Something else required her to stay" (1999, p. 246). And then: "At the end of a marriage the moment comes when you have to turn away from your wife, from the unbearably beautiful memory of the way you were, and turn towards the rest of your life" (p. 248).

The novel weaves together so many storylines that the reader may occasionally feel lost, yet clear patterns gradually emerge in the lives of the main characters. Their flourishing is always driven by external forces, set in motion by the outside world calling them to do things which directly shape their life paths. It is not that they are passively lived by the world, but that they really only flourish when they manage to answer the call that comes from deeper

levels, from the instability of the outer world. The characters in this novel are thus revealed to be substantially relational beings, with each individual's life course fundamentally intertwined with the lives of others. On closer inspection, we may even say that the three characters' life courses are one big life confluence that breaks all the orderly boundaries of place and time, even of life and death, because although Vina is dead she constantly reappears. This confluence even expands towards an intertextual domain outside the novel; the characters sometimes come into contact with characters who figure in other novels by Rushdie. For example, the encounter between Ormus' father and Aurora Zogoiby, who is the protagonist in *The Moor's Last Sigh* (1995). This encounter is brief and a one-off, but it again shows that the world is one big, interconnected narrative in which lives converge and resonate:

> Sir Darius Xerxes Gama never met Aurora Zogoiby again. They live in a great city, a metropolis of many narratives that converged briefly and then separated for ever, discovering doom in that crowd of stories through which all of us, following our own destinies, had to push and shove to find our way through, or out. (Rushdie, 1999, p. 52)

We suggest that *The Ground Beneath Her Feet* shows that people are not singular atoms, but that they are part of an organic whole, they are dots in a larger web of interconnections. Of course, much of Vina's success can be explained by her singular talents, but what truly makes her remarkable is that her songs are expressions of a *Zeitgeist* that she manages to express. In her songs, she articulates so many voices that people all around the world start to resonate with her personality, and they feel heard and understood by her. Vina seems to be a projection of the polyphonic and dialogic structure of the world itself. She is an avatar, mirroring everything and representing the interconnected whole:

> Professor Vina and Crystal Vina, Holy Vina and Profane Vina, Junkie Vina and Veggie Vina, Women's Vina and Vina the Sex Machine, Barren-Childless-Tragic Vina and Traumatized-Childhood-Tragedy Vina, Leader Vina who blazed a trail for a generation of women and Discipline Vina who came to think of Ormus as the One she had always sought. She was all of these and more, and everything she was, she pitched uncompromisingly high (…). That's why people loved her, remember: for making herself the exaggerated avatar of their own jumbled selves, but pushed to the edge, or, better, driven to the heights: of talent and articulacy and outrageousness and promiscuity and self-destructiveness and intellect and

> passion and life. Higher Vina, engendering in the multitude a reciprocally higher, though entirely earthly, love. (Rushdie, 1999, pp. 339–340)

The reader also gets an insight into the creative process of her lover Ormus, and we notice that he is constantly listening to things while he is writing. He listens to the voices in his inner self as well as to other voices that seem to speak, whisper and sing to him from different parts of the outer world: "Music – Vina's voice, singing Ormus's melodies – surges round the world, crossing all frontiers, belonging everywhere and nowhere, and its rhythm is the rhythm of life" (p. 482). He hears what the world needs, and with his actions he tries to respond to the call of the world. And it is precisely this interplay between humans and the world that is brought to life in the 'universal songs' of Ormus and Vina. When their music starts to flow, this resonates with the outer world on a deeper level. To understand what is happening here, it is helpful to refer to Hartmut Rosa's definition of resonance as:

> a kind of relationship to the world, formed through affect and emotion, intrinsic interest, and perceived self-efficacy, in which subject and world are mutually affected and transformed. (Rosa, 2019, p. 167)

It is this profound sense of interconnectivity that in Rushdie's novel sustains the hope for a better world. It is here that Ghosh's mysterious 'wild limitless world' shows itself, because everything in the world starts to flow together as one organic whole that seems to express its own inner life. We may see Ormus' and Vina's songs, and Rai's photographs and stories, as living *gestalts* of this pattern of resonance. All of which leads us to consider how the art of the novel in literary education – and *Bildung* as *Ineinsbildung* – can gain significance for the flourishing of humanity in the Anthropocene.

6 Conclusion

The question about how the art of the novel can constitute an inspiring source for humanistic education in the sad reality of the Anthropocene can now be seen to be a question about how literary education can foster students' receptiveness and responsiveness to the interconnections that entangle them. Rushdie's novel *The Ground Beneath Her Feet* illustrates that having solid ground beneath us is anything but guaranteed. We must instead learn to navigate instability. This concerns both the inner world of the subject and the outer

world of nature. When natural disasters take place, animals know much better than us how important intuition is; they make sure they can flee in time (ten Bos, 2008). In Rushdie's novel such intuition responds to the inner call of the world – it is a deep sense of responsiveness towards what is around us. At the same time, it is an act of adaptation and an act of listening. Disasters are often inevitable, but the novel seems to tell us that we can always listen to things around us in order to make a life in resonance with these things possible. The challenge for educators is how to cultivate such confidence in the possibility of a resonating world. Has this deep ontological trust not been shattered in the course of modernization? What is fascinating about the three central characters in Rushdie's novel is that despite being inhabitants of a turbulent world, they are still able to trust their intuition. They know how to access a knowledge that flows within the intersections of the world.

As we have noted, McGilchrist, in his book *The Master and his Emissary* (2009), shows that such intuition can be linked to the functioning of the right hemisphere of our brain, which is dominant for this capacity (2009, pp. 32–94). Artists and poets, he suggests, can serve to illustrate how intuitive knowledge functions: they have a stronger capacity to resonate with the world and they show us that our dialogic imaginary can reach a higher dimension when creative processes are guided by resonance (2009, pp. 244, 361). And there is a way that anybody can learn to be responsive to the inner call of things. Through art we can learn to harmonize our actions with the larger rhythms of nature. Here we see an opportunity that deserves exploration – an opportunity to respond to the world's warnings with a more hopeful approach. In humanistic education, we can strive to cultivate our responsiveness and our ability to listen to these inner resonances of a world in which we are only a part. We can learn to realign with the 'inner spirit of the world' that communicates to us. In this sense, we envision teachers guiding students into a polyphonic world of interconnections. This is what all three central characters in Rushdie's novel accomplish in their own way: they plug into the organic whole of the world. Today it is urgent to encourage people to reconnect their souls with the flow of resonances that touch and transform us from the inside. By showing how modern art, especially the art of the novel, simultaneously challenges the idea of a mechanistic and uniformly ordered nature, and an unchangeable and detached subjectivity, educational professionals can teach students to enhance their dialogic imagination and to become more responsive to communicative flows in the world. This can foster a profound transformation of our lifestyles in such a way that we learn to solidarize with all entities in the world.

Thus, we wish to conclude this chapter with a pedagogical appeal to educators and teachers. By using examples from music, novels and other forms

of art, we can learn to see ourselves as part of a living collective (Connolly, 2017). Just as pop music in Rushdie's novel gives voice to a resonating connection between people and the world, teaching the art of the novel can awaken our awareness about the interconnectivity of things. The art of the novel triggers our dialogic imagination, showing the different ways by which characters interpret their world. In this sense the modern novel represents life as it is in the context of the larger whole of a story in which subjects and objects interrelate and come together.

We believe that in education learning and analyzing concepts and models is not enough. One must also learn to perceive the messages and resonances that constitute the 'spirit of the world'. Music, poetry, novels, liberal arts in general, can play a crucial role in fostering a complex, dialogic, perspectivist and, at the same time, holistic view of life, because these art forms trigger the development of a more intuitive, organic and synthetic, and therefore less analytic, way of looking at the world. The art of the novel in particular – because it portrays individuals in their multifaceted interconnectedness within the world – can offer a powerful way to restore the balance between intuitive and analytic education.

Let us finish by recalling the narrator's hope in *The Ground Beneath Her Feet* to find unity in humanity through the songs that resonate in the souls of billions of the Earth's inhabitants. Songs can indeed be a unifying force, and this is sometimes revealed in lyrics, such as for example, *We Are the World*, which was released in 1985 to combat famine. In the same vein, maybe John Lennon's *Imagine* will become more than a dream. By incorporating examples from art and music, teachers can guide students towards seeing nature with fresh eyes. The modern novel, in particular, can play an exceptionally important role in this process, as it brings 'the music of life' within the whole of a 'story', thus revealing the fundamental interconnectedness of things and people.

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CHAPTER 7

Slow Habituation during the Great Acceleration

Wouter Sanderse

1 Introduction

This chapter focuses on a relatively recent period within the Anthropocene, known as the 'Great Acceleration' (Steffen et al., 2015). This refers to the second half of the twentieth century, when many human activities accelerated sharply. For example, populations rose, consumption increased, new materials, such as plastics, were introduced, and the nuclear bomb was invented. These and many other developments led to "fundamental shifts" in the state and functioning of the Earth (Steffen et al., 2015, p. 81). These changes prompt the question of whether the accelerated pace of human impact on the Earth poses a problem for some forms of moral education.

While the human impact on the Earth can be described in relatively neutral terms, for example by labelling humans as a "dominant" factor leading to "fundamental" environmental changes, I believe the human impact on the Earth should be characterized as "disruptive, destructive, and destabilizing", to use Schinkel's (2022, p. 73) striking tricolon. Nevertheless, I write with the conviction that, although humans have "re-ordered life on Earth", this impact is reflexive and can thus be adjusted, mitigated, or transformed (Lewis & Maslin, 2015). Humans are not condemned to passivity and can, for instance, strive to reduce CO_2 emissions and combat climate change before it inflicts further harm. One of the ways in which this can be done is through moral education in schools.

Traditionally, moral education revolves around the question of what kind of person adults want a new generation to become and how parents and other educators can raise and educate children accordingly (Althof & Berkowitz, 2006). I write in the hope that moral education can play a role in mitigating or transforming the disruptive effects humans have on the Earth. However, being hopeful about moral education in general does not imply that all moral education methods are suited for the Anthropocene. On the contrary, the urgency of the current situation demands a careful examination of which forms of moral education are appropriate.[1]

This chapter addresses the moral educational method known as 'habit formation' or 'habituation', which is particularly but not exclusively popular

among neo-Aristotelians (Burnyeat, 1980; Sherman, 1989; Kristjánsson, 2006; Kerr, 2011; Sanderse, 2018; Hampson, 2021). In my view, the Anthropocene presents a potential challenge to this method, because habituation may not be quick enough to mitigate the devastating impact humans have on the planet in time or to help us flourish amidst these challenges. In this chapter, this issue will be addressed in the following way. Section 2 introduces a neo-Aristotelian approach to moral education and how it relates to the Anthropocene. Following this, Sections 3, 4, and 5 explore the nature of (virtuous) habits, along with their development and cultivation. The chapter ends with a conclusion in which insights from the previous sections are collected and the main question is answered.

2 A Neo-Aristotelian Approach to Moral Education

The focus on moral education in this chapter may seem surprising given that discussions on education in the Anthropocene often centre around civic or political education (see e.g., Dzwonkowska, 2022; Ribo, 2024; Wallenhorst et al., 2022) and environmental education (see e.g., Cole & Malone, 2019; Kouppanou, 2020). Additionally, science education, specific school subjects such as history, and teacher education have also been focal points in the academic literature. The fields of moral, civic and environmental education partly overlap, but are grounded in different theoretical frameworks, promoted by distinct institutions, and have evolved in unique ways. If we would have to summarize the three fields in the briefest of ways, citizenship education is about enabling children to promote and protect democracy and the rule of law, environmental/sustainability education aims at children developing pro-environmental behaviour, and moral education is about educating children to behave well or be good people (Jordan et al., 2023). There is a scarcity of studies linking the Anthropocene to moral education, although the interest has grown over the last decade (Bonnett, 2012; Olvitt, 2017; Kvamme, 2020; Wyrębska-Đermanović, 2021). This chapter aims, in its own modest way, to encourage both practitioners and theorists in moral education to take environmental and sustainability issues seriously.

This chapter is not concerned with the aims of moral education, for example by advocating that children should be taught not to harm the environment or treat animals with respect (see e.g., Horsthemke, 2018). Nor does it focus on a critique of the ontological or epistemological assumptions underlying moral educational theories, such as that humans have intrinsic value while the rest of nature has not, or that nature is a mysterious entity that cannot be fully known

(Bonnett, 2012). Instead, it rethinks the usefulness of an educational *method*. In the field of moral education, various approaches have promoted a variety of methods that teachers can use to stimulate students' moral development, such as modelling, guided habituation, the use of narrative arts and dialogue (Sanderse, 2013). Habituation has been examined and advocated by educational philosophers, such as Peters, who famously wrote that children "can and must enter the palace of Reason through the courtyard of Habit and Tradition" (1981, p. 52), care ethicists (e.g., Noddings, 2003) and neo-Platonists (e.g., Jonas, 2016). So, whether habituation is a viable method for moral education in the Anthropocene or not has potential implications for several moral educational approaches. However, in this chapter, we will focus on habituation as a moral educational method understood in a neo-Aristotelian way.

In order to be able to follow the subsequent discussion of habituation, it is necessary to understand several core features of a neo-Aristotelian approach to moral education, and how they relate to the Anthropocene. The account of a neo-Aristotelian approach to moral education given here will be brief, because much more elaborate and detailed accounts are available elsewhere (Carr, 1991; Kristjanson, 2007, 2015; Sanderse, 2013). Moreover, a neo-Aristotelian approach has already been applied to environmental ethics (Hursthouse, 2007; Sandler, 2007; Treanor, 2014) and the implications of this application for moral education in the Anthropocene have recently been fleshed out as well (Jordan & Kristjánsson, 2017; Jordan, 2022; Jordan et al., 2023). In the context of this book on humanistic education, I need to emphasise that the neo-Aristotelian approach explored in this chapter is humanistic in the sense that scholars who, like me, take an interest in Aristotle's ethics, are primarily interested in 'happiness' as the final aim of humanity, which can be achieved through the cultivation of intellectual and moral virtues, for which educational initiatives like schools are indispensable. This chapter does not offer an Aristotelian exegesis, but a critical examination of what an Aristotelian framework may have to offer for moral education in the Anthropocene.

A first central feature of a neo-Aristotelian virtue ethical approach is that it is teleological, aimed at a *telos* (destiny), which is called *eudaimonia*, often translated as 'flourishing'. Flourishing, in this view, flows from the fulfilment of human potential by cultivating moral and intellectual virtues. Focusing on *human* flourishing does not necessarily mean that human interests have to take precedence over interests of other living beings and the rest of nature. Quite the contrary: the flourishing of nonhuman beings and healthy ecosystems can also be promoted precisely because they are a necessary condition for human flourishing (Jenkins, 2016). Compared to utilitarianism, another teleological theory, virtue ethics focuses less on the effects of our actions on others, and

more on how our actions and emotional reactions shape our own characters, which, in turn, partly determine whether we can flourish or not. Even if we do not manage to save the environment, and, indirectly, the communities and individuals that depend on it, a neo-Aristotelian approach will still continue to promote the education of actions and emotions that contribute to people's flourishing (Jenkins, 2016). This may have implications for moral education, to which I will return in the conclusion.

A second feature is that being moral, i.e. having character and intellectual virtues, is a necessary (but not a sufficient) condition for flourishing. Traditionally, courage, justice and temperance are identified as central character virtues that enable us to optimally deal with spheres of (emotional) experience, while practical wisdom is the intellectual virtue that determines the golden mean in every situation (Nussbaum, 1987). These cardinal virtues can also be applied to environmental issues. Think of the courage to advocate for stringent regulations on pollution, even in the face of strong lobbying from powerful industries, and the temperance to adopt a balanced approach to consumption, reducing excessive and unnecessary waste. In addition, scholars have identified separate virtues that regulate our relationship to nature, such as wonder, reverence, respect and harmony (Kawall, 2021; Jordan & Kristjánsson, 2016). Sustainability has been interpreted as an environmental virtue, either as a separate virtue, or as a category of virtues including temperance, frugality, simplicity, atunement, humility and farsightedness (Sandler, 2007). This category of virtues would enable people to promote certain goods that are necessary for human survival, such as a healthy, unpolluted environment, and to prevent the destruction of wilderness and wildlife. Finally, sustainability has also been introduced as a criterion for every virtue, in which case a habit is only virtuous if it includes the goal of ensuring the sustainability of an ecosystem (van Wensveen, 2001). In whichever way sustainability is understood within this framework, the common thread in these perspectives is that sustainability is not seen as "a set of restrictive or prohibitive regulations", but rather as an ingredient of a flourishing life that can be cultivated (Jordan & Kristjánsson, 2016, p. 7). Subsequently, Aristotelians recommend people to use their practical wisdom (*phronesis*) to make place and context specific judgments about what the sustainable thing is to do. In other words, what it means to act and live well is something that we should figure out for ourselves. Some consider this to be a downside and have pointed out that an Aristotelian approach offers "very little instruction" for deciding what a virtuous person should do in specific situations (Shafer-Landau, 2020, p. 162). However, others have argued that practical wisdom fits the 'wicked' nature of many ecological issues (Jenkins, 2016; Jordan & Kristjánsson, 2016).

A third aspect of the neo-Aristotelian approach is the belief that virtues can be cultivated, and that fostering this cultivation should be one of the primary goals of the education system. Moral psychologically speaking, virtues are character traits, a complex set of knowledge, values, attitudes and behaviours. Hursthouse and Pettigrove (2022) describe a virtue as being "well entrenched in its possessor": they are not only expressed in one's actions, but they also influence the ways in which people notice, expect, value, feel and reason in certain characteristic ways. To possess a virtue, is, in short, to *be* a certain kind of person with a certain complex mindset. When virtues are, so understood, an end of education, schools should do more than teaching knowledge about for instance sustainability and also stimulate children to practice a sustainable way of life.[2] A neo-Aristotelian approach to moral education offers a rich curriculum (Seider, 2012) and a collection of methods, which involves studying role models such as Greta Thunberg (Mansikka-aho, Varpanen, Lahikainen & Pulkki, 2024), exploring and experiencing nature to develop a sense of wonder and awe (Jordan & Kristjánsson, 2017), and developing habits through outdoor or place-based experiential learning (Jordan, 2022).

While neo-Aristotelian moral education posits that social and political change is contingent upon a virtuous citizenry, it acknowledges that acquiring virtues is challenging for children when broader social conditions are not supportive. Moreover, one may object to the education of 'environmental' virtues with the argument that society needs to be transformed first. Here I agree with Kristjánsson (2013), who argued that it is more feasible to start with the individual child, student or classroom than with the whole school system or society at large. First, the micro scale is easier to administer, and second, young people will only learn to care about larger social issues once they have developed morally through the personal intercourse with each other and with their parents, teachers and other adults in their neighbourhood.

3 Virtuous Habits

In this section and the ones that follow, I will explore the role of habit formation as a neo-Aristotelian method of moral education in the Anthropocene, acknowledging the concern that the process of habituation may not be swift enough for individuals to make moral progress in the face of humanity's rapidly increasing destructive impact on the Earth. My intent to draw back on Aristotle may be surprising, because much of the recent scholarship on educational frameworks within the context of the Anthropocene adopts a different view. It offers a critique and radical re-evaluation of existing educational

aims and methods. This dominant focus is illustrated well with a quote from McPhearson et al. (2021, p. 1), who argue that in order for humans to have a more sustainable relationship with nature, the Earth requires "much more than small tweaks and incremental change". Instead, they argue that education needs to take a "radical departure" from the status quo, and result in "major shifts" in how people think and act (McPhearson et al., 2021, p. 1).

Some central terms that are often used in the literature to describe a new type of education that is suitable for the Anthropocene are 'transformation', 'disruption' and 'transgression'. Transformative experiences involve "a type of experience that a person hasn't had before", which involves a discovery and a change in oneself, as well as a completely different way of understanding the world (Paul & Quiggin, 2021, p. 561). Disruptive education refers to a type of schooling that provides students with educational experiences that helps them to criticise their comfortable assumptions, which may be empowering, but can also involve young people distancing or estranging themselves from their loved ones, traditions, and culture (Rowe, 2017). Transgressive education, finally, refers to collective action that changes aspects of society that are not sustainable (Olvitt, 2017). Despite their differences, these proposals share the idea that the kind of education that was prominent in the past is now obsolete or even harmful. On this view, the schooling provided for in the past has led people to develop habits that are not sustainable, which has contributed to the current crises. If education has something to do with habits at all, these approaches advocate the *breaking* of old, vicious habits. Illustrative is Rowe's (2019, p. 521) remark that, ideally, environmental education should involve an "unlearning process" that "disrupts the routine habits" that harm the environment.

Proponents of a neo-Aristotelian approach may agree that vicious habits have caused all kinds of problems, such as intemperate consumption and injustice to future generations. However, they will still insist that once these old habits have been broken, new, more sustainable habits will still have to be formed, in order for human beings to flourish. This leads to the central problem addressed in this chapter, namely whether the formation of new habits relevant for living a sustainable life will be quick enough. The answer to the question whether habituation is fast enough to somehow modify the devastating effects humans are having on the planet, or, alternatively, to help us flourish in this predicament, depends partly on how we understand the concept of 'habit'. Because habits are often misunderstood, I will provide two accounts of habits here in this section, before describing what the process of Aristotelian habituation looks like in the next.

Since William James (1914) famously characterised living creatures as "bundles of habits" (p. 4), habits have been a subject of (experimental) research in

psychology. Throughout the twentieth century, research on habits has centred on animal research, specifically on how behavioural patterns, i.e., motor routines, are developed and executed in non-human animals. In this context, habits are understood as automatic and implicit associations between contexts and responses that are formed when humans or other animals repeatedly perform behaviour in a particular context. In the case of habits in humans, think about looking to the right and left before crossing a street or buckling one's seatbelt before driving. What makes these behaviours habitual is that they are not outcome-oriented, and not sensitive to the devaluation or extinction of a reward: "[H]abits are just guided by the stimulus itself, and not by the outcome it leads to" (Bernacer & Murillo, 2014, p. 2). Such implicit associations between context and response are created through repetition. For example, after getting home from a workout, you may decide to quench your thirst by drinking a beer. When you do this over and over again, a certain cue, such as taking your running shoes off or seeing the fridge, will trigger grabbing a beer. Through repeated learning, what was once goal directed behaviour became habitual, requiring less conscious attention and less effort. The behaviour has become habitual if, without a thought, you still take a beer even when, for example, the workout was easy and you are not really thirsty.

Understanding habits as "ateleological, rigid, unconscious, automatic and insensitive to outcomes" may not do justice to the complexity of human habits that can be found outside experimental settings (Bernacer & Murillo, 2014). The metaphor of the 'automatic pilot' used by Snow (2006) is helpful in explaining why there is a different type of habits. Snow admits that when people act habitually, they do not control their habits in the sense that they first deliberate about what to do before doing it. However, people can still have 'intervention control', with which they can stop and redirect a habitual action, for example by putting the can of beer back in the fridge and taking an orange juice instead. So, during a habitual, automatized action, a goal, like quenching one's thirst, is unconscious, but it can still operate in one's moral psychology. Snow (2006) illustrates this unconscious but active process with putting one's philosophical work aside and going for a walk, after which the argument is clearer, without having thought about it during the walk. This suggests that habits can be goal-driven and rational, even though a person may not always be fully conscious about his reasons and goals during the habitual action.

Within an Aristotelian framework, the term 'habit' is the English translation of the term *habitus*, which Cicero used in the first century BC to translate the Greek *hexis* into Latin. The *Theaetetus*, Plato's dialogue on knowledge, is helpful in clarifying the meaning of the term *hexis* (Lu, 2015). In this dialogue, Socrates makes the point that knowledge is not something we passively

possess, as if it is stored in our memory like a jar in the pantry. Instead, knowledge involves an "active having-and-holding that depends on the effort of concentrating or paying attention" (Sachs, in Lu, 2015, p. 199). *Hexis* is the noun that belongs to the verb *echein*, which means something like holding or having something in an enduring, active and effortful way. Now, in Aristotle's view, virtues, such as courage, temperance and justice, are a type of *hexeis* (just as vices, by the way). They involve a kind of "active holding of oneself in some respect" (Lu, 2015), such as that courageous people withstand an enemy, and temperate people withstand temptations. While virtuous people 'remain' or 'stand' while under pressure, they are certainly not passive. The combination of resistance and receptivity to change is what Carlisle (2014, p. 7) has called the "double principle of habit". One the one hand, virtues such as courage and temperance require people to act or react emotionally in a manner that is informed by an understanding of and attentive receptivity to the circumstances. At the same time, virtues are also *firm* and *stable*, meaning that virtuous people do not easily waver when they are faced with challenges. On the other hand, they are also *open* and *dynamic* in the sense that virtues result in different virtuous actions in different circumstances, something for which people require practical wisdom.

On an Aristotelian account, practical wisdom plays a significant role in acting on virtuous habits (Kristjánsson & Fowers, 2024). It involves the discriminatory ability to perceive the ethically salient or central aspects of a situation and to appreciate these as calling for a virtuous response. For example, practical wisdom will inform someone that a particular virtue is at stake in a situation. Practical wisdom also harmonises different emotional responses that accompany the perception of the moral situation, by having (if time permits) an inner conversation about how a virtuous person would react. In addition, wisdom is informed by an overall conception of what a flourishing life consists in, which guarantees that virtues are not applied to situations in isolation, but as part of an overall project to live well. Finally, practical wisdom has an integrative function, which consists in a process of moral reasoning, in particular in situations where it is not clear what the ethically salient considerations are, or in which different virtues are involved, which need to be negotiated. Wisdom weighs such considerations and results in a nuanced virtuous decision.

This account may give the impression that virtuous habits are always conscious and deliberate, but this is not necessarily the case. Kristjánsson and Fowers (2024, Ch. 2) have argued that when situations are clear-cut, virtuous people will act spontaneously. However, they also point out that such decisions are only spontaneous, automatic and effortless, because virtuous people have made many decisions in similar situations *in the past,* and at that time,

these decisions were probably much more difficult and time-consuming. Put differently, virtuous habits require conscious deliberation in the sense that *the process of becoming virtuous* required conscious decisions. Moreover, virtuous people will also need conscious deliberation when facing moral problems that they cannot solve on the basis of previous experience. To conclude, virtues result in habitual actions that are sometimes deliberative and sometimes not, although they have been in the past.

4 Slow Habituation

In this section, I will clarify why habit formation is a rather slow process and explain why this could be problematic in the Anthropocene. We should take into account, however, that such problems may not be unique for an Aristotelian understanding of habituation. On a psychological reading, habits are stored in our memory, where they are relatively separate from goals and intentions, and not under people's direct cognitive control. Carden and Wood (2018) have therefore argued that such habits are "slow to develop" and "resistant to change" compared to, for example, Pavlovian conditioning. So even if Aristotelian habits turn out to develop too slow to be relevant for moral education in the Anthropocene, this does not mean that other interpretations of habits are less problematic.

Neo-Aristotelians interested in habituation as a moral educational method (see e.g. Sherman, 1989; Kristjánsson, 2006; Kerr, 2011; Sanderse, 2018) base their interpretations on Aristotle's (1975) ideas in the *Nicomachean Ethics*: "The virtues on the other hand we acquire by first having actually practised them, just as we do the arts. […] For instance, men become builders by building houses, harpers by playing on the harp. Similarly, we become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts" (NE 1103a33-b2). Simply put, habituation refers to the process of acquiring virtuous character traits through the repeated practice of corresponding virtuous actions (Sanderse, 2018). In an attempt to elucidate the Aristotelian view on habituation, Steutel and Spiecker (2004) have interpreted habituation as a process during which people learn to act as virtue requires, both frequently and consistently, under the supervision of a virtuous tutor. This implies that children will not develop virtuous habits by simply attending lessons about moral issues. They also need to be given opportunities to perform virtuous acts, such as being patient, honest, and compassionate. Moreover, acting virtuously will only result in virtuous habits once these actions are performed frequently and consistently, in a variety of situations.

It is important to note that habituation is not simply a matter of mindlessly repeating the same behaviour. According to the Aristotelian account of practical wisdom, virtuous action requires children to develop discriminatory skills to recognize the morally relevant aspects of a situation, as well as emotional regulation to evaluate whether their actions or emotional responses appropriately strike the mean. If we are to *learn from* repeated practice, habituation should be seen as a number of successive attempts to reach a goal, reflecting on what went wrong and subsequently adjusting one's behaviour to reach the goal with greater success next time (Sherman, 1989). Carlisle (2014) uses the term 'practising' to describe what happens when people develop virtuous habits. In her view, practising involves making explicit decisions: "the practitioner chooses to repeat" (Carlisle, 2014, p. 105). On an Aristotelian account, people put their moral actions into deliberate and determinate use to cultivate virtues that are aligned with their desire to lead a flourishing life.

A key problem is how children can determine whether they are acting "as virtue requires", given that this demands practical wisdom, a quality that is unlikely to be fully developed in children. Steutel and Spiecker (2004) solve this problem by introducing the criterion that habituation should be under the guidance of a (more) virtuous tutor, such as a parent or teacher. These tutors should not only respond to the child's behaviour with reinforcing or punishing stimuli, but also promote their practical wisdom by giving reasons. Recently, Henderson (2023) has used the term 'entanglement' to describe the process of how a virtuous mentor's practical wisdom acts as a substitute for learners' lack of it, while learners simultaneously learn by emulating virtuous persons. Some of these accounts explicitly or implicitly treat habituation as a strategy suitable for children. However, virtuous people can use habituation to further refine their already established virtuous habits, in which case a tutor is not necessary (Sanderse, 2018).

Proponents of virtue ethics have generally acknowledged that habituation is a slow process. For example, while distinguishing between natural and cultivated virtues, Sherman (1997, p. 33) comments that the latter is the developmental product of the "slow and steady habituation" of our natural capacities, which requires the engagement of practical reason. Moreover, Annas (2011) has argued that virtues are a kind of habits that require an actively and intelligently engaged practical mastery, like skills that can be recognized in the expertise of pianists or athletes. This, she admits "requires time, experience, and habituation" to develop (p. 14). Because of how virtuous habits develop over time, habits are not simply things that people *have*, but something that people *are* (Pollard, 2006). For example, people do not 'have' the virtue of patience, as if they can easily dispose themselves of a habit; they are patient people who notice when situations perceive, feel, reason and act in certain ways. Want to

'kick' or 'drop' a habit may start with changing a belief, but changing the full habit "can take years" and may still be "partially successful", because habits have been integrated in a virtuous or vicious character that has become resistant to change. In the context of the Anthropocene, Lizardo (2021, p. 398) reminds us that this is even the case "even in the face of environmental disruption".

These authors do not say how much time it takes exactly for a virtuous habit to be cultivated. This empirical question is challenging because it requires longitudinal research designs, but also difficult to answer because conceptualisations and operationalisations of habits vary. Yet, we are not completely in the dark. A real-world study by Lanny et al. (2010) asked participants to choose a healthy eating, drinking or exercise behaviour that they would like to make into a habit, such as 'running for 15 minutes before dinner'. Automaticity was reached on average in 67 days, but the range was from 18 to 254 days, which shows that habit formation can take a long time. Because Aristotelian virtuous habits are more complex, we can expect the formation of Aristotelian habits to take even longer. These habits involve more than the automatic repetition of an action, but also moral perception, feeling and reason (see Section 3). Moreover, to people acquire a virtue in the Aristotelian sense, requires that they do not only learn how to act in a single situation (such as 'before dinner'), but across a wide range of virtue-relevant situations.

In the work of Curzer, a neo-Aristotelian himself, the slowness of habituation is regarded as a problem. In order to understand Curzer's critique, we need to understand first how he understands habituation. He defines habituation as "a project of character improvement through deliberately repeated responses to similar situations" (Curzer, 2020). Curzer emphasizes that the repetition of virtuous behaviour occurs in similar situations. In this respect, he differs from Steutel and Spiecker (2004), who emphasized consistency, meaning that virtuous behaviour is manifested across a variety of trait-relevant eliciting situations. Moreover, Curzer takes habituation to be a deliberate process initiated by a learner. In contrast, Steutel and Spiecker (2004) define habituation by including a virtuous tutor who guarantees that habits turn out practically wise. This highlights that Curzer does not regard habituation primarily as a method for morally educating children. According to him, individuals typically develop a combination of good and bad habits without much deliberate planning or effort. It is only when people recognize vices emerging within themselves that they initiate the process of habituation, aiming to replace those vices with virtues.

Curzer gives several reasons for why, on his account, habituation takes a long time. First, habituation requires a person to repeat acts not just once or twice, but on many occasions. In addition, the person should not only repeat acts but also practice the various other components of virtue, including moral perception, emotion, and reason. These are 'internal' reasons that make habituation

demanding, having to do with how virtue is defined. There are also 'external' causes that make habituation difficult. For example, Curzer argues that successful habituation depends on luck, in the sense that individuals need opportunities to practice virtuous acts and social environments that are stable enough for people to repeat actions long enough for them to become habitual. When does the difficulty and slowness of this deliberate, learner-led type of habituation become problematic?

As long as people live in relatively stable societies, in which people discharge a role or function that is part of a fixed social hierarchy, passed over to them from previous generations, slowness seems less of a problem. The slowness of habituation becomes more of a problem when people live in a "complex, constantly changing world" and lack "sufficient time and predictive ability" to habituate themselves before the next major social or technological change comes along. Curzer's (2020) central point is that, because of the speed of such changes, habituation is "typically derailed before it can gain traction" (p. 14). This is certainly an original critique of habituation, but does it also apply to the Great Acceleration? At first sight, it seems to be a perfect illustration of Curzer's description of a constantly changing world. However, we should consider not only the speed but also the consequences of the Great Acceleration. The effects of global warming, to mention one problem are here to stay for a century or more. So, strictly speaking, Curzer's critique of habituation is only relevant for the current discussion if global warming would be a temporary problem that will be replaced with another problem so quickly that people cannot develop the sustainable habits to tackle it. But this is not the case. So, is the Anthropocene a problem for habituation in another way? Curzer may argue that exceeding 1.5°C of global warming risks crossing several so-called 'tipping points' soon. In the best scenario, we have a decade or two left to prevent this from happening, but in the worst scenario, these tipping points may already have been crossed. This means that it is doubtful whether the acceleration typical of this phase of the Anthropocene leaves open the possibility for adults to form sustainable habits through self-cultivation. However, we should not forget that Curzer (2020) does not dismiss habituation as a moral educational method entirely. It is still useful for the moral education of children, for adults in rather straightforward situations, and for the development of what he calls 'micro-virtues,' which are only displayed in specific situations.

5 Conclusion

In this conclusion, I will answer the question whether habituation, particularly favoured by advocates of a neo-Aristotelian approach to moral education, is

quick enough to mitigate the devastating impacts humans have on the planet or to help us flourish amidst these challenges. The discussion so far has yielded several insights.

First, determining whether habituation is 'quick enough' is complex for several reasons. We saw that there is minimal empirical research on the development of habits, understood in an Aristotelian sense, and on the time it takes for children or adults to develop such virtuous habits. Therefore, it is urgent that more empirical research is conducted about how virtuous habits develop across time, which, in turn, requires that the concept of an Aristotelian habit be operationalised further (Bernacer & Murillo, 2014; Han, 2023). There is research, however, that shows that relatively simple sustainable habits can be formed, on average, within a couple of months (Lanny et al., 2010). Whether the formation of such habits is 'quick enough', however, depends on how much time humanity has left to address tipping points, critical environmental thresholds (ESA, 2023). Exceeding 1.5°C of global warming risks crossing several of these thresholds, potentially occurring between 2024 and 2040. In this scenario, habituation seems too slow to prevent key tipping points from occurring, if they have not already occurred.

Second, this conclusion should be nuanced by distinguishing between the habituation of adults and children. Even though the cultivation of new virtuous habits may be too complex and time consuming for adults, habituation may still be a useful for the moral education of *children*. When we understand habituation as a childhood method which includes the presence of a virtuous tutor (Steutel & Spiecker, 2004), it may be easier for children to form habits, because adults heavily structure this process for them. For adults, moral development is more a personal project, which is 'largely up to them' and 'hard-won' (Schinkel & de Ruyter, 2017, p. 134). The sixteen years until 2040 could theoretically be enough to raise a new generation with virtues that are aligned with a sustainable lifestyle. However, although we may expect more from the habituation of children, this option creates an additional problem. Where are the virtuous parents and teachers to morally guide children? – a timeless question already addressed by Socrates in the *Protagoras*. If the possibility to habituate children depends on the habituation of their educators, we cannot expect too much from this method either.

Thirdly, this chapter explored the role of schools in teaching children to adopt more sustainable ways of living. An important question for further consideration is at what point efforts to shape young people's ideals, values, and virtues can be classified as 'educational', and when they might instead be seen as socialization or even indoctrination. If we value knowledge, skills and understanding *educationally*, it is not because of its practical utility, but

because these values are "constitutive features of personhood", Carr (2003, p. 12) explains. Addressing climate change in schools can certainly be educational if contributes to children's understanding, with the goal that they learn to understand themselves, others and their place in the world. However, making students adopt different behaviours so they may solve societal or ecological problems is, as such, not educational.

Admittedly, schools do not only aim that students become an educated person, to use Peters' phrase. They also have the more practical aim of fostering sustainable skills and attitudes that enable students to function in and contribute to society. However, as long as schools remain dedicated to 'education,' they should not treat children as mere tools for solving environmental issues, even if such an instrumentalist approach proves effective. When applied to moral education, this highlights the importance of ensuring that any approach, including a neo-Aristotelian one, seeks to achieve its moral objectives in an educationally responsible manner, which may slow down the process through which children attain desired behavioural outcomes.

Fourthly, the neo-Aristotelian approach discussed in this chapter did not dismiss the importance of the effects our actions have on others and the world at large, but it contextualized moral action within the pursuit of good lives, which also includes the cultivation of the way we experience the world through our perception, emotion and reason. This implies that even when habituation comes too late to prevent catastrophes from happening, it may still be a suitable method for moral education in the Anthropocene, because it helps us to live within this era. Illustrative in this regard is the movie *Melancholia* by Lars von Trier, in which a planet is on collision course with Earth, and nothing can be done to prevent it. The movie shows how two sisters, played by Kirsten Dunst and Charlotte Gainsbourgh, deal with their immanent end, one being calm and accepting, the other desperate. Applying this to global warming, neo-Aristotelians can point out that, one day, it seems wise to shift our focus from cultivating virtues that have ecologically beneficial outcomes to virtues that "enables the exploration of important sources and dimensions of meaning and value" even under terrible circumstances (Di Paola, 2015, p. 198). One may think of virtues that are needed to navigate our mortality, such as courage, mindfulness, compassion, cheerfulness and gratitude. Interesting and controversial is Di Paola's suggestion that in the Anthropocene, gardening may be an environmentally appropriate practice to develop some of these virtues.

Fifthly, this chapter has primarily addressed the question of whether habituation is a suitable method in the Anthropocene by considering whether the era's conditions render habituation obsolete. This means that I have focused less

on whether, in this context, habituation can also be seen as desirable or important. This is a limitation, because there is research that emphasises the potential that habituation may have to offer. For example, Mazar et al. (2021, p. 77) consider the formation of habits to be critical, because people's everyday activities "generate a sizable proportion of all human-activity-related greenhouse gas emissions". We may recognise that education can, on its own, not achieve much. However, a combination of interventions that break existing, unsustainable habits and cultivate new ones may nevertheless be "key to effective change" (Mazar et al., 2021, p. 77). If future research focuses more on the desirability or importance of habituation, the insights of this chapter about the difficulty and slowness of habituation may help such accounts to remain realistic.

Notes

1 Another question is which moral educational methods are effective, which is a topic beyond the scope of this philosophical inquiry.

2 This raises the question of whether, in a liberal society, it is justified to teach environmental (civic) virtues in public schools, an issue that I cannot go into here (for an overview, see Schinkel, 2009).

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CHAPTER 8

Did We Learn Nothing? Fifty Years of Dutch Policy Initiatives on Education for Flourishing in the Anthropocene

Pieter van Rees

1 Introduction

Early 2024, two opinion pieces appeared in a major Dutch newspaper addressing the necessity to revise education in light of the (coming) climate crisis. One argued the necessity of introducing 'nature education' to teach pupils about, but most importantly, *in* nature. This would have beneficial effects on general wellbeing, stress levels and school results, but it would also stimulate pupils' efforts to save the environment (Meijer, 2024). The other argued that 'climate education' is needed to stimulate pupils' efforts to mitigate the crisis, but also to prepare them for what is coming, provide hopeful narratives and perspectives for action (Becht, Blom, & Thomaes, 2024). We need to change what we teach *now*, both texts claim, for otherwise it will be too late.

Notwithstanding the urgency expressed, these calls to educational action are not new. When the Club of Rome published *Limits to Growth*, its aim was to raise awareness of the "predicament of mankind", leading to "a basic change of values and goals at individual, national, and world levels" (Club of Rome, 1972, p. 195). Humanity had to learn to think differently about its relation to nature to avoid 'catastrophe', and this transition should start in school. The Tbilisi declaration on 'environmental education' presented a similar urgency "to create new patterns of behaviour of individuals, groups, and society as a whole towards the environment" (UNESCO, 1977). Likewise, the closing statement of the 1992 United Nations conference in Rio de Janeiro declared: "Education is key for change" (UN, 1992), a call repeated in the "United Nations Decade of Education for Sustainable Development (2005–2014)" and the 2015 Paris agreements (UN, 2005; UN, 2015). Apparently, we have been urgently needing to change what we teach for quite some time now.

Reflecting on the 1972 Club of Rome's call to action, Dutch philosopher Lisa Doeland recently lamented that "we have learned nothing". Despite fifty years of awareness about the crisis and its causes, necessary changes to avert catastrophe have not been made (Doeland, 2023). The recognition that humanity's

collective behaviour now decisively impacts Earth's life-supporting conditions has led to the concept of the Anthropocene. This demands a fundamental re-evaluation of humanity's place in nature, influencing our self-perception, behaviour, and collective structures.

Repeated calls for educational change highlight a failure to address the challenges of the Anthropocene in schools. While despair over the lack of climate action is understandable, it can obscure efforts made by educators to respond to these challenges. For instance, in the Netherlands, educators and policymakers have worked to integrate nature and environmental education into formal curricula since the early 1970s (Leussink, 2018). Specifying Doeland's anonymous 'we', this chapter examines how the calls for educational action at the global level were translated into educational proposals in the Netherlands. It aims to trace and extract lessons from the history of efforts, and apparent failures, to educate for a flourishing existence in the Anthropocene, by answering the following research question: *How did Dutch educational policy and curriculum proposals since 1972 attempt to institutionalize education for flourishing in the Anthropocene* (*understood as embracing ecohumanism, educating for both personal and political self-efficacy through transformative pedagogies*) *and why did these proposals fail in this attempt?*

This question assumes a model of education suited for flourishing in the Anthropocene. While not offering a complete model, I draw on Aloni's integrated model for humanistic education (2003) and Aloni and Veugelers' ecohumanistic education paradigm (2024). This lens examines how proposals integrate ecohumanism as a worldview, prepare pupils for personal and political challenges of the Anthropocene, and use non-traditional educational methods.

The historical education policy documents include actual educational policy, policy reports and proposals, publications by working committees, and suggested curricula and guidelines. I will trace the proposed types of nature and environmental education in the Netherlands since 1972, evaluate to which extent these proposals could be characterized as education for flourishing in the Anthropocene, and discuss their relative success or failure. This analysis aims to contextualize and inform current efforts to educate for flourishing in the Anthropocene by offering examples that have been, to varying extents, tested in earlier educational and policy practices.

2 An Integrative Model of Humanistic Education for Flourishing in the Anthropocene

Humanist educational philosophers Nimrod Aloni and Wiel Veugelers recently developed "a new paradigm for values education that addresses the major

challenges to the sustainable futures of young people" (Aloni & Veugelers, 2024, p. 1). To educate for flourishing in a world characterized by a 'multicrisis', educators need to embrace ecohumanism as a worldview, be dedicated to democratic culture, and employ an activist pedagogy, they claim. The paradigm is useful because it brings together elements of education for the Anthropocene that feature in different approaches but fail to do justice to the complexity of education for the Anthropocene on their own.

Aloni distinguishes several humanistic traditions and their educational counterparts, proposing an integrative approach (see Chapter 5; Aloni, 2003). Building on this, Aloni and Veugelers (2024) respond to a "multi-dimensional global crisis" threatening humanity and the planet, with the environmental crisis at its core. Their ecohumanistic educational approach addresses challenges of Anthropocene, which they describe as "attending to what the known demands of us", echoing international calls to reform education in response to climate change. Rejecting defeatism, they emphasize developing youths' personal and political self-efficacy to build a sustainable, just world. Their new educational paradigm rests on three pillars: ecohumanism, democratic culture, and activist pedagogies.

Ecohumanism is the worldview that understands humanity as inherently connected to nature. Authors in this tradition claim that the Anthropocene has unmasked a supposed modernist divide between nature and humanity as an illusion (Latour, 2017). It further implies that both our fellow human beings and nature are not commodities to be used but have intrinsic value. Ecohumanism seeks to replace a logic of separation and dominance by one of community and harmony and takes seriously the idea that human beings and other species should be enabled to flourish.

Secondly, Aloni and Veugelers state that 'critical-democratic citizenship education' would provide pupils with the personal competences as well as the public spirit to deal with the crises on a personal as well as political level. The ecohumanist worldview finds its inspiration in Dewey's conception of democracy as a shared public culture that nourishes plurality, cooperation and growth (Dewey 1917). Furthermore, it moves beyond communal or national citizenship to "address the living together on the planet earth, and focusing on issues and concerns such as the power relations and interdependence involved in global neo-liberal economy, mass migrations, global warming, growing social gaps, and violation of environmental justice" (Aloni & Veugelers, 2024, pp. 4–5).

Thirdly, activist pedagogy forms the most elaborate part of the new paradigm. Aloni and Veugelers connect insights from philosophers as diverse as Nietzsche, Rawls, Greene, Maslow, Freire, Rousseau and Biesta to argue that the aims of ecohumanistic education imply non-traditional educational methods to address both personal cultivation and the development of the

societal, cultural and political preconditions for flourishing. Aloni and Veugelers describe activist pedagogy as "a concern for autonomy and social justice" (2024, p. 9).

3 Sources and Methods

Analysing educational policy on the Anthropocene is complex, as the term itself is relatively new. In the Netherlands, historical terms for "education for the Anthropocene" fall under the umbrella of "nature and environmental education" (NME: Natuur- en Milieu Educatie). This field, involving environmental organizations, government agencies, teachers, and schools, provides activities about and in nature. Only a small portion of NME is part of formal education. Over time, the terminology evolved from "nature education" (pre-1970) to "nature and environmental education" (1970–2000) and "education for sustainable development" (since 2000) (Van Raaij & Neuver, 2018), reflecting ongoing efforts to address humanity's problematic relationship with nature.

For a long period, there was hardly any explicit policy on nature and environmental education in the Netherlands. Learning about nature was covered in primary and secondary school through the subjects 'knowledge of nature' (kennis der natuur), physics, chemistry, biology, and geography. Since the 1970s, there have been ongoing efforts to systematically and comprehensively integrate this topic into formal education through more directive educational policies, often in response to international calls to action. In 1975, the interdepartmental *Commissie voor Natuurbeschermingseducatie* (CNBE, Committee for Environmental Preservation Education founded in 1951) called for attention in schools for "the problems of environmental management in general and the preservation of valuable (agri)cultural landscape in particular" (CNBE, 1975, p. 1). In 1985 this Committee published an 'actualization' of this report, with the much more alarmist title "Between experiencing nature and survival" (Tussen natuurbeleven en overleven). From 1988 onwards, a series of interdepartmental projects to structure and implement nature and environmental education were successively introduced in primary and secondary education: "NME: a long-term perspective" (1988–1992); "NME: a long-term implementation perspective" (1992–1995); "NME structure plan" (1993–1999); "Learning for sustainability" (2000–2003); "Learning for sustainable development" (2004–2013); and "SustainablyForward" (DuurzaamDoor) (2013–2020). Additionally, in the curriculum revision projects "Our Education2032" (Ons Onderwijs2032) (2015–2017) and "curriculum.nu" (2018–2020), 'sustainability' was included as one of the overarching issues to be addressed in all school subjects.

These projects involved shifting combinations of organizations that translated general political visions and ambitions to specific curriculum proposals. These organizations included most prominently the *Stichting Leerplan Ontwikkeling* (SLO, the national Organization for Curriculum Development founded in 1975); *Stichting voor Milieu-Edukatie* (SME, Organization for Environmental Education, founded in 1976); and the *Instituut voor Natuurbeschermingseducatie* (IVN, Institute for Environmental Preservation Education, founded in 1960).

For this chapter, vision documents and curricula developed in these policy projects were analysed for the period 1970–2020 (25 documents in total, mostly around 50 pages long). For each document, a within-case analysis was written answering the following sub-questions:

- Ecohumanism as worldview: Which understanding of the (problematic and ideal) relationship between humanity, nature and flourishing was present in the proposals?
- Personal and political self-efficacy: How did the proposals balance the development of personal and political self-efficacy for flourishing in the Anthropocene?
- Activist pedagogies: What was the (implied or explicit) educational model in the proposals?

A comparison of the various within-case analyses revealed four distinct periods, each characterized by dominant perspectives on education for the Anthropocene. The second part of the research question was studied indirectly. Rather than conducting an extensive analysis of how the proposals were received in political and public debates and within educational practice, explanations were drawn from successive policy documents. Nearly every proposal began with a problem statement that outlined what was missing or flawed in previous efforts. Collectively, these reflections offer valuable insights into the challenges of developing formal education for the Anthropocene.

4 Green Pedagogy and Environmental Education (1975–1988)

Throughout the 20th century, Dutch primary and secondary schools taught about nature through biology, geography, physics, chemistry, field trips, and school gardens. In the early century, "nature education" aimed to reconnect an urbanizing population with nature (Van Raaij & Nuiver, 2018). Explicit policy attention emerged in 1975 with the CNBE report highlighting the scattered nature of initiatives and reliance on unqualified volunteers. To influence youth attitudes, the report recommended integrating nature education into teacher

training, school curricula, and exams (CNBE, 1975). It also proposed an educational sequence of "experiencing, knowing, and acting", further developed by curriculum-developer SLO.

"The non-harmonious place of man in relation to nature that we witness today has its root in an outgrowing of a direct connection with nature" which could be remedied by restoring contact through educational activities. Where earlier approaches framed direct contact with nature in terms of personal well-being, the CNBE report stressed that the lack of experience resulted in a problematic lack of care for the natural environment. Humanity had to take responsibility for the "disruption of natural processes" that would eventually threaten "the survival of living nature as well as the quality of life of humanity" (CNBE, 1975, p. 1). The conditions of human flourishing were at stake.

The goal was to "stimulate awareness", foster "norms and values", and encourage attitudes, behaviours, and societal structures to preserve the environment and support human self-actualization in relation to it (CNBE, 1975, p. 2). While naming both personal and political engagement with environmental issues, the report primarily emphasized developing "environmental ethics" and "environmental hygiene" (CNBE, 1975, p. 3). The mentality-oriented approach assumed that experiencing nature would evoke concern (affective effect), spark intellectual interest (cognitive effect), and lead to responsible behaviour (moral effect). While also demanding increased attention in school, the model relied on excursions to external natural settings, maintaining a view of humanity and nature as separate but connected.

In 1977, SLO published their influential "The use of the school environment", explaining that nature education in primary schools should not start with the different sciences (biology, physics, etc.), but rather with "the child's active exploration of his lifeworld" (SLO, 1977, p. 13). Moreover, the pupil should be approached as "the whole child, as a knowing, feeling and acting being" (SLO, 1977, p. 13). Starting from the immediate environment of the school would teach pupils "to experience this environment more consciously", which would eventually lead to an "attitude of responsibility which will also express itself in relation to other environments" (SLO, 1977, p. 14). Directly linked with this was the imperative to take both pupils and teachers serious: they had to be in control of their own educational processes, thus stimulating their autonomy ('mondigheid' in Dutch). Autonomy was seen as key to developing a responsible attitude toward the environment. Unlike earlier excursions to distant "nature", pupils were now encouraged to engage with their immediate surroundings. By fostering awareness, care, and intellectual interest in their local environment, pupils could learn to understand how it influenced their personal flourishing, leading them to consider the broader natural environment as essential to human well-being.

Attention for the public domain and more political questions concerning the environment was limited in the publications of what was called 'Green pedagogy'. The personal caring attitude towards nature would make pupils supportive of policy to protect nature, and their intellectual development would stimulate their support of "rational management of the environment", several reports claimed (CNBE, 1975, p. II; UN, 1977, p. 1). But this only concerned the pupil's passive role in politics and ignored critical perspectives. More fundamental political questions were only addressed very shortly near the end of the CNBE report, under the heading "Macro-environmental problems" such as global structures and inequalities (CNBE, 1975, pp. 48–49). The committee noted in passing that inclusion of such problems in education would seriously challenge the dominant educational structure (in terms of learning goals and the division in subjects), and did not recommend exploration of such activist pedagogies.

In response, other actors started from the premise that "the environmental problem is a societal problem" (SME, 1976, p. 1). 'Environmental education', as this alternative was called, claimed that earlier 'nature education' had misconstrued the problem as one of 'preservation of nature' by means of cultivating an attitude of care. The main point of critique was that Green pedagogy only addressed part of the problem and in doing so actually strengthened the underlying structural problem. Experiencing nature and developing a personal ethic of care and responsibility might restore our relation to the environment in some ways, but it ignored a much deeper issue of 'alienation'.

"In searching a way out of the arisen problems, it is not about finding a way 'back to nature', but about something entirely new, for which the way is still to be found" (CNBE, 1985, p. 5). Alienation was the result of "mechanisms that exploit nature and simultaneously programs human beings and pushes them into a box" (SME, 1976, p. 4). This 'ideology' reduced both nature and humanity to 'resources' to be managed efficiently (an attitude rooted in centuries of colonial and capitalist exploitation), and held that more technological mastery and rational management of the environment would lead to 'sustainability' (SME, 1976, p. 4; CNBE, 1985, p. 7). Environmental education did not use the term eco-humanism, but all the elements were there. Both technological innovations and personal responsibility would only mitigate effects in the short run, the environmental educators claimed, but they were "part of a path that is illogical when viewed in its entirety" (CNBE, 1985, p. 6).

One of the main challenges of Environmental education was to avoid entrapment in the very logic of technological control it tried to overcome. In line with insights of critical pedagogues, the environmental educators approached education as intertwined with societal structures. This implied a

radical educational model described as 'education permanante' devoted to an ever-developing understanding of our problematic "place in nature" (CNBE, 1985, p. 5). "The time in which we live makes a change in the self-image of humanity inevitable" (CNBE, 1985, p. 12).

The fundamental mistake was seeing nature as something we could master by means of technology. This notion of 'mastery' had to be challenged, also in education. The technological reflex to 'solve' issues, as well as the idea of 'neutral facts' was part of the problem. This meant that pupils should not learn to "solve problems" but to "analyse problems in their most important aspects". The educator had to problematize each solution and thus stimulate ever "higher insight into the environmental issue". Instead of the linear model of Green pedagogy (experience, knowledge, action), Environmental education proposed a spiral model of education, "a process that never stops and with every achieved result provokes new questions". True education was defined as an infinite process characterized by fundamental openness, opposed to the "controlling grasp of technology" (CNBE, 1985, pp. 21–24). Education would also be liberating and promote the flourishing of pupils: "Environmental education strives for emancipation of people [and stimulates] their confidence and courage to face their world, a world full of problems that cannot be solved by individuals alone" (CNBE, 1985, p. 25).

The critique of 'mastery' and focus on emancipation led environmental educators to distrust detailed policies, seeing them as technocratic, which in turn hindered implementation of their own proposals. Their emphasis on global structures, complexity, and heavy responsibility faced criticism for its lack of practicality in lesson planning, questionable didactic feasibility, and crisis-driven approach (NME-VO, 1989, p. 6). This critique spurred new efforts to make nature and environmental education more feasible and focused on securing the conditions for flourishing.

5 Sustainable Educational Policy (1988–2004)

Whereas both Green pedagogy and Environmental education focused on distinct forms of activist pedagogy ('active holistic experiential learning' and 'social empowerment, collaboration, transformative education and political agency' respectively), their relatively modest influence on educational practice inspired a new series of policy initiatives with one main focus: effective education. Along with a focus on effective education within existing educational structures a new terminology emerged that expressed a consensus-based approach to education about nature and the environment: education for

sustainability. Everybody could embrace 'sustainability' as a goal, from farmers to ecologists, from capitalists to social democrats. The radicalism of Environmental education and the experience-focused Green education were replaced by rational plans for education and economic policies for sustainability.

Accommodating nature and environmental education in the existing structures of schooling became the focus of the project "Nature and environmental education in secondary education" (Natuur en Milieueducatie in het Voortgezet Onderwijs, NME-VO) (1986–1989). This was the first in a series of projects that expressed a third educational model for teaching about nature and the environment. After the experiential learning of Green education, and the emancipatory learning of Environmental education, the 1990s saw the rise of competence learning.

The task of the 'NME-VO' project was to "develop a curriculum and exemplary material for nature and environmental education for the subjects physics, chemistry, biology and geography" (NME-VO, 1987, p. 3). Tellingly, the project was stationed at the Utrecht University Science Didactic Department. So far, the project description claimed, attention for nature and the environment had been only incidental and dependent on individual initiative of teachers (NME-VO, 1989, p. 6). Employing a bureaucratic language typical of the project, the project-team noted: "Even though the educational materials developed by environmental educational organisations certainly has some qualities, they had to acknowledge some years ago that this material was not widely used in formal education" (NME-VO, 1989, p. 6). Moreover, research had shown that the material was often too demanding of both teachers and pupils.

The impracticability of earlier emancipatory education was not just misguided, but harmful because it blocked the educational route towards the goal of "strengthening care for nature and the environment" (NME-VO, 1989, p. 11). And while this goal did seem to align with the experiential learning in Green education, this approach was also deemed too incidental and unstructured for 'effective education' on nature and the environment. "If we want nature and environmental education to be widely included in the educational field, we must make it more than 'something extra', it has to become part of the mandatory material" (NME-VO, 1989, p. 7). To achieve this, it had to be structured as a clear educational goal, to be reached by educational material ready to use in schools.

For policy makers and educational researchers, making NME a structural part of formal education raised two questions. The first concerned educational organization and didactics: how to address transdisciplinary issues in a school system based on subject teaching? The second concerned the critique of indoctrination: how to strike a balance between the 'ecological imperative'

(promoting certain behaviour) and the 'pedagogical imperative' (enabling pupils to become autonomous actors) (Sollart, 2004)?

The organizational question was addressed by specifying the "competences" that pupils should develop in issues-based projects. "Which attitudes and behaviour, which knowledge and which skills regarding nature should be transmitted through education?" (SLO, 1991, p. 5). Proponents of NME in schools related their own ideas to a broad curriculum revision project conducted in the 1990s, the introduction of the so-called 'Basisvorming' and 'Bestaansgericht onderwijs' (realistic education) (SME, 1992, p. 7). This type of education made use of "realistic contexts" in which pupils would apply insights from different subjects to study societal issues. Several authors noted that this provided the perfect opportunity for inclusion of NME in schools (NCDO, 1999, p. 33).

The issue of 'indoctrination' (also a major concern in the paradigm of eco-humanist education) was approached by placing a level between education and actual behaviour throughout the 1990s and early 2000s proposals. Rather than directly stimulating certain 'sustainable' behaviour, the curriculum proposals all defined the central task as 'enabling pupils to make responsible decisions'. The proposals assumed that when provided with the right knowledge and skills, pupils would automatically make the decision policy makers deemed desirable. A typical statement from these projects: "You can learn to choose", meaning that pupils could learn to make the right decisions based on the right information (NME-VO, 1989, p. 11). This was held true at both the individual level (defined as making 'responsible' choices as a consumer) and the public level (defined as supporting policy for sustainability).

All the documents from this period showed a striking clarity regarding the problem and the solution. Apparently, it was quite obvious what went wrong and what would fix it. SLO formulated this explicitly in 1991: "That we need to change our behaviour towards nature and the environment considerably is beyond dispute" (p. 5). It was primarily as consumers and citizen that people had to make more responsible choices. Education would have to explain the costs and consequences of the available options, including 'cleaner and environmentally friendly' options. "Only when these background facts are clear will they [the pupils] be able to make conscious choices, both now and later" (SME, 1994, p. 3).

The educational problem was to more effectively inform pupils about environmental issues, which would automatically lead them to make better personal and collective decisions, and most importantly, raise support for necessary public policy regarding sustainability (SME, 1992, p. 62). A retrospective policy analysis from 2004 makes clear that all policy projects from this period included this double goal: effective teaching of established competences within existing structures of formal education by means of "structural

inclusion of NME in the key goals and end terms", leading to increased genuine support for sustainable policy (Sollart 2004, p. 21). The central idea was that "competent citizens can make balanced choices that support the process of sustainable development" (Sollart, 2004, p. 22). Apparently, also at the level of policy making on sustainability itself, it was quite clear which transitions were necessary and how we could make them. If only the "societal support" would be strong enough. The real environmental problem of the long 1990s was *ignorance*, which structured education could solve.

The proposals of this period had a serious strength: they were practicable on a large scale by fitting into existing educational structures and providing 'plug and play' curricula. This strength, however, also came with some drawbacks. Beyond the idea that people needed to make more sustainable choices to save the environment, the underlying division between humanity and nature was not questioned. Part of this limited perspective on the Anthropocene lay in the dominant definition of 'sustainability' itself, which perpetuated the fundamental stance towards nature and the environment as a resource (albeit a finite one that had to be managed responsibly). Building on the 1987 UN Brundtland Committee, sustainability was defined as "a development in which the relationship with nature and the environment is changed in such a way that the needs of the present are met, without compromising the ability of future generations to meet their own needs" (Sollart, 2004, p. 49). To the extent that this relation was problematized as unbalanced, it was treated as a technical issue: we could simply overcome the problem by means of rational environmental policy, including technological innovations, combined with responsible consumption patterns. Regarding critical democratic citizenship education and activist pedagogies, the proposals were quite limited. Since education focussed on the transmission of information and knowledge, there was little need to include more experiential forms of education. And even though they mentioned autonomous decision making and critical thinking often, the position of both citizens and pupils was rather passive in the proposals. There was little room for critically assessing the underlying (global) structures, critically relating to the infrastructure of available options or for emancipatory educational forms.

6 Education for Sustainable Development and the Learning Society (2004–2014)

The period of clarity regarding (education for) sustainability of the long 1990s came to a close with the project "Learning for sustainable development" (Leren voor Duurzame Ontwikkeling) (2004–2013). Once again, the shortcomings

of a dominant perspective became the centre of attention in the succeeding period. Where ecohumanism had been virtually absent in the years before, the position of humanity in nature now appeared as a collection of puzzling questions. The project's vision document opened with "Sustainable development: a complex concept", explaining how conflicting interests (people, planet, profit) and diverse scientific disciplines were involved in issues of sustainability. Sustainability was no longer portrayed as making the responsible choice, since it was far from clear what the responsible option would be. Part of the problem, that had not received adequate attention before, was the factor 'time': the temporal scale of environmental issues and the need to take future generations into account complicated the matter. The new program was built on the premise that people in general want to be sustainable but have a very hard time figuring out what that would mean. Personal and civil responsibility had to take on a new meaning given this problem analysis.

> One of the barriers for a broad, socially grounded sustainable development is that it is simply difficult to include all dimensions into the decision-making process. It is not easy to take ecological, social-cultural and economic interests into consideration while considering the consequences for the rest of the world and future generations. (LvDO, 2004, p. 13)

This called for a fundamentally other view on learning. Instead of the 'effective learning' that provided pupils with the knowledge, skills and attitudes to make responsible decisions, the new program presented preparation for "the learning society" as the ultimate goal of formal education (LvDO, 2004, p. 25). Because 'sustainable development' was such a complex and multifaceted problem without univocal solution (later described as a 'wicked problem'), pupils needed to "learn how to learn" and to deal with unpredictability and uncertainties (Sollart, 2004, p. 54; SLO, 2007, p. 44). Instead of learning sustainable behaviour and attitudes, pupils developed a learning attitude that would stay with them as citizens and employees in later life. "Sustainability cannot be described as a univocal, concrete goal, but rather as a 'journey' or 'road' toward a more sustainable society" (SLO, 2007, p. 26).

Approaching education for sustainable development as an open-ended project was proposed by authors in the preceding period, but their views were not prominently present in policy or curricula. Authors like Wals and Jicklin (2002) and Meijer (1995) argued for a 'pedagogical approach', stating that we simply do not know what sustainability looks like. It means many things, in many contexts, and changes over time. Instead of a fixed body of facts and

knowledge, we should develop open-ended competences. "Nature and environmental education cannot be the imposition of behavioural norms but has to be an 'introduction in knowledge' that does not pretend to solve current societal problems" (Meijer, 1995, as cited in Sollart 2004, p. 31). The same was true of the term 'sustainability': it meant very different things for different actors, and we should not hegemonically determine its meaning in education.

The new proposals stressed that the open-ended character of education for sustainable development (ESD) was fundamentally democratic, in an almost Deweyan sense that defined democracy as collective learning and growth. "ESD touches the core of education", SLO wrote, "it prepares pupils for their future, their own role therein and their responsibility for it" (SLO, 2007, p. 52). Education for sustainable development should not be a separate subject, but an overarching task of the educational system, like (global) citizenship education to which it was explicitly connected in many documents. Where the earlier proposals focused on raising passive support for sustainability policies, the focus now lay on educating citizens that actively and collectively engaged with the challenge of sustainability. This was also opportune, since 'education for active citizenship and social cohesion' was introduced as a mandatory task for Dutch schools in 2006. Connecting the two would once again provide opportunities to ensure educational attention for nature and the environment (SLO, 2007, p. 15).

This called for thematic education about the lifeworld of the pupils. "For pupils the connection to their direct lifeworld, in which they will life, learn, work and socialize is central: *their* lifeworld" (SLO, 2007, p. 13). This is where they would actually recognize the limits of people, planet (nature) and profit (defined as culture). "Managing that lifeworld requires a willingness to take on responsibility and to act just" (SLO, 2007, p. 13). Education should involve projects in which pupils were guided in investigating questions from different angles about one topic. "From such a detailed observation in close-up, pupils can make the transfer to a greater area. They are able, to a certain degree, to generalize ('zoom out') to a region, sometimes to a whole country, to an even larger (cultural) territory or even to the whole world" (SLO, 2007, p. 50). SLO provided examples of such projects on "Production, Consumption, Waste", "Climate and energy" and "Space and biodiversity" (SLO, 2009, pp. 13–17). The central question for investigation was always: "What are the consequences of my choice for the here and there and for the now and later? Which role do social-cultural, ecological and economic arguments play? Are there alternatives?" (SLO, 2009, p. 11). The procedure used (drawing on different sources of knowledge, asking questions from different perspectives) would enable pupils to become competent actors in a 'learning society'.

The pedagogical model of education for sustainable development, based on a searching and questioning understanding of sustainability itself, contained a lot of elements of ecohumanistic education. It embodied a concern for authentic development of pupils as well as for social justice, included an effort to educate for a democratic ethos of cooperation and growth, and made use of open-ended educational forms. However, nature itself appeared to be strangely absent in this variant of nature and environmental education. Sustainable development was approached as a thoroughly social issue, relating to different interests and positions, but the plans hardly inspired enquiry into our appreciation of nature. The experiential part of nature education, let alone the exploration of how we ourselves are part of nature, did not receive a lot of attention in these proposals.

A second issue was, once again, the practicality of these proposals. While there were a lot of policy plans and curricula, all of them remained rather abstract. They contained principles, philosophies, and educational ideals, but nothing that resembled the 'plug and play' curricula of the previous period. Project based education might have been the most appropriate form for education for sustainable development, but projects did not form the core of school curricula. The very fact that education for sustainable development incorporated so many different school subjects and addressed issues with so many different aspects could make it an overarching goal for education in general. This in turn also made it into something that was, like its counterpart citizenship education, everywhere and nowhere in schools.

7 Future Oriented Education between Radicalism and Consensus (2015–2020)

In 2015, the Dutch government organized a national debate on "the revision of the curriculum for primary and secondary education" under the banner of Ons Onderwijs2032 (2016). The existing curriculum did not prepare pupils for the "society of the future", which was characterized by globalization, change and (cultural) diversity (Ons Onderwijs2032, 2016, p. 14). What was needed was "future oriented education". Ons Onderwijs2032 led to a vision document, that was subsequently specified for different domains in the project curriculum.nu (2016–2019). How did future oriented education address the challenges of the Anthropocene?

In the end report of Ons Onderwijs2032 terms like 'sustainability' or 'ecology' were remarkably absent. While the project aimed at preparing pupils for the future, the idea that this future was threatened by ecological or climate

problems was not explicitly mentioned. Instead, the two main challenges were defined as 'employability' in a globalized economy and 'citizenship and social cohesion' in a multicultural society (Ons Onderwijs2032, 2016, pp. 14, 26). To prepare pupils for this future, the 'Platform' advised a limited, but mandatory 'core curriculum' (Dutch, English, mathematics, digital literacy and citizenship). Around this core, pupils should "learn to combine knowledge from different subjects to deal with societal issues", thus developing "transdisciplinary skills" (Ons Onderwijs2032, 2016, p. 9).

The report named 'sustainability' as a central societal issue, it claimed that "education should try to teach pupils to be responsible for their own actions, whether it concerns sustainability, their own health, their environment or their finances" (Ons Onderwijs2032, 2016, p. 23). However, sustainability was individualized and ideas on systemic transformations or collective action were absent. What contributed to this individualized approach was the separation between the domains of "Nature and Technology" and "Humanity and Society". Education about nature was described in very technical terms, with a strong focus on the natural sciences, mathematics and research skills (Ons Onderwijs2032, 2016, p. 38). Earlier proposals to connect teaching about nature and sustainability with teaching about society, economy and citizenship were not part of this proposal.

The limited attention for sustainability was all the more remarkable as the government funded project DuurzaamDoor (the successor of the program LvDO, running in 2013–2020) organized a joint contribution to the curriculum discussion of Ons Onderwijs2032. Their whitepaper "Ik, wij, de wereld" (Me, we, the world) opened with a completely different tone. On the first page the Greenpeace slogan "There are no jobs on a dead planet" was printed in bold typecast. This was the main message of more than 100 organizations involved in education about nature and the environment regarding "future oriented education" (DuurzaamDoor, 2015, p. 2). And where Ons Onderwijs2032 stressed the individual responsibility of future citizens and consumers, DuurzaamDoor placed the responsibility squarely on the adult generation, quoting a rap song called Sorry: "Sorry that we used nature as a credit card without spending limit" (DuurzaamDoor, 2015, p. 2). The introduction ended with a more optimistic note, stating: "An error does not become a mistake until you refuse to correct it. We can redirect it!" (DuurzaamDoor, 2015, p. 2).

The implied 'redirection' was comprehensive, consisting of other behaviour, another kind of citizenship and "other leading principles". The "machine thinking" that has been leading since the start of the Industrial Revolution, characterized by "fragmentation, uniformity, and productivity", had to be replaced by "the principles of a living system: mutual connectedness, diversity and self-organization" (DuurzaamDoor, 2015, p. 8).

The radical outlook was reflected in the whitepaper's take on citizenship education. The preceding education for sustainable development had sought to enable people to make "sustainable choices", weighing the interests of people, planet and profit, as citizens and professionals. This "consumer-citizenship" was now replaced by "doing-democracy", in which people organized change towards a more sustainable society themselves. "The transition towards a more sustainable society moves faster and is more innovative then (traditional) business, economy or government can keep up with", the authors noted. Thus, education had to instil "a positive, innovative attitude and willingness to take action" (DuurzaamDoor, 2015, p. 7). Like other proposals, the whitepaper explained that "sustainability education" had to be "integrated education" about real world issues and should include "affective aspects" (stimulating care, wonder and responsibility) and employ "activating didactics and pedagogies" (explorative and experiential learning). In addition, it stressed that sustainability education called for the cultivation of a specific "mindset", in which competences like "systemic thinking", "dealing with complexity and uncertainty", "originality" (learning from nature, biomimicry) and "courage" were central (DuurzaamDoor, 2015, p. 28).

Clearly, the attempt to focus the curriculum "for the society of the future" on the reality of the Anthropocene was not successful in 2016. But "sustainability" was back on the agenda in the follow-up project: curriculum.nu. This project worked with 'development teams' per 'learning area', consisting of (subject) teachers and experts that also formulated "four overarching themes that are important for pupils in light of their future: sustainability, technology, globalization and health" (Curriculum.nu, 2019, p. 14). These themes were to be addressed in all learning areas to develop "broad skills that pupils require to function in the rapidly changing 21st century society" (Curriculum.nu, 2018, p. 10).

In striking contrast with the technical approach in Ons Onderwijs2032, questions of nature, society and technology were constantly approached in interaction in the proposals. Issues like sustainability were described as "wicked problems": complex, multifaceted and characterized by a plurality of perspectives. "The more you know about the problem, the more complex it becomes" (Curriculum.nu M&M, 2019, p. 45). Nevertheless, pupils had to learn how to deal with such issues on a personal and collective level: "They learn how, even if you don't know everything and there are no easy answers, you can still determine how to act". By combining insights from different subjects, pupils should gain "knowledge in natural (im)possibilities, human agency and innovative solutions, resulting in more insight into the consequences of their own and others' choices" (Curriculum.nu M&M, 2019, p. 48). The Brundtland

definition of sustainability was still leading, seeking a balance between People, Planet and Prosperity. But while the focus lay on individual and collective decision making, pupils also had to learn about "forces and powers that influence and sometimes impede solutions", making room for more critical approaches to sustainability.

A real addition to earlier proposals was the inclusion of technology as part of the challenge. Where technology had often been seen as the opposite of a sustainable relation to nature (as inherently connected with domination and exploitation of nature), it appeared here in more nuanced terms. Just like sustainability itself, the pupils had to approach technology as multifaceted issue, connecting technical knowledge with ethical questions and societal discussions (Curriculum.nu, 2019, p. 17). They also had to learn that technology was not a uniquely human thing, and that we could learn from nature in the development of technologies (biomimicry). Again, the overarching educational idea of learning to deal with complexity was stressed.

The response to Curriculum.nu was mixed, and not long after the publication of the proposals, the focus on 'broad skills' and 'issues-based education' was criticized as too progressive, too political, too radical. A renewed focus on 'basic skills' (reading, writing, mathematics and citizenship) was deemed necessary. The field of nature and environmental education in the Netherlands expressed its concern about this shift: "if we do not include sustainability in the curriculum revision, yet another generation will be left to chase after the facts" (Cooperatie Leren voor Morgen, 2020, p. 3). Apparently after fifty years of policy initiatives, the call for structural attention for nature, environment and sustainability was still needed. Interestingly, during this period the educational field (expressed through organizations and the different consultation rounds) showed willingness to challenge established interests and structures in response to a perceived ecological crisis, and their more transformative ecohumanist proposals challenged the economy centred "future oriented education" featured in educational policy. But once again, they were unable to translate ambitions into educational policy.

8 Conclusion: Education for Flourishing in the Anthropocene and the Politics of Curriculum Making

When the Club of Rome (1972), the Brundtland report (1987), the United Nations conferences in Rio de Janeiro (1992) and Paris (2015) successively pleaded to change our self-understanding, personal behaviour and collective dealings with the environment in order to secure the possibility of flourishing

on earth, did we learn nothing? If it was clear from 1972 onwards "what the known demands of us" (Aloni & Veugelers, 2024), how did we attempt to deal with the challenges of the Anthropocene in education and why did we fail? In this conclusion, I want to draw lessons in two steps: summarizing findings on a structural level and exploring the meaning of these findings for current efforts to design education for the Anthropocene in formal education.

Firstly, all proposals acknowledged that humanity is in part responsible for the destruction of its own environment and that we are collectively capable of avoiding or mitigating this destruction. In that sense, they all incorporated Aloni and Veugelers' pedagogical rejection of defeatism. Likewise, all proposals to some extent embraced an ecological understanding of humanity and an entanglement of nature and culture (at times expanded to politics, economy, and technology). But the scope of the relevant 'ecology' proved to be different between the proposals in distinct periods: Green pedagogy focused on the immediate environment, critical environmental education on global structures, and education for sustainability on production and consumption patterns.

Secondly, all the proposals aimed at enabling pupils to deal with the challenges of the Anthropocene, but once again, the distinct understandings of these challenges translated into different conceptions of "what the known demand of us" and thus different educational aims, sometimes focusing more on the personal level, at others more at the public level. The fierce discussions between proponents of different approaches in nature and environmental education testify to the difficulty of balancing education for different spheres in actual educational policy and curricula.

Thirdly, the activist pedagogy proposed by Aloni and Veugelers was present in all proposals in one form or another (experiential learning, project learning, integrated education, thematic education, critical pedagogy), underlining the idea that traditional education is inadequate to address the complex and interconnected challenges of the Anthropocene. But again, the united rejection of traditional education did not lead to a clear unified and balanced alternative in the proposals.

These conclusions about what was attempted mirror recent sociological publications that claim that even though nearly everyone agrees on the fact that the climate is changing and that we need to do something to counter this, there are distinct paradigms or discourses about climate and society that each define the problem and the direction of solutions differently. Leichenko and O'Brian (2024) for instance distinguish biophysical, critical, eco-centric, dismissive and integrative discourses that each have their own internal logic.

The educational policy proposals show similar discourses, which thus also have a corresponding educational dimension. Rather than a discussion between proponents and opponents of non-traditional education for flourishing in the Anthropocene, this led to discussions *among* advocates of different variants of nature and environmental education. Rather than an overarching paradigm for education for the Anthropocene, Aloni and Veugelers' transformative ecohumanist education turns out to be one among many paradigms struggling for dominance in the educational field. "What the known demands of us" appears not to be a univocal starting point for educational debate, but the main point of contestation.

When comparing the actual implementations of the policy and curriculum proposals, the conclusion has to be that the closer the proposals resembled the theoretical model of Aloni and Veugelers, the less successful their implementation. Some rather successful proposals focused on cultivating personal responsibility within established educational or societal structures. But the more encompassing the idea of ecohumanism, the broader the scope of revisions in personal and political structures, and the more activistic the pedagogies, the less influence the proposals had on actual educational policy and curricula. The most radical proposals (the 1985 proposals for critical environmental education, the 2004 proposals for education for sustainable development and the 2015 alternative form of future oriented education) were all met with the critique of being 'unrealistic'. The responses invoked realism regarding the curricular structure of Dutch education (which did not allow for transformative pedagogies), didactical realism (the idea that teachers and pupils cannot deal with too much complexity) or political realism (the idea that education needs to accommodate the interests of relevant societal actors and sectors).

This shows a predicament of designing educational *policy* for transformative ecohumanistic education for the Anthropocene: the educational and political realism of the proposals appears to be inversely proportional to their ecohumanistic realism. For, ecohumanism also entails a call to recognize and educationally engage with a certain reality: the reality of climate change and the entanglement of humanity and nature. The Dutch attempts to formalize education for flourishing in the Anthropocene show the need to take prevailing educational and political structures into account, as designing educational policy *is* subject to a lot of realistic constraints and requires political tact. At the same time avoiding entrapment in established educational and political structures is essential. This history shows that education for transformation cannot afford to be too 'unrealistic' in terms of feasibility, but for it to be truly transformative, it also has to challenge what counts as 'realistic' in education.

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CHAPTER 9

Let's Talk about Climate Justice in Higher Business Education

Narrating Business Students' and Teachers' Climate (Justice) Emotions

Hanane Abaydi, Isolde de Groot and Jacco van Uden

1 Introduction

With almost forty percent of the Dutch student population enrolled in (applied) economics programs, business studies matter. They matter, not only because of the sheer number of students who are educated to think and act as business professionals, but perhaps even more so because of the prominence and proliferation of business and economics thinking in society at large. As the world and its concerns are increasingly understood through economic reasoning, business and economics, education carries a long way. As such, the 'what' 'why' and 'how' of business education matters greatly (Quené, 2022). This chapter focuses on one pressing topic that requires close scrutiny in business and economics education, namely the importance of attending to climate change and climate injustice related emotions.

CO_2 emissions, recognized as the primary driver of global warming, have risen steadily since the Industrial Revolution and are closely tied to economic growth (Intergovernmental Panel on Climate Change (IPCC, 2023). However, the effects of the climate crisis are unevenly distributed, with the most vulnerable groups and countries, who experience the greatest climate impacts, not benefiting from this economic growth (IPCC, 2023). This disparity, where the consequences of climate change are unfairly redistributed, is known as climate injustice.

Addressing climate injustice in business education necessitates a critical reassessment and shift away from the traditional economic thinking that underpins modern business education. As Van Baardewijk (2018) demonstrates, neoclassical thinking, with its focus on economic growth and the valorisation of self-interest, remains a dominant influence in business education programs. The challenges are substantial and complex. Education for climate justice involves more than just questioning the economic principles that underpin business education; it also requires considering the needs and viewpoints of the most vulnerable communities. The framing of climate education is vital (Trott et al., 2023). When one leaves out the climate justice angle,

business education will most likely contribute to reproducing unsustainable corporate practices. For instance, addressing climate change in a business context without acknowledging colonial history can lead to solutions that reinforce historical injustices (Hickel, 2021). Moreover, empirical research indicates that current climate change education primarily emphasizes knowledge transfer (Filho et al., 2021; Verlie, 2022).

Despite increasing recognition of the importance of emotions in climate education (Ojala, 2012, 2022), there is limited understanding of the emotions which are associated with climate injustice among both students and educators in business education contexts (Lotz-Sisitka et al., 2015; Oberaur et al., 2022; Verlie, 2019). To explore the emotions concerned with climate change and climate injustice, we conducted a qualitative study by examining these emotions of business students and teachers at The Hague University of Applied Sciences (THUAS) in the Netherlands. Our primary research question was: "What emotions do business students and teachers experience in relation to climate change, climate injustice and climate (justice) education?" Through this study, we aim to contribute to the ongoing debate on how to teach complex and contested topics like climate change and climate justice within business education. This chapter presents our findings and explores their implications for addressing climate emotions in business education. We conclude with recommendations to advance the theory and practice of humanistic education in the context of the Anthropocene.

2 Understanding Climate Emotions: Conceptual Framework and Categories

2.1 *Climate Emotions*

With Pihkala (2022) we use the general concept of emotion to refer to an array of phenomena related to the affective dimension of education (e.g., unconscious or conscious bodily feelings, emotions, affects and moods). In public debate on climate change as well as in environmental studies research, this aligns with the use of the term 'eco-emotions'. In this study, we use the more generic term climate emotions, as we are also interested in participants' emotions on climate change and climate justice. Furthermore, rather than a narrow definition of emotions, which understands emotions as conscious feelings that people can identify and that have a clear focal point, a broader understanding of the word emotions is adopted, which includes unconscious emotions that people have, and emotions that do not have a distinct focal point (Pihkala, 2022, p. 2). This definition, we think, is more appropriate to explore the emotions of young adults in relation to climate change and (in)justice.

For our exploration of student and teacher climate emotions (see method section), we used Pihkala's preliminary taxonomy of environmentally relevant emotions. Table 9.1 presents an overview of the thirteen categories of climate emotions identified by Pihkala. Two criteria used to construct these categories

TABLE 9.1 Categories of climate emotions

Emotion categories	Category descriptions
Amazement, Surprise, Disappointment, Confusion	Surprise related emotions
Fear, Worry, Anxiety, Powerlessness, Dread	Emotions related to risk perceptions
Sadness, Grief, Yearning, Solastalgia	Various forms of sadness and grief related emotions. Scholars typically use the term Solastalgia to denote a "place-related ecological sadness and longing" (Pihkala, 2022. p. 13)
Guilt, Shame, Feeling Inadequate, Regret	Self- or other condemning emotions
Feeling Betrayed, Disillusion, Disgust	Emotions related to moral outrage and anger in general, which centre around a sense of injustice
Anger, Rage, Frustration	Mild or stronger types of anger, e.g. being furious about a lack of ambition in climate politics, or the opposite.
Hostility, Contempt, Feeling Discontent, Aversion	An array of emotions that refers to a felt sense of hostility toward topics related to climate change
Envy, Jealousy, Admiration	Envy etc. e.g., because more affluent people have more possibilities to adapt to climate change
Motivation, Urge to Act, Determination	Emotions related to a felt desire to do something good
Pleasure, Joy, Pride	Emotions that refer to pleasure and "good feelings" that pro-environmental behaviour or removal of environmental threats can engender
Hope, Optimism, Empowerment	Positive feelings about what one can accomplish and/or what may change for the better
Belonging, Togetherness, Connection	Diverse types of feelings of togetherness between humans who engage in shared action
Love, Empathy, Caring, Compassion	Various emotions of caring and warmth more generally, e.g. love for all living species, the world and/or cosmos

SOURCE: ADOPTED FROM PIHKALA, 2022

are 'closeness' and 'manageability' (Pihkala, 2022). 'Closeness' refers to similarities between the emotions. 'Manageability' was used to ensure the number of categories remained practical for analysis. While these categories encompass a wide range of climate-related emotions, Pihkala does not claim to offer a comprehensive list of all emotions identified in theoretical and empirical research on climate emotions. Some of the emotion categories include justice-related emotions, which allow us to capture feelings specifically tied to climate injustice. The other categories help identify more general climate-related emotions. Since Pihkala (2022) does not systematically define these emotions, we also drew on work of Marczak et al. (2023) to further conceptualize and distinguish between these emotions in part.

2.2 *Attention to Climate Justice and Climate (Justice) Emotions in (Higher) Education*

To provide context for our interdisciplinary study, we will first explore key insights and perspectives from research on Environmental and Sustainable Development Education (EE/ESD) and climate (justice) emotions. Kopnina (2012) distinguishes between Environmental education (EE), which focuses on teaching about and for the environment, and Sustainable Development Education (ESD), which emphasizes learning for and promoting sustainability. She highlights how the goal of ESD in higher education is primarily to develop the knowledge and skills necessary for participation in the 'green economy', as envisioned by top-down promoters of ESD such as UNESCO, the United Nations Educational, Scientific, and Cultural Organization (Kopnina, 2012, p. 2).

Scholars who criticize neoliberal climate policies including green growth (e.g., Bergman, 2024; Hickel, 2022; Jhagroe, 2023) point to the tension between ESD education and climate justice education, as green growth is still a harmful practice, in that it does not fundamentally address climate justice issues, like irresponsible mining. Despite these critiques, Dutch Higher education institutes like the UNESCO associate The Hague University of Applied Sciences (THUAS), have integrated the Sustainable Development Goals (SDGs) into its education strategy. We start with a brief overview of the reasons to address climate-related emotions in (higher) education and introduce a collection of narrative-based educational strategies which are designed to facilitate meaningful discussions about emotions linked to climate change and climate injustice. We then introduce the conceptual framework on climate emotions that informed our study.

2.2.1 Climate Justice Emotions Matter

While EE/ESD traditionally focused on teaching students about "causes, societal impacts and possible solutions to global problems and to promote critical discussions" (Ojala, 2019, p. 3), recent studies also shed light on climate

(justice) related emotions that students and (young) adults experience (e.g., Ojala, 2013; Persson et al., 2011). The fact that students report that they have these emotions and that these emotions impact their wellbeing may be sufficient reason to attend to them and promote emotional awareness in educational contexts.

Authors like Ojala (2015) and Verlie (2017) point to the (collaborative) learning potential that addressing climate emotions can offer. They highlight that climate-related emotions can inspire critical reflection on ecological challenges and foster collaborative climate action. Teaching justice issues can contribute to meaningful engagement for both educators and students and by emphasizing the importance of climate justice emotions in business education, educational professionals can "move beyond cognitive and intellectual education to let in the education of the whole person" (Khatib et al., 2013, p. 45).

Scholars also found that when approached constructively and with a sense of hope, climate emotions can guide student engagement, facilitate the exploration of diverse perspectives, and help to outline new paths for action (Ojala, 2015). Moreover, they argue that educational programs can help students deal with experiences of disruption and loss. Verlie (2019, 2022), for instance, draws on care ethics and posthumanism to highlight how the climate crisis disrupts relationships between humans and between humans and other species. She argues that educational programs can help make the resulting pain more bearable and support emotional adaptation to new circumstances. She tailors these complementary goals by outlining an affective climate education pedagogy, which she refers to as 'doing climate'. This approach involves addressing the emotional aspects of climate knowledge, managing climate-related emotions, and striving for climate transformation. She describes climatic phenomena as inherently affective: "they are energies, forces, intensities, feelings. Collectively, these principles articulate climate as 'a living phenomenon' that emerges from the interactions and relationships between all bodies: human, non-human and 'inanimate'; living, dead, ancient and yet to come". The desire for transformation, she contends, follows from 'living-with climate' and concerns preventing climate injustices and seeking to level the emotional impact of climate injustice:

> Affective transformation could enable us to more thoroughly empathise with others near, far, estranged and yet to come, as well as to draw strength and joy from our relations, empowering us to face up to, address and prevent the injustices that climate change engenders. (Verlie, 2022, pp. 6, 9)

2.2.2 Educational Strategies to Talk about Climate (Justice) Emotions

Verlie is one of the few authors who theorize about the value of storying in education for climate justice. She introduces three strategies to "identify, share, normalise, explore and respond to" the ecological distress that people may experience in formal and informal educational settings: encountering, witnessing and storying climate change as experienced by themselves and others (2022, p. 111). Verlie considers storying as an embodied, affective, and relational practice. Through storying one can become climate-changed and through storying climate change one can compose collective climate responsibilities (Verlie, 2022). Her ideas about the educational and transformative practice of storying climate collectives depart from the notion that stories are "powerful social technologies" that enable the articulation of relations between "beings, places and things" and are particularly apt to activate emotions and motivate engagement in climate change (2022, p. 91). Verlie argues that narrative practices contribute to the emergence of 'cloudy collectives' which she defines as "a moody, ephemeral, more-than-human ensemble that participated in and emerged from our changing climate" (2022, p. 93). The cloud metaphor here depicts how stories, and storying, bring together temporal and contingent assemblages of species and things, like how a cloud in the sky consists of a temporal and contingent compilation of matter.

Verlie also highlights the political dynamics that are involved in pedagogical storytelling practices, which can reinforce or challenge existing hierarchies and binaries. For instance, whether students feel comfortable and encouraged to express their views depends on various contextual factors. She argues that storytelling can also assist students and teachers in recognizing and understanding both conscious and unconscious emotions related to climate change and climate justice.

We here argue that narrative learning theory can be helpful to expand Verlie's ideas about storying as a pedagogical theory and examine student and teacher narratives about current and desired spaces to express climate emotions in the classroom and within higher education institutions. To demonstrate this, we draw on narrative education theory, particularly de Groot's distinction of four types of narrative learning (de Groot, 2018). De Groot's narrative learning framework distinguishes between individual and collective narratives of each type, thus rendering a model with eight sectors (see Table 9.2). Her distinction of four types of narrative learning, as outlined in her research on democratic citizenship education, highlights different ways in which narratives can be used as tools for learning. These four modes include: (1) Learning from narratives which involves understanding and gaining insights from existing stories, and can help students to relate to real-world experiences and civic practices;

(2) Learning in the process of narrating where learners actively create their own narratives, helping them to make sense of their experiences and develop personal or civic identities; (3) Learning by recognizing the power of personal and cultural narratives, which encourages students to identify and reflect on how stories impact their understanding of themselves and their societal roles; and finally (4) Learning by locating narratives which involves placing individual and cultural stories within broader societal, historical, and political contexts, helping learners to critically engage with the world around them. Each of these narrative learning modes offer ways to engage with complex topics like climate change and climate justice within educational settings.

Merging Verlie's concept of storying climate beyond the Anthropocene with de Groot's framework we can identify four types of narrative learning on climate emotions (see Table 9.2).

TABLE 9.2 Framework for narrative learning on climate emotions

	Stories of individual people's emotions	**Collective stories of collective emotions**
Learning from narratives/stories	Reading/listening to stories of individual person on their climate change/injustice emotions	Reading/listening/etc. to collective stories of 'shared' climate emotions on climate change/injustice
Learning in the process of narrating	(Co)constructing one's personal narrative about one's climate emotions	Engaging in the co-construction of collective (temporal, contingent) stories of 'shared' climate emotions
Learning by recognizing the power of stories	Recognizing the generative power of dominant or emerging individual stories about emotions related to climate change/injustice	Recognizing the generative power of dominant or emerging collective stories about emotions related to climate change/injustice
Learning through deconstruction of life (hi)stories	Deconstructing individual stories about emotions related to climate change/injustice	Deconstructing collective (counter)stories about emotions related to climate change/injustice

'Learning from existing stories' (type 1) involves introducing students to individual and collective narratives that highlight the disruptive, disorienting, and destabilizing impacts of climate change. Students can also be introduced

to stories from people who bore witness to the impact of climate change, e.g. loss of one's livelihood, or to stories 'told' by non-humans, e.g., through the "testimony and/ or witnesses of climate change in the rings of trees, in ice core samples" (Verlie, 2022, p. 63). In educational settings, teachers can use narrative learning strategies to guide students' exploration of the emotional impact of climate change and climate justice issues and deepen insights in this regard. Likewise, 'learning in the process of narrating' (type 2) would involve inviting students to create and share their own stories about their encounters with climate change, including experiences of change or injustice they have witnessed or live with in their daily lives. Learning by recognizing stories (type 3) resonates with Verlie's account of the power of narratives, and the importance of becoming aware of the de- and reconfiguring force of language and stories about, for example, how humans and beyond-human-species are related. 'Learning through the ongoing construction, positioning, and transformation of life history' (type 4) involves supporting students in critically examining the cultural narratives and norms that shape their understanding of climate change, climate injustice and climate emotions. This includes reflecting on how these narratives influence the encounters and witness experiences they are familiar with, as well as how these experiences are framed and situated within broader societal and epistemic contexts. Important to note is that the notion 'shared' in this framework do not imply that all participants should agree on a single narrative. Instead, it signifies how those involved in the storytelling process contribute to developing temporal and situational common languages and cultural understandings about climate change, climate justice and climate emotions.

3 Methodology

Given our focus on the experiences and stories of students and teachers, we opted for a qualitative research design guided by our key research question: "What emotions do business students and teachers experience regarding climate change and injustice?".

After approval from the University of Humanistic Studies Ethics Committee, we collected data at THUAS. Both the first and third author are THUAS researchers involved in climate change and justice education initiatives in business programs. We recruited Dutch- and English-speaking students from various full-time and part-time business programs using LinkedIn and email. As Table 9.3 shows, fifteen students from different programs participated, twelve of whom have a migration background and among them are five international students who are temporarily studying in the Netherlands. Nine

TABLE 9.3 Students' demographics

RS#	Program	Year	Age	Generation	Migration background	Gender as identified by student
1	International Business	3		1st	No	F
2	Finance & Control	3		1st	Yes	F
3	Marketing	1	19	1st	No	M
4	Business Administration	4	22	1st	Yes	F
5	International Business	4	25	2nd	Yes	F
6	Business Administration	2	21	2nd	Yes	M
7	International Business	3		2nd	Yes	F
8	HRM	3	21	1st	Yes	M
9	Marketing	3	19	2nd	Yes	M
10	Business Administration	4	22	2nd	No	M
11	Business & IT Management	4		1st	Yes	M
12	European Studies	1	20	2nd	Yes	M
13	Marketing	1	19	2nd	Yes	M
14	Marketing	1	20	1st	Yes	M
15	Marketing	2		1st	Yes	F

students were identified as male. More than half of all respondents are first-generation students.

Teachers were recruited through the THUAS Change Management research group (with which the first and third author are affiliated) and through personal outreach, resulting in ten participants (see Table 9.4).

Interviews with students and teachers were conducted via Microsoft Teams or in person at THUAS. Beforehand, participants received an information letter and consent form. Since no program at THUAS explicitly covered climate justice, student interviews began by exploring their understanding of climate change and injustice, followed by questions on students' emotional responses

TABLE 9.4 Teachers' demographics

RT#	Program	Teaching experience	Gender identified by respondent
1	HRM	>20 years	M
2	HRM	<5 years	F
3	European Studies	<5 years	F
4	International Business	<10 years	M
5	European Studies	<15 years	F
6	Business Administration	<5 years	M
7	Business IT	>20 years	M
8	Facility Management	<5 years	F
9	International Business	<10 years	F
10	Finance and Control	<10 years	M

and views on how these issues should be addressed in education. Teacher interviews focused on their emotions related to climate injustice and the role of these topics in THUAS education.

Interviews were recorded and transcribed for analysis using Atlas-ti software. During the analysis and coding process, the credibility of the collected data was ensured through Interviewee Transcript Review and member checking. First, all participants were sent the transcripts and asked for feedback and validation. Second, to ensure the quality of the transcripts and coding, the second author took a random sample for feedback and cross-checked the quality. Third, because all the data were collected, transcribed and coded by the first author, we tried to reduce the risk of bias through investigator triangulation. During the first- and third-author's research group meeting, we cross-checked the interpretation of data and the coding quality with the help of other researchers. The diversity of the research group ensured that different perspectives on the data were taken into account. We applied a mix of deductive and inductive coding. For emotion analysis, we categorized emotions based on the literature, in which we distinguished between emotions related to climate change (e.g., feelings of betrayal) and those tied to climate injustice, which emphasize unequal social impacts. We analysed commonalities and differences in emotions and included a focus on their targets, such as government, businesses, and educational institutions. Emotions were mapped across three areas: climate change, climate injustice, and climate (justice) education (see Table 9.2 in the results section). Additionally, we explored patterns and themes in the educational experiences of students and teachers.

4 Results: Emotions of Business Students and Teachers on Climate Change and Climate (In)Justice

In this section we will answer the question: what emotions do business students and teachers experience regarding climate change and injustice? We present our findings on the emotion categories, as well as the emotions that were expressed by teachers and students concerning the three key research topics: climate change, climate (in)justice, and their associated educational experiences. In the discussion section, we will use our preliminary framework for narrative learning on climate emotions to reflect on current narrative practices at THUAS, and opportunities to widen the scope of narrative education on climate emotions, both at THUAS and in business education in general.

4.1 *Emotions Categories and Student and Teacher Emotions*

Using Pihkala's (2022) categorisation of climate emotions (see Table 9.1), we created an overview of the emotion categories which we identified in our research. Table 9.5 details the specific emotions that were mentioned within each category and emphasizes the most common ones, which are in italics. Two of the thirteen categories – Hostility and Envy – were not mentioned by respondents. However, our data analysis also resulted in the creation of two new emotion categories, namely: Feeling Disconnected and Resignation.

4.2 *Student Climate Change Related Emotions*

When asked about their emotions regarding climate change, students reported a wide variety of emotions across several categories. The most common emotions expressed were from the categories of Fear, Guilt, and the two injustice-related categories: Betrayal and Anger.

The feeling of powerlessness (from the Fear category) was the most frequently mentioned, with many students expressing frustration (from the Anger category) alongside it. Most students were frustrated by their perceived inability to stop injustices, feeling they lacked the individual power to effect change. Additionally, some students described powerlessness in combination with other emotions. For instance, students described feeling powerless while simultaneously experiencing a mix of emotions such as anger, disconnection, and even hope: "Of course, I find that very annoying, and unfair, but it also makes me terribly angry. But I try not to become too emotionally involved, because I feel like I cannot do anything about it" (RS5).

Other prevailing emotions in student narratives included feelings of betrayal and disgust (from the justice-related emotions category). Although students did not explicitly use the term betrayal, several of their accounts regarding the inaction of decision-makers implied such feelings. Two main sources of

TABLE 9.5 Business students' and teachers' climate emotions

Emotions categories	**Climate emotions**	**Climate justice emotions**		**Climate (justice) education emotions**	
	Students	**Teachers**	**Students**	**Teachers**	**Students**
Amazement, Surprise, Disappointment, Confusion				*confusion, surprise*	*disappointment, surprise* confusion
*Fear, Worry, Anxiety, Powerlessness, Dread**	*powerlessness*		worry powerlessness	worry, fear, *powerlessness*	
Sadness, Grief, Yearning, Solastalgia		sadness	sadness, solastalgia	sadness	sadness
Guilt, Shame, Feeling Inadequate, Regret	*feeling inadequate*		guilt, shame, responsible	*guilt, feeling inadequate*	
Feeling Betrayed, Disillusion, Disgust (*injustice related*)	*feeling betrayed, disgust*		feeling betrayed		feeling betrayed, disgust
Anger, Rage, Frustration (*injustice related*)	anger, frustration	*anger, rage, frustration*	*anger, frustration,* outrage	*frustration*	*frustration*, anger, aversion
Motivation, Urge to Act, Determination	urge to act	*urge to act*		urge to act, motivation	
Pleasure, Joy, Pride				*pleasure*	*joy*
Hope, Optimism, Empowerment	empowerment, optimism			optimism	
Belonging, Togetherness, Connection	togetherness, connection	togetherness, connection	togetherness, connection	togetherness, belonging	
Feeling disconnected #	disconnection			disconnection	disconnection
Love, Empathy, Caring, Compassion	caring		caring, compassion	caring	caring
Resignation #	Resignation				

*Dominant categories and emotions are in italics.
novel categories.

betrayal were highlighted: corporate greenwashing and governments failing to protect vulnerable populations:

> I'm super upset because I understand that there are many people who are not compensated properly for what has happened to their houses or their family. People who barely have anything to live in or for [...]. And I just think that it's very unfair to treat people like this, especially when they expect their government to protect them (RS7).

Students also expressed several positive emotions, such as the urge to act, empowerment, optimism, togetherness, and a sense of connection. Since these emotions were mentioned by only a few students, we do not detail them individually. An exception is the emotion of 'resignation', which was described by several students as a sense of acceptance of how things are and being at peace with their own passive stance. Since Pihkala's (2022) taxonomy does not include this emotion, we created a new resignation category. Students who used this term, or whose stories reflected this emotion, mentioned finding a way to cope with climate change and their perceived inability to slow or stop it. Although they admitted to inaction, this did not necessarily mean they were disengaged. Some noted they had not personally experienced the effects of climate change, while others explained they had stopped trying to take a stance on the issue, finding action too stressful or demanding. These students expressed peace with their decision not to act anymore, which differs from the emotion of powerlessness, as the latter implies inaction but lacks a sense of acceptance. As one student stated: "I kept thinking that I was always falling short. But now I think that the world just isn't black and white, so I can also be grey. It doesn't really matter what exactly I do or think" (RS4).

Overall, students mentioned predominantly negative emotions in the context of climate change. Emotions that were mentioned most were powerlessness, frustration, and feeling betrayed and/or disgusted. Students' feelings of powerlessness and frustration were generally tied to the perception that they lacked the ability to address climate issues or make a meaningful impact as individuals. Students' feelings of betrayal and disgust were typically linked to the perceived inaction or unwillingness of governments to act against polluters, as well as cases of greenwashing by companies.

4.3 *Student and Teacher Climate Justice Related Emotions*

When discussing their emotions related to climate (in)justice, both teachers and students predominantly expressed anger, which aligns with the subject matter. As one teacher explained:

> Yes, I must take the train, and the super-rich travel back and forth in their private jets? And then I get angry too. But at that moment, I didn't want to join in that anger … So, I try to remain as neutral as possible. That's challenging for me because sometimes it's good for them [the students] to see another part of me, I think (RT2).

Students expressed frustration, particularly about the lack of climate action by those in positions of power and the resulting impact on vulnerable populations and nations, especially those in the Global South. They reflected on the injustice that the countries most affected by climate change often have the least economic and political power to address or mitigate its effects. This type of frustrations can be distinguished from the more generic climate change related frustrations reported in the precious section. Some students also reported experiencing frustrations in tandem with sadness and powerlessness. Feelings of betrayal were also prevalent among students and typically linked to the perceived inaction of governments regarding polluters and instances of greenwashing: "The government is not doing enough […] I find it frustrating. The big farmers or factories I mentioned, they get away with it. And small farmers are being punished" (RS8).

Teachers did not mention betrayal related emotions. Their justice related emotions typically matched the other justice emotion category (Anger). Feelings of sadness, solastalgia (a "place-related ecological sadness and longing", Pihkala, 2022, p. 13), guilt, shame, responsibility, outrage, togetherness, connection, caring and compassion were expressed by only a few teachers and students and are therefore not reported separately.

4.4 *Student and Teacher Climate (Justice) Education Emotions*

In the context of climate (justice) education, the emotion categories that prevailed in both teacher and student narratives were surprise emotions, anger related emotions and pleasure related emotions. In addition, teachers also commonly mentioned emotions from the Fear- and Guilt-related emotion categories. Below, we report these findings per category.

Teachers frequently mentioned that climate (justice) education surprises and confuses (Surprise-category) students. One of the teachers described how the emotion of surprise led to awareness during an assignment in which students were asked to walk around for a couple of hours and photograph the impact of litter:

> They talked about how surprised they were by the amount of litter they encountered and how they had not realized before how many cans were

> thrown on the street. To me this signals that a bit of awareness was created that day (RT7).

Teachers noted that students often expressed a sense of confusion, typically seeking straightforward answers to complex issues (e.g., What is right and wrong? What should be the next step?). Additionally, several students reported feelings of disappointment, particularly regarding the quality of climate education, such as frustration with the campus culture and its response to climate-related topics. From the Anger category, teachers typically mentioned feeling frustrated. Several teachers explained that they experience frustration when they witness students' inaction. Others referred to the university's inaction and a lack of coherence within the institution: "It is frustrating that we do not want to move quickly enough, not only at the corporate level but also at THUAS. We opt for the easy way. We move too slowly, and there is no coherence" (RT4).

Students, on the other hand, expressed frustration and criticism regarding the lack of climate (justice) education in the curriculum and concerns about its overall quality. One student specifically highlighted the superficiality of the curriculum as a significant issue:

> During the lectures, when we talked about corporate social responsibility, company X was portrayed as a positive example. And I was like: 'Could you choose a more evil company?' That was so frustrating. It felt like a traditional economics course with some sustainability slapped onto it, but it really wasn't critical at all (RS12).

Several teachers also mentioned that they witnessed student feelings of anger and aversion because the curriculum forced them to grapple with issues in class that they cannot change:

> It is too much for them. It generates a sense of despair, like 'we cannot change anything about it, so why bother?' It's a sense of despair and resignation, which then manifests into a sense of aversion: 'I do not want to hear so much about it, because it makes me sad' (RT1).

Regarding pleasure-related emotions, which were another prominent category tied to climate injustice, several teachers mentioned feeling satisfaction when teaching about climate injustice: "The moment they realize the impact – the impact of the carbon emission or the impact of their Shein (a fast fashion company) item – that makes teaching so rewarding and joyful" (RT8). Both teachers and students mentioned project work, active student engagement

and personal feedback and contact as rewarding. Among teachers, a sense of fear and powerlessness (Fear-category) was also prevalent, particularly when addressing climate justice, due to unsafe work environments: "You're on your own. Besides, it is also not always safe to speak out. For example, there is not always backup from colleagues. So, if you want to deviate, then you are literally on your own" (RT2). Teachers also expressed feelings of powerlessness in response to students' perceived civic inaction, noting behaviours such as students distancing themselves, not attending classes, not paying attention, or no longer taking civic responsibility:

> You withdraw from the world because you become too hopeless. The reflex is understandable. However, I am not sure how to prevent that. How to maintain a potential sense of responsibility for the world without them [the students] losing hope? For example, they hardly vote and have very little confidence in their ability to change the world (RT1).

Several teachers expressed that they sometimes feel climate justice is viewed by their colleagues as an inappropriate topic to include in business education: "You are allowed to discuss it [climate justice] occasionally, and when so, only on a superficial level. The unwritten rule is not to make things too complicated, because it [the task] won't be evaluated anyway" (RT10).

Teachers also mentioned that incorporating climate justice education could strain their professional relationships with colleagues. Some teachers explained that they hesitate to share their personal views or emotions about climate justice, fearing they might be seen as imposing their values on others. Similarly, several teachers noted that there are limited opportunities for open dialogue with colleagues on topics like climate justice. One teacher even commented on how rarely such discussions take place. Teachers also noted how some students and colleagues seem to regard climate education as opinionated education, as a form of indoctrination even. Several teachers expressed being worried about their ability to maintain neutrality or being perceived as overly political: "Because this is a university, not a church, sometimes you wonder: Are we going too far?" (RT9).

Several students expressed frustration over the lack of opportunities for dialogue in the classroom. One student recounted a sustainability course where they had to propose solutions, but there was no follow-up discussion to evaluate the effectiveness of those solutions. Others mentioned not engaging in conversations about climate change or justice with their peers because they were unsure if others were interested in such discussions. Instead, they tended to have these conversations outside the university, with friends and

family. Occasionally, students also highlighted the need for more dialogue and a deeper understanding of the ethical aspects of climate justice in education.

5 Discussion and Conclusions

In this concluding section, we explore the implications of our findings for climate emotions education at THUAS and offer our reflections on the broader value of our study in shaping future directions for narrative humanistic education in the context of the Anthropocene.

5.1 *Implications for Addressing Climate Emotions at THUAS*

In student and teacher narratives about climate justice, emotions related to Surprise (e.g., disappointment), Fear, and Anger (such as powerlessness and frustration) were prevalent. Additionally, Fear- and Guilt-related emotions, which were common among teachers, may offer valuable opportunities to foster intergenerational dialogue aimed at developing impactful climate education initiatives.

Our findings also indicate that incorporating climate justice into the curriculum and the broader institute environment can generate positive learning experiences. Both teachers and students mentioned Pleasure-related emotions, such as joy, in relation to their climate justice education experiences at THUAS.

It is important to recognize that while certain emotions were less frequently mentioned in student narratives, this does not diminish their significance in understanding the emotional experiences of students related to climate change and climate justice. These emotions still provide valuable insights into their emotional responses and perspectives. Feelings of Belonging (e.g., togetherness and connection), Hope and Love (positive emotion categories), but also Disconnection and Resignation, the novel emotion categories that resulted from our analysis, can provide valuable topics of reflection. Educational institutions can play a key role in helping students engage with and navigate their emotional experiences related to climate change and climate (in)justice, both individually through the curriculum and collectively by creating spaces within the institution. These spaces could focus on addressing emotions such as climate grief, resignation, or care, providing support at both the personal and communal level.

While we did not conduct a full document analysis or systematically observe THUAS business education practices that use (elements of) a narrative approach, teacher and student interviews do give an indication of which types of narrative learning for climate justice are present (to some extent) in THUAS

business education, and which elements may be interesting to introduce or expand in light of the framework for narrative learning on climate emotions that we introduced earlier in this chapter. Based on the examples of narrative learning shared by most students and teachers, it seems that learning from individual and collective stories (type 1, as depicted in Table 9.2) is prevalent in the classrooms of participants, compared to the other types. During the interviews, students mainly shared stories on emotions regarding greenwashing of so-called sustainable companies. Teachers also shared stories about their attempts to not reveal their personal emotions to maintain academically neutral and prevent indoctrination. These emotions were shared with colleagues and acquaintances outside the classroom.

The frustration over the lack of opportunities for dialogue in the classroom that several students expressed indicates that students have limited opportunities to engage in the second type of narrative learning: to co-construct their own stories on climate (in)justice and narrate about their climate emotions. In the interviews we came across one example: a student who challenged the sustainable practice of a well-known corporate company became angry and the teacher then facilitated a conversation around this. Apart from this, the examples provided by students and teachers regarding learning through the process of storying were primarily rooted in everyday life. For instance, they mentioned sharing their emotions about climate change and climate justice with friends, family, and, in the case of teachers, colleagues who share similar perspectives and feelings on these issues (Abaydi, 2023). This also suggests that there is little opportunity for students to scrutinize their own climate related emotions in class (type 4 narrative learning).

In the teacher interviews we also found two examples of the third type of narrative learning: learning to recognize the power of stories. Both examples concerned international projects where THUAS students worked together with students from other universities and partners (e.g., cacao farmers) around the globe (specific in the 'Global South'). In both projects, THUAS students were exposed to stories about the effects of climate change and unsustainable corporate practices through reports detailing the lived experiences of their peers. These stories were then used to reflect on student emotions related to climate change and climate injustice. Students were also invited to envision and co-create ways to address these injustices. The teachers from the Global South also educated the THUAS teachers about negative stereotyping and micro-aggressions in this regard. Through this, students and teachers became aware of the transformative power of narratives.

Overall, the research suggests significant potential to enhance the focus on climate emotions within business and economics education. The curriculum

could, for example, be complemented by also teaching students theories on the affective dimension of climatic phenomena (Verlie, 2022), and by guiding them in shaping and voicing the emotions that emerge when confronted with stories from underserved human- and non-human species, as explained in section 2 (narrative learning types 1 and 2). Students may also be invited to examine different stories about the role of businesses in the Anthropocene, how such collective stories are interpreted and used in economic discourses. About how such discourses impact their climate change and justice related emotions. And about how they can de- and reconstruct their own emotions via storying and reflection (narrative learning types 3 and 4). Teachers expressed an urge to further professionalize in this area: to become competent in accommodating student emotions and organizing rich educational experiences in this regard.

One of the unexpected findings was the extent to which students felt powerless against the harms done by powerful corporations (their future employers). They were also frustrated by teachers who failed to speak truth to power and offered too little classroom material, and when they did, it was often greenwashed. On the other hand, we found teachers who are afraid or cautious of speaking truth to power in class in order to stay 'neutral' and avoid 'indoctrination' of students. To what extent is this dynamic nurturing students' and teachers' powerlessness and (lack of) agency and obstructing the critical emancipatory dimension of education? Further narrative research could be helpful to understand how these dynamics unfold in class and how students and teachers perceive, and act upon it. Furthermore, it helps to better understand how this power dynamic of (not) challenging the dominant discourse contributes to the powerlessness of students and teachers and reproduces the traditional economic thinking that underpins modern higher business education.

5.2 *Implications for Narrative Humanistic Education in the Anthropocene*

Our research was primarily informed by the work of Environmental Education (EE) and Education for Sustainable Development (ESD) scholars, who have explored the implications of radical pedagogy for climate education in higher education. We may conclude that this research aligns with the critical emancipatory approach to Humanistic education, as identified by Nimrod Aloni (Aloni, 2002, see also chapter 5). This approach emphasizes the transformative role of education in both personal development and societal change, aiming to create a more just and compassionate world. In recent work, Aloni advances the concept of education grounded in eco-humanism, promoting an educational approach that integrates ecological awareness with humanistic values.

Together with colleagues he argues that eco-humanism "as a metanarrative or overarching goal for value education aiming for a good quality of life – for nature and humanity – defines the most appropriate and desirable common good for the twenty-first century" (Aloni et al., 2023, pp. 520–521). A critical emancipation-oriented eco-humanist education involves not only addressing the processes that contribute to climate destruction and climate injustice. It also offers educational opportunities that promote biodiversity and support a shared, sustainable life for all species.

A specific direction to advance humanistic education practices for climate justice, informed by our exploration of student and teacher emotions, lies in the potential of narrative and dialogical pedagogies. In the theoretical section of this paper, we introduced a provisional framework for narrative learning on climate emotions. Rationale for this endeavour was our interest in student and teacher emotions on climate (in)justice (education) as expressed implicitly or explicitly in their narratives, and our conclusion that existing scholarly work on storying and climate justice education could benefit from insights in narrative education theory. Applying the framework developed by the second author of this chapter (de Groot, 2018) in this study provides an initial impression into how integrating insights from these research fields can create impactful frameworks to advance transformation-oriented education and research.

The possibilities for further developing narrative humanistic education for climate justice are manifold. One approach that we suggest is to refine our provisional theoretical framework by incorporating insights about narrative pedagogy and counter-storying in educational settings (e.g., Goodson & Gill, 2011; Khan et al., 2023). A second direction is to broaden the scope of narrative learning beyond the emotional realm. While our chapter emphasizes narrative learning as a strategy to identify and explore emotions, it is equally valuable for facilitating guided self-reflection on perceptions of climate (in)justice and envisioning possible, probable, and desirable futures. A third direction would be to complement the framework, and humanistic education for climate justice, with insights on dialogical education (e.g., Aloni, 2011; Matusov & Marjanovic-Shane, 2016). Narrative and dialogical education approaches are very much aligned, as stories typically emerge within intrapersonal and interpersonal dialogues, and dialogues with the cultural narratives available to us (Haste & Abrahams, 2008). Although the structured use of stories and dialogues in educational settings on climate justice issues does not automatically result in transformative societal actions, we believe that our research shows that this approach can positively support eco-humanistic efforts to address climate justice and enhance the quality of climate justice-oriented business education practices.

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CHAPTER 10

Holistic Leadership in the Anthropocene

Integrating Ethics, Humanistic Education and Sustainable Governance

Patrick Nullens

1 Introduction

Rachel Carson, in her seminal work *Silent Spring*, captures the unprecedented challenge of our generation: "In this generation, we are challenged as mankind has never been challenged before to prove our maturity and our mastery, not of nature, but of ourselves" (1962, p. 21). Carson's book heralded an era of environmental consciousness, marking the beginning of an awareness of the Anthropocene, at least among some segments of the population, though regrettably not yet a majority. Today, as we grapple with the far-reaching consequences of human actions – be it climate change, resource depletion, plastic pollution, or widening social disparities stemming from ecological crises – a fundamental re-evaluation of our economic paradigms and business leadership is imperative. Amidst this transformative phase, humanistic studies offer invaluable insights, particularly in reassessing the ethical dimensions of leadership. Their emphasis on understanding humanity within broader historical, social, and ecological frameworks equips us with crucial perspectives to navigate these complex challenges.

In this upcoming economic paradigm shift, we also witness a redefinition of leadership from a focus on effectiveness, short-term profit maximization, and shareholder value to an awareness of long-term effects, planetary boundaries, and social responsibility. Values like human flourishing, environmental stewardship, care, interdependence, reverence are gaining prominence, reshaping discussions on leadership and governance. Notably, there's a growing acknowledgment of the ethical imperative in leadership, extending beyond corporate interests to encompass a sense of existential responsibility, societal well-being, and planetary health, in short sustainable performance (Steffen et al., 2019; Scharmer & Kaufer, 2013; Fry & Egel, 2021; Piwowar-Sulej & Iqbal, 2023).

In this chapter, I examine the necessity of a holistic knowledge base for ethical leadership in our transformative era. The Anthropocene epoch calls for more than a mere reconsideration of ethical leadership; it demands a profound re-evaluation of our cognitive frameworks as leaders. Firstly, to understand

the context, I outline the current paradigm shift in economics. Secondly, I discuss how this transformation necessitates a change in mindset and highlights the importance of so-called soft factors for organizational change. Thirdly, I explore how this effort requires a broadening of our perspectives on ethics, leadership, and the contribution of humanistic education. Lastly, and most importantly, I argue that an appreciation of four types of knowledge leads to a more holistic approach to educating business leaders in the context of the Anthropocene.

2 The Need for an Economic Paradigm Shift

We stand at a crossroads, poised for a paradigm shift from a classical neo-liberal economy to a sustainable one. This indicates that while certain business leaders welcome the change, others face difficulties in adapting and feel unqualified to implement it.[1] Echoing Thomas Kuhn's insights on scientific revolutions, we recognize that economic transformations, like those in other fields, often arise from crises (Kuhn, 1997; Renn, 2020). These upheavals spark the re-evaluation of established models, nurturing the emergence of innovative frameworks to tackle current challenges. Yet, we must acknowledge that while the contours of a new economic paradigm are emerging, they are still in a formative stage. Contrary to assertions advocating for a value-neutral 'scientific' stance, many economists firmly integrate ethics into the core of economic inquiry. This acknowledgment has led to the development of various normative approaches, all grounded in principles of human wellbeing and ecological sustainability.[2]

This appeal is directly relevant to the evolving context of business leadership. The current social and political pressures for change are inescapable. National and global agreements raise expectations for business practices, presenting challenges for new corporate leadership. The UN 2030 Agenda for Sustainable Development calls for profound changes to enhance global well-being, reimagine economies, and foster environmental stewardship (UN, 2020). The Paris Agreement outlines a path toward carbon neutrality by 2050, urging nations and businesses to reduce emissions and adopt proactive measures like taxing carbon-intensive activities. The European Green Deal accelerates this momentum, mandating large EU companies to disclose social and environmental impacts. The Corporate Sustainability Reporting Directive (CSRD) introduced in 2023 promotes transparency and accountability in corporate sustainability practices. Legal cases highlight the role of external interventions in mitigating neoliberal capitalism's effects, as governments enact laws to regulate activities and compel organizations to meet environmental objectives.[3]

This broader view of human flourishing within planetary boundaries reshapes our understanding of economic prosperity. Traditional metrics like GDP growth are increasingly deemed inadequate for capturing overall societal well-being. The negative environmental and social impacts resulting from relentless pursuit of GDP expansion are widely acknowledged. True success lies in fostering well-being, envisioning economies that meet human needs and capabilities while acknowledging the ecological limits of our planet (Dixson-Decleve et al., 2022).[4] Renowned economist Amartya Sen argues for a holistic approach to assessing societal progress, considering factors such as education, healthcare, political freedom, social justice, and environmental sustainability.[5]

Contemporary economic perspectives emphasize the multifaceted nature of human existence, where factors such as human flourishing, relational dynamics, the development of human capabilities, and even altruism assume greater significance (Nullens & Van Nes, 2021). This evolving relational economics calls for a broader understanding of humanity and human flourishing. As Kate Raworth eloquently puts it:

> it is time to meet ourselves all over again by taking his [Mill's] cartoon depiction out of the economic gallery and painting, in its place, a new portrait of humanity. It will turn out to be the most important portrait commissioned in the twenty-first century, mattering not just to economists but to us all. Its preparatory sketches are under way and, just as in Leonardo's workshop, many artists are collaborating in piecing them together, from psychologists, behavioral scientists and neurologists to sociologists, political scientists and, yes, economists. (Raworth, 2017, p. 82)

Fundamental questions are asked such as: what is the ultimate purpose of a company? Sen presents two contrasting perspectives: companies may aim to foster an equitable and virtuous society or prioritize profit maximization (Sen, 1993). Drawing from Sen's insights, Donaldson and Walsh argue that economic endeavours should enhance human dignity, advocating for businesses to focus on purpose, accountability, control, and business success (Donaldson & Walsh, 2015). Businesses contributing to a just society should create collective value, be accountable to all stakeholders, safeguard participants' dignity, and measure success by optimized collective value (Donaldson & Walsh, 2015).[6]

In this business transformation, we see both hesitant companies and innovative frontrunners. The number of changemakers is growing, with networks aligning with Sustainable Development Goals (SDGs) and a humane economy. Examples include B-Corp.[7] There are forward-thinking companies and

networks advocate for higher ethical standards, demonstrating dedication to positive societal and environmental impacts. All these initiatives require a new type of leadership, and accordingly a fundamental change in leadership education.

3 The Importance of Soft Factors

The much-needed economic paradigm shift is not only systemic but also fundamentally a change in awareness and culture. The path to transition requires greater attention to the significance of "soft factors" alongside tangible and measurable "hard factors" (such as CSRD reporting). Soft factors include interpersonal relationships, trust, wisdom, emotional intelligence, communication skills, empathy, meaning, and even spirituality (Fry & Nisiewicz, 2013; Scharmer & Kaufer, 2013). These factors will alter the role of leaders in business and necessitate the development of new competencies.

An example of this emphasis on soft factors is the rise of Internal Development Goals (IDGs), which are complementary to the widely adopted Sustainable Development Goals (SDGs). While SDGs provide a roadmap for addressing global challenges and promoting sustainability on a macro level, IDGs offer a complementary framework focused on personal and organizational development and transformational skills.[8] IDGs are inward-focused objectives, a transition inside-out and bottom up (Ankrah et al., 2023).[9] The five IDG dimensions – being, thinking, relating, collaborating, and acting – represent key aspects of personal growth essential for transformative leadership. Rather than elaborating each, it suffices to note their collective aim: fostering relational, humanistic development toward sustainability.

These five dimensions can be characterized as humanistic, grounded in the anthropological view of the human person as profoundly relational and meaning-making (Fromm, 1959), representing a shift from having to being (Fromm, 1976; Fitchett & Shankar, 2002), which is essential for all humanistic education. However, in this appealing model, these dimensions are simply proclaimed rather than thoroughly explored and philosophically substantiated.

Fostering a mental shift, a crucial task for leadership, can be more challenging than altering structures and systems. Changing organizational practices from the inside out is difficult due to entrenched routines. In the context of managing change within complex organizations, the concepts of sensemaking and handling equivocality play a crucial role (Weick et al., 2005). Sensemaking involves labelling and categorizing equivocal experiences to stabilize and make sense of them, transforming ambiguous situations into comprehensible

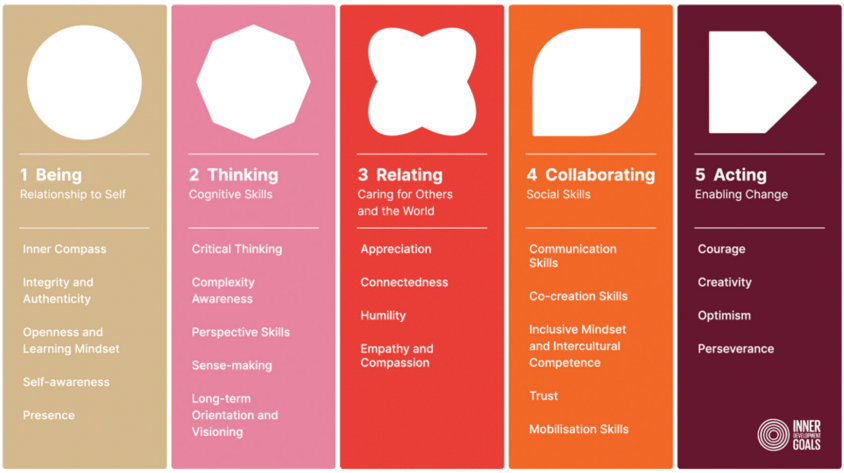

FIGURE 10.1 Framework inner development goals

ones that guide action. Initially, people face a multitude of possible interpretations; clarity emerges through active engagement, analysis, and dialogue about these interpretations. Robert J. Blomme emphasizes the importance of leaders' interpretative competence. Language and symbolism play a critical role in driving change, with leaders needing to focus on how followers interpret symbols, such as gestures and responses. The symbolic value of actions often outweighs the actions themselves, making the understanding of followers' perceptions essential (Blomme, 2012). Humanistic leadership becomes mainly a dialogical and interpretive competence within a pluralistic setting (Huijser & Nullens, 2024). This approach, while called 'soft', is crucial for managing the transitional changes we face.

4 The Growing Prominence of Ethics in Business Education

4.1 *The Challenges for Business Students*

In evaluating the quality of education, economy, and leadership, it is imperative to assess their impact on human flourishing. According to Doret de Ruyter (2018), the overall aim of education is to provide students with the knowledge, ideals, values, and skills essential for leading fulfilling lives and being able to flourish as human beings. Therefore it is deeply troubling when students find themselves trapped in an economic system that reduces them to mere producers-consumers, driven solely by superficial hedonistic pursuits.

Traditionally, business students are not known for their idealism or drive to create positive global change. Research shows they often display more selfish

tendencies compared to students in other fields, and these tendencies tend to be reinforced during their education (Ifcher, 2018). To foster a generation of business professionals committed to sustainability and ethics, it is crucial to address this mindset. While there have been efforts to shift in this direction (Jaganjac et al., 2024), current education still largely focuses on reporting, risk management, legal structures, and compliance (Wigmore-Álvarez et al., 2020).

Jelle van Baardewijk, delineates the characteristics of business students, portraying them as ambitious, task-oriented, adept problem-solvers, efficiency-focused, customer-oriented, and inclined toward cooperation and effective communication. Notably, ethical considerations often hinge on assumed personal integrity. However, what often remains deficient in their perspective is a holistic understanding of societal well-being, values, and the broader responsibilities of organizations in society. The purported value-neutrality of management and economics inadvertently steers students towards moral relativism:

> The implicit message is that students themselves should choose which model they want to believe in, for teachers only introduce the 'facts' and the different and conflicting ways one can analyse them. There is little consideration of how students can make such an ethical decision. In fact, students are poorly aware of the existing tension and disagreement about concepts of business and firms. (van Baardewijk, 2018, p. 112)

Given this limitation, humanistic studies offer a valuable perspective by challenging the supposed value neutrality of economics and its narrow ethical framing, instead highlighting it as a value-driven social science. A holistic understanding of societal well-being, values and organizational responsibilities is essential (Sayer, 2011), along with deeper insight into ethics, leadership, economics and epistemology, especially in advanced stages of professional development.

4.2 *Broadening Our View on Ethics*

The efforts to transform values, culture, motives, and systems highlight the crucial role of ethics in leadership studies. Ethics, in both its descriptive and prescriptive aspects, is a key element of humanistic and social studies (Sayer, 2011). Furthermore, ethics should be a fundamental component of all leadership training in business education and an integral part of the core curriculum (Rutherford et al., 2012; Jaganjac et al., 2024).

Referring to Paul Ricoeur's conception of ethics as "aiming at the good life with and for others in just institutions" (Ricoeur, 1992, p. 172), we are prompted to inquire about the nature of the "good life" in relation to collective flourishing.

Moreover, the notion of "just institutions" begs scrutiny, as they form the structural framework within which human aspirations and interactions unfold. Ethical leadership plays a pivotal role in guiding and shaping these institutions toward promoting the common good.

However, given the realities of the Anthropocene era, Ricoeur's definition seems outdated. While it acknowledges interhuman relationships, it neglects our critical connection with the planet, treating Earth merely as an environment in our pursuit of the good life. As Bruno Latour notes, in the Anthropocene, the boundaries between culture and nature blur; they are seamlessly intertwined. Nature is not just a backdrop but an active participant in our quest for flourishing, influencing our path towards sustainability (Latour, 2017). This shift compels us to rethink ethical leadership, requiring a broader perspective that includes our relationship with the planet and recognizes the interconnectedness of all living systems.

Expanding on Charles Taylor's terminology, the Anthropocene signifies not just a geological epoch but a profound shift in our collective consciousness and moral outlooks. Taylor's notion of the "social imaginary" gains relevance here, encapsulating shared beliefs and values guiding our actions (Taylor, 2004). In this era, as we grapple with climate change and technological advancements, it's crucial to reassess our ingrained values shaping our actions (strong evaluations). Mere pragmatic considerations (weak evaluations) fall short in addressing ecological crises. Taylor's idea of "fullness of being" urges reflection on leading meaningful lives amidst these challenges. The Anthropocene presents not just an interdisciplinary challenge but an existential one, prompting a journey of self-examination questioning our identities, values, and aspirations. A recent comprehensive literature overview confirms that ethics increasingly reflect a holistic integration of corporate responsibility, sustainability, and personal development (Jaganjac et al., 2024).[10]

4.3 *Broadening Our View on Leadership*

Since this chapter explores the integration of ethics with leadership in business within the context of the Anthropocene, we must address how we understand the social phenomenon of leadership. Leadership is often misunderstood as a display of power, dominance, and manipulation, seemingly confined to the privileged few at the summit of the hierarchy. Such representations hinder rather than foster a re-evaluation of leadership. In truth, leadership is about people working together, caring for one another, and striving towards shared goals (Yukl & Gardner, 2020). It revolves around fostering relationships, guiding processes, and shouldering responsibilities within organizations. Influencing others to understand and agree on what needs to be done is the art of

aligning shared goals. In the New Psychology of Leadership based on social identity theory, the focus shifts from the leader to the group and their shared identity. Leaders are considered 'entrepreneurs of social identity,' working not above the group but through the group (Haslam et al., 2020).

When it comes to creating a common sense of identity and purpose the humanities provide invaluable insights into grappling with the moral complexities inherent in leadership. So it is clear that one important theme in moving leadership forward is the need for multidisciplinary and interdisciplinary collaboration (Riggio, 2018). By fostering critical reflection on the ethical implications of leadership decisions and actions, a deeper appreciation for the ethical dimensions of leadership is cultivated.

Philosophical and religious awareness has historically been deeply connected to ethical reflection on leadership (Prastacos et al., 2012). This connection is particularly evident in what Karl Jaspers termed the 'Axial Age' (800-200 BCE), when major intellectual, philosophical, and religious systems emerged globally, shaping human society and culture. Traditions such as Confucianism and Taoism in China, Hinduism and Buddhism in India, monotheism in Israel, and philosophical rationalism in Greece all developed during this period. Figures like Buddha, Socrates, Zarathustra, Confucius, and the prophet Jeremiah questioned existing leadership structures, evaluating rulers against moral and religious ideals of how a leader should be (Jaspers, 2021). Leadership in a multicultural environment recognizes the valuable insights provided by non-Western perspectives, which emphasize a connection to nature and traditional wisdom (Bagini, 2018).

4.4 *Broadening Our View on Economics: Humanomics*

Initially, economics was intertwined with ethical concerns, as illustrated by Adam Smith's work. *The Wealth of Nations* (1776) should be read alongside *The Theory of Moral Sentiments* (1759), where Smith emphasizes the role of sympathy. Smith highlighted a flourishing society's dependence on virtues, including justice and benevolence, and worried about their fragility in the face of commercial society's incentives and social conditions (Graafland & Wells, 2021). After the Industrial Revolution, the moral dimension of economics gradually faded, leading to the development of a value-free form of modern economics, as demonstrated by Milton Friedman, who argued that the primary responsibility of business is to increase profits, devoid of ethical considerations (Friedman, 1970).

Reunifying ethics, humanities, and economics is crucial for our future. Historian of economics Deirdre McCloskey reconnects with Adam Smith and makes a case for moral capitalism. She complains that the current economic

paradigm often overlooks ethical implications, focusing narrowly on quantitative measures. The social and economic challenges of Western capitalism demand a shift to models incorporating ethical reasoning and humanistic insights. Humanistic education fosters empathy, critical thinking, and ethical judgment, cultivating leaders who understand both market dynamics and moral dimensions. Developing virtues such as justice, prudence, courage, love, and hope is essential for enhancing well-being in moral capitalism. Leaders versed in virtue ethics and humanities can create inclusive, adaptive environments, inspiring innovation and resilience (McCloskey, 2007). Referring to Adam Smith's broad approach, McCloskey introduces the term "humanomics", which encompasses an economics, sociology, philosophy, theology and history that acknowledge humans as meaning-makers (McCloskey, 2016).

The humanities, with their diverse array of perspectives and rich tapestry of thought, offer significant value to the study of effective leadership amidst societal change (Ciulla, 2020). However, this potential is hindered by an economic paradigm that prioritises meritocracy in our education systems. Martha Nussbaum, in her book *Not for Profit*, mourns the troubling reality of the humanities being marginalized within an educational system driven by profit motives (Nussbaum, 2012). This oppression arises from a market-driven focus that devalues the intrinsic worth of humanistic inquiry. Nussbaum shows how profit-centred education undermines critical thinking, empathy and ethics, key to responsible leadership. Prioritizing economic gain risks overlooking the need for culturally aware, empathetic leaders in a complex world.

4.5 *Broadening Our View on Knowledge: The Epistemology of Our Full Brain*

Business leaders often depend on factual knowledge, especially in finance, strategy, and operations. Yet as entrepreneurs, they also navigate uncertainty and sense emerging needs. Traditional neoliberal and management theories overemphasize data, overlooking other ways of knowing. In the Anthropocene, with its complex crises and moral uncertainties, the limits of factual knowledge become clear and demands engagement with paradox and ambiguity. One persistent misconception is the opposition between emotion and reason. As Nussbaum (2001) convincingly argues, emotions are not irrational impulses but can function as rational judgments, shaped by our deepest values and perceptions of what matters. Recognizing this invites a more humanistic and ethically grounded approach to leadership and decision-making.

To foster broader epistemic awareness among students and executives, I draw on Iain McGilchrist's theory of hemispheric differences and how we perceive reality (2019a, 2021). A former literary scholar, who later trained as a

psychiatrist, McGilchrist uniquely bridges the humanities and neuroscience. His work explores how the two hemispheres of the brain offer radically different modes of attention: the left hemisphere favours abstraction, categorization, and control, while the right hemisphere engages with the world in a more relational, embodied, and contextual manner. For McGilchrist, this distinction is not merely neurological but philosophical and existential – it reveals competing ways of being in the world. He argues that Western culture increasingly favours the left hemisphere's reductive thinking, leading to fragmented thought and a disconnection from meaning, value, and the sacred, thus fuelling the modern split between rationality and emotion, fact and value. McGilchrist's insights support a vital shift in leadership education – toward an integrative epistemology that honours both analytical precision and the capacity for holistic, value-laden judgment, essential for navigating the complexities of our time. Business students and executives often respond positively to this approach, as it resonates with their lived experience: on the one hand, working with facts, metrics, and strategy; on the other, engaging in entrepreneurial risk-taking, intuition, and navigating uncertainty in complex environments.

5 Generating Comprehensive Knowledge

To navigate our evolving social landscape and shifting value systems, leaders need a holistic approach to knowledge – one that enables them to respond to complexity with insight, integrity, and practical efficacy. Aristotle's tripartite classification of knowledge – epistēmē (theoretical), technē (technical skill), and phronesis (practical wisdom) – continues to offer a rich framework for leadership education in the Anthropocene (Flyvbjerg, 2001; Gardner, 2004, 2011; Grint, 2007; Sayer, 2011; Martin et al., 2020; Kristjánsson, 2022). I suggest extending this model with a fourth category: gnōsis, denoting transcendental or spiritual knowledge, which speaks to deeper existential and ethical dimensions of leadership.

In this broader epistemic context, I draw on McGilchrist's dual brain theory, which critiques the Western bias toward the left hemisphere's focused, analytical attention over the right's holistic, relational awareness. Though both work together, they differ in how they engage with the world. Rooted in phenomenology, McGilchrist highlights how attention shapes reality itself.

Ethical leadership in the Anthropocene thus requires cultivating a more comprehensive awareness – rooted in the right hemisphere but supported by the left – to reconnect with the complexity and sacredness of life.

5.1 *Technical Knowledge*

In leadership studies, the primary focus is on gaining technical knowledge for problem-solving and developing practical skills. The concept of technē encapsulates this craft knowledge, akin to an art form, particularly instrumental in enhancing organizational effectiveness and resolving challenges (Grint, 2007). The central inquiry revolves around the question of "how to". Indeed, the shelves of bookstores are brimming with countless volumes on the subject of "how to lead effectively".

Similarly, business education reflects this focus, fostering context-specific competencies vital for today's competitive market. These learnable behaviours align with the well-known leadership framework of technical, interpersonal, and conceptual proficiencies (Yukl & Gardner, 2020, pp. 211–221). When delving into *technē*, the emphasis gravitates toward the technical skill set, encompassing adeptness in processes, methodologies, products, markets, finances, planning, and related domains. This technical orientation remains highly prevalent in embracing sustainability as a new imperative, aligning with the evolving landscape of CSRD reporting, including non-financial performance indicators, sustainability reporting, and integrated reporting. It involves enhancing transparency through quantifiable metrics and integrating legal compliance thinking (Wigmore-Álvarez et al., 2020; Primec & Belak, 2022).

The prevailing trajectory in technical skill acquisition often places emphasis on swift outcomes and immediate returns on investment. Consequently, the educational sphere is saturated with training programs aimed at perfecting these skills, presenting a multitude of choices and avenues for development. Board members often request 'takeaways' – brief, practical strategies they can apply quickly, ideally within 20 minutes. This technical 'how to' approach is understandable, particularly given the context of working with entrepreneurs and individuals operating under intense time constraints, perpetually navigating resource scarcity, global competition, and organizations in crisis.

However, there is a significant gap if one solely focuses on technical knowledge. This approach often results in a superficial understanding that fails to instigate deeper shifts in attitudes, which are crucial for meaningful change. As Iain McGilchrist emphasizes, this practical knowledge is closely linked to our inherent inclination towards control, a tendency primarily driven by the left hemisphere of our brain's attention to the world. The left hemisphere sees the world fragmented. It is inherently inclined towards dominance and the imposition of structure onto reality, reflecting a cognitive orientation that prioritizes organization and control over ambiguity, change, relationships and nuance (McGilchrist, 2011, 2019a, 2021).

What's even more concerning about this overdependence on the left hemisphere is that it creates an illusion of certainty, shaping a false reality composed of static entities, models, and frameworks, where everything seems fixed and predictable. This rigid and fragmented perspective overlooks the intricate interplay of interconnected systems and the nuanced complexities of the human experience. A defining characteristic of left hemisphere knowledge is that it has no sense of the limits of its own understanding, "it doesn't know what it doesn't know", it operates inside a clear framework (McGilchrist, 2021, p. 1877). Additionally, the left hemisphere's mode of attention diminishes capacity for empathy, prioritizing analytical processing over emotional resonance and understanding.

This deficit in nuance, relationships, big picture thinking, empathic engagement, and appreciation for interdependence is particularly troubling in the context of ethical leadership in the Anthropocene. The core challenge of ethical leadership is to ensure that technical knowledge serves the right hemisphere's broader perspective, thus honouring nature, valuing experience, and fostering empathy. Decisions must balance intuitive, value-driven awareness with informed technical insight

5.2 *Scientific Knowledge*

Scientific knowledge, in contrast, leans toward a less pragmatic orientation, prioritizing understanding over immediate action, universality over particularity. Epistēmē creates distance and asks the question of what and why? Instead of solely addressing how tasks are to be accomplished, scientific inquiry delves into the underlying reasons behind phenomena. This type of knowledge adopts an analytical approach, aiming to grasp the facts, causes, and effects that govern a given subject. Its primary focus lies in comprehending phenomena rather than prescribing practical solutions.

Science acts as the guiding beacon, shedding light on universal truths while serving as an essential safeguard against misconceptions, superficiality, illusions, and populism. What is often critically lacking in education is a comprehensive factual exposition of climate change, biodiversity loss, the consequences of pollution, and their profound social implications (Léna et al., 2023).[11] Essentially, the concept of the Anthropocene functions as a scientific theory grounded in geology, providing valuable insights into the evolving human condition on our planet (Ellis, 2018). Indeed, we are grappling with the complexities of the Earth system – a dynamic interplay among Earth's atmosphere, lithosphere, hydrosphere, biosphere, and anthroposphere. Understanding this intricate system necessitates interdisciplinary study and informs sustainable management of Earth's resources. This evolving scientific

understanding of the Earth as a unified entity, grounded in empirical evidence, fundamentally transforms our perception and assessment of the planet's true state (Skinner & Murck, 2011; Lovejoy et al., 2017; Latour, 2017; Dessler, 2021). Business leaders should expand their economic knowledge with insights about nature and ecology. And even more, they need existential intelligence about what values are important to embrace (Gardner, 2011; Dunn et al., 2012).

First, traditional science, tends to be reductionist in approach, meticulously dissects isolated phenomena within controlled environments – a quintessential left-brain endeavour (McGilchrist, 2019a, 2021). This methodology involves extracting elements from their natural settings to derive abstract, generalized conclusions. The journey of discovery is methodical and constrained. Also drawing upon Kuhn's seminal work on scientific revolutions, McGilchrist emphasizes the pivotal role of right-brain attention in scientific endeavours. Scientific revolutions, exemplified by the advent of quantum mechanics, often stem from the dynamic interplay between right-brain explorative knowledge and left-brain scrutiny (McGilchrist, 2021, p. 829). The right hemisphere perceives phenomena within their holistic contexts, a perspective often overlooked in traditional scientific approaches. It navigates unexplored avenues, seeking to comprehend the intricacies of the world beyond the confines of reductionism.

Second, another limitation of scientific knowledge lies in its tendency to separate factual observations from value judgments. Describing how reality exists does not inherently address how it ought to be. This gap between facts and values is a common feature of scientific understanding. Within the scientific framework, there's a perception that anything not quantifiable is rendered non-existent or irrelevant. Paradoxically, the insistence on facts itself represents a value judgment – an affirmation of the importance of truth. Consequently, this fact orientation often leads to reductionism, where efforts to assess complex systems result in prioritizing what can be easily quantified over what truly matters but defies measurement (McGilchrist, 2021, p. 617).

The environmental challenge necessitates educating leaders who embrace the rigor of traditional science, the creative insights of the new economy, and the ethical and soft factors of change. Harmonizing these left and right-brain approaches is essential for navigating the complexities of the Anthropocene and charting a sustainable course forward.

5.3 *Prudential Wisdom*

The third category of knowledge, known as phronesis or prudential wisdom, is intricately linked to lived experiences and the discernment of moral goodness (Grint, 2010). Unlike epistēmē and technē, phronesis is deeply contextual,

representing a form of situated expertise dedicated to advancing the collective wellbeing. Phronesis navigates a realm of uncertainty, where causality is obscure, and in the face of this ambiguity, decisions must be made with judiciousness.[12] There is even an important element of opportunism, ethical realism and choosing the lesser evil and stitching together what is at hand.

The renaissance of virtue ethics within the realm of business has sparked a renewed focus on the significance of *phronesis* (Solomon, 1992; McCloskey, 2006; Kristjánsson, 2022). Phronesis, functioning as a metacognitive virtue encompassing discernment, deliberation, reflection, and arbitration, offers a profound response to the prevalent emphasis on instrumental technical knowledge (Akrivou & Scalzo, 2020).

In *The Wise Company*, Nonaka and Takeuchi (2019) describe how knowledge-creating firms evolve into wise companies. They highlight that businesses often prioritize explicit knowledge, overlooking the value of tacit knowledge and the social dynamics shaped by values, aspirations, and interests. The authors intriguingly juxtapose phronesis with Polanyi's notion of tacit knowledge (Polanyi & Sen, 2009), and integrate the concept of "ba", originating from Japanese philosophy, to elucidate a framework for understanding the context of creative interaction. "Ba" symbolizes a shared space where individuals converge to collaborate, exchange ideas, and foster innovative insights. Managers are urged to transcend the immediate concerns of their organizations and consider the broader trajectory of the future, ensuring that their decisions benefit both society and their companies, thereby serving a higher purpose. Drawing on insights from Nonaka and building upon his critique, Kristján Kristjánsson offers a compelling analysis that challenges the notion of an individualistic understanding of phronesis. Through a thorough examination of Aristotle's works, Kristjánsson suggests that this virtue pertains to being an effective ruler within the polis (Kristjánsson et al., 2021; Kristjánsson, 2022). In contemporary organizational contexts, reminiscent of the city-state of ancient Greece, decision-making processes unfold within teams, boardrooms, or professional networks.

Again expanding upon McGilchrist's insights, this form of knowledge engages the right hemisphere of the brain to a greater extent. Wisdom is highly context sensitive and enables individuals to perceive interconnectedness and interdependencies, fostering a deeper understanding of the intricacies of human experiences and the world around us (McGilchrist, 2019a, 2021). Wisdom is not purely an individual thing, it is based on a sense of being a part of a community, a narrative and a history. Wisdom acts as a bridge that connects us to the humanities, allowing us to draw from their rich traditions. The respect for these traditions and cultures reflects a shared phronesis, emphasizing our

interconnectedness across both time and space. We draw wisdom from the shared experiences and knowledge of our predecessors, which can offer guidance in the decisions we must make about our future. As McGilchrist aptly asserts,

> They [our wise predecessors] are acquired, honoured, and transmitted only through our participation in a community extending over time in which we are immersed, and from which we take our very identity as individuals, our distinctness, even our capacity for intelligent opposition to received wisdom – what is called a tradition. (McGilchrist, 2021, p. 933)

5.4 *Gnostic Knowledge*

The fourth type of knowledge can be referred to as "gnōsis". It is deeply rooted in transcendental understanding that surpasses temporal and contextual limitations. Gnostic knowledge remains uncommon among modern Westerners and is often perceived as incompatible with the down to earth demands of the business world and the reductionistic bias of science.[13] And yet, despite the dominant secular context, characterized by the decline in religious belief and practice, the privatisation of religion, and a growing tendency for individuals to distance themselves from traditional religious institutions and doctrines, spiritual knowledge endures. Charles Taylor argues that spirituality hasn't vanished; instead, it has undergone transformation. He introduces the concept of "expressive individualism", underscoring the importance of individual fulfilment and self-expression. This shift reflects modern spirituality's adaptability in accommodating diverse existential needs and expressions (Taylor, 2007).

In a parallel vein, sociologist Hartmut Rosa, following the Taylorian tradition, offers a poignant critique of contemporary society's pervasive addiction to consumption and production. He illuminates how our culture incessantly pursues 'more', perpetually accelerating and prioritizing efficiency and productivity above all else. This relentless cycle of consumption and production fosters a growing sense of disconnection and alienation among individuals, as they become increasingly distanced from themselves, others, and the world around them. Now we live in a mute natural world without the mystery, it is a broken relationship:

> This seems to me to be the root of modernity's fundamental anxiety with respect to the environment: not that we might lose nature as a resource, but that nature might fall mute as a sphere of resonance, an independent counterpart capable of responding to us and thus giving us some

> orientation. From the perspective of resonance theory, the muting of nature (both within us and outside of us), its reduction to something that is or can be placed at our disposal. (Rosa, 2019, p. 274)

Rosa's proposal to counteract the challenges of acceleration and alienation revolves around the concept of resonance, framed within an ecological and environmental context. Resonance goes beyond human relationships to include our connection with nature, thereby highlighting the need for harmony and mutual care. By attuning to nature, we can deepen appreciation, stewardship, and a sense of sacred responsibility for the planet's well-being. Through resonance, we move away from an anthropocentric and utilitarian perspective, fostering a deeper and more reciprocal relationship with nature.

Interest in spirituality in the workplace and spiritual leadership as a method for catalysing change in the business realm has gained some traction (Anderson & Burchell, 2021; Allen & Fry, 2023).[14] Central to this theory is the concept of a "sense of calling". Within the context of spiritual leadership, individuals are driven by a profound inner conviction or purpose that transcends mere professional ambition. This sense of calling imbues leaders with a deep-seated commitment to values such as integrity, compassion, and service, guiding their actions beyond conventional metrics of success. Through cultivating a sense of purpose and alignment with higher ideals, it seeks to inspire individuals to transcend self-interest and contribute to a greater collective vision (Fry & Nisiewicz, 2013).

According to McGilchrist (2019a, 2019b, 2021), the religious and mystical contemplation of the world predominantly engages the right hemisphere of the brain. It seems to be a biological condition for the experience of resonance. This hemisphere serves as the wellspring of our encounters with core values like beauty and sacrality. The sense of belonging and calling, and its connection to higher values is mainly an experience of the right hemisphere.

The right hemisphere is gnostic by nature, it perceives the world as a dynamic flow, where relationships and interconnectivity permeate all aspects of reality. It thrives on imagination, exhibiting a penchant for metaphorical language, poetry, and symbolic representations over rigid definitions. It is mystical and open to the experience of the sacred, a relationship of the divine. In contrast to the inward focus of the left hemisphere, the right hemisphere directs attention outward, embracing whatever unfolds in the present moment. It resists the urge to dominate or impose familiar patterns, instead remaining receptive to the diverse richness of experience. Nature is not mute anymore but speaks to our deepest being.

This deep awareness of nature communicating with humanity is a universal truth ingrained across cultures (Bagini, 2018).

One might consider the sense of the sacred as an awareness of a divine reality that transcends the natural world and is the ultimate source of life, existing beyond all material realities (McGilchrist, 2019b, 2021, pp. 1193–1304). Viewing nature as sacred and given to us can foster a profound appreciation and reverence for the environment, which in turn can steer us towards more sustainable and harmonious lifestyles. Shifting away from perceiving nature merely as a resource to exploit for human benefit, this perspective advocates for a mindset of reverence. Reverence as a virtue emerges from gnosis as a primary virtue cultivated through seeing the sacral. Understanding our limitations deeply is crucial yet often overlooked in contemporary Western societies, where competitive market dynamics and an optimistic, Promethean ethos prevail. As Paul Woodruff argues, true reverence is the overarching virtue, transcending any human-made or controllable entity (Woodruff, 2001). This reverence is now at the core of humanism in the Anthropocene. It serves as a guiding principle for leadership, encouraging stewardship with respect for the sacredness inherent in nature – something beyond our control and bestowed upon us. Recognizing nature's sacredness enables us to nurture a sense of responsibility and care for the Earth and all its inhabitants, fostering greater ecological awareness and ethical conduct.

6 Conclusion

In teaching ethics within business settings, I have often witnessed a genuine interest in a broader understanding of leadership, ethics, human well-being, and the nature of knowledge itself. Humanistic studies have a vital role to play in expanding this understanding, especially in light of the complex challenges posed by the Anthropocene. Yet, this expansion must be grounded in a bridge-building effort – integrating the rigor of factual science with a more holistic, value-sensitive approach to reality. Today, many younger people struggle with eco-anxiety, helplessness, and a deep mistrust of institutions (Hickman et al., 2021). In this context, paradigmatic shifts in leadership thinking offer not only insight but also a beacon of hope. Hope, as a form of soft power, is increasingly vital for leaders navigating transition and shaping a just and sustainable economy (Scharmer, 2013; Nullens, 2018). The integration of four types of knowledge – epistēmē, technē, phronesis, and gnōsis – along with the balanced engagement of both brain hemispheres, provides a compelling framework for

this task. McGilchrist's insight – that the right hemisphere must lead with the left in support – underscores the importance of wisdom, humility, and a reverence for life. Educating leaders to embody this integrative, dialogical mindset – rooted in science, prudence, and the sacred – can offer the kind of grounded hope our society so urgently needs. It is in this convergence of knowledge, ethics, and meaning that we may yet cultivate a world that serves as a true home for all living beings.

Notes

1 An annual international survey confirms that major societal issues are insufficiently addressed in boardrooms. Around 70% of executive and non-executive directors are aware of the increased external social and ethical pressures and the need for long-term value creation. However, only 30% feel competent to tackle this task. The 2023 survey based on 879 respondents across 45 countries and 19 sectors (Heidrick & Struggles, 2023).

2 To name a few: capabilities approach (Sen, 1991, 1999; Nussbaum & Sen, 1993), doughnut economics (Raworth, 2017), degrowth economics (Fitzpatrick et al., 2022), economics for the common good (Felber, 2012), the 'purpose economy' (Klomp & Oosterwaal, 2020), Humanistic Management (Pirson, 2017), Captitalism or the Common Good (Balkenende & Buijs, 2024) and postgrowth economics (Jackson, 2017).

3 For example, in the "Mileudefensie" case against Royal Dutch Shell, the court ordered Shell to reduce CO2 emissions by 45% by 2030, holding it accountable for future impacts was based on societal and scientific consensus on climate change.

4 See Earth4All and the wellbeing index. https://earth4all.life

5 Sen's expansive economic outlook has influenced the development of the broader Human Development Index, which is implemented by the United Nations Development Program (UNDP) In its comprehensive report particular emphasis is dedicated to the Anthropocene epoch (UNDP Report, 2020).

6 Some large companies, like Bosch and Carlsberg, are transitioning from the traditional shareholder structure to steward-ownership, emphasizing long-term thinking, stakeholder value creation, and a mission-focused approach (Sanders, 2022).

7 For instance B-Corp, about 8000 companies in more than 96 countries. https://www.bcorporation.net/en-us/

8 https://innerdevelopmentgoals.org

9 The IDG movement undoubtedly possesses a strong activist drive and is a recent enterprise. Research on its effects is still scarce (Ankrah et al., 2023). A toolbox for education purposes has been developed. https://transitionmakers.nl

10 Unfortunately, this broad bibliometric analysis also confirms the continued dominance of Western and especially Anglo-Saxon perspectives in this academic field.

11 For instance, reports published by the Intergovernmental Panel on Climate Change (IPCC) offer a wealth of scientific insights into the current state of our planet's climate.

12 It is also related to the alternative term for wisdom *sophia*. According to Aristotle, sophia is more akin to overall academic intelligence. While sophia may empower an individual to grasp general cause-and-effect principles, it is *phronesis* that empowers them to take action for the common good (Grint, 2007).

13 Here, I primarily employ 'gnōsis' as a mystical concept related to connection with the transcendent, that which surpasses our language and understanding, encompassing the divine, the sacred, inspiring awe and reverence.

14 Spirituality, as employed in this discourse, encompasses a broad spectrum of practices and beliefs, including those rooted in organized religions. It encompasses inner-life practices, mindfulness, prayer, the quest for meaning, adherence to higher values, inner transformation, the sense of calling, and expressions of gratitude. In this expansive understanding, it resonates with ideas found within the six major religions: Judaism, Christianity, Islam, Hinduism, Buddhism, and Taoism (Allen & Fry, 2023).

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CHAPTER 11

Enhancing Community Resilience in the Anthropocene

Three Network Perspectives

Deanne Boisvert and Carolina Suransky

1 Introduction

This chapter explores the concept and enactment of community resilience in the Anthropocene by examining three distinct ecologically oriented communities.[1] As networks, they differ in structure, cultural context and ideology but share a commitment to confront anthropogenic disruptions and strengthen their abilities to adapt, learn and endure.

The Anthropocene, a term which was coined to signify a new geological epoch shaped by human activity, marks a profound shift in the relationship between humanity and the planet. Ecological crises have prompted innovative and community-rooted responses. Resilience has become a central conceptual tool in many of these efforts. Definitions of resilience vary across disciplines, but generally refer to the capacity of ecological, social, and socio-ecological systems to absorb shocks, reorganize and continue to function. This chapter builds on an extended grounded theory study that aims to understand how resilience is interpreted and enacted by three grassroots networks that each in their own ways operate at the intersection of ecological and social systems.[2] However, before turning to these cases, we will outline the conceptual framework that underpins this study and introduce its methodological choices.

2 Conceptual Framework: Rethinking Resilience in the Anthropocene

The Anthropocene has become an influential conceptual framework to understand the scale and complexity of anthropogenic environmental change. Originally proposed by Crutzen and Stoermer (2000) to denote a "quantitative shift in the relationship between humans and the global environment", the term emphasizes that human activities "now rival the great forces of nature" (Steffen et al., 2011, p. 843). While the Sub-commission on Quaternary Stratigraphy

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(SQS) rejected its formal recognition in 2024, the Anthropocene has acquired broad discursive and metaphorical power across disciplines. Zalasiewicz et al. (2008) characterize it as a "vivid yet informal metaphor for global environmental change" (p. 7), and Allen et al. (2008) frame it as a boundary concept that fosters cross-disciplinary dialogue and enables us to envision alternative futures. The 2022 IPCC report confirms that climate risks have become more complex and systemic, due to the interplay of multiple climate and non-climate factors across scales and sectors (IPCC, 2022).

Within this context, the concept of resilience gained prominence as a key response to ecological and social disruptions. Yet, despite its widespread use, resilience also remains an inherently ambiguous and contested term. There is no general consensus on its definition either within or across disciplinary boundaries (Béné et al., 2014; Weichselgartner & Kelman, 2014). The concept was notably advanced by Holling (1973), who distinguished between system resilience and system stability in ecological systems theory. He critiqued conventional management strategies that prioritize equilibrium and predictability and argued instead for a model that emphasizes the capacity of systems to absorb shocks, reorganize and persist. This insight catalysed a broader shift in resilience thinking, from an engineering approach focused on efficiency and control, to an ecological and, eventually, socio-ecological paradigm that emphasizes adaptation, learning, and transformation (Cretney, 2014; Desjardins et al., 2015; Folke, 2006; Walker & Cooper, 2011). These developments informed the formation of the Resilience Alliance in the 1990s and the establishment of the Stockholm Resilience Centre in 2007, which helped to institutionalize socio-ecological resilience as a global research agenda (Carpenter & Peterson, 2019; Beijer Institute of Ecological Economics, n.d.).

In the social sciences, resilience thinking evolved to address human systems and communities. Adger (2000) defined social resilience as the capacity of groups or communities to cope with external disturbances, while Folke (2006) proposed a socio-ecological approach to resilience as a "way of thinking" that emphasizes dynamic adaptation and renewal. Norris et al. (2008) conceptualized community resilience as a networked process of capacities that enable recovery and continued functioning after disruption. Ross (2017) advocated a pluralist approach to resilience by integrating ecological, infrastructural and psychosocial insights, warning that disciplinary silos would hinder cross-framework exchanges. Similarly, Kais and Islam (2016) noted that resilience has become a preferred lens through which communities address environmental disasters and climate-related risks. For Kuecker and Hall (2011), the urgency of systemic failures underscores the need for proactive strategies to enhance community resilience.

Beyond its ecological and social dimensions, resilience has also been taken up within the humanities and humanistic studies, where scholars have

underscored its ethical, existential, and cultural implications. Anthropogenic crises, according to Hulme (2014), confront us with fundamental questions of human purpose and moral responsibility when he questions: "What is the good life, and what constitutes an adequate response to climate change?" (p. 309). Holm et al. (2015) and Palsson et al. (2013) similarly advocate for the integration of humanities perspectives in understanding the deep ontological and epistemological challenges of the Anthropocene. UNESCO's (2010) call for a "New Humanism" reflects this broader orientation and promotes holistic, anticipatory and ethically grounded responses to environmental change, particularly in relation to vulnerable populations and their interdependence with ecological systems. Taken together, these diverse strands underscore that resilience is not a singular or universally applicable framework, but rather a multifaceted and evolving paradigm. This chapter draws on these conceptual developments to examine how community resilience in the Anthropocene is understood, enacted and transformed in specific socio-cultural and political contexts. By foregrounding humanistic inquiry alongside ecological and social science perspectives, we seek to illuminate how communities respond not only to material vulnerabilities but also to moral, narrative and identity-based dimensions of living in times of planetary crisis.

3 Researching Community Resilience: A Grounded, Situated and Poetic Lens

The three community networks under investigation are: (1) *Transition Network*, which represents grassroots localization and sustainability initiatives; (2) *Dark Mountain Project*, which provides a literary and existential critique of dominant socio-ecological discourses that challenge the assumptions of progress and control that underpins modernity. In contrast, (3) *Alaska Federation of Natives* articulates a deeply relational and place-based model of Indigenous resilience, grounded in land, kinship and sovereignty. In these different contexts, all marked by ecological disruption and systemic uncertainty, we chose a combined approach of constructivist grounded theory and situational analysis to examine how these communities understand and enact resilience. We explored two central research questions: (1) *How do these networks understand and implement socio-ecological resilience?* (2) *How do they enhance their capacity to learn and adapt*?

Constructivist grounded theory (Charmaz, 2014), an interpretive adaptation of the classic grounded theory methodology as developed by Glaser and Strauss (1967), guided the iterative collection and coding of interview data. Rather than beginning with a predefined theoretical framework, grounded theory enables theoretical insights to emerge inductively from the data through

a process of constant comparison. To complement this approach, situational analysis (Clarke et al., 2018), also an adaptation of classic grounded theory, was employed to map the broader discursive, structural and relational fields in which the networks operate. This included the analysis of network-produced written materials such as manifestos, books, websites, and organizational documents. Situational analysis enabled us to move beyond individual narratives and highlight how participants' practices and positions are embedded in wider socio-ecological and epistemic contexts.

The empirical data consisted of twenty-five in-depth interviews with members of the three selected networks. Following the approach of Saldaña (2016, 2018), the study incorporates poetic display of the data to better convey the lived experiences and affective textures of resilience work. In-vivo excerpts were selected not merely for its thematic content, but for their emotional resonance and narrative depth, something that Saldaña calls organic poetry. The selections are embedded throughout this chapter to amplify the participants' voices and illuminate how they navigate existential and practical challenges of the Anthropocene.

Several strategies were employed to ensure trustworthiness and rigour. Triangulation was achieved through the integration of interview and textual data. Throughout the research process, reflexivity was maintained through analytical memo writing and critical reflection on the primary researcher's positionality The researcher also maintained a methodological logbook throughout the study and followed iterative data analysis processes for interview and textual data. Participants received drafts of findings for comment.

4 Case One: The Transition Network

"I lost my job.

A lot of time to think. I read everything about peak oil, fossil fuels.

One day, I found Transition Town.
The least bad idea.

Transition Town was local, bringing people together.
Doing something small
Building up confidence
Increasing capacity for change.

I started it.
Locally".

Transition Member, Community Group & Former Hub Member, Interview #3 - Netherlands

In 2006, Rob Hopkins and Naresh Giangrande founded Transition Town Totnes in the market town of Totnes in southwest England (Hopkins, 2013). The concept of the 'transition town' originated from a permaculture course that Hopkins taught in Ireland, where the final project required students to "design a community-led response to Peak Oil" (Henfrey et al., 2017, p. 11). With this concept, they aimed to create sustainable, self-reliant local economies while fostering stronger social connections and community cohesion. In *Resilience, Community Action, and Societal Transformation*, Henfrey et al. (2017) described the Transition Network as "one of many grassroots, resilience-building responses" that emerged "over the last few decades in response to sustainability challenges and the perceived inadequacy of government action" (p. 6). Similarly, Hopkins et al. (2016) stated that Transition seeks to address "big challenges at the local level, creating solutions while fostering a culture of care focused on connection with self, others, and nature" (p. 8). To achieve these goals, Transition groups strive to find "better ways of living" based on reliable information and collective intelligence, implemented with compassion and realized through practical, local projects (Transition Network, 2024c, para. 1). Network members embody these values, often summarized as "head, heart, and hands", through guiding principles, including respecting resource limits, building resilience, participating in a learning network, and sharing power and ideas (Transition Network, 2024c, para. 1). Since its founding, the Transition movement grew from a single initiative in Totnes, UK, to a global network of approximately 1,098 initiatives across 48 countries, spanning every continent except Antarctica (Transition Network, 2022a).

"Resilience – one of the first words I learned when I joined.
'Resilience' everywhere.

Everything we do
We do with resilience in mind.
Our organization is built in a resilient way.

For example,
The free market every month.
A beautiful moment of exchange
Different communities coming together.

The same place, same hour.
They don't need us.
Resilience of activity".

Transition Member, Urban Neighbourhood Group, Interview #4 - Belgium

4.1 *Understanding and Enacting Resilience – Transition*

From its inception, Transition embraced the concept of resilience and linked it to ideas of localization and community. However, as Henfrey and Giangrande (2017) noted, the meaning and interpretation of resilience was "neither fixed nor consistent", but rather evolved over time to fit the assumptions of members as it spread through the global network (p. 87). An analysis of interviews with network members and written materials reveals a Transition narrative of community resilience that aligns with Henfrey and Giangrande's observations. While Transitioners spoke of community resilience, their interpretations and approaches proved to be flexible and varied. However, one consistent theme was the transdisciplinary nature of views on community resilience and the diverse ways to foster it. This trans-disciplinarity was evident in the various streams of resilience thinking that converged, or sometimes diverged, to shape a localised understanding of community resilience. For example, local groups adapted ideas like diversity and feedback systems from ecological resilience and integrated them into their activities, such as permaculture forest gardens. Drawing from organizational resilience, members organized "Transition Trainings" on topics such as organizational behaviour, fundraising, communication, effective group processes, and partnership-building. Transitioners also adopted concepts from community (socio-ecological) resilience, including building social capital and examining power dynamics. Moreover, from the outset, the network incorporated elements of personal resilience theory, establishing Inner Transition to support members who face psychological challenges associated with their Transition work or the emotional impacts of confronting the Anthropocene.

4.2 *Strengthening Capacity to Learn and Adapt – Transition*

"Connecting with people.

Thinking of the Earth. How we treat each other.

The Transition Movement, they look at everything.
Our being on Earth: past, future, now.
Animals, plants, nature.
Also, the social, the local.

They combine everything.
Makes sense for my values.

I am now arranging elders
to help youngsters.

About the situation the Earth is in.
I like to help
Find others
That can support youngsters.
In feeling courage to do what they can do

Inspire what is important for them".

Transition Member, Community Group, Hub Member Interview #8 - Denmark

To build capacity at local, regional, and global levels, Transitioners share resources, best practices, and experiences. Communities within the Transition network learn from one another, leveraging collective strengths to address challenges. Simard's (2022) mycorrhizal fungi network offers a useful metaphor for how Transition strengthens its capacity to learn and adapt by transmitting information, resources and support to help new groups thrive, much like the fungal networks in North American forests. Similar to Simard's "mother trees", Transition's national and regional hubs aid established Transition groups by providing resources such as training, advocacy with governments and businesses, and fostering the growth of eco-focused small businesses and services in Transition areas (Hopkins & Lipman, 2009). At the centre of this network

structure, the "mother tree" is Transition Network Ltd. (UK-based international Transition), which performs higher-level coordination, promotes synergies among national groups, supports policy development and manages strategic planning for the entire network, plus holding the network's "source code". Like nutrients shared through mycorrhizal networks, the Transition movement also shares inspiring stories and innovative actions from across its system, aimed to nourish new initiatives and revitalise established groups. Examples include Belgium's Le Festival Maintenant and the 'Inspiring Enterprises' section on the Transition Network website (Festival Maintenant, 2021; Transition Network, 2024b). A key difference between the Transition network and Simard's mycorrhizal fungi networks is the reciprocal flow of resources throughout Transition. New local initiatives, or ''seedlings", are encouraged to share their stories, knowledge, and innovative practices with the more established "mature trees" and even its "mother trees" (regional or national hubs and the international Transition organization). This dynamic exchange nourishes activities and projects and strengthens the capacity of individuals, communities and the entire network in areas with a Transition presence and beyond.

5 Case Two: The Dark Mountain Project

"Well, we're not Transition.
We're not encouraging people to start local.

I wouldn't be surprised if people become interested in that sort of thing as a result of Dark Mountain.
I've certainly moved to a more resilient community [LAUGHS].

It was a literary movement
Not something you expect to result in festivals.
People becoming friends
Remaining friends.

It's got an organicity that allows it to keep changing
Evolving
Becoming something new.

It ticks a lot of boxes
It's art
It's creativity.

Embodied

Experiential".

Dark Mountain Steerer & Past Editor Interview # 10 – Wales, United Kingdom

Frame and Craddock-Henry (2023) describe the United Kingdom-based Dark Mountain Project (DMP) as "a highly distinctive imaginary with a quite different vision" (p. 530). DMP fosters creative responses to global crises by transforming cultural narratives to reflect the realities of a world undergoing profound changes. It is a literary and cultural network composed of writers, thinkers, artists, and others who challenge conventional responses to ecological crises, including climate change (Adams, 2014; Cassegård & Thörn, 2018). DMP began in 2008 as a six-month conversation between Dougald Hine and Paul Kingsnorth, initially conducted via e-mail and later in "the corners of pubs". This dialogue eventually grew into a "cultural movement [...] centred on the Dark Mountain journal, sustained by a growing collective of collaborators and contributors, as well as the support of thousands of readers around the world" (Dark Mountain Project, 2024a, para. 1). At the outset, Hine and Kingsnorth were writers and deeply engaged environmental activists who became disillusioned with mainstream environmentalism and the "state of literature and the cultural landscape" (Dark Mountain Project, 2014, p. x). Their discussions culminated in the publication of a manifesto in 2009, titled *Uncivilisation: The Dark Mountain Manifesto*. Uncivilisation draws on various Anglo-sphere thinkers but is especially shaped by 20th-century Californian poet Robinson Jeffers, whose evolving philosophy of 'inhumanism' critiqued human destructiveness and emphasized the intrinsic value and interconnectedness of all life (Dark Mountain Project, 2014). For Hine and Kingsnorth, Jeffers's philosophy encapsulated DMP's ambition to shift the "emphasis and significance from man to 'notman'; a rejection of human solipsism and recognition of the transhuman magnificence" (Dark Mountain Project, 2014, p. 24).

5.1 *Understanding and Enacting Resilience – Dark Mountain Project*

"Something nice about having the books
Packed
Where beans
Lentils
Pulses
Are packed.

They're doing 'growing resilience'

We're doing 'existential resilience'

Existential resilience.
Mental, philosophical, artistic groundwork

To do the world the honour of taking notice of it.

It's funny.
[*'resilience' is*]

Actually, a word we don't use much in Dark Mountain".

Dark Mountain Editor, Steerer, & Publisher Interview #11 – England, United Kingdom

Unlike Transition, DMP asserts no ambitions to cultivate resilience, community or otherwise. Indeed, one person observed that the network does not speak often about resilience. Despite this, in interviews, members conveyed perspectives on community resilience akin to views expressed by Transitioners. However, DMP members also voiced unique insights on resilience, such as the concept of *"existential resilience"* raised by one member (see above poetic). He shared a story from a DMP book by an American writer, which pondered the resilience of a wealthy, hostile outsider building a fortified compound in a rural community versus the resilience of the locals with lifelong, supportive relationships. The member felt it showed different views of resilience, noting some drawn to DMP, especially men, may have a survivalist, "macho" view of self-sufficiency (like the hostile outsider). However, he felt this survivalist "you against the world" resilience did not reflect the kind of resilience expressed by network members.

Two members discussed personal resilience, offering views different from those of Transition. One saw resilience as an internal practice tied to how we think about others; noting that hating people for harmful actions, like cutting down trees, only feeds hostility and harms personal resilience. Another spoke of "mental health resilience", suggesting that openly discussing ecocide and humanity's crises improves mental well-being, a dynamic he called the "Dark Mountain paradox", where confronting harsh realities leads to feeling happier

and more optimistic. This member also discussed "infrastructure resilience", citing David Korowiscz's work on the fragility of modern systems. He gave the example of health services relying on a nuclear plant needing water to cool, with the water system dependent on a "widget" from a newly invaded country. He concluded that resilience means keeping daily essentials running, noting most people don't consider where their tap water comes from. A third member linked community resilience to time, questioning whether long-standing, fossil fuel–dependent communities reflect true resilience or just "short-term resilience".

Enacting socio-ecological resilience is not an objective of the network. Unlike a typical manifesto, DMP's *Uncivilisation* doesn't offer concrete plans or prescriptions, nor does it answer the common question: "What should we do?" (Dark Mountain Project, 2014). However, DMP fosters resilience by preparing people for an uncertain future, proclaiming to promote honesty and realism over unwarranted optimism or utopian ideals. It openly acknowledges the potential for collapse, upheaval and loss. One member described DMP as a refuge for those in despair over what's happening to the planet, saying it's "a place where you accept, 'okay, this is happening'. It's not about fixing it, but about being with it, and not being alone". By offering a welcoming space for those struggling with ecological and other anthropogenic crises, DMP helps to nurture community resilience.

5.2 *Strengthening Capacity to Learn and Adapt – The Dark Mountain Project*

"Tyson Yunkaporter says
'We don't live in a culture.
We live in an economy.'

If you don't fit into that economy, you have no value.
What do you do?

I have no value in this economy.
But I have value on the planet.

I have value through Dark Mountain.
Dark Mountain gives a frame
If you're creative, you have value.

We've reflected each other's value.
We're affirming our value.
That's resilient".

Dark Mountain Editor, Steerer, & Publisher Interview #13 – England, United Kingdom

DMP's network strengthens its capacity to adapt and learn through its organizational structure and activities. Additionally, encounters with unconventional thinkers, writers and artists foster learning throughout the network. In fact, members encouraged the primary researcher to explore the work of thinkers, including adrienne maree brown, Martin Shaw, Bayo Akomolafe, Terry Tempest Williams, and Tyson Yunkaporter, among others. As one member poetically expressed, "It's got an organicity that allows it to keep changing, evolving, becoming something new".

DMP is organised around three small core groups, or "collectives", led by long-term members, each responsible for operations, publishing, and long-term direction (Dark Mountain Project, 2024b). Beyond these core collectives, the wider network includes readers, subscribers, contributors, collaborators and supporters, who are seen as the project's main purpose. One frequent collaborator noted that working with DMP's "excellent people" has been transformative and described the experience as a "real education". At its core, DMP is a creative project, centred on publishing. After its 2009 manifesto, the network released *Dark Mountain* (2010), a collection of stories, essays, and art from thinkers like Jay Griffiths, David Abram, and John Michael Greer. Fourteen years later, *Dark Mountain: Issue 25* (2024c) focused on land and land rights, featuring a more global array of voices, including contributors from Cameroon, Palestine, Singapore, Indonesia and the Democratic Republic of Congo.

In 2017 and 2018, DMP founders Paul Kingsnorth and Dougald Hine stepped back as leaders. Despite their departure, the network did not collapse, but absorbed the shock, adapted and continued to thrive. The core collectives also organize events open to the broader network and the public, which strengthen DMP by expanding collaborations and outreach. Over the years, DMP partnered with Schumacher College (UK) to offer short courses and hosts retreats, creative residencies, book launches, lectures, talks, and workshops. In its early years, DMP organized large gatherings such as the Uncivilisation Festival, but learned that such events strained its operational capacity. Importantly, DMP meticulously maintains its website, which it considers "the main route through which [its] work meets the world" (Dark Mountain Project, 2024b).

"I'm not a joiner.
But
I looked at the website.
Saw an event called 'Carrying the Fire'.

It looked so beautiful.
I wanted to be in the middle of that
In the wilds of Scotland.

After I'd booked, a friend passed.
His funeral [was] the day after. Nearby.

I was carrying the fire.
Then straight to this funeral, which was beautiful and wonderful.
I stayed with Dark Mountain".

Dark Mountain Contributor & Collaborator Interview #15 – England, United Kingdom

6 Case Three: The Alaska Federation of Natives

"My mother was an Athabascan "beader".

She would go to AFN to sell her arts and crafts.

She did glass beads with moose hide. Would make earrings.

She was a respected elder.

Her bead work was very high quality.

She would always go.

Every October".

Native Alaskan Leader & Executive, Tribal Health Consortium Interview #21– Southcentral Alaska

The Alaska Federation of Natives (AFN) unites a diverse group of federally recognized Tribes, Alaska Native village corporations, regional corporations and regional nonprofit and Tribal consortiums. AFN is a non-profit organization dedicated to collectively represent the interests of Native Alaskans across the state. Founded in 1966 "in response to the imminent threat of lost lands" (Alaska Federation of Natives, 2024, para. 5), AFN has played a central role in advocating for the rights of Indigenous Alaskans.

To understand AFN's perspectives on resilience and response to anthropogenic challenges, it is essential to examine the historical, geographical, political and legal circumstances that shaped the organisation and the lives of Indigenous Alaskans. First, it is important to recognize that Indigenous Alaskans are not a monolithic group. They come from distinct communities and diverse landscapes, each with unique climates. Native Alaskans are spread across a vast region and represent peoples with "different languages, customs, and traditional and cultural practices" (Katchen & Ostrovsky, 2022, pp. 9–10). These groups include the Eyak, Tlingit, Haida, and Tsimshian Peoples of Southeast Alaska; the Yup'ik, Cup'ik, and Inupiaq of western and northern Alaska; the Unangax̂ and Alutiiq of the Aleutian Islands and Alaska Peninsula; and the Athabascan Peoples of the Interior (Alaska Native Heritage Centre, 2024; Katchen & Ostrovsky, 2022). Despite differences in climate, geography, language and cultural practices, Indigenous Alaskans share important commonalities. One of the most significant is a subsistence-based economy, rooted in the traditional harvesting of land and water resources such as fish, game, seaweed, and berries (McBeath & Morehouse, 1980).

"[the] Alaska Federation of Natives talks about

Living that rural, subsistence lifestyle

Living an Indigenous lifestyle.

That you can
Live in a small village
Access your traditional foods.

Protecting the sovereignty of Tribal members.
That's important".

Native Alaskan Leader, Tribal Corporation, Interview #22– Southeast Alaska

AFN highlights that Native Alaskans have lived in the region for thousands of years (AFN, 2024a). A 2013 U.S. government report confirms that "Alaska has the longest history of human habitation in the Americas" (Sandberg et al., 2013). Indigenous peoples lived in Alaska long before European contact. However, by the 16th century, Russian merchants sought furs, and in 1741, a Russian expedition reached Alaska, beginning over 100 years of Russian control over Native lands and resources (Katchen & Ostrovsky, 2022). This ended in 1867 when the U.S. purchased Alaska, but its immensity and remoteness delayed addressing U.S.-Indigenous relations (Worl & Kendall-Miller, 2018).

In his landmark paper, *What Rights to Land Have the Alaska Natives?* (1966), William Iġġiaġruk Hensley noted that from the start of American rule, Native land rights were left uncertain and Indigenous Alaskans' citizenship was in a "highly confused state", lacking the protections granted to non-Natives. Hensley remarked that after the 1867 'purchase' many Alaskan Natives were likely unaware their citizenship was contested as their status shifted from "Russian" to "American". Although Congress passed laws to protect Aboriginal land and resource rights, none addressed the extent of tribal status or land claims (Worl & Kendall-Miller, 2018). Alaska Native tribes asserted land claims as early as 1867, but these went largely unrecognized and unresolved (Berardi, 2005). In 1959, Alaska was officially proclaimed the 49th state of the United States. With statehood, the new Alaskan government claimed lands around Native villages, exacerbating tensions over how these land "selections" would impact Indigenous life (Berardi, 2005; Worl & Kendall-Miller, 2018). In a 2014 keynote address, Hensley recalled,

> I realized that if we let the Secretary sign the interim conveyances for their selections, we [were] never going to see that land again, ever. All we could hope for was a few cents an acre. That … turned me into an activist. (Hensley, 2014, p. 174)

After statehood, Native communities across Alaska formed regional and community organizations. In 1966, Emil Notti, president of the Cook Inlet Native Association, called for a statewide meeting, leading to the creation of the Alaska Federation of Natives (AFN) to advocate for Indigenous land claims (AFN, 2024a). That same year, amid conflicts over Native land claims and Alaska's future, U.S. Interior Secretary Stewart Udall froze land transfers to the state (Haycox, 2020). The discovery of oil at Prudhoe Bay in 1968 accelerated the urgency to resolve land claims. After years of negotiations, the Alaska Native Claims Settlement Act (ANCSA) was passed in 1971, marking a historic moment in U.S. Indian policy (ANCSA Regional Association, n.d.). As of 2024, AFN

represents "209 federally recognized tribes, 185 village corporations, 9 regional corporations, and 10 regional nonprofit and Tribal consortiums," governed by a 38-member board (Alaska Federation of Natives, 2024a, para. 1). Each October, AFN continues to bring together thousands of Native Alaskans and others from across the region to discuss critical government and public policy issues and to "share stories of resilience, experiences, strengths, knowledge, and hope for the future" (Alaska Federation of Natives, 2024b, para. 3).

6.1 *Understanding and Enacting Resilience – The Alaska Federation of Natives*

Researcher: Any other thoughts on community resilience that you think important?

"Spirit.
The spirit.

When people come together, one common goal, the passion that they have in them.

Spirit.
The energy".

Native Alaskan Elder and Tribal Government Leader, Interview #19– Southeast Alaska

In its 2018 *Alaska Native Community Resilience* report, AFN director Julie Kitka noted that while there's no single Indigenous definition of resilience, it often ties to identity, land and history (Kitka, 2018). All interviewees linked resilience to at least one of these, with some referencing all three. For instance, a Native leader connected resilience to traditional practices like food harvesting and living on the land, which also fostered language revival and cultural identity. A non-Native professor emphasised the value of integrating Western, local, and Indigenous knowledge. Thereby highlighting the role of Indigenous wisdom in addressing negative impacts on ecological and social systems. The AFN report, however, framed resilience primarily in terms of the economic well-being of Indigenous communities. It also acknowledged the significant ecological stressors that face Alaska Native communities, such as climate change, extractive resource development, Arctic shipping, and geopolitical challenges

(Kitka, 2018). Interviewees' views on community resilience aligned with these concerns. Two Native leaders emphasised the importance of local economic resilience, while others, Native and non-Native, stressed the need for climate change adaptation. A Native health executive highlighted the loss of Yukon River fishing, forcing communities to adapt for survival. A tribal resource director noted that resilience requires adaptation, especially with climate change. In addition to an economic focus, Kitka (2018) and interviewees recognized adaptation, tradition, ancestry, and Indigenous knowledge as key factors in community resilience. The Bering Sea Alliance exemplifies this, uniting villages to protect subsistence, natural resources, and local economies (Kitka, 2018).

Thus, AFN's understanding of socio-ecological resilience encompasses the capacity of Alaska Native communities to withstand and adapt to a wide range of challenges, including ecological changes, socio-economic disparities, cultural preservation and political disputes. Given the diversity of the communities within its network, AFN expresses resilience in different local ways but emphasizes the importance of "sound resource management" and "Indigenous innovation" as reflected in both commercial and social outcomes (Kitka, 2018, pp. 4, 9). Moreover, Native communities and tribal entities in the AFN network enact resilience by experimenting with practices that stimulate ecosystem adaptations, regenerate Indigenous culture, and integrate Indigenous, local, and Western knowledge systems. These efforts co-produce strategies to mitigate anthropogenic disturbances and sustain an Alaskan way of life.

"We've had to adapt to survive:
Environmental Impacts.
Changes
Glacial movement
Floods Fires Epidemics
Contact.
You name it.
We survived.
An inundation of catastrophe.

When scientists do research,
They rarely ask the Indigenous People.

They want this other proof – geological, physics
They don't believe
The spoken word of the Indigenous People.

Every time I heard the phrase, 'Who really discovered America'?
'Was it the Vikings? 'The Chinese?'
I'd raise my hand, Say, 'We did'.

Now they're listening.
Now they're proving what we said all along.
They're going 'Oh'. 'Okay'. 'Yeah'. 'Now I believe it'".

Native Alaskan Tribal & Community Leader Interview #20– Southeast Alaska

6.2 *Strengthening Capacity to Learn and Adapt – The Alaska Federation of Natives*

"We're on the front edge [*of*] *Tribes doing monitoring.*
Our subsistence harvesters are out in the environment all the time.

Subsistence is big for us.

Subsistence is probably going to be the one part of Native culture

Significantly
Impacted through climate change".

Resource Director, Tribal Government, Interview #23– Southeast Alaska

Arguably, AFN's most visible strategy to strengthen its capacity to learn and adapt is its annual convention. Every October, thousands of AFN delegates and participants from member organizations gather for a three-day event to address critical public policy and governance issues. The convention is open to the public and live-streamed through various platforms (Alaska Federation of Natives, 2024b). As part of the convention, AFN hosts an exhibit fair where member organizations, non-profits, agencies, schools, and politicians showcase initiatives and connect with Native communities across Alaska (Alaska Federation of Natives, 2024). A key feature is the two-day cultural event *Quyana Alaska*, part of the convention since 1982, which has helped Native

communities revive, share and pass down traditional dances, sparking a cultural renewal across rural Alaska (Alaska Federation of Natives, 2024b).

Many Alaska Native communities are on the front lines of ecological changes, including climate change. They face severe impacts such as landslides, coastal erosion, permafrost thaw and shortages of fish and other traditional foods. In this volatile context, AFN strives to balance its responses by protecting Native lands, resources and cultures while also addressing the economic needs of its communities. This balancing act includes collaborative efforts with federal, state, and local government agencies, environmental organizations and other partners to secure funding for infrastructure and related projects. AFN also provides workshops, webinars, and expertise on large-scale initiatives aimed to strengthen Indigenous education and address critical challenges, such as the decline in fish stocks (Alaska Federation of Natives, 2024a).

7 Enhancing Resilience in the Anthropocene: Three Network Perspectives

"If we feel Powerless

We need to Recover agency.

Transition is about Finding Agency.

Finding traction in an Action.

See something Grow.

Back to your opening enquiry. Where does it come from?

Getting people Away from a Helpless Feeling.

Do a Small Thing

Feel Better".

Former Manager, Transition Initiative at Urban University, Interview #9–Scotland, UK

In the final section, we return to our research questions and discuss how the different communities understand and enact socio-ecological resilience and how they strengthen their capacity to learn and adapt in the face of anthropogenic disruptions.

7.1 *Understanding Socio-Ecological Resilience*

As illustrated in the cases, Transition, DMP, and AFN share a common understanding of socio-ecological resilience. Each acknowledges and values the interconnectedness and interdependence between humans and other life forms, while recognizing the reality of anthropogenic disruptions to these relationships. For example, Transition addresses ecological challenges at a local level by fostering solutions and cultivating a culture that cares for both nature and people (Hopkins et al., 2016). The *Uncivilisation* manifesto of DMP thoughtfully contemplates "ecological unravelling" and invites people to reconnect with "the non-human world" (Dark Mountain Project, 2014). Similarly, AFN passed resolutions which advocate for Alaska Native voices to be included on state and federal natural resource governance boards, recognizing their unique knowledge of the ecosystems they live in and steward (Alaska Federation of Natives, 2024c).

Both Transition and AFN emphasize 'community resilience' as a central aim, with each drawing on transdisciplinary perspectives. Transition incorporates various streams of resilience, including ecological, organisational, personal, economic, and community resilience. AFN, in addition to these, incorporates Indigenous resilience that integrates concepts of Indigenous identity, land and history. Although DMP distances itself from the term 'resilience,' members offer insights on the concept by referring to "existential resilience" and "mental health resilience" through authentic conversations about ecological collapse. Each network highlights the importance of human creativity to enable communities to adapt to disruptions, find strength, comfort and experience beauty in the face of despair and uncertainty.

7.2 *Enacting Socio-Ecological Resilience*

> *"The Books are the Heart: a Rhythm.*
>
> *Other things:*
> *Festivals.*
> *Workshops.*
> *Talks – By people who weren't writing.*

Dark Mountain was a pull – a Magnetism.

the Manifesto came out.

I remember how divisive,

Influential it was.

Was [it] Giving Up?

Powerful!
A grenade into the Environmental Movement.

... It gave people Like Me

Who had this sense of Unease

About this idea that we can just

Swap every gadget of Modernity

With some Low Carbon gadget and Expect It All to Work."

Dark Mountain Collaborator & Past Editor Interview # 17 – Ireland, Germany

Transition and AFN promote socio-ecological resilience by prioritising community economic well-being. Transition does so through local economic models and social enterprises, while AFN advocates for political and economic support, focusing on job growth and workforce development. Both also emphasise preserving and revitalising local food systems. AFN-affiliated communities organize seasonal harvests of traditional foods, using Indigenous knowledge of local ecosystems. For instance, they harvest herring eggs on hemlock branches to share with elders. Transition groups engage in local food projects; in 2023, DMP explored global and local food systems in *Dark Kitchen*, a creative collection of regenerative food stories told through art, poetry, recipes, and conversations (Dark Mountain, 2023a).

Land, water and biodiversity protection and restoration play a critical role in AFN and Transition's approaches to resilience. AFN prioritizes the retention and protection of Native-owned lands and advocates for the legal rights

of rural Alaskans to access traditional foods such as fish and wildlife (Alaska Federation of Natives, 2023). In DMP's 2024 book *The Living Land: Issue 25*, land and biodiversity take centre stage, highlighting the aliveness and fragility of "the ground beneath our feet" through words and art that help to navigate shifting terrain (Dark Mountain, 2024c, p. 3).

Fostering and maintaining social ties is another significant strategy to enhance socio-ecological resilience. AFN's annual convention brings thousands of attendees together to reconnect or form new relationships. Transition fosters social ties through its Inner Transition program and by sharing Transition stories throughout its network. DMP strengthens social bonds through its collectives, events and books, such as *Eight Fires: Issue 24*, which features collaborative practices, testimony and tools (Dark Mountain, 2023b).

7.3 *Enhancing Network and Community Capacity through Learning and Adapting*

All three communities enhance capacity in their networks by promoting learning and adaptation. They all engage in participatory projects that integrate various epistemic traditions, including Indigenous, local, traditional and Western knowledge systems. For example, AFN sponsored a ten-year initiative with federal and state agencies to integrate Indigenous knowledge into formal education systems, which led to more Native students pursuing higher education in science, math, and engineering.

Creating spaces for knowledge sharing and collaboration is central to each network. DMP's website serves as its primary platform for engagement, while Transition operates like a mycorrhizal fungi network, spreading knowledge and stories across its hubs and initiatives. Transition, DMP and AFN all use social media, publications, workshops, gatherings and partnerships to exchange expertise and resources. In addition, each community offers education and training programs to advance knowledge and skills to strengthen resilience, regeneration and sustainability. Transition groups provide permaculture design courses, while AFN-affiliated Tribal groups organise cultural camps on traditional food harvesting. DMP offers courses, workshops and residencies, such as the 2023 *Dark Ocean* sailing residency, which examine regenerative practices in response to the imperilled state of the world's oceans (Dark Mountain, 2024d). Finally, organising intergenerational exchanges is another key learning practice to enhance network and community capacity. These exchanges pass down cultural and ecological knowledge to younger generations and prepare them to face unprecedented social and environmental changes that lie ahead.

"Climate instability.
We're experiencing it.

Community resilience is figuring out what you do about it.

When the Landslide happened.

We looked around.

Realized everybody was feeling anxious about the rain.
Afraid of the rain.
Afraid of the land.
Afraid to be in the mountains.

We gathered people.
Geoscientists who wanted to help.
Tell us what we need to know about landslides.
What scientific questions can you answer to make our community less anxious?

'What kind of risk are you willing to live with?'"

Community Leader & Executive Director Science & Education Center, Interview #18– Southeast Alaska

8 Implications for Future Research and Practices

A comparative analysis of Transition, DMP, and AFN reveals that community resilience in the Anthropocene is deeply cultural, ethical, and relational. Each network highlights how communities actively shape resilience by redefining what it means to live well amid uncertainty and change. This study calls on scholars, practitioners, and policymakers to embrace resilience as plural, situated and evolving. Transition cultivates resilience through localized, transdisciplinary practices grounded in mutual care and shared governance. DMP emphasizes cultural and existential responses that decentre human control, making space for grief, creativity and philosophical inquiry. AFN illustrates how Indigenous knowledge, sovereignty and land stewardship are essential to cultural and ecological regeneration.

Together, these networks demonstrate that resilience is strengthened through epistemic diversity and knowledge co-creation, challenging dominant paradigms via permaculture, aesthetic subversion and Indigenous socio-ecological wisdom. Supporting such practices requires institutional openness to alternative ways of knowing and being, especially those marginalized by colonial and extractivist systems. This research reframes resilience as a matter of justice, meaning, and interdependence beyond mere survival or stability. It makes four key contributions:

1. Resilience is relational: rooted in connections with land, ancestors, community, and more-than-human life.
2. Resilience requires creativity: artistic and embodied practices sustain hope and adaptive capacity.
3. Networks matter: trans-local collaboration and mutual support foster organic resilience.
4. Epistemic plurality enhances resilience: inclusive responses emerge when diverse knowledge systems are valued.

Future research can explore how these insights inform policy, education and organizational designs. Practitioners can draw on these insights to nurture communities that are not only adaptive, but also ethically and imaginatively engaged with their environments.

Notes

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2 This chapter is based on research by Deanne Boisvert, PhD researcher at the University of Humanistic Studies in the Netherlands. The research is supervised by Carolina Suransky.

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CHAPTER 12

Concluding Reflections

Humanistic Education in the Anthropocene

Carolina Suransky and Doret de Ruyter

1 The Anthropocene as a Call for Humanistic Renewal

As we reach the conclusion of this collective endeavour, it is fitting to return to the central question that runs through this volume: how can humanistic education provide a transformative response to the challenges of the Anthropocene? This volume has brought together a group of scholars who collectively explored how humanistic education can be meaningful and transformative in an era of great uncertainty about the future of planetary life. Rather than declaring humanism obsolete or irredeemably anthropocentric, the authors argue for a critical rearticulation of humanism-inspired education. They point to a renewed humanism that is reflexive, relational and ecologically attuned – a humanism that is aware of its historical entanglements, open to plural worldviews and responsive to the interdependence of all life forms. The authors also note that the Anthropocene exposes the destructive capacities of human agency, but simultaneously see that humans also have the potential to change and to divert the current path of global destruction. For this they propose that we rethink and reclaim human responsibility, ethical commitment and pedagogical imagination. This final chapter synthesizes the major insights which are offered in the book. It identifies recurring themes and also maps the main tensions that emerge from the discussions. It ends with a brief outline of possible trajectories for renewed humanistic educational practices.

2 Core Themes across the Chapters

Across the diverse contributions in this volume, several core themes emerge that together outline a renewed vision for humanistic education in the Anthropocene. These themes reflect a shared commitment to reimagine education that meets the challenges of our time. We identified three key themes that recur across the chapters: (1) relationality and human responsibility, (2) ecological consciousness and holistic education, and (3) plural humanisms. The

chapter by van Rees offers a distinctive historical contribution that intersects with all three themes. His analysis of fifty years of Dutch educational policy on nature and environmental education reveals both shifts and continuities in how ecological and humanistic concerns have been framed in formal curricula in the Netherlands. By tracing shifting paradigms of human responsibility for environmental degradation alongside evolving aims and pedagogies of environmental education, van Rees sheds light on the institutional and ideological forces that shape the changing landscape of education.

2.1 *Theme One: Relationality and Human Responsibility*

This theme begins with an ontological premise that all authors defend, namely that humans are inherently relational beings. More specifically on the topic of this book: the authors maintain that human beings stand in an interdependent relationship with people around the globe, with non-human sentient beings, the natural environment and the climate. This ontological premise has implications for the way in which human responsibility is being conceived: not only as an individual moral demand, but also as a relational and context-sensitive response to shared vulnerability. This in turn has consequences for humanistic education.

De Ruyter sets the tone by expanding her conception of human flourishing to include *ecological mindfulness*, and so emphasizes that flourishing cannot be pursued in abstraction from our interdependence with nature and future generations. Her reframed notion of 'flourishing' exemplifies a relational humanism that accounts for the fragility and interconnectedness of life. Following this, she suggests that ecological mindfulness is one of the core human responsibilities in the Anthropocene, as responsibility for a healthy state of the natural environment contributes to the possibility that all human beings flourish. Hebbink and Schinkel suggest that gratitude not only has the potential to enhance flourishing, but may also influence how we approach the ontological-ethical question of what it means to be and flourish as a human being. They argue that existential gratitude should be fostered, because it can sensitize us to our vulnerability in being dependent on particular life-conditions of the Earth and deepen our relationships with the natural world and support our moral responsibility to care for the world.

Suransky and Manschot draw on Latour's critique of modernity and his Gaia hypothesis and claim that all education, but humanistic education in particular, must overcome Enlightenment dualisms and embrace a relational ontology. Furthermore, the educational ethic needed in this age should embrace not only humans but all forms of life. This asks for a fundamental reorientation of humanistic education from abstract moral reasoning to embodied and context-aware practices of attentiveness. The call for relational reorientation is

echoed in Bodegraven's conversation with Aloni, who advocates for a renewed humanism which is grounded in empathy, moral discernment and solidarity. Aloni conceptualizes human formation as a continuous, relational process that is shaped by engagement with others and the world. This perspective highlights the importance of emotionally intelligent and socially committed educators who can cultivate relational awareness and moral sensitivity in their students. He critiques ideological banality and ethical nihilism in education and urges educators to become "vulnerable role models" who connect intellectual and emotional learning to empower students to respond humanely to injustice. Boisvert and Suransky also foreground relationality by pointing to the importance of community resilience, and propose that education must equip learners to respond adaptively to cascading crises through solidarity, mutual care, and co-responsibility.

Miglani advocates for a de-centred view of agency that challenges dominant power structures in digital education. Responsibility, she contends, must involve humility, attentiveness and care to navigate complex ecological-technological entanglements. She therefore critiques the extractivist logic of EdTech, whereby these systems extract data, attention, and value from learners and educators, often for commercial gain or surveillance, without reciprocal benefit or concern for educational integrity. Sanderse explores the formation of human responsibility in the context of character education by investigating the suitability of habituating virtues such as humility, courage and care. He argues that even in the face of urgent environmental crises, this slow formative process remains a suitable method. He therefore invites educators to reflect on how practices of habituation might be reoriented to meet the ethical demands of the Anthropocene.

Finally, from a leadership perspective, Nullens calls for values-driven leadership that integrates ethical reflection, ecological responsibility and inner development. He advocates for a shift from dominance to care, stewardship and interdependence. Leadership in the Anthropocene, he argues, must be dialogical and oriented toward planetary co-flourishing. His emphasis on interconnectedness and moral imagination signals a spiritually grounded and ecologically responsive humanism fit for the Anthropocene.

Together, the authors' contributions in this theme articulate a shift toward a relational ethic of responsibility, one that is grounded in empathy, interdependence and collective care in response to the fragile conditions of life on Earth and Earth itself.

2.2 *Theme Two: Ecological Consciousness and Holistic Education*

The second major theme in this volume explores how education in the Anthropocene must foster ecological consciousness through experiential, embodied

and relational forms of learning. Contributors argue that addressing today's ecological and existential crises requires not only a shift in *what* we teach, but also *how* we teach and engage learners in situated experiences of interdependence.

De Ruyter's ecological mindfulness, foregrounds that human flourishing must include sustained attentiveness to our interdependence with the natural world. Education, she argues, must help learners to integrate this awareness into their moral, emotional and cognitive development, and so reshape the very idea of what it means to live a good life. Aloni adds that ecological consciousness must be linked to a broader project of humanization. For him, care for the Earth is inseparable from care for others and the development of critical consciousness. Education, he insists, must empower learners to recognize structural injustice, which includes ecological harm, and respond with transformative action. Comparably, Hebbink and Schinkel critique the Western "metaphysics of mastery", which treats nature as a resource to control. Their proposal to cultivate existential gratitude, which is a receptive, poetic relationship with the world, is a way to shift learners from consumption to care and co-flourishing. This transformation demands us to move beyond instrumental reason toward affective and experiential engagement with the Earth. Equally, Suransky and Manschot argue for a shift from human exceptionalism to an entangled sense of interdependence within the broader web of life. With this, they emphasize the notion of *geopathy* as a pedagogical tool that fosters sensitivity to the Earth's agency, which can be enhanced through art, narratives and cartography. They also promote experiential learning through embodiment, affect and encounters with modes of engagement that reconnect learners with the broader web of life. And Miglani draws upon a Science and Technology Studies perspective to call for a planetary pedagogy that decentralizes human and technological agency and urges humility and critical reflection on our digital-ecological entanglements.

Boisvert and Suransky show that ecological consciousness must be grounded in historical awareness, emotional honesty, and relational practices of attunement across difference and scale. They explore how community-based resilience can be enhanced through place-based learning that engages memory, land and collective identity. Schreurs and Suárez Müller turn to literature as a pedagogical force that develops ecological imagination and ethical receptivity. Literature, they argue, fosters *Bildung* by shaping how learners interpret and inhabit a world of uncertainty and interdependence. Their analysis of Rushdie's *The Ground Beneath Her Feet* exemplifies how narrative art can foster receptivity and dialogue which are essential skills for ethical living in disrupted ecologies.

Finally, the emotional dimensions of ecological awareness are explored by Abaydi, van Uden and de Groot. In their empirical study of students'

climate-related emotions, they show that emotions like powerlessness and anger should be interpreted as ethical reactions to systemic harm. Rather than pathologizing feelings like fear or anger, they propose affective, narrative-based pedagogies that help learners to process these emotions as ethical responses and build collective narratives of care and resilience.

Together, the chapters that stand out in this theme, call for a humanistic reorientation of education towards greater holism, a shift from abstraction to lived experience, from mastery to care and from individualism to ecological embeddedness.

2.3 *Theme Three: Plural Humanisms and Humanistic Education*

This theme explores how humanistic education needs to evolve to meet the plural, contested and ecologically entangled realities of the Anthropocene. Rather than abandoning humanism, the contributors reimagine it as not only relational and ecologically aware, but also epistemically diverse. Various authors in this volume suggest that humanism and humanistic education should be open to critique and alternative ways of knowing the world, in order to become more capable to inspire meaningful transformation. Hebbink and Schinkel critique the neoliberal turn in education, where market logic has displaced ethical and ecological concerns. Learning, in their view, must be politically engaged and grounded in relational practices. Suransky and Manschot argue that humanistic education must decentre the human and shift from individual empowerment to planetary consciousness by cultivating awareness of interdependence and care for all forms of life. They also stress the importance of decolonial critique, as they point to the erasure of indigenous and non-Western ecological knowledge systems in dominant curricula. Schreurs and Suárez Müller critique colonial epistemologies too and call for attention for Indigenous and non-Western knowledges within humanistic education. Through literary analysis, they show how narratives can function as tools of resistance and reimagine the human in more plural, situated ways.

Neha Miglani's emphasis on the plurality of knowledge systems, perspectives and dialogic forms, reinforces the importance of creating spaces for deep reflection and meaning-making as well as dialogue through philosophical inquiry. Such education can support learners as they navigate uncertainty and complexity in times of crisis. For Aloni, plural humanism entails drawing on diverse traditions; from classical and romantic humanism to existentialist and critical-emancipatory strands, and mobilizing them to resist both ethical nihilism and technocratic reductionism.

Together, the authors in this theme propose a renewed humanism that is plural. Rather than enforcing universality, they envision humanistic education

as a dynamic practice that embraces multiplicity. This involves rethinking humanism beyond Eurocentric frameworks and making space for plural epistemologies.

3 Key Tensions for Humanistic Education in the Anthropocene

In addition to recurring themes, we also found that the authors identify similar tensions and so reveal some of the key conceptual and practical dilemmas which humanistic educators must confront in the Anthropocene. These tensions are not perceived as contradictions which must be resolved, but rather as enduring challenges that require careful navigation. Together, they reflect the complexity of rethinking education in an era that is marked by ecological instability, epistemic plurality and moral urgency. What emerges is a need for educational frameworks that can hold these tensions both creatively and ethically in order to reimagine what it means to be human, how to sustain hope amid crises and how to act locally while thinking globally.

3.1 *Tension One: Anthropocentrism Versus Renewed Humanism*

One of the central tensions that runs through the volume is how to maintain a commitment to human agency and humanistic education while taking seriously the critiques of anthropocentrism. Latour's provocation that the Anthropocene "brings the human back with a vengeance" can serve as a point of departure. Several authors wrestle with how to avoid centring the human as master and instead foreground the human as a relational being who is embedded in the wider ecologies of life. The challenge, then, is not to abandon the human, but to rethink what it means to be human. Related to this is the question of whether the natural environment, or the Earth itself, has agency. While no author denies that the Earth has intrinsic value, they differ on whether the Earth or other non-sentient beings can be considered as agents in their own right. The chapters suggest various ways to navigate these questions.

Both de Ruyter and Sanderse argue that care and virtue offer essential pathways to rethink human agency. De Ruyter emphasizes that educational mindfulness not only involves rational awareness, but also affective, dispositional attentiveness to human impact on the natural world. Sanderse defends the continued relevance of *habituation* in education. He maintains that cultivating virtues can help individuals to live meaningfully within planetary limits. Both authors thus respond to the critique of anthropocentrism not by rejecting human agency, but by reorienting it, reframed as the capacity to act with humility, restraint, and attentiveness toward the natural world.

A different perspective is offered by Suransky and Manschot, who draw on the concept of *Gaia* to challenge the modernist split between nature and culture and to rethink humanistic education. They reject human exceptionalism and advocate for a shift from human autonomy and mastery toward relationality, co-existence and planetary consciousness. Rooted in Latour's notion of *geopathy* they see the Earth as an active co-participant in shaping human life.

Both Miglani and Abaydi et al. respond to anthropocentrism by underscoring the importance of epistemic humility and dialogical learning. Miglani shows how EdTech infrastructures reshape dominant assumptions about knowledge, learning and progress. She argues that the techno-solutionist approaches in education obscure the messiness and situatedness of knowledge and thus reinforce an anthropocentric illusion of control. In contrast, she calls for educational practices that are reflexive, relational and open to non-linear, emergent understandings of human-planetary entanglements. Similarly, Abaydi et al. stress that humanistic education must attend to climate emotions not as private disturbances, but as collective invitations to reframe knowledge and responsibility. They propose pedagogies that allow students and educators to share and contextualize their experiences in ways that foster connections rather than disconnections. Central to their approach is the cultivation of human agency redefined as participation in a vulnerable and interdependent world that calls for careful and dialogical responses.

Finally, Nullens reframes ethical leadership through the lens of ecological embeddedness. He urges us to move beyond technocratic control toward relational and affective ways of knowing and calls for the integration of scientific, ethical, spiritual and practical knowledge to address complex ecological realities. This shift recognizes the Earth as a dynamic interlocutor in human quests for meaning and flourishing. For Nullens, ecological embeddedness is a moral imperative which guides how we respond to planetary crises.

3.2 *Tension Two: Hope, Despair and Pedagogies of Uncertainty*

Another recurring tension is how to sustain or even justify hope in the face of environmental collapse. This question becomes particularly acute in educational contexts where educators must walk a difficult line: they are tasked with informing learners about the gravity of the ecological crises without increasing denial, paralysis or despair. The risk to overwhelm learners with catastrophic knowledge must be balanced against the danger of cultivating false reassurance or naïve optimism. This requires pedagogies that prepare learners to confront complexity, endure uncertainty and remain ethically responsive. Abaydi et al. show in their empirical research that both teachers and students indeed have (strong) positive and negative emotions. They argue that both should be acknowledged in education.

Moreover, the tension requires education that is grounded in both realism and possibility by helping learners to see that even within constraint and precarity, there are openings for ethical action, solidarity and flourishing. Miglani, for instance, critiques the dominant techno-solutionist logic in EdTech which obscures socio-ecological complexity. Instead, she calls for pedagogies that embrace uncertainty, emotional depth and ethical reflection. Here, hope is not a promise of technical solutions, but rather a practice of staying with complexity and imagining alternative futures together.

Humanistic pedagogies of uncertainty, then, must cultivate the emotional and intellectual resilience to hold space for grief, anger and doubt, while also nurturing the capacities for care, agency and renewal. This takes time, as Sanderse argues in relation to the habituation of virtues. However, Sanderse suggests that "even when habituation comes too late to prevent catastrophes from happening, it may still be a suitable method for moral education in the Anthropocene, because it helps us to live within this era".

Nullens emphasizes the need for leadership education to cultivate a deeper form of hope in the Anthropocene, hope that is grounded in *prudential wisdom* and *existential responsibility*. He calls for pedagogies that integrate technical knowledge with emotional, ethical, and spiritual insight. Drawing on thinkers like McGilchrist and Ricoeur, he advocates for epistemologies that value both analytical reasoning and relational, embodied knowing. Against dominant models that prioritize control and certainty, Nullens envisions humanistic education as a space to make sense of disorientation, to foster humility, reverence and ethical imagination. Boisvert and Suransky also insist that hope must be reframed: not as utopian assurance or shallow positivity, but rather as a disciplined, critical and situated stance. In their view, educational hope is not about escaping crises but about facing it with courage, realism and moral imagination. They argue that this asks for creativity, as exemplified for instance by the Dark Mountain Project. This creative project helps participants to confront ecological collapse, an approach that resonates with Latour's emphasis on imaginative and material engagement, as described by Suransky and Manschot as they discuss the *Exhibition* and the *Atelier*.

3.3 *Tension Three: Global Crises and Situated Responses*

A third tension relates to scale. The Anthropocene is global, but its effects are felt locally and unevenly. The volume's contributors agree that humanistic education must navigate this complexity of scale and prepare learners to understand planetary systems with all its differences and injustices. Hebbink and Schinkel emphasize that the "metaphysics of mastery" has created a dominant relation to the world characterized by control, abstraction, and exploitation. They argue that responding to the Anthropocene demands a reorientation of how people

perceive and relate to the world. In this context, existential gratitude can help learners to re-situate themselves in their own local environment. This reorientation can occur through situated educational encounters that foster attentiveness and wonder – qualities often lost in large-scale, system-focused sustainability frameworks. Suransky and Manschot address this tension by foregrounding the need to move from abstract universalism to *situated planetary consciousness*. They argue that humanistic education must shift to a sensitivity to local entanglements and describe various practices that challenge the dichotomy between the global and the local and encourage learners to reflect on their embeddedness in planetary systems through locally grounded, transdisciplinary learning. Sanderse adds an important dimension to this discussion by reintroducing the value of *slow moral habituation* as a situated practice. While acknowledging the urgency of global ecological breakdown, he contends that forming virtuous habits through place-based and relational learning remains essential, particularly in childhood education. Though habituation may not be fast enough to avert planetary tipping points, it can ground learners in sustainable ways of being within their specific communities. In this way, Sanderse's account complements other contributors' emphasis on local engagement by highlighting how character formation and ethical learning are themselves deeply situated and culturally mediated processes. Boisvert and Suransky discuss how these insights are enacted in diverse grassroots networks, each working to strengthen community resilience in response to global ecological disruption. Their three cases of different types of networks demonstrate how local initiatives draw on shared ecological concerns but adapt them to specific cultural and historical contexts. Their research supports a pedagogical approach that is locally rooted yet globally informed and capable of fostering situated responses through experiential, relational, and creative practices.

Together, the authors who address this third tension suggest that humanistic education in the Anthropocene must engage both the global and the local by cultivating planetary responsibility while simultaneously grounding learning in embodied, place-based and culturally resonant practices. Such approaches would invite learners to locate themselves, ethically, affectively, and ecologically, in a threatened, but a living world in which changes are possible.

4 Conclusion: Humanism as Inspiration for Critical Educational Practices

To educate humanistically in the Anthropocene is to engage learners to become more aware, more connected and more capable of collective action. It means

that they need to learn to face the world as it currently is, that is fractured, threatened, unequal, but yet affirm that education can still cultivate the courage to imagine and enact a more just and flourishing future. This book affirms that humanistic education, far from being obsolete, is needed now more than ever, but only if it is willing and able to transform. The Anthropocene does not merely mark an environmental crisis; it signals a crisis of meaning, ethics and pedagogy. The authors offer diverse but converging pathways to renew humanism as inspiration for critical, decolonial and ecological educational practices.

In light of the contributions and tensions that have been explored in the book, we propose the following orienting propositions to inspire renewed humanistic educational practices:

1. *Rethink the human* as a relational, vulnerable and responsible being whose flourishing depends on care for and of others and the Earth.
2. *Embrace critical pluralism* by engaging diverse epistemologies and worldviews through dialogue, rather than assuming universal truths. But be equally firm on maintaining the moral standards that are needed for such a dialogue.
3. *Centre ecological consciousness* in curriculum, educational practices and institutional cultures, by making sustainability a normative and existential concern.
4. *Foster resilient communities* by teaching ethical and political skills that enable learners to act collectively in times of uncertainty.
5. *Cultivate transformative hope* as a disciplined practice of ethical imagination and political agency, not as naïve optimism, but as a realistic response that sustains the capacity to act.
6. *Resist neoliberal reductionism* in education by reasserting the ethical and ecological purposes of learning.
7. *Value experiential and place-based learning* that roots education in embodied, local and ecological engagements, while fostering awareness of global interdependencies and cultivating the capacity to reflect on one's global footprint too.

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EDUCATION, CULTURE, AND SOCIETY

Education for Transformation

Humanistic Perspectives on Flourishing in the Anthropocene

Doret de Ruyter and Carolina Suransky (Eds.)

In a time of planetary crisis, *Education for Transformation* reimagines humanistic education as a vital response to the ethical, pedagogical, and ecological challenges of the Anthropocene. The authors depart from a relational, ecologically aware and epistemically plural interpretation of humanism. They offer fresh perspectives like ecological mindfulness, planetary interdependence, and critical takes on EdTech that can be used to reflect on ways in which educators can foster responsibility, resilience, and hope. With both moral insight and practical relevance, this book invites the reader to rethink what it means to teach and learn on a fragile, interconnected planet.

Doret de Ruyter (1964) is professor of Philosophy of Education at the University of Humanistic Studies. Her research focuses on education for human flourishing, ideals in education, and moral and citizenship education.

Carolina Suransky (1961) is professor of Higher Education at the University of Humanistic Studies, specialising in Diversity, Equity and Inclusion, decoloniality and climate justice. She is also associate professor of educational policy studies at Stellenbosch University.

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