

Petra Künkel

Kristin Vala Ragnarsdottir *Editors*

# Transformation Literacy

Pathways to Regenerative Civilizations

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Petra Künkel · Kristin Vala Ragnarsdottir  
Editors

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*Editors*

Petra Künkel  
Club of Rome  
Collective Leadership Institute  
Potsdam, Brandenburg, Germany

Kristin Vala Ragnarsdottir  
Faculty of Earth Sciences  
University of Iceland  
Reykjavik, Iceland



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# Preface

Humanity has reached a decisive turning point. The years 2020 and 2021 will have a special memory in the history of this century, as years which became threat and opportunity at the same time. The global pandemic highlighted serious shortcomings in societies—their ability to react to a strangely invisible virus—and tested many countries' capacity to learn fast. It reminded us of the importance of public sectors, good governance and collective responsibility. But it also accelerated a mindset shift and brought the discourse about the future we want to live in to the forefront. It amplified the willingness to widely consider changes that were already in progress, but far from mainstream. Ironically, the restrictions and lockdowns following the pandemic made the effects of halting unsustainable trends visible—from clear water in the ocean near cities, to animals thriving to blue horizons through reduced air pollution in areas that had only seen hazy skies for years. The pandemic underscored what was already emerging—the insight that the state of the world called for a decisive turnaround in the operating system of human civilization. The compounding exponential growth of population, resource extraction, energy use, industrial production and societal consumption had led to resource depletion, species extinction, drastic reduction in insects and wild animals, and ecosystem degradation. Exponential emissions not only caused climate change, but also endangered the health of people and planet. This effect has become better understood with the COVID-19 pandemic because it has been shown that human encroachment on ecosystems not only contributed to virus transfer from animals in the natural world to people, but also environmentally caused health challenges made people more vulnerable to severe clinical cases of the disease.

It has become increasingly clear that the twentieth-century civilization behaviour, which has been extended to the twenty-first century, has caused a meta-crisis and can no longer continue the way it is currently operating. A new modernity must emerge that we can call an emerging regenerative civilization or meta-modernity, in which a narrative of systemic health as much as individual and collective vitality in a thriving natural environment needs to guide the interaction of socio-economic–ecological systems. Sustainability transformations must go far beyond approaches that focus on finding technical solutions to climate change within the current mode

of operations and instead envision a new operating system that guides transformation pathways to that new future. The Anthropocene epoch, starting the Great Acceleration post-World War II, where the human ecological footprint has altered planetary life support systems, calls for a new scope of human responsibilities. Partnering with life's evolutionary processes and learning from them for the future of human civilization now moves into the forefront, if humankind wants to emerge from the emergency.

What matters is what our goals are. What do people want? There is a call to build back better societies after the COVID-19 crisis. But is this enough? And how do we get to a way of operating that fosters well-being on a healthy planet?

The overarching aim of this book is to foster a discourse about pathways towards future regenerative civilizations that translate enlivening worldviews into the practice of stewarding transformative change. It connects a variety of angles and approaches to transformations with the intention to provide a deeper understanding of how to more consciously and collectively transform the world. This ability to design, implement and learn from transformative change is captured in the term *transformation literacy*. It is defined as the knowledge and capacity of collectives of decision-makers, change agents and institutional actors to steward transformations to regenerative civilizations effectively and together across individuals, institutions, societal sectors and nations (Kuenkel 2019).

This book will provide key ingredients for enhancing such kind of transformation literacy. It will bridge the gap between the growing demand for urgent collective action and the increasing scientific knowledge base of interconnected living systems that suggests a fundamental shift from the individualistic and mechanistic world view we know to a systemic way of operating responsibly in service of life on this planet. In that way, it will inform strategy making for societal resilience, climate change mitigation, green economic transitions, biodiversity support, soil and ecosystem restoration, as well as economic and social equity, and above all a new economic architecture that serves human well-being and healthy ecosystems.

This book shows how seeing the interactions of the local to global eco-social-economic system as an interconnected—alive—system translates into practical pathways towards new forms of more sustainable and regenerative civilizations. It connects the emerging practice of stewarding transformative change across business, government institutions and civil society actors with the most promising scientific models and concepts that underpin human action to shape the future collectively in accordance with planetary needs.

The three parts of this book give examples of the fundamental shifts that are required in collective sense-making and collective action alongside three interconnected knowledge streams:

- The discourse about shifts in mindsets that are required to reconnect with a world-view in which human agency acknowledges its co-evolutionary pathways with each other and the earth.
- The discourse about political, social and economic systems that are regenerative and foster the care-taking for earth life support systems.

- The discourse about designing and implementing effective large-scale transformative change processes at multiple levels with multiple stakeholders.

It is important to recognize that there is not only one way of thinking about key elements of a future regenerative civilizations and pathways to get there. The systems of the future, including the economic system, need to leave space for different interpretations of reality and for different ways of enacting future and different implementation options. However, they need to connect to underlying principles which enable and maintain vital systems of life and which are all based on the basic idea that man and nature are inextricably linked. The future needs a global operating system that is life-serving. Individual and collective well-being must be thought of together, as must the interplay between people and nature. The core task for the future, then, is to recognize the conditions for interwoven social, economic and ecological patterns and to continually and collaboratively ensure that these patterns enhance the vitality of local and global systems.

The book's purpose therefore is to show that transformation literacy can be acquired. The conceptualizing, planning and implementing of transformative change can be learned. This helps us to develop into more conscious partners of the co-evolutionary process—and avoid being its enemy. It suggests that pathways to regenerative civilizations are possible.

Potsdam, Germany  
Reykjavik, Iceland

Petra Künkel  
Kristin Vala Ragnarsdottir

## Reference

Kuenkel, P. (2019). *Stewarding sustainability transformations. An emerging theory and practice of SDG implementation*. Springer International Publishing.

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# About the Editors

**Petra Künkel** is Executive Board Member of the International Club of Rome and Founder of the Collective Leadership Institute, a Germany-, US- and South Africa-based social enterprise building collaboration competency for transformative change towards world sustainability. As a seasoned systems psychologist, visionary author and expert in complex multi-stakeholder settings, she promotes systems transformations by scaling up collective stewardship skills for decision-makers from corporations, public sector and civil society. With her educational background in change management, organizational psychology and political science, she has profound international experiences in corporate change, development cooperation and policy implementation. She is a leading strategic advisor to pioneering international initiatives that tackle sustainability challenges. Based on successful transformation processes, she developed the dialogic change methodology and the Collective Leadership Compass, a guiding tool for navigating change in complex multi-actor settings. His groundbreaking previous publications *The Art of Leading Collectively* (Chelsea Green 2016) and *Stewarding Sustainability Transformations* (Springer Nature 2019) received international attention. He is also the lead author for the open access transformation guide *Leading Transformative Change Collectively* (Routledge 2020). For more information, please visit [www.collectiveleadership.com](http://www.collectiveleadership.com), [www.clubofrome.org](http://www.clubofrome.org) or [www.petrakuenkel.com](http://www.petrakuenkel.com).

**Kristin Vala Ragnarsdottir** is Member of the International Club of Rome and is Professor of Sustainability Science at the Institute of Earth Sciences, University of Iceland. Previously, she was Dean of Engineering and Natural Sciences at the University of Iceland and Professor of Environmental Sustainability at the University of Bristol, UK. She is actively involved with international think tanks on sustainability including being Ambassador and formal Global Council Member of the Wellbeing Economy Alliance, Distinguished Fellow at the Schumacher Institute (UK), and Member and former Vice-President of the Balaton Group. She is Member of several scientific academies such as Academia Europaea, Norwegian Academy of Science and Letters, Icelandic Academy and the Royal Society of Arts and Commerce. Grounded in Earth Sciences, she has been envisioning sustainable

futures with her students since the turn of the century. Her research engagement focuses on evaluating natural resources, and their economics link through system dynamics, determining sustainability indicators for soil, tourism and the circular and well-being economy, and finding fabric for sustainable communities. Her recent activities include casting light on corruption in natural resource management, linking population, soil, phosphorous and sustainable land management with food security, developing groundwork for new economies to achieve the SDGs and demonstrating the need for the well-being economy and female leadership due to the global climate emergency. She was Member of the Prime Minister's Bhutan International Expert Group on new indicators for UN development inspired by Gross National Happiness. She was Member the Icelandic Prime Minister Committee that developed 39 indicators' well-being and the government's committee outlining future energy policy to 2050. She is Author of over 100 academic publications and chapters. She co-edited *Pollutants, Human Health and the Environment. A Risk Approach* published by Wiley (2011) and was Subject Editor of *The Oxford Companion to the Earth* published by Oxford University Press (2000). She has also co-edited several special journal issues.

# Chapter 1

## Introduction and Conceptual Framing—Transformation Literacy as a Future-Making Skill



Petra Kuenkel and Kristin Vala Ragnarsdottir

**Abstract** This chapter introduces the term transformation literacy as an urgently required skill for decision-makers and change agents. It suggests that transformation literacy is the knowledge and capacity of collectives of individual and institutional actors to steward sustainability transformations effectively together across institutions, societal sectors and nations. This includes the human capacity to collectively identify and shift dysfunctional patterns of societal and human-to-nature interaction at local and global scales. The chapter summarizes why transformation efforts are needed to not only achieve the vision of a sustainable world at all scales, but also to charter pathways towards regenerative civilizations. It briefly analyses the current failing systems and suggests that there is a need to build societal structures and institutional systems that have systems aliveness as its core value. It explores the role of future narratives of *emergency*, which currently dominate the discourse around the climate crisis, and narratives of *emergence* that are increasingly used in the niches of pioneering new approaches to regenerative civilizations. The chapter suggests to deepen knowledge and practice in the three levels of transformation literacy: mindset shifts, systems understanding and process competence. It concludes with an overview how these three levels of transformation literacy inform the three parts of the book.

**Keywords** Transformation literacy · Regenerative civilizations · Future narratives · Mindset shifts · Systems understanding · Process competence · Life-support systems · Planetary boundaries · Collective stewardship · Transformative change

The recent years have seen the increasing use of a term in the context of the multiple crisis of climate change, biodiversity loss and global health challenges: it is the word *transformation*. In the way, it is being used, *transformation* refers to planned change endeavours that involve deeply innovative approaches towards thinking and acting, and that question as well as shift power structures and relationships. Hence, the term is used in the assumption that positive transformations in the sense of future,

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P. Kuenkel (✉) · K. V. Ragnarsdottir  
Institute of Earth Science, University of Iceland, Reykjavik, Iceland  
e-mail: [petra.kuenkel@collectiveleadership.com](mailto:petra.kuenkel@collectiveleadership.com)

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more sustainable states of the world are possible, and human behaviours can change to support such a future at a collective scale. Transformation is seen as a doorway to fundamentally alter the way humankind operates with each other and the planet Earth in the Era of the Anthropocene. Closely related to the increasing use of the term transformation is the acknowledgment of the climate crisis as an existential threat to humanity and the planet. Terms such as “Hothouse Earth” (Steffen et al., 2018) and “Planetary Boundaries” (Rockström et al., 2009a, b) originated in scientific warnings, but have since moved into the vocabulary of non-academic actors such as politicians, CEOs, or activists. For a long period of time, which is more than 10,000 years, humanity’s civilizational paths have occurred because of our planet’s remarkable climate stability and ability to regenerate. But it is the great acceleration happening in the last 70 years that the progress of human civilization has started to endanger the very life-support system that it has emerged from. Moreover, the environmental impact of human economic activities coupled with population growth and interventions in natural systems have seriously endangered the resilience of the planet, hence the capacity of nature’s complex system of regeneration. Increasingly, humankind’s behavioural patterns of production and consumption, driven by a paradigm of economic growth have undermined the inherent balance naturally built into planetary life-support systems. That, which many people tended to always take for granted—clean air, water to drink from, fertile soil and weather that may be unpredictable, but can be adapted to—is severely endangered. Scientists predict that global warming will begin to trigger tipping points that accelerate the path of destabilization, and that urgent and global action is required to not prevent, but mitigate the predicted changes (Steffen et al., 2007, 2018). Among many major interventions needed is the stabilization of global warming at 1.5° or less, the massive reduction of carbon emissions in a very short period of time, the accelerated protection of biodiversity, and re-creating conditions that re-enable the functional carbon storage in soils, forests and oceans. Hence, the twenty-first century’s major theme will be about bringing human agency for a responsible Anthropocene centre stage and building narratives of possibilities that enable local to global collective action. These may take different forms, even if united under similar purposes. Hence, used more appropriately in its plural form, *transformations* are the many different and complementary processes orchestrated by humankind through which this new way of operating is brought into reality, durability, scale and impact (Kuenkel, 2019). Transformations—in this understanding—require bold decisions—by global actors, national governments, business owners, civil society organizations, and citizens. Moreover, it requires people’s ability to implement these bold decisions. It means unleashing the human potential to collectively effect change for a better life for all species.

## 1.1 What is Transformation Literacy

The scientific warnings of human behaviour have a long tradition. Many predictions of life-threatening scenarios for the future of our world have been published (e.g., Guilding, 2011; Meadows et al., 1972) in the last century with the foreseeable emerging dominance of the industrial and post-industrial age. Yet, they have been fiercely criticized and largely ignored, as if anything that could stand in the way of modern human economic expansion was to be overcome as outdated thoughts, or wrong predictions. It took until the beginning of the twenty-first century, when the voices of caution began to get louder. A growing global movement, increasingly supported by scientists, declared in various forms that the continuation of environmental degradation and unbalanced economic growth would severely endanger humankind's place and possibilities on planet Earth. The emerging more widespread awareness of the need for stewarding humankind towards civilizations that foster wellbeing on a healthy planet was also the foundation for the lengthy negotiation process around the 17 Sustainable Development Goals (SDGs). While transformation experts may criticize that the Global Goals agreed in 2015 are not transformative enough, it is widely acknowledged that they are historic in their intention—the first time in history that a global agreement exists that there is a need to manage evolutionary change in a spirit of collective responsibility (SDGs, 2017). While the SDGs may not solve all global challenges, they have become an inspiration for strategic planning and implementation of nation-based societal change, but also change efforts in organizations. Moreover, they helped to establish a new perspective—one that takes the global interconnectedness of humankind seriously and—aggravated by the climate crisis—acknowledges Planet Earth as a new reference point for care and responsibility. Planetary thinking is certainly not new in the history of humankind, but the use of the term planet has more than doubled in the last 20 years, which can be taken as an indicator for a shift in perspective. The question remains what acting responsibly for planet and humankind means for different actors and in different places of the world. This is where the concept of *transformation literacy* is paramount. **Transformation literacy is the knowledge and capacity of collectives of decision-makers, change agents and institutional actors to steward sustainability transformations effectively together across institutions, societal sectors and nations** (Kuenkel, 2019). It rests on people's ability to collaborate or act in complementarity and refers to multiple actors in multiple places that can hardly be coordinated, yet need to find local solutions to global challenges, or drive global turning points that support local changes. For example, while there is a growing understanding that the industrial agriculture is not only incapable of offering the necessary carbon storage functionality, approaches to regenerative agriculture need to be culturally and locally adapted, and combined with ecosystem restorations in different ways. Or a future-proof renewable energy mix might require different technological infrastructure in different parts of the world. Naturally, the pathways to transformations need to be pluralistic and mutually supportive rather than competitive. Understanding the geo-physical boundaries, or the safe operating space, within which humankind can

live on this planet well without endangering the delicate overall planetary system, is certainly the underlying guidance for future action. However, for transformations to happen at scale, this is not enough. They require more widespread fundamental shifts in the awareness about humankind's relationship with nature and the essential acknowledgment of the need for the dignity of all people. The current planetary threats suggest to collectively redefine what it means to be humane on this planet, and what a responsible Anthropocene could look like. Finding pathways to regenerative civilizations is certainly an administrative task by existing forms of governance and institutional structures that have emerged as part of the paradigm of modernity. But without redirecting the focus of political and institutional action, we may not be fast enough to implement the change in behaviour. Transformations may partly require technological innovation, partly administrative rigour and partly the reconnection with ancient, traditional or indigenous knowledge—a remembrance that a narrative of interconnectedness of all planetary life has accompanied humankind for a long time and seems to have gone lost only in the recent history. Such narratives are an essential ingredient of *transformation literacy*—they help to knit the new approaches into the existing structures, amplify future-proof pathways that already exist and connect actors with each other to scale impact, often through modern communication technologies.

## 1.2 Narratives of Emergency and Emergence

The first decades of the twenty-first century have seen the rise of multiple local and global initiatives, projects and movements that take the prospects of a regenerative civilization to heart. They are still at the margins of the overall detrimental operating system of human impact on the planet, but the underlying narratives of both urgency and possibilities have found their ways into the minds and hearts of (not enough, but) many decision-makers. The 2021 recent return of the USA to the Paris agreement, the renewed and sharpened EU emission reduction targets and the declaration of China to become climate neutral latest by 2060 are just a few examples that show that the call to transform the world is headed, even though the details of how to do this are far from being agreed.<sup>1</sup> Yet, a shift in thinking often precedes change in action. This process is fostered by collective narratives, which help people to connect and emotionally engage with a different future. Two complementary forms of narratives have been emerging together in the last decade.

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<sup>1</sup> It is notable that in the years 2020 and 2021 countries or regions like the European Union, China and finally the United States have redefined reduction targets: In December 2020, the EU submitted the stronger emissions target of at least 55% net reduction below 1990 levels to the UNFCCC. During the same period, China proposed updated targets, which are still to be officially submitted, implying to lower carbon intensity by over 65% in 2030 compared to 2005 levels and the net-zero before 2060. In April 2021, the US announced a strengthened Paris Agreement target of 50–52% below 2005 by 2030. Source (accessed on 07th May 2021): <https://climateactiontracker.org/climate-target-update-tracker/>.

The first is a narrative of **emergency**, evidenced in the frequent use of terms such as climate emergency or more recently planetary emergency in which the scientifically predicted threats and the actual experience of such predictions such as extreme weather events, ocean level rising or droughts, accelerate substantiated *anxiety* which leads to taking more responsible decision, both individually and collectively. Communication around this narrative highlights the threats (e.g., global warming, species extinction, increased migration or water wars) and the need for immediate action by decision-makers and institutional power to control human behaviour in order to mitigate the risks for future generations. Many scientists and activists have argued since long argue much louder recently that the speed at which this change in action takes place, is much too slow for the threats ahead. In the scientific realm, this is the dominant narrative, and has a long history, exemplified by publications such as the Club of Rome report, ‘Limits to Growth’ (Meadows et al., 1972) and its updates (Meadows et al., 1992, 2004); the concept of peak resources and corresponding effect on the global economy (Heinberg, 2001, 2005, 2011; Sverdrup & Ragnarsdottir, 2014); the concept of a ‘safe operating space for humanity to thrive’ in the context of avoiding further transgression of the biophysical planetary boundaries (Cornell, 2012; Rockström et al., 2009a, b); the image of ‘Hothouse Earth’ (Steffen et al., 2018); the declaration of a ‘Planetary Emergency’ (Club of Rome, 2020); the warning by more than 100 scientist of a ‘climate emergency’ (Ripple et al., 2020); the outlining of a 10 point action plan for a circular bioeconomy for sustainable well-being (Palahi et al., 2020); and the emphasis on a ‘global crisis’ (Dasgupta, 2021). The *emergency narrative* leads to concrete suggestions around decisions and actions by governments, institutions and corporations. While varying in details, they show obvious commonalities in solutions such as protecting critical land and ocean ecosystems, ending deforestation and restoring wetlands; moving from fossil fuel extraction to renewable energies at scale; accelerating policy decisions towards carbon reduction targets; and shift from industrialized to agroecology or regenerative agriculture. The *emergency narrative* assumes that the operating system of humankind can be improved while using the existing institutional and political structures. Enhancing *transformation literacy* for implementing pathways to a regenerative civilization here means to foster the ability of institutional actors and political governance to decide, orchestrate and implement these solutions at scale.

The *second* narrative can be seen as one of **emergence** (Preiser et al., 2020). It has grown in the last decade more prominently around pathways to different futures that acknowledge the possibility of wellbeing on a healthy planet (Costanza et al., 2016). It is a narrative that emphasizes the human potential, the ability to cocreate future more consciously and, above all, the role of planetary care-taking as the likely route to Anthropocene responsibility. Communication around this narrative highlights already existing good practices, the role of social innovations, the need for guidance of technological innovations and the human capability to change trajectories. It is a narrative of possibilities and of inventing a different future in an interconnected world, while acknowledging that there will be plural futures and multiple pathways to enacting them. The *emergence narrative* is naturally complex, less directive and open to fundamental, if not revolutionary shifts. It is a narrative of learning

societies that are capable to adapt and also has a long history already. Scientific examples of the *emergence narrative* are the human responsibility to ‘further life-enhancing structures and patterns’ in the Potsdam Manifesto (Dürr et al., 2005); the concept of an ‘Earth Community’ (Korten, 2007); the ‘wellbeing’ approach (OECD [Organisation for Economic Co-operation and Development], 2015); the concept of the ‘regenerative economy’ (Fullerton, 2015); the concept of ‘Earthland’ (Raskin, 2016); the B-Team’s ‘Great Transformation’ approach,<sup>2</sup> the ‘Meadows Memorandum’ (Leading4Wellbeing, 2017); or the concept of pluraversality (Preiser et al., 2020).

*Emergence narratives* often emphasize the need to fundamentally shift the operating system of human action on the planet, call for reconstructing a more just global society and a redefinition of purpose of the economy to recalibrate its essential principles in line with planetary life-support systems. Many authors have suggested approaches to new forms of economy that not only address the fundamental role of humans in the Anthropocene as responsible actors within the framework of planetary boundaries, but also make concrete proposals for their implementation (Bergsteiner & Dharmapiya, 2016; Bollier & Helfrich, 2012; Ellen Macarthur Foundation, 2013; Felber, 2018; Fioramonti, 2017; Folbre, 1995; Jacobsen, 2020; Lovins et al., 2018; Magnuson, 2007; Raworth, 2018). Hence, the emergence narrative is not only multi-faceted and complex, but assumes that the transition to regenerative civilizations is possible. Enhancing *transformation literacy* means to connect people with the vision of regenerative civilizations and foster the ability of multiple actors from local to global level to radically change the way they operate. This may at times be incremental: in the dissemination of emotionally compelling future narratives, and the powerful connection of movements, initiatives and pathways. But it also includes scaling people’s ability to design and implement transformative change processes that model the future way of operating.

### 1.3 Levels of Transformation Literacy

This book acknowledges the importance of both above-described *narratives of emergency and emergence* and their complementarity in accelerating pathways to transformations. It takes note of the fact that, not only accelerated by shifts in thinking caused by the global COVID-19 pandemic, these two narratives are coming closer together. Yet, we also acknowledge that the trend to merge these two narratives at this early stage of global transformation processes may simply become a superficial integration of the *emergence narrative* into the solution-oriented *emergency narrative*—with no fundamental shift in the thinking that underpins the current global operating system of humankind. This may fall short of the depth and wisdom that lies in the fundamental questioning of our ways of thinking and operating, our ability to reconnect with our essential human capability to partner with life processes and our

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<sup>2</sup> Source accessed on 15th April 2017: <http://bteam.org/>.

potential to steward transformations that model aspects of future regenerative civilizations. This book therefore approaches transformation literacy in its multi-faceted dimensions. It pauses the urgent call for immediate solutions and takes a deep dive into key leverage points for *transformation literacy*. If transformation literacy is, as defined above, the capability of collectives of actors to steward transformative pathways more consciously and more successfully, it requires knowledge, collective learning and expertise building at three levels. What are the three levels and why are they so important?

The *first* level is that of mindsets. Unleashing the potential of human agency in stewarding transformations at various levels requires the adoption of mindsets that acknowledge the intrinsic relationship between people and nature (or the acceptance that we are part of nature, part of this planet). Subsequently, in the era of the Anthropocene, where human impact has begun to dangerously alter the planetary life-support system, it is the acceptance of a human responsibility to safeguard the future integrity of our planet. The question is: how can we help mindsets develop towards a meta-modernity, in which ancient human worldviews with reverence for Mother Earth integrate with post-industrial rational worldviews that traditionally separate humans from nature. How can we support what will become a paradigm shift in the operating system of humankind? Meadows (1999) suggested that successful large-scale change works best when paradigms that hold an outdated way of operating in place, shift towards new paradigms that underpin a new narrative. She reminds us that “paradigms are sources of systems. From them, from shared social agreements about the nature of reality, come system goals and information flows” (Meadows, 1999, p. 18). The way people perceive the *nature of reality* influences their feeling, thinking and acting. A mindset shift, hence, a shift in the way reality is perceived, is the cornerstone of *transformation literacy*. There may be very different connotations, manifestations or expressions of such underlying worldviews. They can stem from traditional cultures, transcended insights into the nature of life or scientifically substantiated data that suggest that the way we know the world needs to fundamentally change. Mindsets give rise to stories about the world, and they inform collective action. They are the foundations for narratives. Opening up to mindsets of interconnectedness and relational co-construction is a prerequisite for the kind of transformation literacy this book supports. Table 1.1 shows the three levels of knowledge and skills building for transformation literacy.

The *second* level is that of systems. A systemic perspective that views the world as an interconnected system in constant interaction and highly interdependent has been the mainstream worldview in ancient times, often intrinsically linked to spiritual beliefs, and is, even today, a worldview of the many still existing indigenous cultures. In modern science, however, such a view has emerged only slowly over centuries in the niches of a mechanistic or Newtonian worldview that saw the universe as a machine-like entity to be controlled and exploited. While the famous Alexander von Humboldt with his—at least in Europe and the Americas, widely known writings, was already in the eighteenth century fascinated by the systemic integrity of ecology, actual system theory as a scientific approach only began to take root only at the beginning of the last century (Capra & Luisi, 2014; Mele et al., 2010). The progress in

**Table 1.1** Levels of knowledge and expertise required for transformation literacy (adapted from Kuenkel et al., 2020, copyright by the author)

 <p>Mindset</p>	<p>An understanding of the world’s complex interconnectedness and relational co-construction, in which human agency acknowledges its co-evolutionary pathways with each other and the Earth</p>
 <p>System</p>	<p>An understanding of future systems that build regenerative civilizations and safeguard life support systems in their political, social and economic aspects</p>
 <p>Process</p>	<p>An understanding of the processes required to bring about transformations, hence the collective competence to design and implement effective large-scale transformative change processes at multiple levels with multiple stakeholders</p>

psychology, biology, ecology and quantum physics had led to the insight that living systems are organisms as interactive networks. This suggested the focus on matter and structure required to be complemented by a better understanding of process, patterns, organizations and relationships. Hence, scientific inquiry shifted from the parts to the whole (Capra & Luisi, 2014; Checkland & Holwell, 1998; Jackson, 2003; Weinberg, 2001) and the focus on duality (classical Newtonian physics) shifted to non-duality (quantum physics—Bohr and Heisenberg) (e.g., Bohr, 1913). Very different streams of systems theory have emerged, they partly diverted and partly integrated various scientific disciplines. With the advent of the sustainability discourse at the end of the last century, a systemic view of the world, substantiated by science that predicted global warming, and showed the global interdependencies of evolutionary phenomena, has moved to the forefront of many scholars, certainly activists and sustainability practitioners. It seems that the paradigm shift, Donella Meadows suggested as a prerequisite for systems change, is underway (Meadows, 1999). But it is not yet the mainstream view of the world, even though it has moved towards the centre of different scholarly discourses, for example around Earth governance, agroecology, ecosystems resilience, climate adaptation and mitigation, planetary boundaries and life-support systems. As Bai et al., (2016, p. 360) suggest it is the realization, in many instances now the actual experience of human-induced climate change, that “the Anthropocene is changing the co-evolutionary pattern between humans and the environment—from an emphasis on local interaction to a coevolution of humanity and the planet as a whole.” Understanding a systemic view, not only of the world as a whole, but in various transformative change efforts, the adjacent next level systems view that needs to be taking into account, is paramount for *transformation literacy*. This includes the discourse about how regenerative future can look like. How can we support the emergence of a plurality of futures that exhibit characteristics of regenerative civilizations? A systems view suggests the ability to hold complexity, farewell the need for deterministic pathways into the future and invite the exploration of multiple different trajectories.

The *third* level is that of process competence as an often-neglected capacity of actors to actually orchestrate and implement successful transformative change processes. The knowledge of effective approaches in organizational and societal change processes has been growing since the end of the last century, including concepts such as organizational learning and learning societies, particularly by practitioners that had adopted a systemic view of the world (e.g., Jaworski, 1996; Laloux, 2014; Senge et al., 2015; Wheatley, 1999) But only more recently, with the growing awareness of the need for transformative change at scale, a better understanding of the dynamics and the orchestration of societal and global change process has received more attention (Goepel, 2016; Kuenkel, 2019; Kuenkel & Waddock, 2019; Kuenkel et al., 2020; Loorbach et al., 2016; Rotmans & Loorbach, 2010). Questions arose around how the machine metaphors and mechanistic mindsets that are so ingrained into global and local political and administrative structures can allow for the open, diverse and participatory processes that a move into transformative futures require? An essential conundrum emerged: How can approaches that are inspired by a systems view of the world and by mindsets of interconnectedness find avenues into the very structures that hold the old system in place? The successful design of transformative change requires exactly that—new knowledge about the patterns and dynamics of systems, about the fostering of mindsets of interconnectedness coupled with expertise how and when people are able to learn together, and bring about future collectively. Process competence is a skill so essential for *transformation literacy* that it cannot be delegated only to specialists. What is required is a more widespread understanding of the multiple ways of becoming transformative. Designing transformations is a task that, in future, many decision-makers and change agents need to master. It is a future-making skill that acknowledges the fact that regenerative civilizations can only be brought about collectively, in a local and global learning process, and in a way that helps people to co-win such futures. With these three levels that constitute key elements for transformation literacy, this book will dive into the complexity and diversity of each level.

*Part One* looks at mindsets that are in service of a wellbeing and a healthy planet and can contribute to pathways towards regenerative civilizations. It explores interpretations why a global shift in mindsets towards seeing the world as an interconnected living system is necessary, in which ways such mindset shifts underpin transformative processes and how their emergence could be supported. It investigates the conceptual and practical integration of personal aspects of change and their relationships to the outer action of leading transformative change. The part highlights, analyses and connects different approaches towards fundamentally new mindsets, and connects them to the needed development of competencies for *transformation literacy*. The different contributions not only consider multi-cultural aspects, but will also showcase in exemplary ways how a new worldview can support collective stewardship for the planetary life-support system at all levels. The contributions range from more philosophical approaches regarding mindset shifts to discussing the impact and implication of shifted mindsets on economic, financial or institutional behaviour. In the introduction to *Part Two*, the text tracks the scientific history of the call for mindset shifts and relates this to the long-standing discussion on systemic,

linear and nonlinear thinking as a foundation for transformation literacy. It will also describe the practice of anchoring mind shifts from the angle of sustainability transformation practitioners.

*Part Two* outlines and illustrates in an exemplary way how a sustainable world might look like. It will dive into the question how to co-construct regenerative systems that enable and safeguard wellbeing on a healthy planet. The conceptual introduction to *Part Two* investigates current influential global systems (e.g., the financial system, the economic system, the education system), how they impact on worldviews and human behaviour and how they either prevent or support sustainability transformations. Moreover, the conceptual framing explores essentials and underlying principles of regenerative systems and how they could guide the move towards regenerative civilizations. *Part Two* explores what kind of systems reflect a new worldview and how they can be co-constructed towards regenerative systems based on a partnership with life's evolution and enhanced *transformation literacy*. It highlights emerging bottom-up systems that allow communities for change to take charge of their future, and connect local to global system designs that are likely to support pathways towards a regenerative world. The contributions show concepts and implementation attempts of regenerative approaches to human-to-human and human-to-nature interactions that showcase new operating models of humankind. They come from a wide-ranging spectrum to illustrate that the entry points for transformative change towards regenerative civilizations may come from very different angles. The contributors showcase exemplary systems that model collective stewardship of planetary wellbeing.

*Part Three* focuses on stewarding transformations towards wellbeing and a healthy Planet. It makes a contribution to enhancing the knowledge and practice of *transformation literacy*. This part will investigate how transformative change processes can be co-designed and enacted by change agents and decision-makers at different levels of global society. Successful sustainability transformations ultimately hinge on a broad range of actors to organize around stewarding transformative change. What is needed is the widespread ability to design and implement multiple relational issue-based and collaborative interventions that—together—drive and accelerate transformations. Conceptual and practice approaches to transformation benefit from models and methodologies that translate notions of enlivenment, vitality, resilience or thriving, into practical implications for organizing transformative change. The conceptual introduction of *Part Three* outlines the role of transformation networks between multiple actors in different institutions and how these networks are the cornerstone of transformation literacy. It highlights co-creative and collaborative multi-stakeholder and multi-level approaches to change and investigate the capacities needed for stewarding transformations across institutional silos and cultural as well as geographical disparities. Moreover, this part shows the interplay of multi-stakeholder collaboration initiatives, regulatory approaches and enabling environment approaches, supported by future-oriented narratives that take the concept of wellbeing and a healthy planet to heart. The part explores and connect different emerging pathways to large-scale transformations. It also highlights approaches to anchor large-scale transformative designs in research as well as planning of government, private sector or civil society.

In all three parts, we decided as editors to give the voice primarily to female contributors, not only, because women are still underrepresented in the global transformation discourse, but also, because their specific expertise combined with their gendered perspective offers a rich kaleidoscope of the aspects so relevant for transformation literacy.

## References

- Bai, X., van der Leeuw, S., O'Brien, K., Berkhout, F., Biermann, F., Brondizio, E. S., & Revkin, A. (2016). Plausible and desirable futures in the Anthropocene: A new research agenda. *Global Environmental Change*, 39, 351–362.
- Bergsteiner, H., & Dharmapiya, P. (2016). The sufficiency economy philosophy process. In G.C. Avery & H. Bergsteiner (Eds.), *Sufficiency thinking. Thailand's gift to an unsustainable world*. Allen and Unwin.
- Bohr, N. (1913). On the constitution of atoms and molecules. *Philosophical Magazine*, 26(151), 1–25.
- Bollier, D., & Helfrich, S. (2012). *The wealth of the commons: A world beyond market and state*. Levellers Press.
- Capra, F., & Luisi, P. L. (2014). *The system's view of life: A unifying vision*. Cambridge University Press.
- Checkland, P., & Holwell, S. (1998). *Information, systems, and information systems*. Wiley.
- Club of Rome (2020). *Planetary emergency plan. Securing a new deal for people, nature and climate*. Retrieved from May 7, 2021, [https://clubofrome.org/wp-content/uploads/2020/02/PlanetaryEmergencyPlan\\_CoR-4.pdf](https://clubofrome.org/wp-content/uploads/2020/02/PlanetaryEmergencyPlan_CoR-4.pdf).
- Cornell, S. (2012). On the system properties of the planetary boundaries. *Ecology and Society* 17(1), r2.
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, R. F., Pickett, K. E., Ragnarsdottir, K. V., de Vogli, R., & Wilkinson, R. (2016). Measuring sustainable wellbeing in connection with the UN sustainable development goals. *Ecological Economics*, 130, 350–555.
- Dasgupta, P. (2021). *The economics of biodiversity: The Dasgupta review*. HM Treasury.
- Dürre, H. P., Dahm, D., & zur Lippe, R. (2005). *Potsdam Manifesto 2005. We have to learn to think in a new way*. Federation of German Scientists—Vereinigung Deutscher Wissenschaftler VDW e.V. München.
- Ellen MacArthur Foundation. (2013). *Towards the circular economy*. Isle of White.
- Felber, C. (2018). *Die Gemeinwohlökonomie*. Piper.
- Fioramonti, L. (2017). *Wellbeing economy. Success in a world without growth*. Pan Macmillan Publishers.
- Folbre, N. (1995). “Holding hands at midnight”: The paradox of caring labor. *Feminist Economics*, 1(1), 73–92. <https://doi.org/10.1080/714042215>
- Fullerton, J. (2015). *Regenerative capitalism: How universal principles and patterns will shape our new economy*. Capital Institute: Future of Finance Publication [online publication]. Retrieved from <http://capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf>.
- Goepel, M. (2016). *The great mindshift. How a new economic paradigm and sustainability transformations go hand in hand*. Springer International Publishing.
- Guilding, P. (2011). *The great disruption: Why the climate crisis will bring on the end of shopping and the birth of a new world*. Bloomsbury Press.
- Heinberg, R. (2001). *Peak everything. Waking up to the century of decline in earth's resources*. Clairview Book.
- Heinberg, R. (2005). *The Party's over*. New Society Publishers.

- Heinberg, R. (2011). *The end of growth*. New Society Publishers.
- Jackson, M. C. (2003). *Systems thinking: Creative holism for managers*. Wiley.
- Jacobsen, J. P. (2020). *Advanced introduction to feminist economics. Elgar advanced introductions series*. Hobart and William Smith Colleges.
- Jaworski, J. (1996). *Synchronicity: The inner path of leadership*. Berrett-Koehler.
- Korten, D. C. (2007). *The great turning: From empire to earth community*. Berrett-Koehler Publishers.
- Kuenkel, P. (2019). *Stewarding sustainability transformations. An emerging theory and practice of SDG implementation*. Springer International Publishing.
- Kuenkel, P., & Waddock, S. (2019). Stewarding aliveness in a troubled earth system. *Cadmus*, 4(1), 14–38.
- Kuenkel, P., Kühn, E., Stucker, D., & Williamson, D. W. (2020). *Leading transformative change collectively. A practitioner guide to realizing the SDGs*. Routledge.
- Laloux, F. (2014). *Reinventing organizations*. Nelson Parker.
- Leading4Wellbeing. (2017). Meadows memorandum: A new economic model for a finer future. Retrieved from <http://leading4wellbeing.org/wp-content/uploads/2017/05/Meadows-Memorandum-with-Cover-V8.1.pdf>.
- Loorbach, D., Avelino, F., Haxeltine, A., Wittmayer, J., O’Riordan, T., Weaver, P., & Kemp, R. (2016). The economic crisis as a game changer? Exploring the role of social construction in sustainability transitions. *Ecology and Society*, 21(4), 15. <https://doi.org/10.5751/ES-08761-210415>
- Lovins, H. L., Wallis, S., Wijkman, A., & Fullerton, J. (2018). *A finer future. Creating an economy in service to life*. New Society Publishers.
- Magnuson, J. (2007). Pathways to a mindful economy. *Society and Economy*, 29(2), 253–284. <https://doi.org/10.1556/socec.29.2007.2.8>
- Meadows, D. (1999). *Leverage points: Places to intervene into a system*. Sustainability Institute.
- Meadows, D., Randers, J., & Meadows, D. (2004). *Limits to growth: the 30-year update*. Chelsea Green.
- Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits*. Chelsea Green Publishing Company.
- Meadows, D., Meadows, D., Randers, J., & Behrens, W. (1972). *The limits to growth: A report for the Club of Rome’s project on the predicament of mankind*. Earth Island Limited.
- Mele, C., Pels, J., & Polese, F. (2010). A brief review of systems theories and their managerial applications. *Service Science*, 2(1–2), 126–135. [https://doi.org/10.1287/serv.2.1\\_2.126](https://doi.org/10.1287/serv.2.1_2.126)
- Palahi, M., Pantsar, M., Costanza, R., Kubiszewski, I., Potocnik, J., Stuchey, M., Nasi, R., Lovins, H., Giovannini, E., Fioramonti, L., Dixon-Declève, S., McGlade, J., Pickett, K., Wilkinson, R., Holmgren, J., Trebeck, K., Wallis, S., Ramage, M., Berndes, G., Akinnifesi, F., Ragnarsdottir, K.V., Muys, B., Safonov, G., Nobre, A.D., Nobre, C., Ibanez, D., Wijkman, A., Snape, J., & Bas, L. (2020) Investing in nature: The true engine of our economy: A 10-point action plan to create a circular bioeconomy devoted to sustainable wellbeing. European Forest Institute (EFI) series: From knowledge to action. <https://doi.org/10.36333/k2a02>.
- OECD. (2015). System innovation. Synthesis report. Retrieved June 30, 2017, from [https://www.innovationpolicyplatform.org/sites/default/files/general/SYSTEMINNOVATION\\_FINALREPORT.pdf](https://www.innovationpolicyplatform.org/sites/default/files/general/SYSTEMINNOVATION_FINALREPORT.pdf).
- Preiser, R., Swilling, M., Nnoli-Edozien, N., & Ramphela, M. (2020). Towards new narratives of hope for fostering transformative African futures. Publication by the African Chapter of the Club of Rome. Retrieved from May 7, 2021, from [https://www.clubofrome.org/wp-content/uploads/2021/01/COR-ENCI\\_NewNarratives\\_Dec2020\\_A4-v1-1.pdf](https://www.clubofrome.org/wp-content/uploads/2021/01/COR-ENCI_NewNarratives_Dec2020_A4-v1-1.pdf).
- Raskin, P. (2016). *Journey to Earthland: The great transition to planetary civilization*. Tellus Institute.
- Raworth, K. (2018). *Doughnut economics. Seven ways to think like a 21st-century economist*. Random House Business Books.

- Ripple, W. J., Wolf, C., Newsome, T. M., Barnard, P. & Moomaw, W. R. (2020). 11,258 scientist signatories from 153 countries. Corrigendum: World scientists' warning of a climate emergency. *BioScience*, 70(1), 100. <https://doi.org/10.1093/biosci/biz152>.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F. S., Lambin, E. F., & Foley, J. A. (2009a). A safe operating space for humanity. *Nature*, 461(7263), 472–475.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F. S., Lambin, E., & Foley, J. (2009b). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, 14(2), 32.
- Rotmans, J., & Loorbach, D. (2010). Towards a better understanding of transitions and their governance: A systemic and reflexive approach. In J. Grin, J. Rotmans, & J. Schot (Eds.), *Transitions to sustainable development: New directions in the study of long term transformative change* (pp. 105–222). Routledge.
- SDGs (Sustainable Development Goals) (2017). *17 goals to transform our world*. Retrieved June 4, 2019, from <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.
- Senge, P., Hamilton, H., & Kania, J. (2015). The dawn of system leadership. *Stanford Social Innovation Review*, 13, 27–33.
- Steffen, W., Crutzen, P. J., & McNeill, J. R. (2007). The Anthropocene: Are humans now overwhelming the great forces of nature? *Ambio*, 36(8), 614–621.
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., ... & Schellnhuber, H. J. (2018). Trajectories of the earth system in the anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252–8259. <https://www.pnas.org/content/pnas/early/2018/08/07/1810141115.full.pdf>.
- Sverdrup, H. U., & Ragnarsdóttir, K. V. (2014). Natural resources in a planetary perspective. *Geochemical Perspectives*, 3(2), 129–341.
- Weinberg, H. (2001). Group process and group phenomena on the internet. *International Journal of Group Psychotherapy*, 51(3), 361–378.
- Wheatley, M. (1999). *Leadership and the new science, discovering order in a chaotic world*. Berrett-Koehler Publishers.

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**Part I**  
**Mindsets in Service of Wellbeing**  
**on a Healthy Planet**

# Chapter 2

## Setting the Scene: How to Connect with a World as an Interconnected Whole



Petra Kuenkel

**Abstract** This chapter offers a conceptual deep dive into the complex field of mindset shifts as prerequisite for regenerative civilizations and a driver of transformations. The chapter explores why a global shift in mindsets is a necessary condition for accelerating proactive and collective behaviour change, and how this could happen. It suggests that mindsets are both place-based and global. They emerge from culture and traditions and are at the same time heavily influenced by global exchange and communication. The stories about how the world works, how reality emerges and how people can co-create futures give rise to narratives of possibilities—the key leverage points for *transformation literacy*. The chapter identifies three noticeable trends which have implications for transformation literacy. The *first* trend is a deeper understanding of *co-evolution* which refers to the world's complex relationality in dynamic co-evolutionary patterns. The *second* trend is the emerging theme of a relational *quality of life* that refers to the interaction of social, political and natural systems. The *third* trend is the emerging realization of the need for *stewardship* referring to a caring role in future-making. The chapter concludes with an overview of the different authors' chapters and how they relate to the emerging trends.

**Keywords** Co-evolution · Quality of life · Stewardship · Transformation literacy · Interconnectedness · Regenerative civilizations · Life-support systems · Collective stewardship · Transformative change · Resilience

### 2.1 Introduction

The effects of man-made climate change have been known since decades, and not only since the media presence of the Swedish schoolgirl Greta Thunberg and the Fridays for Future movement that she set in motion. But the worldwide groups of young climate activists brought climate change to the stage in many countries and, in January 2020, to the renowned World Economic Forum: it made many wealthy

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P. Kuenkel (✉)  
Collective Leadership Institute, Kurfürstenstr 1, 14467 Potsdam, Germany  
e-mail: [petra.kuenkel@collectiveleadership.com](mailto:petra.kuenkel@collectiveleadership.com)

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individuals and business people ponder the impact of unsustainable action in the world. While on a world-scale, a turnaround to future-oriented collective behaviour is almost unnoticeable, many politicians have already taken decisive steps forward. In the coming decades, this will have a massive impact on which forms of economic activities are considered acceptable. Towards the end of 2019, the European Commission passed the “Green New Deal”, which aims to reduce 55% Carbon emission by 2030 and strives for climate neutrality in Europe by 2050. It is intended to regenerate biodiversity, make agricultural and food production sustainable, and proactively involve economic players in the implementation of a future circular economy. The introduction of a new taxonomy<sup>1</sup> for the assessment of finance products and financial performance means that, at least for Europe, it is much more transparent, what ecologically sustainable management means, how it can be measured and how companies and financial institutions should report. In the midst of the effects of the corona pandemic, which has led to massive challenges for citizens and business in many societies, the voices of those who point out that economic stimulus packages must focus on the criteria of a sustainable future are getting louder. In September 2020, 65 countries lined up behind a “leaders’ pledge for nature” as part of the United Nations Summit on Biodiversity. Thus, beyond all political dissent and fierce discussions, a clear basic trend has emerged that places our responsibility for life on our planet in the foreground of all social and economic activity. But what does that mean for us, for our daily actions, for our contribution to such a future worth living in? Is the gradual switch to sustainable products, reduction in carbon dioxide and green mobility enough? Don’t we have to ask ourselves how our view of the world will need to change if we want to co-create a different future?

This section explores *why*—beyond suggestions for technical solutions—a global shift in mindsets is a necessary condition for accelerating proactive and collective behaviour change, and how this could happen. Mindsets are both place-based and global. They emerge from culture and traditions and are at the same time heavily influenced by global exchange and communication. The story about how the world works, how reality emerges and how people can or cannot co-create future, give rise to narratives of possibilities, which are one of the key leverage points for *transformation literacy*. There is already a scientific history of the call for mindset shifts towards seeing the world as an interconnected living system, which has been emerging as a backdrop to the increasing destruction of the living world. From various schools of thought, and often disconnected, there exists a long-standing academic and philosophical discourse on systemic and nonlinear thinking as a prerequisite for understanding the world in a more appropriate way. Understanding the premises and synergies of these thought traditions can greatly inform *transformation literacy*.

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<sup>1</sup> In 2020 the European Union has agreed on a taxonomy to redirect investments towards sustainable projects. The classification system has defined which economic activities are considered sustainable. Source: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en); accessed 7th May 2021.

## 2.2 The Re-Emergence of an Interconnected Worldview

In his book about the Anthropocene, Erle C-Ellis (2018, p. 158) summarized the challenge: “At this time in which we change the world as we know it, we must also change the way we know the world.” The term Anthropocene highlights that the exponential speed and magnitude of sustainability challenges such as biodiversity loss or climate change is caused humankind’s behavioural and mental influence on Earth (Crutzen, 2002). Yet, there is increasing scientific warning that time is running out to steward our planet Earth away from a scenario of a Hothouse Earth into a more moderate trajectory (Steffen et al., 2018) and to prevent negative spiralling dynamics of tipping points around bio-physical planetary boundaries. But what is the fundamental shift in thinking that helps us co-construct future realities in a way that they align human development with nature’s inherent tendency to further life? What is the individual shift of mindset that needs to take place and how will this translate into massive collective behaviour change?

A step in the right direction is certainly to complement the dominance of a mechanistic, dualistic and linear perception of our world with more systemic approaches and nonlinear thinking. Increasingly, actors in sustainability transformations use the term “systemic” to advocate for a holistic set of measures and activities (Otto et al., 2020; Waddell et al., 2015). There might be many different understandings of what this term means, but fundamentally it refers to the acknowledgement that a symptom, a problem, or a challenge and subsequent measures are related to each other and affect the whole system—however large this system is defined. Climate change is probably the best understood symptom of many seemingly isolated, but actually interrelated actions having a destabilizing effect on the Earth system. Hence, the notion of inter-relatedness or interconnectedness of problems and actions has found its way into the discourse on sustainability transformations. But is this enough?

This section argues that we need to look beyond the proliferations of superficial terms. Servicing wellbeing on a healthy planet at scale, not in exceptions, requires the reconnection with the world as an interconnected whole at all levels—from the individual to the collective, from thought processes to the purpose of institutional structures. For this to happen, it is important to briefly trace the history of thought that underpins looking at the world as an interconnected whole.

A system’s view of life has many connotations and origins and comes from different disciplines and thought traditions. Beyond the many indigenous and spiritual traditions around the world that never lost a holistic view of the world, such a view in modern science can be traced back to the early developments of what has been declared “systems theory”, which began early last century (Capra & Luisi, 2014). Without necessarily exchanging their insights, new discoveries in psychology, biology, ecology and quantum physics contradicted the increasingly machine-like metaphors in science that had emerged from the industrial age. The general underlying consensus was that living organisms needed to be seen as dynamic interactive networks. The focus on matter and structure, and on the dichotomies between subject and object, was complemented by a deeper understanding of relationality,

intertwined processes, and dynamic patterns, (ibid.; Jackson and Van den Nouweland, 2005; Jackson et al., 2003; Weinberg, 2001; Checkland & Holwell, 1998). The scientific insight moved from dissecting and categorizing parts to the interconnected whole. The Macy conferences, which took place in the USA between 1946 and 1953, brought protagonists from social and natural science together to advance interdisciplinary systems thinking.<sup>2</sup> This, among others, advanced Heinz von Foerster's cybernetic second order proposition, and his approach to the complex circular causality of self-referential systems (Ashby, 1962). These insights and approaches have informed a whole generation of Earth System modellers. The most famous example is the Club of Rome report "Limits to Growth", published in 1972, that predicted exponential economic and population growth on a finite planet would endanger the carrying capacity of the Earth (Meadows et al., 1972). In systems thinking, different streams of scientific insight in biology, social sciences, mathematics, consciousness studies, psychology and physics have both merged and departed. But the general perspective on living systems as self-organizing, interconnected and interdependent networks has been taken up by complexity theory, chaos theory and living systems theory (Hammer et al., 2012; Kauffman, 1996; Luhmann, 1990; Mennin & Farach, 2007; Prigogine, 1996; Stewart, 2002). Today there is an advanced understanding of systems and nonlinear dynamics in both living and non-living systems (Hilborn, 2000). This has also informed climate science and, in particular, the research on dangerous and spiralling run-way feedback-loops that expect tipping points to cause trajectories towards the mentioned "Hothouse Earth" (Steffen et al., 2018). The perspectives that the world is a vast interconnected system in constant interaction are beginning to move into mainstream natural and social science as well as strategy and policy development. This is evidenced in the literature on global transformation, earth governance, multi-stakeholder collaboration, natural resource management and to some extent leadership (Kuenkel, 2019; Kuenkel & Waddock, 2019). All these discourses refer to a worldview of dynamic systems, although they use different variations of systems theory. There are three noticeable additional trends in both academic literature as well as sustainability-related blogposts, strategy or policy papers. All three are particularly important for the topic of transformation literacy. The *first* trend refers to the increasingly emerging understanding of the world's complex relationality as ordered in dynamic co-evolutionary patterns. The more widespread perception of reality and future-making in *co-evolution* is a departure from a mindset of linear cause and effect thinking towards multi-faceted relationality. The *second* trend refers to the role of enlivenment or aliveness, emerging as a result of a relational *quality of life* that encompasses much more than captured in economic progress and refers to social, political and natural system, as well as their interaction. This is a departure from the dominance of a mechanistic, binary or dichotomic view of reality and moves thinking towards a better understanding of how complementary and plural approaches generate aliveness in smaller and larger system. The *third* trend refers to a scientifically grounded revival of the humble responsibility of humankind to

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<sup>2</sup> Most prominent participants among many others were Gergory Bateson, Heinz von Foerster, Margret Mead, Kurt Lewin, Norbert Wiener.

**Table 2.1** Trends in mindset shifts

Co-evolution	There is growing awareness that the effects of human actions in the era of the Anthropocene are interconnected. A new worldview emerges, which reconnects with ancient or indigenous worldviews in so far as the relationality and interdependence of living and non-living matter as well as human and nature is acknowledged
Quality of life	There is increasing reference made to the quality of life as wellbeing of people on a healthy planet. This includes a growing search for future systems that build regenerative civilizations and safeguard life support systems in their political, social and economic aspects
Stewardship	There is growing commitment to take responsibility for a livable future and for a collective approach to bringing about transformations. This also refers to collaboration at multiple levels with multiple stakeholders

become a partner of the evolutionary process rather than its enemy. This is captured in the increasingly used term *stewardship* and refers the caring role in future-making rather than continuing the trajectory of destruction. This is a departure from the narrative of humans standing above nature to an embedded humility in which human intelligence is utilized for human wellbeing in conjunction with our planet’s regenerative capacity. These important trends in mindsets are summarized in Table 2.1 and will be explored in more detail.

### 2.2.1 *Co-evolution*

The attempt to understand wellbeing of people and nature as based on relational and dynamic co-evolutionary patterns of mental and physical structures that generate vitality and resilience can be found in indigenous knowledge systems, mythology and modern science. The term “pattern” in this context describes both visible and invisible structures. They can range from ordered natural or artificial layouts, as in geophysical systems, landscapes, urban structures, to behaviour of animals, human beings and other living organisms, even to structures of thought or software design (for the latter, see Gabriel, 1996). The relationality of patterns is a foundation for life, if these relationships are dynamically interactive. Yet patterns can only be recognized for human perception when these relationships are communicatively enacted between objects, properties, elements, thoughts or actions (Bollier & Helfrich, 2015; Finidori, 2016; Margolis, 1987). Hence, patterns that generate life are never static and always co-evolutionary. The perception of patterns, as an invisible or visible order, is part of the experience of reality (Bateson, 1979; Wheatley, 1999). For the advancement of mindsets of co-evolution that support *transformation literacy*, moving away from a more mechanical cause–effect understanding of reality to the cognizance of mutually supportive patterned relationships is important. It helps actors understand dysfunctional patterns in socio-ecological-economic systems and guides them to positively

influence the relational dynamics of systems. Looking at reality as a *patterned occurrence* and at deliberate transformative change as *patterned interaction* will help to identify underlying drivers and societal dynamics of unsustainable trajectories, and to design change in the form of multiple complementary trajectories that, together, work for wellbeing and a healthy planet (Bai et al., 2016). This mindset trend has even reached policy-making realms. For example, the way the European Green Deal has been presented in 2020 as a systemic, hence patterned strategy with multiple action trajectories, illustrates this emerging trend. It suggests intertwined transition ambitions such as zero pollution, a circular economy, smart mobility, sustainable food production, ecosystem restoration, resource efficiency and more. But still, the underlying worldview remains: the transformation to a sustainable Europe seems to be mainly a technical and strategic challenge that require additive strategies. It could, however, be vitally important for decision-makers tasked to implement intentionally transformative strategies such as the European Green Deal to become “pattern literate”. This would mean an advanced ability to not prescribe strategies, but identify relational principles of patterned strategies that allow for the many multi-faceted dynamic subsystems in a Region like Europe to find their own specific pathways to sustainability transformations. Bai et al. (2016) summarize this trend when they suggest that future thinking needs to explore multiple different trajectories rather than deterministic single trajectories (p. 10). But even in this view of reality as patterned occurrence something important is missing—a new understanding of the quality of life.

### 2.2.2 *Quality of Life*

The transference of the machine-like metaphor to many aspects of biological and human life has begun to omit an ancient knowledge—that the attention to the quality of a pattern, an arrangement of structures, or a combination of strategies, as well as diversity in complexity, is essential for life to thrive. A profane example for this in ecosystems is the comparison between a plantation and a natural forest. Plantations, even though they might include not only one variety of trees, tend to ignore the dynamic relational patterns of a large variety of species that make up the vitality of natural forests. Yet, the vitality of forests is not only a nice-to-have occurrence for human regeneration, for example, in national parks, but essential to the ability of forests to stabilize the climate. Hence, vitality or aliveness of a particular systems, be it ecological or social is fundamental for humankind’s future, for wellbeing in general and for sustainability transformations in particular. While we tend to understand vitality as a perceived individual experience, we need to begin to see that it has a patterned relational quality that we can individually experience, but also measure at a collective scale. For example, the emerging trend to redefine human progress in relation to an expanded view of what *quality of life* is can be seen in the many attempts to find more adequate and holistic indicators to measure human progress, such as the “Better Life Index” of the OECD or the Gross National Happiness Index

that emerged from Bhutan (Hajiran, 2006; Pennock & Ura, 2011). As Janine Benyus puts it, we need to learn from life, because “life creates the conditions conducive to life”<sup>3</sup>. This emerging mindset realizes that *quality of life* is actualized through mutually supportive reciprocal interactions—the web of life in which human and non-human interactions are intrinsically linked (Capra & Luisi, 2014; Weber, 2016). Understanding aliveness or vitality must start with seeing us as humankind as part of nature. Working towards an alive and ecologically intact planet, then is not a luxury or moral obligation, but a necessity for human progress. A shift in consciousness towards seeing ourselves as part of a vast interconnected collaborative network of life would give rise to patterns of thought and behaviour that serve humankind individually and as a collective, as well as the planet as a whole. Yet, the vitality of systems is not an end-state to be reached and planned for, but a transitory state that needs to continuously co-created, regenerated, maintained and safeguarded. For the process of envisioning future more sustainable systems, this is an important insight. Rather than aiming for a fixed desired endpoint of a sustainable future, it is more important for *transformation literacy* to identify the principles that help generate the dynamic relational quality of life in that future state. While a picture of a sustainable future is important in order to generate meaning and intention, it is less the detailed description of the future state that empowers. More important for transformation literacy is to enact principles that generate the quality of life as part of the process of co-creating future more consciously. This leads to more humble responsibility of stewardship.

### 2.2.3 Stewardship

These emerging shifts in mindsets regarding *co-evolution* as relational interaction and *quality of life* as recognizable and measurable vitality of systems suggest a broad-based shift in thinking about humankind’s role, place, and participation in the ever-unfolding complex matrix of evolutionary progress in the era of the Anthropocene. It supports mindsets and narratives that argue for a profound empathy with and reverence for the evolutionary process (Kuenkel, 2019). Such mindsets pay tribute to humankind’s technological, economic and social advancements, but redefine them in the context of the greater good and people’s ability to take care of each other and this greater good. They re-connect humankind to the experience of being part of an integrated whole. This emerging trend is most visible in scientific publications which begin to talk about Earth Stewardship (Steffen et al., 2018), and in the multiple international initiatives that claim the need for stewardship of certain aspects of the vitality of human-ecological systems, for example agroecology, rewilding, ocean clean-ups or global commons. However, taking care of our precious life-support systems as a core driver for individual and collective behaviour change needs to include the empathy with fellow human beings. If one acknowledges that all beings strive for

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<sup>3</sup> Source: <https://biomimicry.org/learning-nature-designing-nature-regenerative-cultures-create-conditions-conducive-life/>; accessed 7th May 2021.

more aliveness, or in the human realm for a better quality of life, it is obvious that the individual feeling of aliveness is inextricably linked to the vitality of larger social and ecological systems. *Stewardship* as a mindset that underpins *transformation literacy* “means to profoundly rethink our relationship to the world, to the whole—and to other individuals who are selves like us” (Weber, 2013, p. 58). Safeguarding one’s own aliveness and quality of life then requires helping other people and ecosystems into aliveness. Understanding transformations as a stewardship task cautions people to see sustainability challenges as dysfunctional socio-ecological systems interactions that co-create dangerous path dependencies. It encourages them to venture into local to global collective learning processes towards rehabilitating, maintaining or co-creating more socio-ecological patterns which support wellbeing on a healthy planet. Becoming conscious of how human beings can influence not only their individual pattern of aliveness, but also those of institutions, ecological systems and societies, and how this eventually contributes to the quality of life on the planet is a cornerstone of transformation literacy. The potential of being is the ability to learn and change behaviour, individually and collectively.

### 2.2.4 *Multiple Mindset Shifts*

The above trends can be observed for both in the conceptual framing mentioned *narratives of emergency and emergence*. *Emergency narratives* expectedly origin from the warnings of people and organizations that had already for a long time the future of our planet as their core mission. They have begun to move into the institutional landscape of UN organizations, academic institutions, national administrations and increasingly heads of state. *Emergence narratives* are much more widely distributed, focus on different topics, include cultural and historic diversity and views which have not yet entered into the institutional landscape. They also issue a warning: ignoring the implications that the outdated human mindsets of control over nature, people and technological fixes had not only on the destabilization of the planetary life-support system, but also on human dignity, may fire-back in the attempts to save the planet. Such narratives rightly argue that it is the acknowledgement of human dignity that is intrinsically linked to the emergence of a regenerative civilization, or to wellbeing on a healthy planet. The contributions of this section take these warnings seriously and suggest different perspectives with which mindset shifts as key element of transformation literacy can be approached. In their different and specific perspectives, they touch on all three trends, future-making as interdependent co-evolution, the connection between mindsets and the quality of life and the role of human stewardship towards regenerative civilizations.

Chapter 3 by **Christa Zettel** takes us not only into a historic perspective that looks at human consciousness development over many millennia, but emphasizes the importance of mythology as the most deeply ingrained way of humankind to keep learning. The author argues, contrary to the modern mind’s needs, that the creative aspect of change or transformation is not order, but disorder or chaos. Moreover,

transformations happen in the human mind not necessarily in the conscious “I”, but in the sub-consciousness, which is not only individual, but also collective. She suggests that what she calls the “universal power of self-renewal” has to be reintegrated into our rational approaches to transformations, and into science. In her view, the story of the soul, passed on by the peoples and nations in a nonlinear-out-of-time-way, is an important resource to understand the entire process of the development towards more regenerative civilizations.

Chapter 4 by a collective of authors looks at possible futures from a critical stance informed by a Global South perspective. **Samantha Suppiah, Sahana Chattopadhyay, Anna Clara Franzen De Nardin and Lua Couto** argue that the regeneration of the Global South is not only paramount, but at the core of regenerative global civilizations. This essay succinctly reminds us that the history of the very institutional framework that begins to adopt the emergency narrative to save the planet has been built on the exploitation of the Global South. In the author’s view, driving the immense transformations required to reach the aspiration of regenerative civilizations means to acknowledge the critically flawed philosophies, arguments and institutional frameworks that have defined recent human history. The authors hint to the fact that past and present hegemonic powers run deep, strong undercurrents throughout our globalized capitalist human systems, today and tomorrow. They suggest that, for *transformation literacy*, our ability to dance with complexity and chaos, even if awkwardly at first, underscores the emergent experimentation desperately needed to find new routes to our possible futures. In support of the emergence narrative, they emphasize that a pluriverse of options already exists, where restored and newly fostered ecosystems co-evolve with a freshly reinvigorated humanity.

Chapter 5 by **Nicole Dewandre** takes us into the mindset changes necessary and partly happening in powerful political and institutional structures such as the European Commission. The author argues that the *emergency narrative*, which she calls a culture of catastrophism does not deliver politically, because it is using mindsets and approaches of the past. She reminds us that the language of battle, which is frequently used in the *emergency narratives*, such as combating climate change or striking a war against sustainability challenges, undermines *transformation literacy*, because, in her view, fear will not mobilize people to engage with pathways towards regenerative civilizations. Even if it may be more challenging for humankind—and hence for politics—to stay on Earth than to explore the universe, people need more than protecting them from a catastrophe and instead work towards an emotionally engaging future. The author suggests that *transformation literacy* requires to let go of some fundamental features of modernity, such as the excessive reliance on rationality and on causality, coupled with the illusion of omnipotence. As an alternative way of thinking about future-making she offers a deep dive into the writings and concepts developed by Hannah Arendt and her reconceptualization of the human condition. Not only forges Arendt a concept of humanness that complements modern rationality with our animality or organic nature, but she also emphasizes plurality, reminding

us that human diversity in being, culture and approaches is an asset. Dewandre shows how Arendt's frameworks can make a decisive contribution to the relevance, responsiveness and effectiveness of politics.

Chapter 6 by **Man Fang** elaborates how the cultural perspective of Chinese philosophy supports an interconnected worldview. In this essay, the author elaborates how three fundamental Chinese traditional beliefs not only manifest in social life in China, but could make a decisive contribution to the *emerging narratives* around generative civilization. In Chinese harmonic philosophy, the assumption is that in their core all people are good and kind and that part of the social obligation is to grow by taking care and trusting each other, while protecting the essential human virtues in a harmonic atmosphere. In this philosophical tradition, personal development is not isolated from others, it begins in the self and emerges gradually into the family-oriented self, then into the extended family-oriented self, and finally into taking responsibility for one's organization, the community and even the state, respectively the globality of all people. All these layers are inseparably linked. The author suggests that China's contribution to mastering the global challenges in the Anthropocene goes far beyond technological and political capacities to meet ecological, social and ecological targets. The treasures of Chinese philosophy offer opportunities to reframe our views of reality in a way that may be much more in service of wellbeing on a healthy planet.

Chapter 7 by **Petra Kuenkel** suggests that shifts in mindsets need to reflect an emerging new view of reality. In her article she argues that COVID 19 as a global pandemic has alerted many people not only to the need to realign humankind's relationship with nature, but also highlighted the global interconnectedness and the vulnerability of people. The increasing concern for the future of humanity and our life-support system needs reflections about the underlying view of reality that informs approaches to transformations. She argues that if humanity wants to rise up to collective stewardship towards stabilizing the trajectories of our planet, transformation actors need to become humble partners of life's potential to renew and replenish. This article introduces the concept of *systems aliveness* as a guiding compass for transformative change. It emphasizes that understanding what gives life to systems needs to be at the centre of emerging transformation literacy. Drawing from multiple, interdisciplinary sources, the systems aliveness approach offers an avenue to reorientate transformation efforts around six generic principles. Using these principles as a lens to designing transformation initiatives and translating them into a stewardship architecture provides creative pathways for the long journey to regenerative civilizations.

## References

- Ashby, W. R. (1962). Principles of the self-organizing system. In H. von Foerster & G. W. Zopf (Eds.), *Principles of self-organization* (pp. 255–278). Pergamon.

- Bai, X., van der Leeuw, S., O'Brien, K., Berkhout, F., Biermann, F., Brondizio, E. S., & Revkin, A. (2016). Plausible and desirable futures in the anthropocene: A new research agenda. *Global Environmental Change*, 39, 351–362.
- Bateson, G. (1979). *Mind and nature: A necessary unity*. Dutton.
- Bollier, D., & Helfrich, S. (Eds.). (2015). *Patterns of commoning*. Levellers Press.
- Capra, F., & Luisi, P. L. (2014). *The system's view of life: A unifying vision*. Cambridge University Press.
- Checkland, P., & Holwell, S. (1998). *Information, systems, and information systems*. Wiley.
- Crutzen, P. J. (2002). Geology of mankind: The anthropocene. *Nature*, 415(6867), 23–23.
- Ellis, E. C. (2018). *Anthropocene: A very short introduction*. Oxford University Press.
- Finidori, H. (2016). Patterns that connect: Potential of pattern/languages for sustainable futures. In *Model report: Systems thinking, modeling and simulation news*. Retrieved from [https://model.report/s/mjmowj/patterns\\_that\\_connect\\_potential\\_of\\_pattern\\_languages\\_for\\_sustainable\\_futures\\_-\\_finidori](https://model.report/s/mjmowj/patterns_that_connect_potential_of_pattern_languages_for_sustainable_futures_-_finidori).
- Gabriel, R. P. (1996). *Patterns of software*. Oxford University Press.
- Hajiran, H. (2006). Toward a quality of life theory: Net domestic product of happiness. *Social Indicators Research*, 75, 31–43.
- Hammer, R. J., Edwards, J. S., & Tapinos, E. (2012). Examining the strategy development process through the lens of complex adaptive systems theory. *Journal of the Operational Research Society*, 63(7), 909–919.
- Hilborn, R. C. (2000). *Chaos and nonlinear dynamics: An introduction for scientists and engineers*. Oxford University Press.
- Jackson, M. O., & van den Nouweland, A. (2005). Strongly stable networks. *Games and Economic Behavior*, 51(2), 420–444. <https://doi.org/10.1016/j.geb.2004.08.004>
- Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management*, 29(6), 801–830. [https://doi.org/10.1016/S0149-2063\(03\)00080-1](https://doi.org/10.1016/S0149-2063(03)00080-1)
- Kauffman, S. (1996). *At home in the universe: The search for the laws of self-organization and complexity*. Oxford University Press.
- Kuenkel, P. (2019). *Stewarding sustainability transformations—An emerging theory and practice*. Report to the Club of Rome. Springer Nature, New York.
- Kuenkel, P., & Waddock, S. (2019). Stewarding aliveness in a troubled earth system. *Cadmus*, 4(1), 14–38. <http://cadmusjournal.org/article/volume-4/issue-1/stewarding-aliveness-troubled-earth-system>.
- Luhmann, N. (1990). *Essays on self-reference*. Columbia University Press.
- Margolis, H. (1987). *Patterns, thinking and cognition*. University of Chicago Press.
- Meadows, D., Meadows, D., Randers, J., & Behrens, W. (1972). *The limits to growth: A report for the Club of Rome's project on the predicament of mankind*. Earth Island Limited.
- Mennin, D., & Farach, F. (2007). Emotion and evolving treatments for adult psychopathology. *Clinical Psychology: Science and Practice*, 14(4), 329–352. <https://doi.org/10.1111/j.1468-2850.2007.00094.x>
- Otto, I. M., Donges, J. M., Cremades, R., Bhowmik, A., Hewitt, R. J., Lucht, W., Rockström, J., Allerberger, F., McCaffrey, M., Doe, S. S. P., Lenferna, A., Morán, N., van Vuuren, D. P., & Schellnhuber, H. J. (2020). Social tipping dynamics for stabilizing Earth's climate by 2050. *Proceedings of the National Academy of Sciences*, 117(5), 2354–2365. <https://doi.org/10.1073/pnas.1900577117>
- Pennock, M., & Ura, K. (2011). Gross national happiness as a framework for health impact assessment. *Environmental Impact Assessment Review*, 31(1), 61–65. <https://doi.org/10.1016/j.eiar.2010.04.003>
- Prigogine, I. (1996). *The end of certainty: Time chaos and the new laws of nature*. The Free Press.
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D.,... & Schellnhuber, H. J. (2018). Trajectories of the earth system in the anthropocene. *Proceedings*

- of the *National Academy of Sciences*, 115(33), 8252–8259. <https://www.pnas.org/content/pnas/early/2018/08/07/1810141115.full.pdf>.
- Stewart, I. (2002). *Does God play dice?* Blackwell.
- Waddell, S., Waddock, S., Cornell, S., Dentoni, D., McLachlan, M., & Meszoely, G. (2015). Large systems change: An emerging field of transformation and transitions. *The Journal of Corporate Citizenship*, 58, 5–30.
- Weber, A. (2013). *Enlivenment. Towards a fundamental shift in the concepts of nature, culture and politics*. Heinrich-Böll-Stiftung.
- Weber, A. (2016). *Biology of wonder: Aliveness, feeling and the metamorphosis of science*. New Society Publishers.
- Weinberg, H. (2001). Group process and group phenomena on the internet. *International Journal of Group Psychotherapy*, 51(3), 361–378.
- Wheatley, M. (1999). *Leadership and the new science, discovering order in a chaotic world*. Berrett-Koehler Publishers.

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# Chapter 3

## The Same Tone, but a New Sound—Understanding the Story of the Soul as Pathway to Regenerative Civilizations



Christa Zettel

**Abstract** This chapter takes not only into a historic perspective that looks at human consciousness development over many millennia, but emphasizes the importance of mythology as the most deeply ingrained way of humankind to keep learning for transformations. The author argues, contrary to the modern mind’s needs, that the creative aspect of change or transformation is not order, but disorder or chaos. To avoid the final fragmentation or destruction of our world, the intuitive ‘universal power of self-renewal’ (the life instinct) needs to be reintegrated into rational science, to fill our scientific particularization (the death instinct) with meaning, which is adequate to living in a humane way on our planet. This makes the *story of the soul* (Greek: psyche), which is passed on by peoples and cultures in a nonlinear-out-of-time-way, not only an important resource to understand the entire civilizational process and subsequently the development of regenerative civilizations. By allowing the forthcoming of an innate integral structure in the human mind, which uses both rationality and intuition, creative mythology is a discipline important for transformation literacy. It can contribute to the so much needed acceleration and speed up the process of collective regeneration, because this is a creative act and unleashes what was previously impossible.

**Keywords** Creative mythology · New enlightenment · Spirit and mind · Mind and matter · Archetypes and consciousness · Selfrenewal · Geist-in-action

### 3.1 The Story of the Soul

There is an inherent tendency in people who aspire to contribute to a transformation of our world to only take the present as a mental starting point for the creation of a different future, without understanding the historical lineage of mythical structures that underpin the present collective and individual behaviour. This article argues that the immersion with the story of the soul, and its manifestations in mythical

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C. Zettel (✉)  
Sonnenweg 9/8, 7122 Gols, Austria  
e-mail: [christa.zettel@bnet.at](mailto:christa.zettel@bnet.at)

structures is crucially important to contribute to and mobilize the consciousness shift so necessary for humankind's prospects of co-creating a liveable future. Science has so far widely neglected the role of the human mind in manifesting future. However, the increasing calls for transformations to sustainability and more regenerative ways of living on our planet are an indication that a new cycle of evolution, one which includes the transformation of the human psyche, has already started.

In the year 1981 in his studies about human consciousness, Jonathan Shear—a professor of philosophy in the USA—presented the results of a research project with hundreds of participants from different cultures and religions, practising the formula 28 of the Indian Master Patañjali who lived approx. 500 B.C., by using his star-like diagram for meditation (Powell, 1989). The text of the formula reads: Who concentrates with the inner mind (*samyama*) on the polar-star, gains knowledge about the rotation of the stars. In fact, all people meditating, reported that they could see the polar-star at the end of a long and circulating pillar of light, releasing light beams, similar to the ribs of an umbrella. This umbrella-like image, in which the stars seem to be interwoven, appears also circulating. More umbrella-like images, one packed into the other, could be seen next to the light pillar. Each seemed to circle with its own speed, had its own colour, and produced a clear, wonderful tone, experienced by all participants and described by them as: magnificent, blessing, bright, and comforting (Powell, 1989, pp. 72–73; Shear, 1981, p. 73).

Jonathan Shear (1981) drew attention to the fact that the graphic images, seen in the course of this meditation, correspond with the geometric images, described by Plato (375 B.C.E./1973) at the end of his publication 'De Republica' in the myth of 'Er',<sup>1</sup> who dies, flies up into heaven, and returns in his body to talk about his experiences. Powell also concluded, the meditation awakes non-learned, endogen (inward created) reactions, which one can call rightly an innate archetype or an innate structure of the human mind (Plato 375 B.C.E., p. 616b–e, as quoted in Powell, 1982, p. 78). This knowledge of awakening such an innate structure is part of the cultural heritage of our ancestors, passed on in their stories and practices. What Joseph Campbell (1968) called 'Creative Mythology' can be used as a tool to bring into the light of our consciousness a new, but at the same time already, innate psychic reality, which may enable us to find new solutions for world problems, and pathways into a future in which development does not benefit anymore only a privileged minority, but humanity as a whole. This may seem to many as an illusion or wishful thinking, but I believe it is an underestimated pathway to the emergence of a new way of enacting futures, because what can be described as the *story of the soul* (gr. *psyche*) in a nonlinear-out-of-time-way is also the process of the development of the 'psycho-mental body', which the French Philosopher Henri Bergson (1911) described already at the beginning of the last century as process ontology, called 'civilization'. He vehemently argues for the unpredictability of the evolutionary process which can only be understood by not only using our rational mind, but also fostering our intuitive

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<sup>1</sup> The Myth of Er is a legend towards the end of Plato's Republic (10.614–10.621). The story includes a view into the cosmos and a narration about the afterlife experiences. See: [https://en.wikipedia.org/wiki/Philosopher\\_king](https://en.wikipedia.org/wiki/Philosopher_king), accessed 2 May 2021.

capabilities. In his view, the mysterious origin of everything is omnipresent in the *story of the soul*, similar to a symphony in which the ground motive of the first accord returns as mighty final cord. The goal of the soul is, however, not physical extinction, but to reach a transcendent state of being, allowing rebirth. The same tone, but a new sound!

### 3.2 The Flow of Consciousness, History, and Mythology

According to Jean Gebser (1978), all peoples (and because of the fundamental biogenetical law all individuals) have to develop in the course of their history of culture five structures of consciousness which he calls: *archaic, magic, mythic, mental* and *integral*. Each structure reflects another psychic *quality of human existence*. None is better or worse than the others, and all are contained in the sub-consciousness (Illies, 1978). The archaic structure is represented by the prehistoric Mother Goddess as a symbol for the sub-consciousness, in which the ‘I’ as the focus of attention was still deeply embedded in the wholeness of the collective and all that it surrounded. For the ratio (the *mental* structure), this is perceived as a primitive or even obscure state. However, it is important to consider that what for the ‘I’ is the furthest away in time, may touch the soul the closest and reveal the story of the soul mentioned above!

As Thompson (1985) stated in his book about mythology, sexuality and the origin of culture, for the ‘I’ the consciousness of time seems to work linear: past-presence-future or *diachronic*, but for the soul, time is omnipresent or *synchronic* (Lévy-Strauss, 1966, p. 237). Because the soul exists out of time, she is able, if allowed by the ‘I’, to look at the same time backwards and forwards (Thompson, 1985). This is noteworthy, because this would mean that the stage for a fundamental mind-change is not the conscious ‘I’, but the sub-consciousness level of the soul (Harman, 1998). While man in the next state of a *magic structure* of mind can still have a direct revelation (gr. *apokalypse*) of ‘God and the World’, at this mental structure there is already the new tendency emerging: he begins to be convinced only *he* (e.g., in the role of a king, in the enlargement of his ‘I’ by speaking on behalf of his people) can have it.

The following next state of the *mythic* structure is based not anymore on a cult, but depends on the relation of the individual to the respective social organism, and on the feeling of identification with a revelation that includes all people who share a common mythology. Whenever a culture (or an individual) is ready for the next following structure of consciousness, chaos erupts. The psychic power, enforcing change, turns against the old order. The result is a *psychic crisis*, because what has been the greatest achievement of the old order, becomes the greatest enemy for an evolving, but still unconscious new order. Such times are described in mythology as ‘Dark Ages’, accompanied by mass migrations, a ‘War of Cultures’, nature disasters and climate changes, which are always periods of regression in culture, because the ability to adapt to an ecological niche, demanding a new adjustment, requires the entire psychic energy of the people (Thomson, 1985). After the last Dark Ages,

known as ‘Trojan War’, the next state, the *mental* structure was established in Greece, while in the Near East a ‘new mythology’ was transcribed, which became the psychic foundation of the European or occidental civilization.

Hence, in variation of transcriptions, mythologies are passed on throughout human history. To give one example for the continuance in mythology: what Greek stories told about Sisyphus and Tantalos, the two greatest sinners or tyrants in Hades, the underworld or sub-consciousness, find its equivalent in Egypt. Egyptian writers anticipated in the story of the fight between Horus and Seth, the unification of Lower and Upper Egypt and impressed onto the collective memory of this High Culture from her beginning to her end. Such is the power of mythological stories and *archetypes*,<sup>2</sup> passed on since prehistory in rituals and preserved by rock-engravings, rock-paintings and last but not least by oral tradition. Because the *story of the soul* looks on history from a holistic point of view, she does not separate between similar occurrences in time or locality, but combines them to one great story, to show a development, shared by all people. How the *story of the soul* is understood and passed on depends on the level of consciousness, which a tribe or nation has reached at the time of formulating their history of origin and rise. Over the course of millennia, and the emergence of the subsequent mental structures, the longing of the soul to experience embodiment as a transcendent state of being became obscure. This is why Ken Wilber (2001), the founder of Integral Psychology, noted that how people view reality is a composition of various levels of existence—matter, body, mind and soul. As individuals, people pass, if not struggle, through the different levels of mental structures and reach a higher state of being. Earlier states are present and not just infantile experiences. In various constellations, collective consciousness also passes through the different stages of consciousness development.

### 3.3 Archetypes and Their Shadows in Modern Society—Dionysus Versus Apollon

If we followed the suggestions of Jung (1983), we would consider mythical figures not just as mortal humans, who belong to a certain time and locality, but as *archetypes*, which structure the *story of the soul* and subsequently, the emotional dimensions of life. This would help us into the realization that any stage of consciousness development generates its own match with the *story of the soul*. By recapitulating the old and presenting the new story, this process becomes the overture of what is still to come (Thompson, 1985). Interestingly, Jung’s Quarternion of Archetypes—*King* (Queen), *Lover*, *Warrior*, *Magician*—resonates with people on a strongly emotional level, and it has been used in leadership development (Kuenkel, 2008). But the currently most dominant state of *mental* structure, the ratio, tends to consider them

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<sup>2</sup> What the ethnologist Adolf Bastien (1826–1905) called “Elementargedanke” (elementary ideas), Jung (1983, 1995) called “*archetypes of the collective sub-consciousness*, which structure the emotional dimensions of human life.

to be meaningless, or degenerate them into a tool for learning how to lead, devoid of their depth. However, as components of the structure of consciousness, they represent vital important psychic powers, essential for the building and sustaining of any society. The integral power in the centre of the psychic world is the Sovereign or Lord (Jung's term in German is 'Herrscher' or 'Herrscherin'), who integrates the powers of both King *and* Queen, and accepts and mobilizes the power of the other archetypes: Warrior, Lover and Magician, while bringing the necessary sacrifices for the benefit of the entire Quaternion. The Warrior is a symbol for the yang-side of the King, the Lover of the yin-side. The Magician, symbolizing the being and technology of the material world, governs also the immaterial world and connects as Shaman, Magus, Alchemist or Priest, the two worlds, yin and yang. Only the integration of the yang- and yin-qualities of the archetypes make a strong sovereign into a *good sovereign*, as wise as King Salomon. However, if these archetypes are suppressed or neglected by society, they go underground, in the sub-consciousness. This has tremendous effects on society, because their psychic energy becomes split into shadows, which manifest themselves as polarities, with one excessive side, while the other one lacks the necessary energy of the archetype (Jung, 1983). According to Bernard A. Lietaer (2000), associate professor for Archetype Psychology at the Sonoma State University in California, the part of the *King* is played in modern western societies by governments; military forces and enterprises represent an important part of the *Warrior*; Universities, Science, Technology and Rationality have partly taken over tasks of the *Magician*, without necessarily integrating yin and yang, while the archetypal *Lover*, expressed in the arts, is mostly restricted to private life. Suppressed into the sub-conscious underworld and ignored by society, archetypal shadows emerge in the too strong or too weak extremes, often split into the binary polarities, for example the tyrant versus the softy (*King*); the sadist versus the masochist (*Warrior*); the sex-possessed versus the impotent (*Lover*), and apollinic-hyperrational versus the dionysic arbitrary (*Magician*). Pushed into the unconscious, the shadows become invisible actors: the hyper-rationality of the *Magician* shadow can be easily recognized in our technocratic society with its focus on a particular production of facts and knowledge, coupled with the belief in omnipotence and truth, and the assumption that it is possible to be absolutely rational and objective (Lietaer *ibid.*). But also, the dionysic extreme of the *Magician* shadow assumes to be in possession of the only possible truth, even if it may be different from the hyperrational truth of its opponent. This observable dynamic of righteousness suggests that we should consider Norman Brown's advice, that time is more than ready for the mystic to break the mirror through which he sees everything dark, and for the rationalist, to break the mirror, through which he sees everything bright, to allow both to enter the kingdom of psychological reality (see Brown, 1959).

### 3.4 The Ultimate War—Eros and Thanatos

When we take a perspective on consciousness development over the span of several millennia, we can observe that our world is a man's world, dominated by unconscious male archetypes. The inner *Queen* or female Self, called by Jung Anima (Jung, 1983), has been suppressed for many centuries. In archetypes and art, she re-emerged in France at the end of the tenth century as 'Black Madonna' (also called the 'The Egyptian').<sup>3</sup> James Hillman (2004) suggested that understanding this archetype may reconnect us to the story of soul so that the image of the Black Madonna symbolized the positive power of the depression, because she forces us to look inside, so that we can find the soul. Which remained from this first attempt to reintegrate the female Self into Christianity was, besides the story of King Arthur and the legendary Grail, the first original myth of the Occident, the story of the love of Tristan and Isolde in the twelfth century. For the understanding of the significance of reintegration female archetypes into human consciousness development, it is worth to have a closer look at their story, for which many variations exist. In the interpretation I follow here (Johnson, 1985), Tristan is the prototype of modern man. Tristan, the sad-born child of the occident, has to fight a tyrant, the shadow of a King (the male self or Animus according to Jung), who has no inner Queen (or Anima) anymore. He wins the battle, but then he has to fight against the monstrous brother of the Queen of Ireland, whom he kills. But he was wounded by the giant's poisoned sword. Because the wound cannot heal in this world, he sails to the shores of Ireland, where the giant's sister rules, because only Isolde, the daughter of the Irish Queen, can cure him. They fall in love, but unfortunately, Tristan and Isolde try a drink, prepared by Isolde's mother, a famous magician, which was not meant for earthly lovers, but for the inner or psychic marriage of *King* and *Queen*. That's why Isolde is described as the only woman in the world, who can cure Tristan. But at the same time, she is the only woman in the world, who wants his death, because he killed her mother's brother (Johnson *ibid.*). The story symbolizes that the female archetype (or Anima) can work to the benefit of man only at the right place, in the delicate space between the rational 'I' and the mythical sub-consciousness, which allows the mind to explore new dimensions of being. Yet, if this space is not explored, the female archetype tends to be placed between the 'I' and the man's world and is perceived as a threat. By ways projection of this threat on any mortal woman, the female archetype is perceived to overthrow the 'I' of man by using his own weapon, the sword, flooding his psyche with demons or projections. In this case, the Anima does not lead the way to human feelings, but instead leads away from them, making humaneness inhuman, and in the worst scenario is perceived as eliminating the 'I' of man (Hillman, 2004).

This story hints to underlying mythical forces: Greek philosophers called the archetypical function of love or the longing for love, *Eros*, representing the life instinct or life force, and its polarity *Thanatos*, the Greek symbol for the death instinct.

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<sup>3</sup> Black Maddona's can be found in many countries in the world. Some research suggests that their origins are related to the queendom of Sheba in Africa (Begg, 2006).

Both emerge from the sub-conscious. Freud (2017)<sup>4</sup> considered the life instinct or *Biophilia* and the death instinct or Necrophilia as equal strong psychic forces. But Erich Fromm (1977), exploring the anatomy of human destructiveness, suggested that only the life instinct is a normal biological impulse, while the death instinct represents a rather psycho-pathological relevant symptom, created by culture and civilization. This pathology becomes stronger, the more the life instinct is suppressed by society, until—in the worst-case scenario—it is left as the only possible pathway. It is quite revealing to compare the qualities of the life and the death instinct, as described by Erich Fromm. He suggests that humans driven by the life instinct are future orientated, prefer to build up something new and are not captured by a past, which man, driven by the death instinct, wants to keep at any cost. They do want *to be* more (life instinct) and not *to have* more (death instinct); enjoy life in all its manifestations, and are not driven by the lust for consumption or for daily sensations (which is a manifestation of an obscured death instinct). For Fromm, individuality works best in a collective that encourages its members to be self-creative. In our modern societies, ego-centredness of individuals (a symptom of the death instinct) dominates reality and replaces the wellbeing of society. This throws individuals into a dilemma: the only psychic possibility left to an individual to escape the prison of this dominant egocentrism and his exclusion from a self-creative activity is to adapt to the dominant form of Thanatos, to the death instinct, which takes life away (Fromm *ibid.*). In the mythological story, these two instincts are intertwined. Tristan does not have to die to be re-united with his eternal love Isolde. Seen from the point of view of the mortal ‘Body-I’, *Eros* wants to maintain the life essence, while *Thanatos* strives for an end. In a different interpretation, both instincts can work together. If one considers *Eros* as the impulse to experience during lifetime the highest possible state of love and awareness, *Thanatos* can be understood as the inner impulse to reach new dimensions of consciousness by the death of the normal day-awareness. The *Eros* dimension of man, the joyful to-live-in-this-world, can exist and work together with the *Thanatos* dimension, the inner wish to reach higher levels of consciousness, to experience spirituality (Boorstein, 1988).

### 3.5 GEIST-in-Action—The Co-creative Power of the Mind

C. G. Jung has not only introduced his Quaternion of Archetypes into the modern ‘science of the soul’- psychology, he also reintegrated what was known until antiquity as the ‘Universal Soul’ into the sub-consciousness (connecting individual, collective and universal level). Roger Penrose (1989)—a theoretical mathematician—noted that physicians while searching for the origins of life, will finally come across the roots of consciousness, and for the biochemist Rupert Sheldrake (1985), who has introduced

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<sup>4</sup> Todestrieb/death instinct was first mentioned by Freud (1920) in his book ‘Jenseits des Lustprinzips’ (1920, 2017); Freud suggested the terms life instinct or *Eros* and death instinct; Fromm analysed Freud and introduced his new terms *biophilia* and *necrophilia*.

his theory of morphogenetic fields in nature-sciences, it is imaginable, that similar to the electromagnetic field of our planet, of which our biosphere is part, the relation between the individual and the universal part of sub-conscious powers could act as ideal mediator in a hierarchy of fields. This would suggest the conclusion that also Gaia (the Earth) has something like a *spirit*, embedded in the spirit of our sun-system and beyond this instance in a kind of galactic spirit. How this connecting ‘spirit’ is understood, may be different in different languages. As writer, I could not fail to notice that in my mother language (German) the word *Geist* does not distinguish between *mind* (the way *how* we think) and *spirit* (soul). The interconnectedness of our troubled biosphere, in which all continents and seas are situated, on or in which all species on Earth, including humans, live, is already well documented by nature sciences. But although the dramatic consequences of the ignorant and egocentric behaviour of modern societies in the Era of the Anthropocene have been described and predicted by science since long, the role of the *human mind* in its relation to the *spirit of the Earth* in the entire process of our emerging planetary crisis is not in focus. In fact, the role of the human mind is not only badly understood but underestimated to such an extent, that it threatens to extinguish life from our planet (Vernadsky, 2006). There are, however, various insights that hint to the significance of this issue. The intrinsic connection between mind and matter has been illustrated many times: by Vernadsky’s (ibid.) mathematical formula, Sheldrake’s (1985) morphogenetic fields or the theoretical physicist David Bohm’s model of an ‘implicate order in an enfolded universe’ (Bohm, 1980). Also Ilya Prigogine (1996) recognized cosmic dimensions or co-evolution in nature as the cause for a synchronic development of micro- and macro-scales (Briggs & Peat, 1990). Archetypes can be interpreted as representations of the human connection to an underlying spirit, because they belong to sub-conscious regions. They cannot be separated from the forces which created nature and the biological anatomy of humans, glands, organs, brain and the central nerve system (Lietaer, 2000). Kant said that the laws of space are known to the human mind, because they originated in mind. They are part of a knowledge, inherited by birth, a knowledge a priori, which can be remembered in extraordinary circumstances (Boorstein, 1982). While the ‘I’ needs the ratio to understand reality, the soul (psyche) needs symbols to ‘remember’. Because nothing can be a symbol, which was not once an object of experience, it does not matter *what* symbols show, a figure (mathematic), a letter (alphabet), objects (stones) or tones (music), to cause a sub-conscious reaction in the mind, a memory of the story of the soul (Rudhyar, 1979). From such a systemic view of the world what applies to natural systems, also applies to the human mind (Capra & Luisi, 2014). Especially in Eastern philosophies and mythologies, a *reciprocal action* is assumed between the smallest and the greatest. The individual self relates to the collective self in a similar way as, e.g., in macro-cosmos the polar axis to the equator (Campbell, 1992, 1996). Like in nature, the macro-cosmic north and south poles build an axis, which according to astronomic and telluric facts regulates the flowing in and flowing out of cosmic magnetic energies. In body–mind practices such as yoga practised since 4000 years, the human spine is the axis, through which the flow of spiritual energies is regulated by the central

nerve system of the human body.<sup>5</sup> This happens with the help of an invisible channel (the nerve centres or Chakras), called *Sushumna* (Woodroffe, 1974). This can help to understand the mystery of the polar-star-Sutra meditation mentioned at the beginning.

This relationship between mind and evolution was researched by the Russian nature-scientist Vladimir Ivanovich Vernadsky, who published his findings already in 1926 (reprinted in 1998), introducing his theory of a ‘Noosphere’ in relation to the biosphere of our planet, a concept that can be seen as crucial to understand the role and help of the human spirit for transformation. Vernadsky described the noosphere as a kind of creation-state *before* any separation (duality) has taken place. It is a physical vacuum or ethereal ‘in-space-element’ (within the earth atmosphere), which can become visible or remains invisible. He predicted the endangering influence of the human mind on the biosphere, but also suggested that the future evolution of the planet was dependent on “increasing consciousness and thought, and forms of having greater and greater influence on their surroundings” (Vernadsky, 1998, as quoted in Steffen et al., 2007, p. 615).

Plato used the word ethereal to describe a mysterious element, known in Egypt as Ba within the trinity of the soul: Akh (universal)—Ba (ethereal)—Ka (astral or life essence), which reminded Thompson (1985) of Jung’s trinity of the sub-consciousness (universal, collective and individual). Ka can be understood as that part of personality, in the sense of a uniqueness of a person, that would live on even after death, while Ba can also refer to inanimate matter. Described in antiquity as ‘breath of God’, what Plato called ‘ether’ is equivalent to the Hindu word *prana*, which expresses a life force or vital principle. According to Eastern tradition, it has a dipole to the *kundalini* (life essence) in the human brain. Other authors also argue that there is an intrinsic relationship between the individual and the collective. For Rupert Sheldrake (1985) memory is an inherent feature of evolutionary processes in nature. The ‘collective memory’ of the planet is built up by a process of formative causation through what he describes as morphogenetic fields that create morphic resonance, hence reality co-develops in relationality. He argues that this leads to similar action even at a distance and is not limited to space and time. Interestingly, there are similarities with what Jung called the collective unconscious. Sheldrake suggested every human being is endowed with this knowledge about the unconscious since birth, and it is structured by archetypes as mythological motifs or primordial images. This makes particular sense, if one considers the concept of energy fields, mentioned by Oschmann (2016), which are created by natural or artificial rhythms. They cause an entrainment of biological rhythms, which in turn influences the speed with which the human nerve system reacts to impulses or stimulation.

What the above journey through the centuries of exploration in the mind and matter relationship shows is that our minds are not only connected with the collective unconscious, as Jung would call it, but through this vastly distributed consciousness, with each other. Moreover, the act of co-creating reality is a constant process of becoming conscious. Something becomes visible, when we become conscious of it.

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<sup>5</sup> Campbell mentions that the classical Yoga (mulasbandhasana) goes back to the Indus culture about 2300–1750 B.C. (Campbell, 1992, p. 91).

This is illustrated by a mythical story. Heracles (roman Hercules), the proto-Hellenic hero of the Mother Goddess (Hera), has to fight against the monstrous Hydra. But he cannot kill her, because as soon as he cuts off with his sword one of her nine heads, three others grow instantly to replace them. In his despair, he remembers the words of his wise teacher: *We grow, when we kneel down, we win, when we put aside our weapons, we receive, when we give.* Heracles kneels down to the swamp, in which the monster lives, and lifts it up into broad daylight. Now he can cut off all nine heads. As soon as this is done, a tenth, before invisible head of the Hydra becomes visible, shining like a precious diamante. So, in the end, the monsters against which the innumerable heroes of our myths have to fight against, yield something precious, hidden in the sub-conscious Self. This suggests that we need to become much more conscious about how intrinsically linked mindsets and reality creation are. Moreover, both manifest in structures of societies, and these structures are linked to mythical stories and related archetypes that influence behaviour through the collective unconscious.

The relation of a society with mythical figures, archetypes and the access to the collective unconscious can have practical historical consequences. Lietaer (2000) has drawn attention to the fact, that in our entire history only two eras are known, during which at the same time a high standard of living for the population and a flourishing culture existed. One was the era of the European High Middle Age in France, the other one, lasting at least 1500 years, was the Egyptian High Culture. In both cases, the prosperity of the collective correlated with the flourishing of the female archetype. For example, Egypt had two types of currencies to ease trade in a way that would also benefit society. What can be called the yin-currency was used locally, while the yang-currency in the export trade. Although a demurrage charge, a fee on currency not used, was established, it did not diminish the currency as such. However, for example, when 10 bags of corn were stored by an owner, he was returned only eight. This avoided any attempts to hoard based on greed or hope that prices would increase. In both historical era, the reason for interruption and financial breakdown, followed by chaos, dissolution and the return of an elite, was the declining of the female archetype; during High Middle Age, it was the demise of the worship of the 'Black Madonna'; in Egypt, it was the ending of the cult of the goddess Isis. Much too little research has gone into the understanding of the depth of the relationship between mythical mental structures—such as the female archetypal structure and the functioning of human societies.

Today, in the year 2020 A.C., with the severe global sustainability challenges we face, and the slowness with which politicians, decision-makers and ordinary people respond, it is obvious that the underlying archetypal structure is determining the mindsets and subsequently, behaviour. The shadow of what Jung would have called the inner Magician tends to serve a Shadow-King, who with his help wants to avoid truly transformative change at any cost and instead strives to prolong his glorious past into the future until eternity. However, as Jean Ziegler (2009) notes, if in the mystery of history, the wounded collective memory of peoples, suppressed for many centuries, takes over, it can be expected that what is the furthest away in time becomes the most active and influential element (Debray, 1976, as quoted by Ziegler, 2009,

p. 34). It is suggested that this is the *archaic* element, historically the Age of the Mother Goddess, in which, according to Marija Gimbutas (1974), all archetypes are integrated in the sub-consciousness. She provided a list of 30,000 pre-historical artefacts, proving the Mother Goddess in all these archetypal manifestations (*Queen, Warrior, Lover, Magician* and *Great Mother*). Lietaer (2000) has therefore integrated the primordial archetype of the today mighty shadow of the Great Mother Goddess, whose yin-side he called ‘mentality of need’ and her yang-side ‘mentality of greed’, into Jung’s Quaternion of Archetypes. There is an interesting phenomenon: The greater the disintegration of archetypal structure, or more profoundly the misbalance between them, the more it becomes obvious what the ‘new science of chaos’ (Briggs & Peat, 1990) has found out: *the creative aspect of change, transformation or evolution is not order, but disorder or chaos*. Both possibilities of change were integrated in what Egyptians called the universal order *Maat*. Her symbols were either the two pans of the scales, counterbalancing each other, or a pendulum, oscillating from a centre. As soon as the utmost amplitude is reached, the pendulum swings into the opposite direction. The world which we experience with climate crisis, planetary emergencies and lately a global health crisis suggests that the pendulum has indeed reached a turning point. According to the ‘order in chaos’, recognized by the science of chaos (Briggs & Peat, 1990) and by archetype psychology (Lietaer, 2000), is reached, when the ideals of the old order, made by humans, cannot anymore produce solutions, but only contrary results, creating even more chaos. Everything is turned upside-down: *virtue becomes depravity, precaution dangerous and prudence madness* (Paul Krugman. New York Times, quoted by Der Standard (Austria), 8. 11. 2008). If in such a critical point of time the human mind remains bound by a process of individualization, in which the ‘I’ only strives for enlargement to the own benefit, it remains oblivious to what the future needs, what has to be done or cannot be done. The future depends on the integration of the unconscious and the intuitive. The only way out is the *free will* of the people to bring into daylight the next possible *integral* structure of consciousness. This will be possible when the state of the *mental* structure has fulfilled its purpose to reach the fundamental differentiation and autonomy of humans and allows for a new synthesis at the next level of consciousness development. People then will transcend the current state and recognize that they are part of a whole. This brings to light an unexpected higher level of consciousness, which could not be understood before, because this is a *creative act* that collectively requires much more than planning a better future (Tarnas, 1991).

### 3.6 A New Enlightenment

In the presence of the great misbalance between a minority of very rich and the overwhelming majority of very poor people in our world, the psychotherapist Ron Smothermon (1986) called at the beginning of the decade of the 1980 for a ‘New Enlightenment’ in the world. This is connected with what was formerly called *spiritual* and is known today as *transpersonal*. According to Dane Rudhyar (1979), who introduced

this term 1929 in the science of the soul, *transpersonal* means existing beyond the person in the sense of a conditioned and individualistic personality. While a personal attitude (or a personal feeling or a personal thought) is something which is rooted in the self (or 'I'), a transpersonal attitude is something, which emanates from the true non-binary, non-dualistic and nonlinear Self, using the personality only as instrument of manifestation (Rudhyar cited by Paul Krugman, 2008). However, if an enlightened individual of our days wants to ignore the ordinary world and tries to project his or her experience of universal love and harmony onto a world not ready for it, a duality crisis is the result. Somebody can spend the whole life trying to reach higher spheres of consciousness, while believing it is possible to maintain an altered state of consciousness uninterrupted all the time. Similar to the warning of the myth of a Greek hero and the snake-monster Medusa, this is as if one would seek the future by looking into a mirror, seeing a picture of a future state to achieve, and move towards it without recognizing it is only an image of the own self. Transformation requires the realization that the true state of wholeness and the joy and lightness a transpersonal state of mind grants, necessarily requires the integration of what one tries to leave behind. The way out of this dilemma is what Jung called *individuation*, which contrary to individualization is not understood in opposition to collective cares and obligations, but allows the integration of collective elements *by* the individual. Whatever way we choose as individual or as collective, whether self-renewal or self-destruction, the 'Law of Earth', still known by the Sumerian hero Enki, but not anymore by the first civilized hero Gilgamesh, will fulfil itself. It will fulfil itself according to the decisions of humanity in future decades, or according to the circumstances given to humanity to make decisions in future years. The question is, whether it will be possible for humanity to endure that power and to preserve it, in which the transformation of consciousness will become acute. The fate of humanity will depend on the intensity of consciousness, which humans shall reach and could reach, if they would succeed to live the transformation (Gebser, 1978). As soon as there is self-determination of sufficiently enough individuals to participate with their Selves in the process of anchoring the *mind-change* in human consciousness, GEIST-in-Action can become self-conscious on the collective level (Wilber, 2001). The credo of an integral consciousness is not anymore the 'either-or', but the 'as-well-as', not the 'I', but the 'We'. It does not eliminate the ratio, but allows the human mind to expand in regions of a multi-dimensional reality. Because this structure of consciousness is able to comprehend not only the many local and time bound interpretations of the underlying universal principles, mythology can be shared by all people, because it originates out of time and space. The universal valid truth of the mythic structure of the mind can be revealed once more, but now enriched by a great knowledge of scientific details. This could become the end of exoteric wars between religions and believe systems. Finally, this emerging mind structure could give up the illusion of a never-ending material growth. Independent organizations like Amnesty International or Greenpeace are already examples for the new consciousness, likewise the liberation of women, the discourses around non-binary gender identities, and the search for new healing methods or new forms to live together. Moreover, the formation of independent networks, which do not centre around the egocentric of individuals, but

around the democratic right of all humans, as well as social initiatives, are leading away from the madness of the shadow of the King and his addition to always being the first, the best, the richest and the most powerful man on earth.

Tristan (the modern man) may finally defeat the shadow-king, but before him lies the fight against the self-created monster. He cannot overcome it with the healing instrument of his mother, the harp (which stands for the archetypal *Lover*), but needs to allow the female archetype to rise not between the 'I' and the world, but between the 'I' and the sub-consciousness. The process of civilization requires the permanent absorption of unconscious elements in the psycho-mental body. This makes integration in the sense of the unification of parts to an entirety possible, while the reunification of polarities in the psyche is comparable to the 'psychological marriage' in mythology, which is necessary to transcend the intellect (Bergson, 1911). Combined with the growing inner feeling of a universality that shows reverence for pluraversality, more and more individuals will become conscious of the fact, that every human being represents a psycho-physical wholeness, which forms one with other entities, be it with other people, nature or the universe. This allows the replacement of the feeling of separation and alienation by the secure knowledge to be 'at home in the universe' (Kauffman, 1996), to be within our self and within the world and to be in fact one with the world.

What is needed urgently is to integrate the 'universal power of self-renewal' in science and into approaches to overcome the climate crisis or other sustainability challenges. Only a 'new science of evolution', covering the range of the biological evolution and the evolution of consciousness (the dimensions of the history of civilization) simultaneously can overcome the analytic chaos of a scientific particularization and be filled instead with a meaning that is adequate to the natural needs of all beings, living today on the planet Earth. Only such a science, envisioned by Thompson (1985) as "Wissenskunst", can guarantee that science is not replaced by the egomania of the inner *Magician* or by phantasm. Only then will we begin to come closer to the realization of the ancient human dream: to co-create a world, in which humans can live in harmony with each other, with nature and with the universe.

## References

- Begg, E. (2006). *The cult of the black virgin*. Chiron Publications. ISBN 978-1-8886-0239-5. [First published by Penguin Arkana, London, 1985].
- Bergson, H. (1911). *Creative evolution. Chapter II*. Henry Holt and Company.
- Bohm, D. (1980). *Wholeness and the implicate order*. Routledge.
- Paul Krugman. (2008). *New York Times*, quoted by *Der Standard (Austria)*, 8 (11).
- Boorstein, S. (Ed.) (1988). *Transpersonale Psychotherapie. Neue Wege in der Psychotherapie—Transpersonale Ansätze, Methoden und Ziele in der therapeutischen Praxis*. Scherz.
- Briggs, J., & Peat, F. D. (1990). *Die Entdeckung des Chaos*. Hanser.
- Brown, N. (1959). *Life against death*. Wesleyan University Press.
- Campbell, J. (1968). *Creative mythology. The masks of god*. The Viking Press.
- Campbell, J. (1992). *Die Mitte ist überall*. Kösel.
- Campbell, J. (1996). *Mythologie des Ostens*. dtv.

- Capra, F., & Luisi, P. L. (2014). *The system's view of life: A unifying vision*. Cambridge University Press.
- Freud, S. (2017). *Jenseits des Lustprinzips*. CreateSpace Independent Publishing Platform.
- Fromm, E. (1977). *Anatomie der menschlichen Destruktivität*. Rowohlt Taschenbuch.
- Gebser, J. (1978). *Gesamtausgabe. Band II. Ursprung und Gegenwart. Erster Teil. Das Fundament der aperspektivischen Welt. Beitrag zu einer Geschichte der Bewusstwerdung*. Novalis Verlag AG.
- Gimbutas, M. (1974). *The goddesses and gods of old Europe, 7000–3500 B.C.* Thames & Hudson.
- Harman, W. (1998). *Global mind change: The promise of the 21st century*. Berrett-Koehler Publishers.
- Hillman, J. (2004). *Archetypal psychology*. Uniform Edition, vol. 1. Spring Publications.
- Illies, J. (1978). Preface. In J. Gebser (Ed.), *Gesamtausgabe. Band II. Ursprung und Gegenwart. Erster Teil. Das Fundament der aperspektivischen Welt. Beitrag zu einer Geschichte der Bewusstwerdung*. Novalis Verlag AG.
- Johnson, R. A. (1985). *Traumvorstellung Liebe. Der Irrtum des Abendlandes*. Olten.
- Jung, C.G. (1983). *Die Archetypen und das Kollektive Unbewusste*. Gesammelte Werke. Band Neun/1. Walter.
- Jung, C. G. (1995). *Aion. Beiträge zur Symbolik des Selbst*. Gesammelte Werke. Neunter Band. Zweiter Halbband. Sonderausgabe. Walter.
- Kauffman, S. (1996). *At home in the universe: The search for the laws of self-organization and complexity*. Oxford University Press.
- Kuenkel, P. (2008). *Mind and heart: Mapping your personal journey towards leadership for sustainability*. Collective Leadership Institute.
- Lévy-Strauss, C. (1966). *The savage mind*. University of Chicago Press.
- Lietaer, B. A. (2000). *Mysterium Geld. Emotionale Bedeutung und Wirkungsweise eines Tabus*. Riemann.
- Oschman, W. (2016). *Evolution der Erde. Geschichte des Lebens und der Erde*. UTB.
- Penrose, R. (1989). *The emperors new mind*. Oxford University Press. (London? 1989 original; 1991 Penguin Books)
- Plato. (1973). *Republic*. In P. Shorey, Trans., E. Hamilton, & H. Cairns (Eds.), *The collected dialogues of Plato*. Princeton University Press (Original work published 375 B.C.E.).
- Powell, J. N. (1982). *The tao of symbols*. Morrow.
- Powell, J. N. (1989). *Das Tao der Symbole. Vom wahren Wesen unserer Sprache*. Diederichs.
- Prigogine, I. (1996). *The end of certainty: Time chaos and the new laws of nature*. The Free Press.
- Rudhyar, D. (1979). *Astrologie der Persönlichkeit. Ein neues Verständnis der astrologischen Konzepte in Bezug auf zeitgenössische Psychologie und Philosophie*. Kailash Hugendubel.
- Shear, J. (1981). Maharishi, Plato and the TM-Siddhi-program on innate structures of consciousness. *Metaphilosophy*, 12(1), 72–84.
- Sheldrake, R. (1985). *Das schöpferische Universum. Die Theorie des morphogenetischen Feldes*. Meyster.
- Smothermon, R. (1986). *Drehbuch für Meisterschaft im Leben*. Context.
- Steffen, W., Crutzen, P. J., & McNeill, J. R. (2007). The anthropocene: Are humans now overwhelming the great forces of nature? *Ambio*, 36(8), 614–621. <https://doi.org/10.1016/j.gloenvcha.2015.09.01>
- Tarnas, R. (1991). *The passion of the western mind. Understanding the ideas that have shaped our world view*. Ballantine Books.
- Thompson, W. I. (1985). *Der Fall in die Zeit: Mythologie. Sexualität und der Ursprung der Kultur*. Edition Weitbrecht Thienemann.
- Vernadsky V. I. (1998). *The biosphere. Translated and annotated version from the original of 1926*. Springer, New York.
- Vernadsky, V. I. (2006). *Essays on geochemistry & the biosphere*. Synergetic Press.
- Wilber, K. (2001). *Sex, ecology, spirituality: The spirit of evolution*. Shambhala.
- Woodroffe, S. J. G. (1974). *The serpent power*. Courier Corporation.

Ziegler, J. (2009). *Der Hass auf den Westen. Wie sich die armen Völker gegen den wirtschaftlichen Weltkrieg wehren*. Bertelsmann.

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## Chapter 4

# Possible Futures



**Samantha Suppiah, Sahana Chattopadhyay,  
Anna Clara Franzen De Nardin, and Lua Couto**

**Abstract** The regeneration of the Global South is the regeneration of our beautiful planet. Recognising the immense transformation required to reach this aspiration, we remember that evolution is the death of the obsolete and the birth of the new. We acknowledge the critically flawed philosophies, arguments and institutional frameworks that define recent human history: fragmentation by modernity, sanitised reductionism of mechanistic thought, dominating exploitation of entrenched inequality. Standing at the precipice of civilisational collapse, we see and make visible the forces set in motion by hegemonic powers past and present—these run deep, strong undercurrents throughout our globalised capitalist human systems, today and tomorrow. Our ability to dance with complexity and chaos, even if awkwardly at first, underscores the emergent experimentation desperately needed to find new routes to our possible futures. A pluriverse already exists and awaits us, where restored and newly fostered ecosystems co-evolve with our freshly reinvigorated humanity.

**Keywords** Global South · Mother Earth · Colonialism · Modernity · Decolonization · Intergenerationality · Pluriverse

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S. Suppiah (✉)  
Parañaque, Metro Manila, Philippines  
e-mail: [samantha@urbandoughnut.asia](mailto:samantha@urbandoughnut.asia)

S. Chattopadhyay  
Mumbai, India

A. C. F. De Nardin  
Rua Duque de Caxias, 2280 ap 204, 97060-210 Santa Maria, Rio Grande do Sul, Brazil

L. Couto  
Paraguai, 12, Belém, Brazil  
e-mail: [luana@futuropossivel.com.br](mailto:luana@futuropossivel.com.br)

## 4.1 Emergence from Folly

Welcome to Earth. Plants and animals used to thrive wild here in dynamic equilibrium. Life and death danced to the never-ending rhythms of birth, growth, maturation, abundance, nourishment, struggle, violence, death, decay. Infinite evolutionary experiments manifested life itself.

*Homo sapiens* were weavers of thriving ecosystems and volatile destroyers of hominids, dominating their tribal and ecological niches, expanding into others—just because it was possible. These behavioural trends have been echoed in other social species—primates, elephants, ravens and dolphins. It was our use of fire for cooking that diverted evolutionary investment away from the gut and into the brain (Brewer, 2020).

The invention of the farm separated specific plants and animals from their natural ecology—breeding crops and livestock specifically for human production. Reductionistic ecological discrimination. The rise of non-agrarian society led to a hierarchy of separation among human beings via the concept of the social class. The emergence of city states gave birth to the modern human civilisation—and its cyclical failure due to environmental destruction and military warfare.

Then came dominant ownership: empires, borders, propaganda, corporatisation, globalisation—false solidarity through separation. The ideology of expansionism outlasted the fall of empires and civilisational collapse, culminating in the recent propagation of the nation state. Technological advancement was a tool for distraction and control, developed to perpetuate and enforce geopolitical power through military might, and to propagate the idea that humanity can destroy what it cannot control.

The collapse of the Global South was also the collapse of Mother Earth. Today, the Global South stands as a metaphor for the unheard, unseen and unknown narratives of the world.

Throughout all of this, humanity remained an insignificant, negligible proportion of Earth's living biomass. Within two hundred years, the colonial project would bring the planet's astounding biodiversity its sixth mass extinction—through intentional, deliberate, reckless design of human systems for enslavement, extraction and exploitation—just because it was possible.

*Homo sapiens*, representing less than 0.01% of the planet's living biomass, have destroyed 83% of wild mammals, 80% of marine animals, 50% of plants, and 15% of fish (Bar-On et al., 2018). Millions of years of biological evolution disappearing without a mention. 2020 marked the crossover point when, for the first time in history, the total mass of objects produced by man has exceeded the total mass of living matter on Earth. The global mass of plastic produced since its invention is now greater than the total mass of all terrestrial and marine animals combined (Elhacham et al., 2020).

This tyrannical force of nature on Earth continues to blindly yet consciously follow this direction of damnation, insisting upon the civilisation of separation even as Earth's systems buckle and collapse around us, marching through quicksand towards a consumption-fuelled technocratic future for the privileged few (Bendell, 2020). Ancient Venus figurines are now theorised as symbols of survival and abundance

(Johnson et al., 2020), mirroring our contemporary worship of projections of privilege and opulence as our societies decay.

We remain mercilessly trapped in and vaguely aware of our folly. Our ability to understand and embody the deep transformations necessary in our cultural expectations of life will define our route to planetary regeneration—gentle or tumultuous.

## 4.2 The Story of the Global South

We don't know anything; we are just part of nature. When nature allows us to know something, however little about nature, we start to learn to use this wisdom to do good things too.

—Chief Ninawá, leader of the Huni Kuin peoples of the Amazon rainforest (video transcript).

We, in the civilisation of modernity, have much to learn from indigenous worldviews, particularly around the human–nature and human–human relationships. Indigenous spirituality teaches us that the heart, intention and consciousness with which you move and live in the world is of utmost importance. Sacred, even. The reverence with which we hold the divine design of Earth's systems defines the work of transformation for planetary regeneration.

“How does a tree photosynthesise to produce the air we breathe?” Chief Ninawá asks. “How does a bee hive produce honey? How would a bee do such a thing if it weren't for intelligence, if it weren't for reason? There is a great human egoism in believing that the human being is rational, or that only the human being is capable of experiencing pain, happiness or suffering. The Earth is sacred, the Earth hears, the Earth experiences suffering, and feels joy too.” He reminds us to give graceful thanks for the gifts we receive for free, “We *are* nature. We have a duty to make that connection with nature and with the Universe.” (Ninawá, 2020, video transcript).

Much of indigenous knowledge was lost to humanity when we stepped into the age of colonialism—one of intergenerational separation, apathy, and pain.

Pain is “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.” The International Association for the Study of Pain recognises (Raja et al., 2020) the lived experiences of pain, noting:

- Pain is always a personal experience that is influenced to varying degrees by biological, psychological and social factors.
- Through their life experiences, individuals learn the concept of pain.
- Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.

Modern colonialism began six centuries ago when international sea trade turned into conquest through coercion. This is a time known to Europeans as the “Age of Discovery” starting in the fifteenth century. Within half a century of the first

expeditions, much of the indigenous South American populations were wiped out by European diseases delivered by Spanish and Portuguese explorers. Irreplaceable gold and silver art were melted down to meet European ransoms (Minster, 2020). African and Asian colonisation required more strategic design, planning and brute force.

The history of interactions among disparate peoples is what shaped the modern world through conquest, epidemics and genocide. Those collisions created reverberations that have still not died down after many centuries, and that are actively continuing in some of the world's most troubled areas. [...] We see in our daily lives that some of the conquered peoples continue to form an underclass, centuries after the conquests or slave imports took place.

—Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies*, p. 10.

Physical military domination gave way to hegemonic power through manipulating language, culture, morality and common sense. Hegemony implicates power and politics into cultural texts—reinforced through the stories peoples (are allowed or empowered to) tell and the images people (are allowed or empowered to) make (Gramsci, 1929, 1935). This is how oppression remains in our minds.

Indigenous peoples have gained increasing international visibility in their fight against long-standing colonial occupation by nation states, while enduring ongoing patterns of colonial dispossession and violence. In defending their collective rights to self-determination, culture, lands and resources, their resistance and creativity offer pause for critical reflection on the importance of maintaining indigenous distinctiveness against the homogenising forces of states and corporations (Samson & Gigoux, 2016).

As plural truths emerge slowly through research into indigenous stories and release of coloniser records (Radiolab, 2015), we must explore other ways of reimagining entrenched perspectives of histories. As one example, new epistemologies are experimented through the virtual worlds afforded through mainstream console game series such as *Assassin's Creed*. The game's detailed 3D visualisations depicting past worlds as accurately as commercially possible blends in together with semi-fictional plot lines loosely based on real recorded history (Masters, 2012; Ubisoft, 2012). *Assassins Creed III*'s eighteenth century protagonist is a half-Mohawk, half-English assassin who battles his own identity as his indigenous culture is decimated in colonial America.

The gamer is invited to become characters with diverse heritages, activating the interactivity of mainstream gaming in embodying the complex cultural circumstances of the times, as far as we can speculate, for modern edutainment. Powerful collective imaginations of sophisticated stories and histories are mainstreamed. Commercial console gaming is a technology-enabled experience where millions of people all around the world engage simultaneously in exploring stories within new complex worlds.

The global social experience of commercial gaming is one of building common yet distinct memories and (sub-)cultures, through nonlinear relationships in-game. Recent game design and world-building innovations enable diverse and plural perspectives in multiplayer and single player mode.

On the other extreme, the linear simplification of planetary and human history, as it is currently perceived and taught by institutional education systems, leaves us to the unfortunate prioritisation and pedestalisation of recent common homogenised experiences, discounting the diverse valuable lessons of human history—all of which pale in comparison to those required to prepare us for the imminent future of accelerated anthropogenic climate and environmental crises.

Climate change is not simply a political/environmental issue, something that can be resolved in the sparkling glare of cameras and behind the forced smiles of world leaders after a few carbon commitments. It is a spiritual crisis, an existential crisis, an epistemological crisis. And to meet it, we must come face-to-face with the noxious heap of ideologies we have swept under the carpet of orthodoxy. We must confront what it means to be human, the ironies and impossibilities of growth for growth's sake, the impasses of human agency, the linearity and limitations of capitalist teleology. The substructures of our experience as a species in these moments of charged transitions need to be upturned.

—Alnoor Ladha and Bayo Akomolafe (2017, p. 822).

If there is one overarching story of the Global South, it might be that of resilience in the face of painful, overwhelming oppression delivered alongside the attractive opulence of modernity. It might be that of boldly celebrating the diverse ways of life that remain continuing to tell the stories that matter in traditional cultures even as they disappear forever.

### 4.3 The Separation of Modernity

Humanity is now being invited to cross membranes—to dance (in the dark and awkwardly) with the complexities and chaos of existence. For a long time, unfortunately, we have tried to deal with the complexities by making the complex issues simple. Unsuccessfully, we have been trying to untie the knots that intersect our problems in this web of interdependencies that is life through a reductionist and fragmentary worldview. And still, we rely largely on the paradigms of dualisms, objectivity, linearities, determinisms, superficialities and materialities that guide the prevalence of static equilibrium over dynamic evolution, and the placement of the human (and a very specific sort of human) at the centre of control and creation.

Modernity is a worldview that is Eurocentric, rationalist, Cartesian, objectivist, reductionist, positivist, capitalist, liberal, patriarchal and white. Current wicked problems on a global scale do not simply arise from the absence of awareness or knowledge. They are deeply ingrained in an inherently violent modern-colonial habit of being (Gesturing Towards Decolonial Futures, 2020). Modernity has been relying on fantasies and denials, spiralling again and again in loopy tendrils, wounding itself with abyssal grasping and perpetuating its own violent modern-colonial habits of being, as claimed by Alvarez-Pereira (2016):

- The *fantasy of exclusion and denial of bonds*, the insistence in seeing ourselves as separate rather than entangled and irrevocably interconnected with each other,

and indeed with all sentient beings and Earth herself, justify avoiding the shared responsibility of making damaged worlds liveable again.

- The *fantasy of omnipotence and denial of limitations* nurtures the insatiable, superficial material gratification, the belief in unlimited growth and control over the Universe, while denying the fact that the planet cannot sustain exponential growth and consumption.
- The *fantasy of measurability and denial of complexity* maintains the obsessive act of measuring and quantifying, ignoring the fact that life is also sacred, complex, diverse and not commensurable with a scalar, one-dimensional magnitude. What truly matters cannot be measured.
- The *fantasy of capital and denial of potential* transform the capital into an abstraction that doesn't support humans' creative and authentic values, denying that a prosperous future is built upon the non-computable cultural and artistic heritage.
- The *fantasy of power and denial of learning* accepts the existence of inequalities and hierarchies, denying the systemic violence and the fact that our comforts, securities and enjoyments are subsidised by expropriation and exploitation somewhere else.
- The *fantasy of certainty and denial of time* makes us hate the uncertainty of the future, as much as we avoid the certainty of our own death.

The more we excavate our assumed certainties and drive towards turbulent shores, the more we find just how complicit with the systemic crises we are. We are all complicit in upholding and reifying the meta-narrative of separation, of individualism, of hegemonic power. The trouble we need to stay within in the Anthropocene strikes at the “heart of things”, and “a ‘thing’ is only a ‘thing’ in ‘context’ of relationship [...] In other words, there are no ‘things’, only entanglements, and, by definition, an entanglement [...] is an ongoing promiscuity that makes thingness possible, the waltz of a thousand im/possibilities” (Ladha & Akomolafe, 2017, p. 831).

Therefore, human nature is an ongoing admixture of the deconstruction strangeness of becoming human, where we require each other in unexpected collaborations and combinations, in hot compost piles, to be able to write non-ending stories of becoming-with. The weaving of sympoietic stories involves exploring the limits more than the centres, expanding the edges so they can be seen as meeting points—instead of points of separation. To create paths across difference, there is a need to “reimagine the ways of living and dying attuned to still possible finite flourishing, still possible recuperation” (Haraway, 2016, p. 10).

This entanglement state, this sympoietic way of being, living and dying, however, is not a ‘new’ story. We don't need to create ‘new worlds’ to continue existing on Earth, we just need to look to the unheard and unseen stories that surround us, to imaginaries that were forgotten (Ladha & Akomolafe, 2017), only allowing the foreground of frenzied commercialism and social hierarchy to matter. Many indigenous peoples preserve worldviews that see humanity and Earth as the same entity, that believe that we breathe and dream together with this larger organism. *These people who are still clinging to the edges of the planet are the remedies for its*

*fever*. The people that still know this different way of inhabiting Earth and still are protected by this memory and are capable of thinking and creating other worlds.

Our time is specialised in producing absences: the meaning of living in society, the very meaning of the experience of life. This generates a great intolerance towards those who are still able to experience the pleasure of being alive, dancing and singing. And it is full of small constellations of people around the world who dance, sing and make it rain. (Krenak, 2020, p. 26).

There seem to be entangled possibilities in the idea of ancient futures: invoking the plurality of ways of living and seeing life may lead to emerging pathways, without the fixity of reductionist worldviews. Finding other ways which go beyond our limited conceptions of intelligence is to face abysses, embrace uncertainties and open portals to co-imagine collective transmutation strategies. Co-feel the embryos of the future that inhabit us and impose the urgency of the materialisation of “other possible worlds” through the experimentation of other modes of existence.

As the world we know seems to fall apart, understanding these possible micro-political movements, staying in this trouble together, going down the cracks and envisioning other ways of being, is to become agents of that insurgency. Life constantly seeks transfigurations to keep its pulse in the face of collapse, for example a river that dries up with the excess of colonial garbage and then moves underground, where it finds the possibility of flowing again now protected from such poisonous effects (Rolnik, 2018). A more beautiful future will spring from underground—and how could it not, if what is on the surface is coming apart?

## 4.4 Decolonisation

The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appear.

—Antonio Gramsci (1929–1935, pp. 275–276).

We are once again in an interregnum. The simultaneous collapse of all systems—ecological, economic, social and spiritual across the globe—bear testament to the obsolete narratives, processes and structures trying desperately to prop up a decaying and destructive order. The Earth has risen!

It's 2022. Humanity's greatest nemesis is a microscopic virus, bringing mighty nation states to their knees, halting the juggernaut of global economy, exposing the fissures and fractures of a broken, papered-over world. The COVID-19 pandemic is itself a decolonising force, “*the great equaliser*”, smashing through the barriers of propaganda, exposing the myth of development, inexorably highlighting falsehoods of the universal story of human progress propagated by the ruling classes of the Global North. The pandemic underscores our inescapable interconnectedness to all sentient beings on this planet and to the very Earth herself.

Being able to hold onto this embodied sense of our deep interconnectedness is a crucial step towards decolonisation of our minds and imaginations. Thus, decolonisation becomes a process—an ongoing peeling away of the layers of imposed identity conferred by the colonisers, rejecting the stories offered, and a general ripping off the veils of illusion created by malicious omissions and elisions to design palatable chronicles of progress, development and the white saviour model. Decolonisation enables us to see more clearly the “hidden” hierarchy of countries—the developed and the developing—the coloniser and the colonised.

Imagine a world where labour and resources in the global South were available to provide for local human needs, rather than appropriated for the sake of excess consumption in the global North. For reference, the scale of net appropriation from the South to North is staggering: 10.1 billion tons of raw materials, 379 billion hours of human labour, 22.7 quintillion joules of energy, 800 million hectares of land. That’s for a single year, 2015. All for Northern excess.

—Jason Hickel, referencing Dorninger et al. (2021).

Who benefits from the continuity of neoliberalism and neo-colonialism that is vastly more insidious and sinister, with its access to big tech, big pharma, big data and surveillance capitalism (Zuboff, 2019). To decolonise is to penetrate this heart of darkness and see in it the very foundations of simultaneous global systems collapse that COVID-19 has accelerated, revealing systemic fault lines to the horrified gaze of a cloistered world. Over at the World Trade Organisation, a proposal by India and South Africa to waive patent rules for the COVID-19 vaccine has been predictably *opposed* by Global North countries, including Britain, Switzerland and the USA (Amnesty International, 2020).

Every narrative of separation—from Earth, from other human and more-than-human souls, other countries and civilisations—holds the ominous machinations of neo-colonial manipulation rooted in power, privilege and protection for a few, continuously seeking to maintain separation, fuel scarcity and stoke fears to keep the hungry wheels of exploitation turning.

Decolonisation is the undoing of colonisation through collective acceptance, apology and acknowledgement of the generational ecosystems damage in genocide and ecocide. It is the call for the giving back of what was taken—land, ecosystems, peoples, bodies, artefacts, stories. It is the demand for uncomfortable acceptance through purposeful investment into uncovering our true common histories, the interwoven threads of crime and pain, of power and resistance, of visibility and voicelessness. It is the realisation that our pluriverses had been rudely interrupted, disrupted and discontinued, by the theft of our wealth. It is the grieving over the futures we had lost and will struggle for centuries to reinstate. It is the recognition of the great disconnect of heritage confusion that embodies much of the trauma of physical, cultural and economic clashes of civilisations. It is the demonstration of collective remorse through communal solidarity.

Decolonisation is the process of decay we must experience collectively, across generations and worldviews, in order to accelerate planetary regeneration. At its ultimate completion, decolonisation is the elimination of the structural, legal, political

and social privileges, domination, and legitimisation of the colonial class, and the classes that rule off the back of colonial hegemony.

To decolonise is to call out our recurrent pattern of depredation, dehumanisation and destruction of the Global South. Moving towards regenerative futures requires acknowledging and honouring these narratives. We must see through constructed realities masquerading as universal truths. This then enables a conscious shift towards a pluriverse—a world where many worlds fit.

As various grassroots movements play out across the globe, from Black Lives Matter to the Indian farmers' protests, the seeds of decolonisation, long germinating underfoot, now spurt up into seedlings. Light now shines through the structural cracks the establishment has regularly plastered over. Local movements everywhere are dethroning mainstream propaganda, making visible a fractured planet mutilated by centuries of exploitation.

These death-defying forces of trauma and resilience are now espousing loudly counter-narratives that lay the ground for a plural future. To decolonise is to defiantly resist.

The tree of life knows that, whatever happens, the warm music spinning around it will never stop. However much death may come, however much blood may flow, the music will dance men and women as long as the air breathes them and the land plows and loves them.

—Eduardo Galeano, p. 13.

## 4.5 Intergenerationality

Indigenous peoples have been defiantly resisting for six hundred years. Such is the importance of intergenerational work.

Intergenerational interactions are in themselves micro-pluriverses encapsulating stories and patterns of diverse experiences, worldviews and cultures. These spaces are crucibles of the past, present and future.

Modernity's constant need for recreating ruptures and revolutions with each generation stems in part from a constructed idea that elders and youth live in different worlds, signalling "progress". Generational divide slots each *generation* in chronological order with defined cultural stereotypes and descriptive identifiers. We have forgotten that we all exist in a shared space (Sayson, 2020). Generational identities normalise a story in which social interactions occur mostly within generations, not across them. This renders us lost to the wisdom of the past, unmoored and uprooted from our fluid contemporary traditional narratives, histories and evolutions.

Our differences are what makes our experiences beautiful. Accepting our own becoming regardless of age is vital in settling into the present. This helps us understand that *the future is already where we are*. We might then be more intentional of the futures we can build together. Actively curating an intergenerational world begets a sense of continuity in heritage and community—belonging (Sayson, 2020). Knowing *who* we are and *where* we are, knowing we see and value each other, empowers us to undo separation and seek re-alignment with Earth's systems.

This applies even in the most rigid of communities. Within conventional work, organisational structure and hierarchical procedures stratify and isolate through entrenched dynamics of power and anxiety. In a rapidly changing and ubiquitously connected world, intergenerationality is a stew of diverse perspectives co-iterating on anti-fragility and resilience.

In a forest, mature trees nurture and nourish young plants. As described in *The Social Life of Forests* (Jabr, 2020):

An old-growth forest is neither an assemblage of stoic organisms tolerating one another's presence nor a merciless battle royale: It's a vast, ancient and intricate society. There is conflict in a forest, but there is also negotiation, reciprocity and perhaps even selflessness. The trees, understory plants, fungi and microbes in a forest are so thoroughly connected, communicative and co-dependent that some scientists have described them as superorganisms.

Forests themselves are our ancestral societies. We carry in our DNA 4.5 billion years of evolutionary wisdom and innovation—intergenerationality goes beyond humans to our more-than-human ancestors. Earth's diversity is testament to life's embodiment of co-existence through weaving bonds of mutual nurturing and collective composting, where grief is decay (Su, 2020). We must acknowledge and remember the harm and pain that we have experienced in our local and global worlds. To be able to sense this discomfort, we must recalibrate our sensitivities and respect individual and collective therapy. We must expect, and seek to avoid, future harm.

Intergenerational work is a subject continuously present in co-creating possible futures, where life continually folds in on itself. Just as twisting fibres gives a rope its strength, past and future generations are entangled, and must become even more so. Purposefully weaving past wisdom with new innovation enables us to continually birth new worlds. This entanglement raises different perspectives, experiences, sensitivities of the layering and overlapping generations—allowing the integration of wisdom in diversity and resilience in long-lived human societies aligned with Earth's systems. Traditional knowledge does not lie only in the past. It is alive today and perpetuates our futures.

We must recognise the violence that persists. We must honour acts of witnessing, mourning and grieving. We must acknowledge and be empathetic to the nonlinear nature of intergenerational work—we are living and processing numerous historical moments all at once (Cardoso, 2020).

South African philosopher Mogobe Ramose describes the African concept of the collective, *ubuntu*, such that a community is “logically and historically prior to the individual”. This community is a *dynamic entity* between three spheres: that of the living, that of ancestors and that of those not yet born (Ramosé, 2002). This philosophy vitally articulates the gravity of taking the intergenerational “We” seriously. Many indigenous philosophies around the world hold similar local concepts of the collective. For example, in the Philippines, *kapwa* is the I in you, and the I in other. You-ness is also within them—you are not alone, you are embedded among *them* (Sayson, 2020).

Understanding our distinct roles in a complex, interwoven living system, and acknowledging inherent contradictions, must form the foundation of our stories and

cultures in seeking to avoid the mistakes of our dominating and disruptive ancestors. Regeneration of the Global South requires that we take seriously the reclamation of what had been, is being, and will be destroyed and violated (Sayson, 2020). Undoing this separation helps to build the might of our own societies and communities, reclaiming our stories and ourselves (Khan, 2020). This is the intergenerational work in building possible futures.

The might of a nation is the ability to tell its stories, be heard and follow on its thread. The Global South's history of slavery and colonisation is a great disruption to the might of our societies, leading to generations-long individual and collective identity struggles. Our histories must be spoken not through the eyes of the Global North, but shared with authenticity and integrity between generations within our local societies. If we want to strive for the wholesome thriving of life on Earth, we must hold dearly and humbly the connectivity of the different generations, carefully integrating past wisdom and new innovation (Khan, 2020).

## 4.6 Pluriverse

The world we want is a world in which many worlds fit. [...] Softly and gently we speak the words which find the unity which will embrace us in history and which will discard the abandonment which confronts and destroys us. Our word, our song and our cry, is so that the dead will no longer die. We fight so that they may live. We sing so that they may live.

—Zapatista National Liberation Army (Ejército Zapatista de Liberación Nacional, EZLN).

We live in a world founded upon *one* universal narrative of growth and development for all. “*The West’s universalising tendency was nothing new, but it claimed a superior position for itself,*” Walter D. Mignolo writes (quoted in Reiter, 2018, p. 10). This unnatural, unrealistic and unachievable narrative has been a persistent backdrop of our modern culture; the social imaginary we teach ourselves to build identities within and religiously uphold. Our dominant narrative of modernity has arrogated to itself the right to be “the world”, subjecting all other worlds to irrelevance.

By essence, a pluriverse questions the notion of a universe, a “one-story-fits-all” formula in a multiverse world. It is convenient for the global ruling class to have a unifying, single narrative that supports the dominant paradigms legitimising the status quo. It is therefore critical to explore, unravel and articulate the hidden layers of the unheard, unseen, unknown and unacknowledged. Other truths lurk in the folds of the seemingly uniform. It is a journey towards reclaiming who we are as individuals, as communities, as societies, as ecosystems—towards wholly belonging to ourselves and our narratives.

Planetary regeneration cannot be co-created on the collapsing grounds of exclusion, extraction, exploitation and extermination. In the world we want, everybody fits, human and more-than-human, in a twisting dance.

We hence invite stories of lived experiences to collectively envision a future that works for all. It's okay that narratives clash. They work in their contexts and coexist in parallel. There will be a place for paradoxes, confrontations and absolute differences in every form. The moment we attempt to unify, we feed the conformity of modernity. Pluriversality thus becomes a portal to a regenerative future.

The economic, social, ecological and spiritual crises we are experiencing today are largely caused by an ontology that is unable to generate truly transformative solutions to the problems it has created. As we stand guilty of the sixth mass extinction and reflect on our velocity that has propelled us to this point, history impels us from universality towards pluriversality. We have no choice but to transition to a worldview without a centre and without margins, as proposed by South African philosopher Mogobe Ramose (2002).

This is a phase shift into a different way of being, seeing and relating to each other, and to the Universe. We are required to acknowledge and recognise the multiverse of stories and narratives of the Global South. Colonised worlds' ways of being have been delegitimised, invisibilised and ridiculed for centuries, even as indigenous knowledge was misappropriated and re-branded in service to Western capitalism. It is time to resurrect the trapped stories lurking in the folds and fractures of our modern civilisation, waiting to be illuminated, shared and integrated into the creation of a pluriverse.

Arturo Escobar's *Designs for the Pluriverse* (2018) advises changing how we make the world—changing our ways of life. The pursuit of *pluriversality* invites us to become intimate with difference and to nourish ourselves with it. It is a process of intellectual, emotional, ethical and spiritual decolonisation and remembrance.

Remember that our world is made up of multiple worlds, multiple ontologies, an infinity of realities that do not relate to the worldview of modernity. The simultaneous collapse of global systems underlines the obsolescence of material opulence peddled by Western civilisation. In this liminal space between stories, we are called to celebrate the infinite diversities of the many worlds that were once discarded and abandoned. We are invited to feel the irrevocably intertwined and interconnected nature of all life, not only as an act of conscious development, but as one integral to the very survival of life on Earth.

*Pluriversality* proposes, above all, a search for the recognition and celebration of the epistemological diversity of our worlds. It demands that new repertoires of human dignity and social emancipation be based on the *relational* dimensions of life, leading from struggles against oppression and exploitation to the reinvention of being, thinking and existing. Far from being imprisoned in identity essentialisms, these repertoires are contributions to the renewal and diversification of narratives from other possible worlds that are more just—human-to-human and human-to-non-humans (de Sousa Santos, 2019).

*Pluriversality* and these multiple epistemologies, whether new or ancestral, teach us to live with, and within, our differences. Practicing *otherness* involves deep concern with social justice, radical equality of beings and non-hierarchy. Purposeful exploration of other types of knowledge, offering insights into social life and social transformation, shows us ways out of monoculture. *Pluriversality* is a recognition of

the Universe regenerating itself. Without radically transforming our standard worldview, peace and planetary health are mere illusions. Yet, this is the civilisational transformation we have so longed for.

We speak of no less than a new notion of the human being, a true understanding of what it means to be a living being in the era of twin planetary crises—widespread instability and a growing insurrection against the increasingly evident effects of the so-called universalist worldview in a globalised world.

## 4.7 Midwifing Transformation

Transformation is far from incremental change—it is indeed the death of the obsolete and the birth of the new, through the evolutionary process of innovative experimentation. In our conscious cultural evolution towards planetary regeneration, we must embrace radical transformation.

It starts with humbling ourselves to be able to see the theatre of the absurd we have built and find impossible to leave. The civilisation of separation is the desperate grasping of monopoly crisis capitalism, a display of obfuscating hegemonic power in its corporate death throes—an aeroplane stalling. Recognise the upswell of resistant civic movements to this dominant civilisational model that has been vindictively upheld by the ruling classes since the release of the report to the Club of Rome, ‘Limits to growth’ (Meadows et al., 1972).

In collectively learning to see and acknowledge the ridiculousness of modernity, the mirage begins to fade and we gain a deeper understanding of our interwoven stories—past, present and future. We become more adept at acknowledging the spiralling damage of expansionism and colonisation, of globalised capitalism and industrial consumerism. Is this the world we wanted? Where did we go wrong?

When we process these explorations in communal discourse, we turn knowledge into wisdom. A deeper knowing of how we arrived at this point, without confusion, without denial, without judgement. This is our recent human story. Shared epiphanies will then inform us of what we must together do.

Public discourse serves as a collective processing in turning knowledge into memory, memory into wisdom. It must percolate through the social classes, especially leveraging the sympathetic minority within the ruling class, who will either lean in graciously or guarantee their unceremonious end.

This process begets quite naturally a deep cultural embodiment of this wisdom, where we disincentivise behaviours leading back down the same path of absurdity and encourage practices generating plural wealth in the direction of therapeutic healing for individuals, communities, ecologies and indeed Earth itself.

As these cultural innovations bubble up into new paths, we find our eyes opening to the ever-present truth that our world is, and always has been, made up of multiple worlds, each nurturing overlapping, overlaying worlds within it. Worlds within worlds within worlds: the pluriverse.

We cannot know without experiencing. When our human cultures and institutional systems are aligned with and supportive of this transformation, then we are literate.

## References

- Alvarez-Pereira, C. (2016). Towards a society of living: Provocations on economy and economics by a Layman and Entrepreneur. *Eruditio, e-Journal of the World Academy of Art & Science*, 2(2), 72–101.
- Amnesty International. (2020). WTO: A missed opportunity to put people before patents. Accessed Oct 16, 2020, from <https://www.amnesty.org/en/latest/news/2020/10/wto-states-waiver-trade-rules-for-covid19-vaccine/>.
- Bar-On, Y. M., Phillips, R., & Milo, R. (2018). The biomass distribution on Earth. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 115(25), 6506–6511. <https://doi.org/10.1073/pnas.1711842115>.
- Bendell, J. (2020). Deep adaptation: A map for navigating climate tragedy. In *IFLAS occasional paper 2*, originally Published July 27, 2018, 2nd edition released July 27, 2020, <https://www.lifeworth.com/deepadaptation.pdf>.
- Black Lives Matter. <https://blacklivesmatter.com/>.
- Brewer, J. (2020). Cultural evolution of our planetary crisis. Earth regenerators webinar transcribed May 2020. <https://urbandoughnut.medium.com/human-evolution-was-always-going-to-lead-to-planetary-crisis-5a669d882b16>.
- Chief Ninawá. (2020). TEDx possible futures, video recording. [https://www.youtube.com/watch?v=Se\\_fNoKLQWU](https://www.youtube.com/watch?v=Se_fNoKLQWU), English transcription <https://docs.google.com/document/d/141ZbnqQwnN5KR7PWdxahCNHGJTUmX8rgoZNUlLQKDr4/edit?usp=sharing>.
- Diamond, J. (1997). *Guns, germs, and steel: The fates of human societies*. ISBN 0393038912, 9780393038910.
- Dorninger, C., Hornborg, A., Abson, D. J., von Wehrden, H., Schaffartzik, A., Giljum, S., Engler, J.O., Feller, R. L., Hubacek, K., & Wieland, H. (2021). Global patterns of ecologically unequal exchange: Implications for sustainability in the 21st century. *Ecological Economics*, 179, 106824. ISSN 0921-8009. <https://doi.org/10.1016/j.ecolecon.2020.106824>.
- Elhacham, E., Ben-Uri, L., Grozovski, J., Bar-On, Y. M., & Milo, R. (2020). Global human-made mass exceeds all living biomass. *Nature*, [s. l.] 588(7838), 442–444.
- Escobar, A. (2018). *Designs for the Pluriverse. Radical interdependence, autonomy, and the making of worlds*. Duke University Press.
- Galeano, E. (1997). *Open veins of Latin America: Five centuries of the pillage of a continent* (p. 13). NYU Press.
- Gesturing Towards Decolonial Futures. (2020). 4 Denials. Retrieved from <https://decolonialfutures.net/4denials/>.
- Gramsci, A. (1929–1935). Selections from the prison notebooks. Originally written 1929–1935, published 1971.
- Haraway, D. (2016). *Staying with the trouble: Making Kin in the Chthulucene* (vol. 4). Duke University Press.
- Hickel, J. (2021). *Imagine a world where labour and resources in the global South were available to provide for local human needs, rather than appropriated for the sake of excess consumption in the global North*. Twitter thread, 11th January 2021. <https://twitter.com/jasonhickel/status/1348575606464802816>.
- Indian farmers' protest. (2020). [https://en.wikipedia.org/wiki/2020\\_Indian\\_farmers%27\\_protest](https://en.wikipedia.org/wiki/2020_Indian_farmers%27_protest).
- Jabr, F. (2020). The social life of forests, *New York Times Magazine*, published 2nd December 2020. <https://www.nytimes.com/interactive/2020/12/02/magazine/tree-communication-mycorrhiza.html>.

- Johnson, R. J., Lanaspá, M. A., & Fox, J. W. (2020). Upper paleolithic figurines showing women with obesity may represent survival symbols of climatic change. *Wiley Online Library*. <https://doi.org/10.1002/oby.23028>
- Khan, H. B., Sayson, C. M., & Cardoso, C. (2020). Possible Futures: Intergenerational work towards the Pluriverse. Global South Women's Forum 2020. <https://www.youtube.com/watch?v=a4wOSpbBi2E>.
- Krenak, A. (2020). Ideias para adiar o fim do mundo. Companhia das Letras.
- Ladha, A., & Akomolafe, B. (2017). Perverse particles, entangled monsters and psychedelic pilgrimages: Emergence as an onto-epistemology of not-knowing *17*(4), 819–839.
- Masters, S. (2012). Assassin's Creed III—Lead Game Designer Interview. Gamereactor. <https://www.youtube.com/watch?v=tRBA3Ce9yeM>
- Meadows, D. H. et al. (1972). *The Limits to growth: a report for the club of rome's project on the predicament of mankind*. New york: universe books.
- Minster, C. (2020). *Biography of Atahualpa, Last King of the Inca*. <https://www.thoughtco.com/biography-of-atahualpa-king-of-inca-2136541>.
- Radiolab. (2015). Mau Mau. <https://www.wnycstudios.org/podcasts/radiolab/articles/mau-mau>.
- Raja, S. N., Carr, D. B., Cohen, M., Finnerup, N. B., Flor, H., Gibson, S., Keefe, F. J., Mogil, J. S., Ringkamp, M., Sluka, K. A., Song, X. J., Stevens, B., Sullivan, M. D., Tutelman, P. R., Ushida, T., & Vader, K. (2020). The revised International Association for the Study of Pain definition of pain: Concepts, challenges, and compromises. *PAIN*, *161*(9), 1976–1982. <https://doi.org/10.1097/j.pain.0000000000001939>.
- Ramose, M. B. (2002). The philosophy of Ubuntu and Ubuntu as a philosophy. In P. H. Coetzee & A. P. J. Roux (Eds.), *Philosophy from Africa: A text with readings* (pp. 230–237). Oxford University Press.
- Reiter, B. (2018). *Constructing the Pluriverse: The geopolitics of knowledge*. Duke University Press. [https://www.dukeupress.edu/Assets/PubMaterials/978-1-4780-0016-7\\_601.pdf](https://www.dukeupress.edu/Assets/PubMaterials/978-1-4780-0016-7_601.pdf).
- Rolnik, S. (2018). Esferas da Insurreição: Notas para uma vida não cafetinada. N-1 Edições.
- Samson, C., & Gigoux, C., (2016). *Indigenous peoples and colonialism: Global Perspectives*. ISBN 978-1-509-51457-1.
- de Sousa Santos, B. (2019). O fim do império cognitivo: A afirmação das epistemologias do Sul. Autêntica Editora.
- Su, J. (2020). Grief is decay. nRhythm blog. Accessed April 2, 2020, from <https://www.nrhythm.co/grief-regeneration>.
- Ubisoft. (2012). Assassin's Creed 3—Official Connor Story Trailer [UK]. <https://www.youtube.com/watch?v=ph9jn5kRo9k>.
- Zapatista National Liberation Army (Ejército Zapatista de Liberación Nacional, EZLN) (1996). Fourth Declaration of the Lacandon Jungle. [https://en.wikisource.org/wiki/Fourth\\_Declaration\\_of\\_the\\_Lacandon\\_Jungle](https://en.wikisource.org/wiki/Fourth_Declaration_of_the_Lacandon_Jungle).
- Zuboff, S. (2019). Surveillance capitalism and the challenge of collective action. *New Labor Forum*, *28*(1), 10–29. <https://doi.org/10.1177/1095796018819461>.ISSN1095-7960.S2CID159380755

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# Chapter 5

## Transformative Literacy as the Ability to Look Forward from Within



Nicole Dewandre

**Abstract** Acquiring transformative literacies calls for a critical review of our underlying conceptual assumptions, in order to bring new light to old words, such as human, equality, freedom and power. Indeed, the transition towards sustainability requires leaving behind the modern paradigm, and embracing a conceptual framework proposed by Hannah Arendt, notably in the *Human Condition*. With her reconceptualisation of humanness, focused on relationality instead of rationality, she creates the conditions for cherishing and honouring interdependence, from each other, from artefacts and from nature. With this renewed understanding of what it means to be human and how it entails to rely on nature, Arendt offers a new framework that dissolves misleading beliefs and activates alternative ways to look and engage with reality in a meaningful way. And so she does, by keeping fear and rage away, but instead mobilising trust and ...love of the world, as difficult it may be.

**Keywords** Hannah Arendt · Relational self · Rational subject · Modernity · Sustainability · Human condition · Conceptual framing · Plurality · Natality

### 5.1 Introduction

In 2006, European Commissioner Potočnik, then in charge of research and innovation policy, created a new unit entitled “Sustainable Development” in the reorganisation that took place in DG Research and Innovation, to ensure that EU-funded research and innovation would fully support the renewed EU Sustainable Development Strategy. As Head of this “sustainable development unit”, I experienced being trapped in a sort of dialogue of the deaf: on the one hand, those alerting on the dangers of climate change and the need to act before it is too late; on the other hand, those denying climate change or considering that the future or the invisible hand will be good enough to tackle this challenge. I was struck by the inadequacy of this infernal dilemma. They were too perfect enemies to avoid a suspicion of being just

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N. Dewandre (✉)  
European Commission, 115, avenue Jupiter, 1190 Brussels, Belgium  
e-mail: [nicole.dewandre@ec.europa.eu](mailto:nicole.dewandre@ec.europa.eu)

two sides of the same coins. I started wondering (Dewandre, 2011): “Can we stand between catastrophism and denial?” as indeed this seemed to me the condition for paving the way and stepping in the transformation towards sustainability. If there is obvious consensus, especially for this readership, on the fact that denial is wrong and irresponsible, the reasons for which catastrophism is not a better option deserve further explanation. In that contribution, I aimed at unveiling why catastrophism undermines the conditions in which transformative literacy could strive. It comes down to the fact that mobilising fear to reach an objective, may work at personal level—for some of us—and for a restricted kind of objectives! However, it does not deliver politically, if what is required is joint mobilisation *for* something and not running away or protecting ourselves *from* something. The transformation that is called for to ensure a sustainable future for humankind on earth cannot be achieved with the mind-set and the tools required to strike a war or to go to the moon! Yes, indeed, we came to the point where staying on earth proves to be much more challenging for humankind—and hence for politics—than exploring the universe.

In this paper, I’ll suggest that the challenge of developing transformative literacies can best be tackled if we acknowledge the need to let go of some fundamental features of modernity, that have been very fertile for some centuries, but are now highly limiting and hindering the development of these transformation literacies. These modern features have shaped the human grip on the world, but now, it obstructs the way towards solutions, and has to be “removed” from our minds, so to speak. These modern features draw from the excessive reliance on rationality and on causality, together with the illusion of omnipotence that faith in progress nurtures as a potential realistic goal. It is my assumption that those became ineffective and stopped providing a grip on reality. As a result, sticking to these modern features undermine the meaningfulness of policies and political action, and eventually, threatens democratic regimes altogether. In the first section, I shall outline what these modern features are. In a second section, I shall outline why, in my view, Hannah Arendt provides an appropriate alternative to the modern conceptual matrix, that we should embrace to boost our ability to develop transformative literacies. Arendt reconceptualises the human condition, overwriting the modern definition of Man as a rational subject. She forges a concept of humanness that completes, as it were, the modern rationality with two other characteristics of humanness: our animality or organic nature, on the one hand, and our plurality, i.e., that “men, not Man, live on earth and inhabit the world” (Arendt, 1998: 7), on the other hand. In the third and last section, I shall highlight the way in which this Arendt’s framework enables transformative literacies.

## 5.2 The Deceptive Structural Features of Modern Times

Based both on my long experience as a European Commission’s civil servant and occupying a persistent reflexive stance, I am struck by the critical importance of *implicit* framing and assumptions in the practice of policy-making. These implicit

framing and assumptions determine what kind of reasoning and what kind of evidence are considered sound or not, what is presumed as shared wisdom—sometimes even truth—what can determine legitimate trade-offs or raise legitimate objections, what seems to be unquestionable, etc.... It conditions what makes sense and what gets traction in policy debates. The importance of implicit framings is not restricted to policymakers, as such, but conditions the whole policymaking ecosystem (lobbyists, stakeholders, media, etc....). I came to the opinion that policy-making was somehow stuck in modernity, while reality and the challenges it brings to policy-making in the twenty-first century cannot be addressed effectively anymore with modern implicit assumptions (Dewandre, 2018). Let us characterise the modern implicit framing and assumptions alongside two concepts: what *relations* are about and what *agents* are about? After all, a system is a combination of agents relating to each other. And a political system is a combination of political agents relating to each other in an ever-changing environment in which these relations take place. Hence, let us zoom in on what we consider a relation, and what we consider an agent.

### 5.2.1 *Relations Either Vertical or Agonistic*

The conceptualisation of relations per se in modernity is rooted in causality. Understanding a relation is taken to be identifying a *cause* that shall necessarily lead to the effect. In social sciences, too often mimicking Newtonian mechanics, this takes the form of who is on top of the other and who determines the outcome for the other. The top is deemed to determine the bottom, as simply that we all visualise where a stone dropped from above will end up, i.e., at the bottom. The pervasiveness of the bottom-up/top-down metaphor in policymaking circles unveils this implicit verticality of what elucidating a relation entails, and reveal that relations, when coined with a modern mind-set, are considered as linking together two poles, in an asymmetric manner: one pole is active and has power, and the other pole is passive, dominated or victim. When there is no causal relation between two entities, then they are deemed to be independent, in order to reach a balance or equilibrium. This again draws on the Newtonian metaphor, that of considering agent's interaction as an interaction among forces which must neutralise each other, in order to ensure stability. This shows how strongly modernity is rooted in a resentment—not to say a denial—of dependence. Indeed, independence is at its best, when it takes the form of a “rapport de force”. When several actors agree together, then there is a suspicion of bias. One of them is characterised as the leader, the only one that counts (active pole), and others are mere followers (passive pole).

### 5.2.2 *Agents as Rational Subjects*

In modern terms, the archetypical figure of an agent is that of a rational subject. Indeed, the modern definition of humanness puts rationality at its core. Far from the philosophical approach to reason, in everyday life, reason has been downgraded to narrowly understood and selfish interest, so that in policymaking agents are identified to their interests. It is commonly considered that “being rational” became synonymous to “being interest-led” or to be a “stakeholder.” The word “subject”, and its derivative “subjectivity”, pairs naturally with “object” and “objectivity”. Interestingly, subject, in its grammatical meaning, is *on top of* the object, but in its medieval meaning, it is *under* the king or the lord. Hence, “subject,” as a concept, has a dual form: in its upper version, the rational subject is someone on top of the situation, while, in its lower version, the rational subject is someone under control, whose rationality expresses itself through its compliance with expectations or instructions from others, like the subject in front of the king. Hence, the concept of rational subject to characterise agents fits perfectly with the vertical or agonistic conceptualisation of relations.

### 5.3 *Arendt’s Alternative Conceptual Matrix*

When I encountered Arendt’s work in the first decade of this century, I was illuminated by its relevance and it helped me making sense of my own administrative experience. By reading Arendt each morning before going to work, I could reconcile thinking with what I was doing. It took quite a long time—a decade—to understand how and why. Now, I can spell it out in these simple terms: Arendt made me understand that the atrocities of the Shoah was a form of logic ending of pushing the modern assumptions to their ultimate consequences. And, more importantly, Arendt does not stop there but provides an original alternative conceptual approach, notably by redefining humanness and politics. Indeed, modern assumptions characterise not only what knowledge is supposed to be (laws that can predict an effect, once a cause is identified), but also what policy-making should be. At its best, policy actions should be the causes (means) that deliver intended effects (objectives). For decades, policymakers have been aware that it is not so simple and never fully worked like that. They are aware of “unintended effects” or acknowledge disappointment about outcomes. But this is often attributed to an increasing complexity, and the need to overcome it, either with more knowledge, tools or power. In the meantime, in the academia, post-modern scholars have highlighted the shortcomings of modern determinism, but they seem to stay stuck in the deconstruction of modern referential frameworks, without proposing an alternative. Hence, Arendt’s unique relevance to this era is that beyond her critique of Modernity, she provides an alternative framing to the implicit and overdue Modern framing. And she lays the ground for that alternative in *The Human Condition* (Arendt, 1998), through an analysis of what

it means for human beings to be active, and her proposal to distinguish three types of activity: labour, work and action. By the way, a lot of Arendt's work is about clarifying distinctions, be they binary (e.g., thought/knowledge or necessity/freedom) or ternary (e.g., labour/work/action or thinking/willing/judging). When she does so, it is never in an either-or fashion, but always in an inclusive both<sup>1</sup>-and manner, putting value and meaning in each of the terms of the distinction. With that, she offers a framework that allows three dimensions. This is still clear enough to provide a grip and overcome the cost of an excessive reductionism to one-only dimension. One last remark before outlining the alternative framework proposed by Arendt. Her framework is valid, but it does not pretend to be the single valid one. With her heuristic approach, she teases the consent of her reader, instead of providing a demonstration that forces adhesion of the mind. And, from my standpoint, her proposal is the clearest I have encountered so far.

### 5.3.1 *Agents as Relational Selves*

By acknowledging that labour is the activity that stems from the fact that human beings are organic and have to survive, Arendt brings back biology at the core of humanness. Humans are biological beings! This was erased in the modern definition of humanness, as rationality was precisely what was supposed to *distinguish* humans from nature. By recalling this evidence that we are biological beings, Arendt provides a renewed restricted understanding of what necessity is about. For Arendt, necessity is and *should remain understood* in a very strict way, which is the “burden of biological life, weighing down and consuming the specifically human life-span between birth and death” (Arendt, 1998: 119). Our biological condition “bind[s] all of us in pain and necessity” (Arendt, 1998: 119): this is a matter of fact. “This darkness is natural” (Arendt, 1998: 119). “The price for elimination of life’s burden from the shoulders of all citizens ... by no means consisted only in the violent injustice of forcing one part of humanity into the darkness of pain and necessity” (Arendt, 1998: 119). I read this as plain common sense from a sound woman knocking on men’s minds asking them: how did you come to forget that the life process is indeed indexed on pain and necessity? And it is precisely because of this harshness of life processes that human beings have strived to build shelters for their existence. This leads to a second characteristic humanness, i.e., its worldliness or the unnaturalness of human existence. Indeed, the fabrication of objects aims at providing some comfort for human existence. This second feature of the human condition, its unnaturalness, refers to the ability of human beings to make things according to a plan that they had in mind, or to their knowledge. The worldliness is not opposed to the biological dimension, but instead complementary to it. Last but not least, human beings are plural. Plurality entails (i) being equal to others belonging to the same plurality, (ii) being unique and (iii) with a *who*-identity, i.e., an identity revealing itself through

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<sup>1</sup> Both is binary. It would be handy to have a similar word for a ternary distinction.

speech and action with other beings from the same plurality. Plural beings are not equal in modern terms, i.e., from an objective and absolute point of view, but they are equal in relative and performative ways. They are relatively equal, insofar as they share common characteristics; they are performatively equal, as when acting together with other plural beings they grant each other equal status. The second element of plurality is uniqueness. As humans, our *who*, not our *what*, matters. And this *who* is unique. So, one of the things all humans have in common is that they are unique. Equality and uniqueness, far from being at odds with each other—as they are for modern-wired minds—are in Arendt’s terms deeply coherent. Plurality is *the* concept which dissolves the modern omniscience–omnipotence utopia and which enables embracing diversity meaningfully.

With these three features of *The Human Condition* (Arendt, 1998), i.e., life, worldliness and plurality, Hannah Arendt highlights the inherently relational nature of humanness. Instead of considering rationality as the overarching characteristics of humanness, with Arendt, we are invited to put relationality at the core of humanness. With relationality at the core of humanness, we keep in mind what we should never have forgotten: that human beings depend (i) on their environment to stay alive, (ii) on their artefacts for decent living conditions and (iii) on their plural peers to act in concert and reveal their own identity. It is all about embracing our relationality, without fear, conscious of our shared strengths and vulnerabilities. Arendt’s reconceptualisation of humanness, around biology, worldliness and plurality is well reflected in the expression “relational self”. In contradistinction with the word “subject”, the word “self” encapsulates the fact that plural beings are not looking at each other vertically “from above” or “from below”—as rational subjects do to each other—but horizontally, from their own embodiment, at their own height.

### 5.3.2 *Relations Embracing Emergence, Adaptation and Cooperation*

In *The Human Condition* (Arendt, 1998), Arendt downplays her reconceptualisation of humanness by presenting it only as a step towards characterising what it means for human beings to be active. She writes in her introduction: “*what I propose, therefore, is very simple: it is nothing more than to think what we are doing.*” (Arendt, 1998: 5) But, with the ternary distinction between labour, work and action, as fundamental distinct types of activities, Hannah Arendt paves also a way for upgrading the 1-D modern approach to relations into a 3-D one. Besides relations leading to predictable outcomes (verticality) or to mutual neutralisation (agonistic), this 3-D approach makes room—conceptually—for relations whose purpose is the revelation of identities of plural agents acting together, and for relations where political agents need to adapt to their environment instead of being on top of it. Being active entails a *relation* between a *self*, i.e., the person being active, and an *other*, that with which the self is engaging through the very fact of being active. If Arendt insists on the

different types of self that are mobilised in each of the three types of activity: *animal laborans* for labour, *homo faber* for work and *wo/man*<sup>2</sup> for action. I suggest shifting the focus to the different types of *other* that this ternary distinction entails. For the *work* activity, the *other* in the relation is an *object*. Indeed, for Arendt, work accounts for the activity of a single human being who mobilises means to reach her or his own objective. What is at stake in this mode of relation is control. This type of relation corresponds to the modern vertical mode of relation. But instead, of considering all relations on that hegemonic mode, Arendt brings two additional dimensions that allows to better conceptualise and understand relations.

For the *action* activity, the *other* in the relation is *another self*, a *plural peer*. As a type of human activity, action is rooted in plurality. What is at stake in this mode of relation is mutual respect and acting in concert. “In acting and speaking, men ... reveal ... their unique personal identities....This disclosure of ‘who’ in contradistinction of ‘what’ somebody is ... can almost never be achieved as a wilful purpose” (Arendt, 1998: 159). Hence, plurality is intimately connected with revealing our who-identities. Whereas the modern conceptual framework envisions relations among equals only as agonistic, Arendt’s plurality is the very concept opening up to constructive and cooperative horizontal relations.

For the *labour* activity, the other in the relation is the *milieu*, understood as the part of the world surrounding the self, at a given moment, in a given circumstance. The life of human beings takes place within a *milieu*, which is a mix of nature and artefacts that surrounds them and sustains their life. What is at stake in the relation between a self and an other-as-a-milieu is survival, orientation, exploration and adaptation.

In *The Human Condition*, beyond distinguishing labour, work and action, Hannah Arendt suggests a hierarchy among them: labour is at the bottom and action is on the top. I agree with those arguing that this hierarchy is highly contestable (Pitkin, 1998), but maintain that the ternary distinction is illuminating and highly relevant, provided we consider its three dimensions as equally relevant for qualifying the human experience.

## 5.4 Why Arendt’s Conceptual Matrix can Boost Transformative Literacies

### 5.4.1 *Shifting Underlying Implicit Assumptions have Concrete Consequences*

We are so used to consider soundness and objectivity as one and the same thing, that it is often considered that change of reality can only occur in the future, as a

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<sup>2</sup> In her book, and in her work in general, Arendt did not engage in feminist thinking, and this has triggered legitimate and interesting debates in feminist scholarship. See notably Bonnie Honig “Feminist interpretations of Hannah Arendt”. In this contribution, we consider that where and when Arendt speak of “man” or “homo”, this includes woman as well.

result of policy decisions or changes of strategies and behaviour. With that, we overlook the fact that judgments we make and decisions we take depend crucially on the conceptual grid—often revealed by metaphors—we live by (Lakoff & Johnson, 2003). It is my view that the practical and performative mobilisation of Hannah Arendt’s conceptual resources can achieve in the political realm, *mutatis mutandis*, what paradigmatic shifts achieve in the scientific realm. Embracing Arendt’s conceptual framework will not change the reality itself in a teleological manner, but it can change radically the conditions in which transformative policies can be shaped and supported. Indeed, instead of fuelling frustration and dissatisfaction, it enables reconnecting with feasibility and meaning.

#### 5.4.2 *New Standpoint: From Within and Among Peers*

Arendt’s model provides a conceptual grounding for relations where *something else* other than control is at stake. And it does so in two ways:

- With the *horizontal mode* of relations which accounts for relations with other plural beings, and is relying on trust and pervaded by mutual recognition. This offers a conceptual background for the “*art of associating together*” (Lloyd, 1995: 31), which is so critical for nonhegemonic politics.
- With the *surrounding mode* of relations, which accounts for relations with the other-as-milieu, and is pervaded by survival, orientation, exploration and adaptation. This offers a conceptual background for the need of policies to adapt to the environment and actualise the relevance of regulatory frameworks and policy initiatives, against continuous change.

This new standpoint, combining control together with the non-dramatic unpredictability of acting in concert, on the one hand, and with adaptation or coping with, on the other hand, offers new perspectives. It leads to loading words, such as identity, freedom and power with a new meaning, so that what used to be seen as sound and meaningful appears now as stupid or meaningless, while what looked as out of reach now seems a sound approach to be embraced. Indeed, meaning conditions judgments, and ultimately decisions, based on them.

#### 5.4.3 *New Meaning of Identity, Freedom and Power*

##### **On identity**

In modern terms, identity is a stable and intimate attribute that each of us—as rational subject—is entitled to own, choose and control. The dynamic dimension of social identities is understood in a deterministic way, in the form of a fabrication or a production process. It is a *what*-identity, often reduced to attributes (wealth, profession, class, race, gender, sexual orientation) and their associated and differentiated

loads of prestige. In her reconceptualisation of humanness, Arendt puts forward the revelatory nature of human identities. With that, she recalls that we do not control our identities, in the sense that we depend from others to access our own identities. With that essential distinction between *what-identities* (that apply to objects and things) and *who-identities* (that apply to peers), she provides a political grounding for something that is acknowledged in psychology, but overlooked in politics, i.e., our inherent interdependence, not only for mere survival but also for revealing and knowing who we are.

### **On freedom**

In modern terms, freedom is assimilated to autonomy. As made clear in the French expression “*Ma liberté s’arrête là où commence celle des autres*”,<sup>3</sup> for modern subjects, others are perceived as a hindrance to a greater freedom. Relations with others can only be ties, and others obstacles, unless and until they are turned into means. So, in a nutshell, for a rational subject, being free is being alone or in control. For Arendt, there cannot be freedom in deprivation or survival mode. Freedom can only be experienced once vital needs are ensured. Then, above that satiety threshold, freedom is experienced in public appearance through acting with peers, and thereby revealing our identities through speech and action. If toxic and adverse relations indeed hinder freedom, absence of relations is not a best alternative. Freedom stems from a rewarding and respectful interaction with peers. This is a *relational* approach to freedom. In a nutshell, instead of being considered as absence of constraints, independence or autonomy, Arendt’s freedom is rooted in two conditions: (i) being beyond a satiety threshold and (ii) interacting with peers.

### **On power**

In modern terms, power is considered as a Newtonian force, as a power *over* others. The richest is the most powerful, as if infinite wealth (or knowledge) could provide omnipotence. The bigger is most powerful, as infinite size could provide omnipotence. For Arendt, power stems from acting in concert. Power disappears when violence steps in. And domination is not power. As well put by Patricia Owens, for Arendt, “power springs up between people as they act together; it belongs to the group and disappears when the group disperses. It is a collective capacity. Until this coming together, it is only a potential” (Owens, 2008: 110).

Interestingly, Arendt never considers words, simply as description of action, but action *per se*. Yet, she acknowledges that the choice of words matter: “*Power is actualized only where word and deed have not parted company, where words are not empty and deeds not brutal, where words are not used to veil intentions but to disclose realities, and deeds are not used to violate and destroy but to establish relations and create new realities.*” (Arendt, 1998: 200) With this very intense sentence, she spells out the conditions leading to a dissolution of power, i.e., when words are empty or veil

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<sup>3</sup> In English...My freedom stops where that of others begins.

intentions and deeds are brutal.<sup>4</sup> And she affirms that power comes from establishing new relations and thereby creating new realities.

#### 5.4.4 *Amor Mundi: Daring Confidence and Trust in Plurality and Natality*<sup>5</sup>

It is now time to spell out how the reconceptualisation of humanness proposed by Arendt paves the way beyond catastrophism and enables transformative literacies. Essentially, it is by acknowledging and facing with lucidity and courage that there is no other last resort than the sense of humanness we share with all human beings. Precisely, because there is no other last resort, it is by optimising humanness with relationality at its core, instead of denying it, that humankind shall develop transformative literacies. As flagged by Arendt, this requires taking some distance with the tradition of moral philosophy. “*According to our tradition, all human wickedness is accounted for either by human blindness and ignorance or human weakness, the inclination to yield to temptation*” (Arendt, 2003: 79). Indeed, catastrophists point to the lack of awareness or lack of will, as if awareness or will were enough to redress the situation and avoid climate change. How could guilt and fear unleash transformative power? Transformation can best take place when it relies on the “*simple fact that people are at least often tempted to do good and need an effort to do evil*” (Arendt, 2003: 80). If this was not the case, human beings would since long have disappeared from the earth, through a massive self-destruction. Instead of that, the human species is still there, and indeed, the challenges it is faced with, and most importantly climate change challenge, is the outcome of modern developments, modern science and modern moral assumptions. The new momentum that Arendt provides with her relational reconceptualisation of humanness combines two dynamics: a negative one and a positive one. On the negative side, it disables what is toxic in the modern legacy. On the positive side, it offers a new conceptualisation that reconnects reality and meaning, and provides a better grip on the challenges to be tackled.

To make room for transformative literacies requires disabling the modern underlying assumptions that it is by violating nature’s secrets and exploiting it, that human knowledge can thrive and humankind progress. That does not mean that we have to consider nature as sacred and untouchable, which would be the other side of the same coin. But instead, with Arendt’s reconceptualisation, always keep in mind that our lives depend from nature, and not from our control of it. Another modern assumption we need to let go is our expectations from “big others”, as if “they” were powerful and “we” were powerless, or, in other words, as if the future depended on someone to be powerful enough and do good. This modern asymmetric approach to power where

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<sup>4</sup> Indeed, Arendt has a very specific approach to power and violence; Instead of violence being the manifestation of power, in Arendt’s view, power ends where violence begins.

<sup>5</sup> In Arendt’s work, natality is not what it is for demographers, i.e. birth rate in a given population. It refers instead to the fact that human beings are born beings, that they come to the world by birth.

some look up at others who look down at them cannot deliver on transformative literacies. Transformative literacies cannot grow on the modern moral assumptions that guilt and fear are what hold each of us into account, and that if only we could, we would all engage in wickedness and laziness. Indeed, this conceptualisation of power as an attribute or a capacity of some human beings goes together with identifying power to a force, enabling someone to reach an objective. This understanding of power, as a mere instrument, crowds out the sense of purpose that acting in concert provides. Furthermore, it weights towards paying more attention to bad outcomes: indeed, it takes only one to declare a war, but it takes at least two to make peace. Beyond this extreme example of war and peace, all positive outcomes stem from acting in concert, and not from a superman or superwoman acting alone and saving the world, be it in the economic, political or social realms.

On the positive side, Arendt's reconceptualisation of humanness foregrounds what all human beings have in common. Plurality is not the same as the modern passion for equality. Paradoxically, this modern passion for equality led to paying attention to differences only, and spending a lot of energy, either combatting them or justifying them! Transformative literacies can grow out of foregrounding forcefully what human beings have in common, to start with. We all depend on resources and the world around us to survive and thrive. We all depend from others to experience freedom and access our own identity. All human beings resent being humiliated and cannot thrive without being respected by others. What we have in common takes different forms: we are all speaking beings, but we speak different languages. We all appreciate reciprocity and marks of respect, but these cultural habits differ across cultures. Hence, building on these shared characteristics, knowing they are at the root of diversification, creates the condition for acting in concert at all levels: with family and friends, at work with colleagues, in politics, be it at local, regional, national or global levels.

The power that stems from plurality has nothing to do with competition or race. These are only games. Instead, it stems from the shared consciousness of making meaningful and appropriate decisions, in accord with our own responsibilities. Leading by example is what nurtures transformative literacies, as it resonates with one's own purpose and identity. Currently, millions of citizens lead by example when they change their behaviours, and engage in sustainable practices. Policymakers lead by example when they adopt policies that bring the structural support needed for citizens to live meaningfully. Stakeholders lead by example when they contribute proactively to transformative policies, instead of defending their narrowly expressed interests. By foregrounding the relational nature of humanness, Arendt invites us to cherish what we have in common instead of being afraid of each other or consumed, as it were, by the fears nurtured by our own (inner) ghosts. Arendt flags that political action is best when anchored in the love of the world, through embracing plurality and natality (Dewandre, 2015). She calls for reclaiming *thaumadzein*, the Greek wonder that has been overtaken by the modern doubt and suspicion. Indeed, another feature of modern epistemology is to associate trust with blindness and sometimes lack of intelligence, while doubt and suspicion would express intelligence and lead to robust knowledge. Similarly, in modern terms, knowledge and power are intimately

connected. Being able to predict is a form of knowledge and, indeed, provides a grip to the knower. But what happens when what is predicted is to be avoided? The scientific predictions, or instead projections, make clear that we have to change course, to bend trajectories and to undergo transformations, if we are to keep climate change in acceptable limits and avoid trespassing planetary boundaries in such a way that the human species would be endangered. But scientific knowledge is silent on *how* to do that. This is where the art of politics comes in, and where meaning trumps truth to ensure adhesion and effectiveness.

Politics and predictability are like water and fire. Arendt insists upon the fact that action, the most political among the three types of activity, leads to unpredictable outcomes. This unpredictability is not an epistemic failure to be overcome. It is instead “the very texture of reality” (Arendt, 1998: 300) and the very condition for human freedom, as freedom is anchored in the human’s ability to begin. As we, human beings, came to the world by birth, this constitutes us, human beings, as born beings, and thereby beginners. By insisting on the importance of natality for the political, Arendt anchors the political firmly both in the present and in an open-ended future. Unpredictability is an essential feature of this open-endedness.<sup>6</sup> Unpredictability is to be accepted, together with harnessing knowledge. Indeed, knowledge is highly needed, but outcomes of action have to be embraced and become the new baseline, as there is no *Ctrl Z* function on reality, and multiple ways to look at it. The modern verticality, associated with the gravitational-inspired false common sense that the top dominates the bottom, made us somehow continue to live by the belief that life falls from heaven, in denial of the evidence that life comes from the ground (for the vegetal) or from the bodies (for animals, including humans). On earth and in the world, the bottom supports the top, not the other way around. Arendt’s reconceptualisation allows dissolving misleading beliefs and representations, and activates alternative ways to look and engage with reality. The acknowledgment of a satiety threshold is essential in that pivotal move. Arendt disqualifies the modern “More is better” that is so misleading today. She writes: “*abundance and endless consumption are [...] the mirage in the desert of misery...affluence and wretchedness are only two sides of the same coin; the bonds of necessity need not be of iron, they can be made of silk*” (Arendt, 1990: 139). With Arendt, we can instead embrace “Enough is enough”. This does not mean an authoritarian and objective decision by an external judge of what is enough for whom or of who has enough and who does not. This would indeed lead to an infernal surveillance society. “Enough is enough” can replace “More is better” in the following way. In a given context, “Enough is enough” provides an unambiguous compass to prioritise the needs of those below satiety over the needs of those above satiety. It does not condemn those above satiety, far from it, but it makes clear that in the public space those above satiety are there to contribute and cooperate, while policy-making should prioritise the needs of those below satiety, together with ensuring long-term sustainability. “Enough is enough” sheds light on the absence of legitimacy and meaningfulness of some requests from stakeholders when they

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<sup>6</sup> This has nothing to do with any kind of praise for obscurantism. It does not fall in scope of this contribution to unfold this.

threaten policymakers with adverse consequences, should their needs not be taken into account. Leaving “more is better” behind to embrace “Enough is enough” frees a huge potential of energy that can be fully dedicated to lift poverty, foster cohesion and ensure sustainability.

## 5.5 Conclusion: Meaning as a Compass of Transformative Literacies

With her rigorous conceptualisation, Hannah Arendt provides a stable ground for reconnecting EU-policy-making with the concerns and expectations of Europeans. The time is ripe. We have exhausted all the benefits of political modernity and the casualties of its reductionisms weaken and even threaten the stability of the European political ecosystem, in general and of the EU, in particular. Now is the time where we need to reconsider what is meaningful and what is not. On top of being dangerous and lead to inequalities, the endless exploitation of resources is—to start with—meaningless, and thereby hurting our own minds as much as the planet. Those in denial pay also a price for this denial. Let’s ensure each of us is confronted with the shortcomings and the meaninglessness of modern assumptions. This new lens will disable a lot of claims and so-called interests. This shall create the conditions enabling human beings to acknowledge their shared strengths and vulnerabilities, their fundamental interdependence. We might be at one of those “rare moments when the chips are down” (Arendt, 1971: 446) and when the conditions are met to recognise Arendt as the conceptual mother of this “new and yet unknown age” (Arendt, 1998: 6) whose emergence we are witnessing and whose name will crystallize only in a few decades or centuries.

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## References

- Arendt, H. (1990). *On revolution*. Penguin Books.
- Arendt, H. (1998). *The human condition* (2nd ed.). University of Chicago Press.
- Arendt, H. (2003). *Responsibility and judgment*. Schocken Books.
- Dewandre, N. (2011). The sustainability concept: Can we stand between catastrophism and denial. In C. Jaeger et al. (Eds.), *European research for sustainable development* (vol. 1). Springer. Accessed Feb 9, 2021, from [https://link.springer.com/chapter/10.1007/978-3-642-19202-9\\_4](https://link.springer.com/chapter/10.1007/978-3-642-19202-9_4).
- Dewandre, N. (2015). Rethinking the human condition in a hyperconnected era: Why freedom is not about sovereignty but about beginnings. In L. Floridi (Eds.), *The onlife manifesto* (pp. 195–215). Springer International Publishing. Accessed Aug 9, 2017, from [https://link.springer.com/10.1007/978-3-319-04093-6\\_20](https://link.springer.com/10.1007/978-3-319-04093-6_20).

- Dewandre, N. (2018). Political agents as relational selves: Rethinking EU politics and policy-making with Hannah Arendt. *Philosophy Today* 62(2).
- Lakoff, G., & Johnson, M. (2003). *Metaphors we live by*. University of Chicago Press.
- Owens, P. (2008). The ethic of reality in Hannah Arendt. In D. Bell (Ed.), *Political thought and international relations: Variations on a realist theme* (pp. 105–121). Oxford University Press.
- Pitkin, H. F. (1998). *The attack of the blob: Hannah Arendt's concept of the social*. The University of Chicago Press.

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# Chapter 6

## Chinese Cultural Treasures as Contributions to a Mindset of Interconnectedness for Global Transformations



**Man Fang**

**Abstract** This chapter elaborates how the cultural perspective of Chinese philosophy supports an interconnected worldview. The author elaborates how three fundamental Chinese traditional beliefs not only manifest in social life in China, but could make a decisive contribution to the emerging narratives around regenerative civilization. In Chinese harmonic philosophy, the assumption is that in their core all people are good and kind and that part of the social obligation is to grow by taking care and trusting each other, while protecting the essential human virtues in a harmonic atmosphere. In this philosophical tradition, personal development is not isolated from others, and it begins in the self and emerges gradually into the family-oriented self, then into the extended family-oriented self, and finally into taking responsibility for one's organization, the community, and even the state, respectively, the globality of all people. All these layers are inseparably linked. The author suggests that China's contribution to mastering the global challenges in the Anthropocene goes far beyond technological and political capacities to meet ecological, social, and ecological targets. The treasures of Chinese philosophy offer opportunities to reframe our views of reality in a way that may be much more in service of well-being on a healthy planet.

**Keywords** Interconnectedness · Global transformations · Chinese culture · Harmony-belief · Complexity · Ambiguity · Resilience · Sustainability

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M. Fang (✉)  
Rembrandtstr.7, 14467 Potsdam, Germany  
e-mail: [man.fang@foxmail.com](mailto:man.fang@foxmail.com)

School of Public Policy and Management, Tsinghua University, Shuangqing Rd. 30, 100084 Haidian District, China

Institute for Advanced Sustainability Studies-Potsdam, Berlinerstr.130, 14467 Potsdam, Germany

## 6.1 Opening Reflections

This essay is meant to provide an insight into the iceberg of Chinese society and culture by introducing the traditional Chinese aspects of harmony-belief, relationships, and emotions. These aspects are mutually entangled in ways that represent the typical complex and ambiguous nature of Chinese culture. So, in a way, this essay addresses the impossible challenge to express a complex and ambiguous reality in the linear logic of an essay. This paradox is even enhanced by trying to write this essay in English which as a language is based on very different principles than the Chinese mindset that I will try to describe and that is usually expressed in the associative, figurative quality of Chinese language. Therefore, please free your imaginations when you are reading. And please excuse me, if the content does not seem clear and reasonable enough. It is not a humanistic experience that to put the real natural being into the frame for understandings. For me as an author, the real understandings only appear while we devote ourselves into the nature, so to say the real life, which means the mess and clarity always come at the same time.

Another challenge is that I will try to highlight a few principles of Chinese mentality and differences between 'Chinese' and 'Western' perspectives. Both terms are in many ways problematic simplifications as both China and the Western world contain a huge diversity and variations of the aspects I want to describe here. At the same time, some aspects can be taken as representative of dominant developments of both social spheres, such as for instance the historic emphasis of the freedom of the individual in the 'West' compared to the emphasis of the well-being of the collective (Tian Xia) in China. Also, of course, several of the characteristics are not exclusive to Chinese culture but can also be found similarly in other Asian cultures. My experience is that sometimes these kinds of reflections are taken as stereotypical generalization. I will try to summarize these general tendencies as nuanced as possible, while of course I will not be able to address the full spectrum and diversity that could be differentiated here. I invite the reader to take my reflections as guidance into general tendencies without misinterpreting these as all-encompassing judgements.

## 6.2 Introduction

In short what I want to call the attention of the people of Europe and America to, just at this moment when civilization seems to be threatened with bankruptcy, is that there is an invaluable and hitherto unsuspected asset of civilization here in China. The asset of civilization is not the trade, the railway, the mineral wealth, gold, silver, iron or coal in this country. The asset of civilization of the world today, I want to say here, is the Chinaman, - the unspoilt real Chinaman with his Religion of Good Citizenship. The real Chinaman with his Religion of Good Citizenship. The real Chinaman, I say, is an invaluable asset of civilization, because he is a person who costs the world little or nothing to keep him in order. Indeed, I would like here to warn the people of Europe and America not to destroy this invaluable

asset of civilization, not to change and spoil the real Chinaman as they are now trying to do with their New Learning. (Ku, 1914, p. 8)

This excerpt stems from a public speech delivered by the Chinese scholar Dr. Ku in 1914. He was born in Qing dynasty, and even now, more than a century later, his words seem up to date. Today, I read his words with deep sadness witnessing that his warning has become reality: In the face of global warming, social disintegration, and the breeching of several planetary boundaries, the global civilization is currently facing existential challenges. For the last few decades, China has been on an incredibly speedy track of moving toward industrialization, adopting the development logic and underlying values that were initiated by the “Western” world. As a consequence, due to its large population, China is taken seriously and treated as an international market with valuable economic potentials for Western market players. At the same time, mainstream Western media perceive China’s economic rise and increasing influence as a threat to the West. From the perspective of a psychotherapist, such perspective expresses the projection of a competitive intention with anxiety and fear, whereas from the perspective as a Chinese citizen living in Germany, I feel hurt and confused. What makes me sad is the one-sidedness how influential voices perceive and portray China. The UN SDGs are emphasizing global cooperation (SDG #17 “partnership for the goals”) as a necessity to shape global change in a sustainable way. Still, it seems that China and its development are considered with a rather critical perspective emphasizing flaws over contributions. For example, China’s economic growth has allowed many millions of people to be released from poverty, which is also a great contribution to the well-being of people within the frame of SDGs. In terms of sustainability, another phenomenon I could feel in the international conferences is that there is a shared climate to criticize China as a whole which has the rapidly increasing carbondioxide emission, regardless how much is it per person. An impression I get repeatedly is that Western media and even scholars report about selective aspects of China and Chinese actions from the angle as it would appear from a Western mindset. Often it is overlooked that the same facts could be interpreted very differently if perceived through a Chinese lens and mindset. Such one-sided interpretations often contribute to an atmosphere of mutual hurt, misunderstanding, and distrust.

Therefore, the intention of this article is to highlight a few key features of the traditional Chinese mindset both as a resource for Westerners to interpret Chinese phenomena in a more nuanced way and also as a cultural resource for the emerging global civilization. In the global crossroad of the era of the Anthropocene, it is not helpful to focus only on the scientific or political debate that is based on critique and hence emphasizes differences over commonalities. Rather the current global challenges urge us to move toward a culture and spirit of mutual understanding and collaboration for a shared sense of meaning. It is time to build bridges that allow us to get to know each other deeper and find a common space from which to take action toward sustainability. In this article, three aspects shall be introduced that shape Chinese mindsets and are embodied throughout Chinese society and action through their deep roots in Chinese philosophy:

- (1) Harmony-belief
- (2) Relationships and nature-connectedness
- (3) The relevance of emotions.

They will be introduced in a both linear and spiral way, both separated and integrated. Since the three aspects are related to each other, the illustration would be more like presenting an existing being from three dimensions, rather than talk about three different isolated objectives.

## 6.3 The Three Different Chinese Contributions to a Global Culture

### 6.3.1 *Harmony-Belief: The Culture Grounded upon the Goodness of Human Nature*

One of the first learnings for Chinese is the saying “Man on earth, Good at birth. The same nature. Varies on nurture.” (人之初, 性本善, 性相近, 习相远) (Wang, 2011). Even if it might make no sense for a kid who just starts to learn how to speak, it would be the first poem in their whole life and will be with them for the rest of their life. In Chinese harmonic philosophy, the assumption is that in their core all people are good and kind. Therefore, people are growing by caring and trusting each other, protecting those virtues in harmonic atmosphere.

#### **Manifestations of Harmony-belief: From Religions to Daily life**

The ultimate manifestation of the *harmony-belief* can be seen in the Chinese religion systems, in which the three dominant religion systems—Confucianism, Taoism, and Buddhism—have been coexisting for thousands of years. Moreover, religious persecution has been very rare in Chinese history. From religion and philosophy to ethics to aesthetics, *harmony-belief* has a systemic ritual that goes through the daily life of every Chinese, integrating with various channels, including education, social life, intimate relationships, and family traditions. The hope for a harmonic atmosphere is driving people to reach consensus and allow the common good to flourish. It is the atmosphere in which people feel belonging and safe. It is more of a merging force to integrate the diversity, with some gravity that attracts people into a common space.

In the long run, *harmony-belief* has shaped relationships in the Chinese society and also painted colors on how Chinese are keeping contact and interact with each other, which is emotional and sensitive in a latent way. In turn, the mode of unspoken communications reshapes the community and person as a collective being in the community, which makes the happenings among Chinese more volatile, complicated, and ambiguous.

### **A society without boundary: Integration and entanglement**

Chinese society avoids clear boundaries, because the boundary creates the dynamic for separation and splitting. For example, there is no registration system in Chinese traditional religions, and people are ambiguous with their traditional beliefs like Confucianism, Taoism, and Buddhism. No matter how conscious or unconscious they are, Chinese are flexible and adaptive to structures, for religion just as for political or social structures. Even many scholars have discussed for hundreds of years that the concept of religion is a Western-centric definition that does not fit the Chinese belief system (Ku, 1915, p. 16). However, religion can serve as an example, how flexible and adaptive Chinese are coping with beliefs, manifesting an attitude of ambiguity. The ambiguity in terms of religion could be understood as the tendency to make peace (harmonize) among different belief systems. This tendency could be observed in various aspects of people's daily life: Integration with others in a group or community; searching for the middle way or common sense in decision-making process; making peace instead of launching conflicts, etc. Chinese are living in a certain chaos reality, which reinforces their lifestyle of being ambiguous. They believe that nothing could be really clarified. As described in the famous I Ching (Yi Jing 易经), the only thing that does not change is change itself, which is another version of ambiguity. A famous official scholar Zheng Banqiao (1751) said: NanDeHuTu (难得糊涂), which means "Ignorance is bliss" or "Be a wise fool," which had been taken as motto by many scholars or governors until modern China. It implies the deep value of Chinese society.

The tendency of integration has a strong impact on dissolving boundaries. There are lots of manifestations in this ambiguity.

### **Origin of the ambiguity between private and public life: Confucius Doctrine**

According to Confucius' doctrine, public life is the extension of private life. Confucius' The Great Learning starts with:

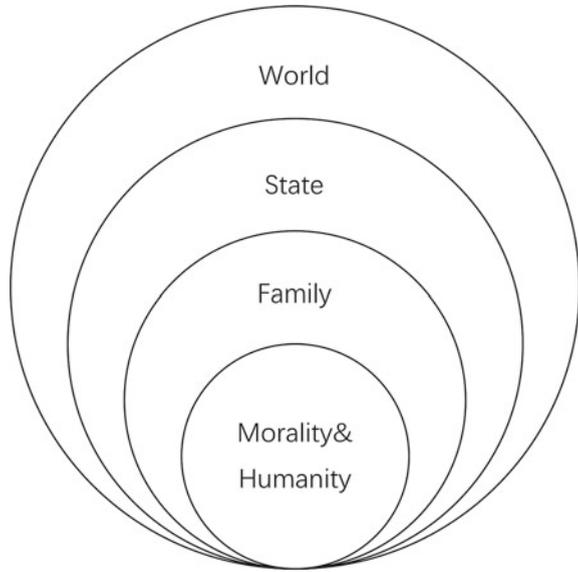
Men in old times when they wanted to further the cause of enlightenment and civilization in the world began first by securing good government in their country. When they wanted to secure good government in their house in order, they began first by ordering their conversation aright. When they wanted to put their conversation aright, they began first by putting their minds in a proper and well-ordered condition. When they wanted to put their minds in a proper and well-ordered condition, they began first by acquiring knowledge and understanding. The acquirement of knowledge and understandings comes from a systematic study of things. (Ku, 1915)

In short, the phrase could be understood as "improve upon the humanity and morality of yourself first, then manage your family, then govern your state; that is the only way to bring justice and virtue to the world" (修身, 齐家, 治国, 平天下) (Ku, 1915), as shown in Fig. 6.1.

### **Life patterns in reality: Practice in Ambiguity**

In Chinese daily life, there are three main manifestations of this ambiguity: First, there is no awareness of the boundary of private and public life; second, there is no

**Fig. 6.1** Confucian ethics from “The Great Learning” (adapted by author from Confucius, ca. 400–479 B.C./1898)



distinction between professional and casual time/space; third, there is no distinction of relationships among relatives, friends, colleagues, acquaintance, or strangers.

For example, it has influenced Chinese society significantly that according to Confucius the purpose of education was to take official responsibility in the social system (government, administration, etc.) described as “A student who has exceptional abilities, more than sufficient to carry on his studies, should enter the public service” (学而优则仕《论语·子张》) (Confucius 400–479 B.C./1898). This seems quite distinct from the Western path where “power” in the social system was achieved through superior competitiveness. Whether Marxism, liberal individualism, utilitarianism, democracy, or other Western doctrines or solutions, they cannot work in modern China without being integrated and reconciled with deep cultural and often unconscious channels of social meaning and practice (Yang, 2013). With the anthropological lens, the blurring of private and public life, professional and casual time/space, including the according relationships among these spaces and timelines, is deeply grounded upon Chinese history of a farming country with self-centered and family-oriented ethical ripple.

There are plenty of routines in Chinese daily life to be shown as the arguments. Known to all, people are giving their private contact, always including the private phone number to the one that meet in official occasions. In a company or an organization, the staff are contacting the boss whenever it is needed. Meanwhile, many employees would build and maintain some private relationships, while they are making business or cooperating projects in business occasions. In a way, all business in China is for building networks (making friends). In these circumstances, Chinese transfer all official relationships into private. Traditionally, they do not really trust contracts, but they trust in the person they know. For the same reason, people get used

to sleeping in the middle of a working day or even in ongoing conferences. It is hard for a Westerner to imagine that how acceptable and flexible it is that people could sleep whenever or wherever they feel they need. What stunned Westerners is that Chinese could sleep in offices (chairs, desks) or the passages of the bus or train, or some public places like lobby in a hotel or a bank. All above daily life routines could be applied to no matter elite, high-educated, and wealthy group or lay, poor, and less-educated group. It seems that most conventional Chinese daily life is following their ancestors thousands of years ago, while in the farming fields, where people were working, was the place they were having fun and relaxed. All the surrounding people were extended family members and coworkers in the fields as well. From a Western perspective that emphasizes the “functional” aspects of relationships, this kind of blurring is often interpreted as nepotism. For Chinese, on the other hand, it seems totally counterintuitive why people could trust a “piece of paper” (contract) more than a person they know personally and with whom they have cultivated a harmonious relationship.

### **Shadow under the Harmony-belief**

Of course, the Chinese harmony-belief does not automatically promise harmony. It requires people to take responsibility for creating and protecting this harmony. When harmony is absent, the harmony chaser might be inclined to avoid conflict or controversial opinions to enjoy the temporary peace and escape from the crisis and problems that need to be resolved. On the crossroad of facing to the problems and transiting the crisis into opportunities, people might give up the chance to defend themselves from attacks, to participate in constructive debate, or to complain for their own rights.

In Chinese society, this is manifested in all kinds of typical behaviors:

- Not daring to say “No” and refuse people;
- Saying “Yes” but postponing the execution of promises;
- Not raising criticism but giving positive/encouraging/appreciating words;
- Sudden negative emotional explosions after long-term tolerances;
- Behavior oriented toward satisfying social/collective/others’ expectations.

Harmony is a pleasant atmosphere when it is based on people’s common will. When harmony-belief becomes a social pressure, it turns out to be another form of constrain or oppression, which also brings harm and pain. Obviously, many people benefit from the societal harmony-belief in China; however, others are suffering from the integrative culture that is not encouraging the uniqueness and creativity of the individual.

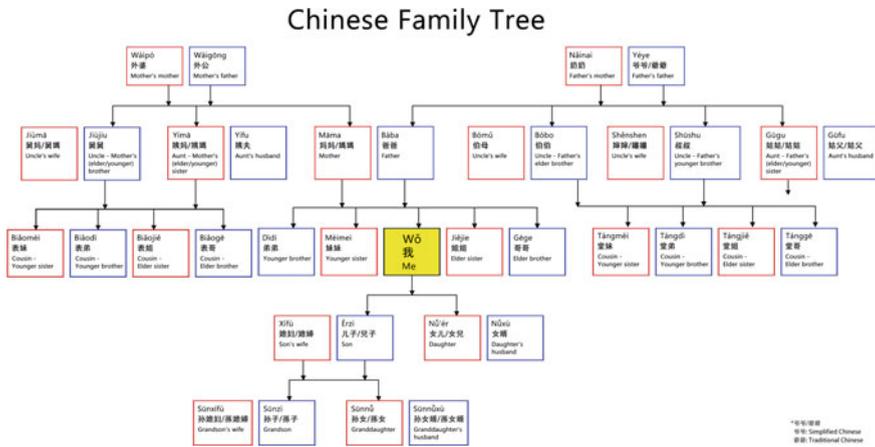


Fig. 6.2 The Chinese family tree (2015)

### 6.3.2 Relationships from a Perspective of Complexity and Ambiguity

Chinese society is embodying the principles of what has been coined a “VUCA” world.<sup>1</sup> For Chinese, this is not new, they are born into it and grow up with it. By dancing with the dynamic social connections and sensing the collective needs, Chinese are facing to the chaos and opportunities in an incredible condensed space and time period, since they were swallowed by the unavoidable modernization and globalization in 1980s. Currently, Western scholars are increasingly reflecting about the challenges that it implies for leaders to be confronted with a VUCA reality because the typical Western mentality has rather been trained to cope with complicated (and not: “complex”) phenomena, which are assumed to be controllable. Complex phenomena require a different approach. In this context, Chinese cultural memory may have precious resources to offer because it has embodied complexity for a long time (Puett & Gross-Loh, 2016).

#### Self-centered network: the family-oriented ethical system

The family tree (Fig. 6.2) illustrates the core relationships in a family-based community in China, which every Chinese are more or less born with. Almost all specific titles of relatives would be kept in mind, because the identification of people’s position and order is of great importance when people interact with each other. Within their family, Chinese people rarely call people by their names but rather by their ‘title’ that stands for the relationship with oneself, including relatives, friends, and acquaintances. For example, Yima (姨妈) is the title for the big sister of the mother.

<sup>1</sup> The term “VUCA” was first introduced around the 1987 in the USA as a term used to describe new demands on the management of corporations in an increasingly complex world. The acronym stands for ‘volatility, uncertainty, complexity, and ambiguity’.

By acknowledging the relationship, everyone is very clear with the position and the according morality and social rules. That is the foundation for the Chinese *GuanXi* (relationship) in daily life. Based on his or her original family, throughout their lives, Chinese are weaving their own relationship field as a way to cultivate harmony. This practice of cultivating harmony—not only internally but in all parts of their life—is called *TaiJi*, and the relationship field is called *GuanXi*.

Chinese learn *Taiji* for its philosophy on transformation, with all possibilities that making peace by integrating the binary splitting. As shown in a *Taiji* image, the black in white and the white in the black are the main driving forces for integration and merging, in another saying, the harmony is embedded in the controversial existence. That is the reason why Chinese also call the harmonizer in complicated relationships the “Taiji player.”

It is due to this practice of cultivating a harmony-oriented field of *GuanXi* that Chinese value making friends before making a deal. Foremost, their relationships—and that of course includes “professional” or “official” relationships—serve the purpose of extending their harmony through their field of *GuanXi*. Mayfair Yang (2007) has drawn similar conclusions on rural economic development based on her study in Wenzhou, the city on the southeastern coast of China:

Given China’s long history of commercialization, capitalism is not entirely new. As China today joins the world of global capitalism, some of its rural coastal regional cultures, such as rural Wenzhou, have drawn upon imperial China’s petty entrepreneurial and commercial cultural legacy, where the market economy was embedded in and also checked by cultural institutions such as the family, lineage organizations, temple associations, Daoist and Buddhist institutions, and community ethics.... In the indigenous capitalism that we find in places like Wenzhou, the capitalist drive for accumulation of wealth is tempered by the religious and kinship ethics of generosity and social rivalries of giving away wealth. (Yang, 2007, p. 233)

### “We” instead of “I”: Relational Identity

Human life finds its meaningfulness in relationships. It is the main theme of the book “I and Thou” from Martin Buber (1923/2017). It has received broad resonance among people in China. However, there is some distinction in the format of the *Eternal Thou*. From Buber’s perspective, all of our relationships bring us ultimately into the relationship with God, while for Chinese, it is the family-oriented relationship that brings us into the *Eternal Thou*. As mentioned above, traditional Chinese personal development begins in the self and emerges gradually into family-oriented self, then into the extended family-oriented self. The self can be ethically, intellectually, and psychologically developing into a state that is capable of taking responsibility for one’s organization, community, and even the state, until the ultimate position “All Under the Sky” (Tianxia 天下). This self-centered development process (see Fig. 6.1), like ripples in water, shows a traditional Chinese collective identity, in which the development of personal identity is oriented toward fulfilling the collective expectations and well-being. The concept of *Chaxugeju* (差序格局) raised by Fei (1948/1984) described the elastic quality of the “self” that Chinese are rooted in (see also Robel, 1997). As mentioned before, Chinese have no clear boundary between private and

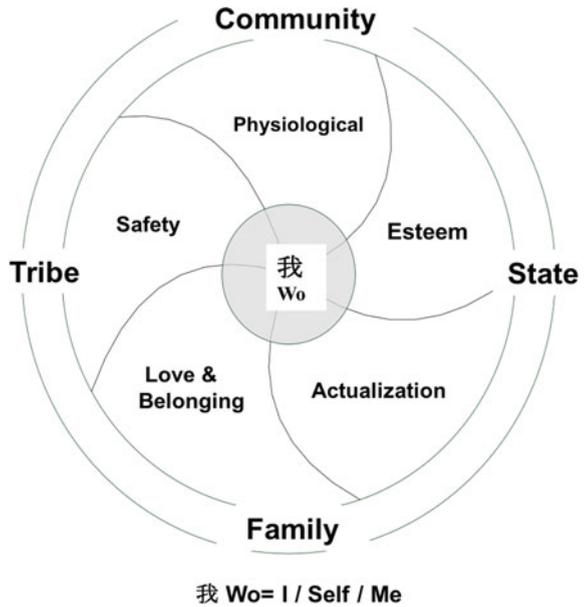
public at all. *Jia* (家 Family) could be extended infinitely as long as the virtue and merits could afford. Small *Jia* could be extended to the community, tribe, state, or the whole world (*Tianxia* 天下 All Under the sky), which is the so-called big *Jia*. As a result, Chinese attitudes like belonging or trust toward the extended family are the extended love grounded upon the core family. So to say, if there is an explicit most popular religion in China, this religion would be “family.” “Confucius wrote, *the person who exercises government by means of his virtue is like the North Star, which makes all the other stars surround it.* (为政以德, 譬如北辰, 居其所, 而众星拱之《论语·为政》) *This is, in fact, a very apt metaphor for describing the Chinese system of organization, that of a pattern of discrete circles, the differential mode of association*” (*Chaxugeju*) (Fei, 1948/1984, p. 46).

The self is always at the center; so, like the motionless North Star, the self is always surrounded by others who come under the influence of the center. And at the same time, a “self” is never a separated individual or “I,” rather the self is defined through the relational field in which it emerges and exists, so it is a “relational self” or “nested I.” No self exists without its surrounding relational field. In Chinese language, there is no distinction of subjective and objective, so “I” and “me” are the same character *Wo* (我). Within the frame of a relational identity, how could individuals fulfill their own needs or expectations? By answering the question, it is necessary to change the needs model from Maslow’s linear Hierarchy model (Maslow, 1954/2007) to the new needs model as shown in Fig. 6.3. In Chinese relational identity mode, Chinese are fulfilling all their needs through their roles and collective identities but never separated from their surrounding field. Or in other words: For a Chinese, meeting his or her own needs is always coupled to balancing this with meeting the needs of the related family, tribe, community, and state. The harmony of all these is the constituting factor for the development of the self. It is not a surprise to have received all kinds of supports or help from others, because generally speaking, everyone is observing and sensing who might need help in the surroundings, which is the virtue that a collective society is encouraging and expecting. In such a culture, it is hard to say whether this comes from personal virtue or from social pressure because everyone is practicing both consciously and unconsciously. Anyway, through the culture of collective mutual support, people who are living in the circle are fulfilled with all the necessity for their physiological, mental, and spiritual life.

### **Relationship based Culture: GuanXi**

It has long been recognized that one of the most significant features of Chinese culture is its emphasis on a harmonious society and the appropriate arrangement of interpersonal relationships (Abbott, 1970). *GuanXi* (Relationship) is the key for Chinese society, which is working based on interpersonal trust. With globalization and industrialization, there are several forces leading to change, but also some sources of continuity, which maintain these patterns regardless of political and economic context (Hwang, 1987, 1997). The community based on *GuanXi* creates an atmosphere that everyone is connecting to everyone. So, in a way, also all information is connected to everyone in the circle. This is contrary to the popular perception in the West that takes the “official” voice as representative for the country and its people.

**Fig. 6.3** The Chinese fulfillment of needs model (copyright by the author)



Actually, nothing can really be hidden in the wild connected human networks in China. According to the Chinese harmony-belief and the family-styled governance, criticism should be kept inside a family. We can criticize harshly inside the family, but whenever we are mentioning or representing “China” (as our extended family) to an outsider, it should be positive. As one consequence, the collective silence of Chinese or the emphasis of positive words is often misinterpreted by Westerners as indications that there is only one mainstream voice from China and that lots of other voices are being oppressed which is taken as a reason to criticize China. From the standpoint of a typical Chinese, such criticism from a non-Chinese is perceived as the first negative signal of a not trustworthy relationship which equals to hurting Chinese emotions and hence launching a conflict actively. Thus, many Chinese take Westerners as “outsiders” even before a relationship could be built, such that possibilities for further communication are being lost. It seems like a “negative circle” to me in which cultural misunderstandings and misinterpretations drive mutual alienation and avoid the building of a trustful relationship.

**Nature-relatedness: Nature is the “Self as It Is”**

A special aspect of relationship is the Chinese understanding of nature and hence the relationship between human and non-human life. The term “Nature” in Chinese is Zi Ran (自然), which is described in the Dao De Jing (Lao Tsu, 571–471 B.C.): “Man takes his law from the Earth; the Earth takes its law from Heaven; Heaven takes its law from the Tao. The law of the Tao is its being what it is.” 人法地, 地法天, 天法道, 道法自然.

“Being what it is” is *Zi Ran*. As *Zi* (自) in Chinese is also the self, so it could also be interpreted as “the self as it is.” The core content of the notion of *Zi Ran* is the inherent and autonomous course of the universe. An important implication of this understanding of nature is that Chinese usually do not understand humans as distinct from nature. While mainstream Western philosophy has emphasized the distinctness of nature and culture, Chinese culture has traditionally not known this distinction. In a way, the sphere of “global nature” to Chinese is only the further expansion of their nature sense of relationship spheres. Regarding the current changes in global ecosystems, these understanding pose particular challenges to Chinese. One aspect of this is that for Chinese there is no stability at all. Only the present moment is eternal. That might be a reason, why many Chinese feel it is not a big deal that global ecosystems are collapsing. I fully understand that to a certain degree, this perspective could be considered somewhat ignorant. However, from another point of view, this manifests the essential quality of the principle that as humans we are part of nature. There is no boundary between clarity and mess, and our planet is always full of mess, e.g., our industrialized modern lifestyle. Just taking all the rubbish away from the place where we can see it, does not mean that it does not exist. The world, since many years ago, is both messy and beautifully. The key point for both is that how we step into the discomfort zone a little bit more, to face to the reality. For Chinese, transformation means to step outside the comfort zone of our familiar ties and relationships, and to care for the world in an extended scale. As Chinese, we were growing up in a farming country, but it is a fact that we are also moving into the industry circle. Hence, it will be a great challenge for China to solve the problems in such a condensed timeline that both taking care of people to develop their life quality and protecting the environment at the same time will be possible.

### ***6.3.3 The role of emotions: Volatility cultivates resilience***

#### **The mind–heart system of emotional Chinese**

Psychology is translated into Chinese as *Xin Li* (心理) study, in which *Xin* is the heart and *Li* is the rationality or mind. From the traditional understandings of ancient Chinese, perception or reasoning is the function of the heart rather than the brain. It is not a coincidence that the American Chinese historian Sun concluded in his book “The deep structure of Chinese culture” that China has a cultural context in which “people have stronger heart than brain. For a Chinese, the mind is from heart, whereas the mind is covered by emotional heart.” (Sun, 2015). Emotions make things complicated, as the life is. Sensitive to the emotion is an effective way to sense the whole field or the climate in space, which is the basic learning for every Chinese since childhood. In other words, it is also the survival coping stances that make Chinese feel belonging and love in the community. In terms of emotions, they are changing in every moment but nothing could be more genuine than our own feelings; they are too diverse and subtle to become tangible and understandable; they can be felt but are also untouchable; they could be expressed in thousands of ways, but

only if people feel them, they could be understood what they exactly mean. As a result, they are always with some quality of mystery to the rational mind. Similarly, this description matches China as a country or culture. People miss the essence of China when they focus on studying official reports or cold databases. Rather, it is necessary to contact people and immerse into the real life. The official appearance is just a cover for Chinese real life, which is a common sense for all Chinese. The real life is with much more *aliveness* with the ambiguous space in between. It is almost a paradox to address that Chinese society is built on an emotional network, while Chinese are among those who are with least facial expressions. However, the Chinese way of being emotionally sensitive is introvert and invisible, which might not be shown explicitly.

### **Latent communication with emotions sensitivities in social life**

While it seems that in the West emotions are primarily processed in “private” or personal spaces, the presence of emotions plays a crucial role in Chinese relationships. For this interaction, emotions or compassion is not necessarily based on these emotions being expressed, no matter verbal or non-verbal. Living in a complex society like China, it is the emotional sensitivities that help people to connect and cooperate with each other. The emotional connections with the harmony-belief help people to achieve the consensus in a latent but efficient way. Normally, people are not expressing themselves actively in public, but it does not mean that the individual’s expectations have been ignored. The active relationships would help to spread individual’s expectations. In terms of the meetings or conferences, it is the time for making decisions and preparation for taking actions, and most of the communications are happening in the circles and communities. If individuals’ expectations have been ignored, the leader who is in charge would feel sooner or later the obstacle of the systemic pressure from the community and circle even if the respective individual does not raise this explicitly.

### **Implications for the mutual understandings**

The above phenomenon is quite related to the following conditions: relationships and harmonic belief determine to which circumstances that Chinese would switch themselves into a relatively more relaxed, free, and extrovert mode. While in a collective community, ‘being a person’ is an art to keep balance of caring myself, others, and the field (common good). A silent or calm appearance is the container for all the emotional and cognitive decision-making processes. Hearing from others and speaking less would always be a good strategy to avoid conflicts and keep harmony as a whole. Emotional contact without words, or so to say “silent communication,” is a crucial element for people to dive into China and understand the mechanism behind the appearance. From my experiences, most Westerner I met who went to China and experienced warm and genuine Chinese, immediately fall in love with the atmosphere there. Therefore, I am translating the Chinese culture as an emotional space. Therefore, China is a concept that cannot be explained but needs to be *experienced*, to be tasted and to be discovered with curiosity and openness of the heart.

## 6.4 Outlook: Implications for Sustainability and Global Civilization

These reflections are meant to stimulate a discussion about how China might contribute to mastering the global challenges in the Anthropocene. Usually, conversations about sustainability emphasize technological and political capacities to meet ecological, social, and ecological targets. I am convinced that with this focus important treasures of Chinese culture are overlooked. As humans are gaining insights into the complex nature of the how human actions are interwoven with the Earth system, existing mental paradigms are being challenged. Human systems need to cope with the so-called VUCA reality, and sustainability-related scholars and philosophers are increasingly emphasizing the importance of re-interpreting the human–nature relationship and fostering relational paradigms and mental models for sustainability (Walsh, 2021; West, 2020). The three aspects presented in this essay (harmony-belief, relationality, and role of emotions) are meant to illustrate how the Chinese culture could contribute as resources to a transformation of mindsets that are equipped to meet the challenges of the Anthropocene. They might also help to allow for alternative interpretations of Chinese actions and hence avoid misunderstandings and foster constructive dynamics of global cooperation. On the other hand, they might foster the understanding and respect for the diversity of transformation processes in different cultural contexts.

These considerations may lie outside the comfort zone of many mainstream understandings. They may appear to be far from what can be understood according to the knowledge and logic or philosophy that we have been learning, not only cognitively but maybe more importantly with respect to our subconscious conditioning. All the more I would like to see these reflections as an invitation to rethink our assessments and judgements that might be influenced by more anxiety of what we do not understand than we know. The ongoing global transformation invites us to cultivate great awareness for the collective wisdom of all cultures in deep curiosity and appreciation for their diversity and context-specific validity.

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## References

- Abbot, K. A. (1970). *Harmony and individualism*. Orient Cultural Service.
- Buber, M. (2017). *Ich und Du* (W. G. Chen, Trans.). The Commercial Press. (Original work published 1923)
- Chinese Family Tree. (2015). *Chinese Family Tree* [Photograph]. Retrieved from <https://www.echineselearning.com/blog/how-to-talk-about-your-family-in-chinese>.

- Confucius. (1898). *Lun Yu 论语* (Eng. *The discourse and saying of confucius*). (H-m. Ku, Trans.) (pp. 496–497) (Original work published c.a. 400–479 B.C.).
- Fei, X. (1984). *XiangTu ZhongGuo 乡土中国* (Eng.: *From the soil: The foundations of Chinese Society*) (2nd ed., pp. 40–46). SDX Joint Publishing Company. (Original work published 1948).
- Hwang, K.-K. (1987). Face and favor: The Chinese power game. *The American Journal of Sociology*, 92(4), 944–974.
- Hwang, K.-K. (1997). Guanxi and Mientze: Conflict resolution in Chinese society. *Intercultural Communication Studies* (VII:1), 19.
- Ku, H.-M. (1914). *The spirit of the Chinese people* (pp. 8–16). Shanghai Sanlian.
- Ku, H.-M. (1915). *Higher education: A new translation*. Retrieved from <https://thebamboosea.wordpress.com/2012/04/13/ku-hung-ming-higher-education/>.
- Maslow, A. H. (2007). *Dong Ji Yu Ren Ge 动机与人格* (Eng. *Motivation and personality*) (J. S. Xu, Trans) (pp. 108–115). CRU Press (Original work published 1954).
- Puett, M., & Gross-Loh, C. (2016). *The path: What Chinese philosophers can teach us about the good life*. Simon & Schuster.
- Robel, R. R. (1997). Xiaotong Fei, From the soil: The foundations of Chinese society. *Comparative Civilizations Review* (35). Retrieved from <https://scholarsarchive.byu.edu/ccr/vol35/iss35/10>.
- Sun, L.-K. (2015). *ZhongGuo WenHua De ShenCengJieGou 中国文化的深层结构* (Eng. *The deep structure of Chinese Culture*) (pp. 28). China Citic Press.
- Walsh, Z., Böhme, J., & Wamsler, C. (2021). Towards a relational paradigm in sustainability research, practice and education. *Ambio: A Journal of Human Environment* (50), 74–84.
- Wang, Y. (2011). *San Zi Jing 三字经* (Eng. *Three character classic*) (Y. C. Zhao, Trans.). Retrieved from [http://blog.sina.com.cn/s/blog\\_698085bf0102dsx7.html](http://blog.sina.com.cn/s/blog_698085bf0102dsx7.html). (Original work published 1223–1296).
- West, S., Jamila Haider, L., Stalhammer, S., & Woroniecki, S. (2020). A relational turn for sustainability science? Relational thinking, leverage points and transformations. *Ecosystems & People* (16).
- Yang, M. M. H. (2007). Ritual economy and rural capitalism with Chinese characteristics. In *Cultural politics in a global age: Uncertainty, solidarity and innovation* (pp. 216–223). Oneworld.
- Yang, M. M. H. (2013). *Logics of the gift and banquet: A genealogy of China and the Northwest Coast* (禮物與筵席的兩種邏輯：中國與北美西北海岸之淵源關係), in *The gift of knowledge: Re-examining gift cultures. (知識之禮：再探禮物文化)*. S. Chang, (Ed.) (張上冠主編) (pp. 19). Taipei: National Chengchi University, Institute of Foreign Languages, Translation Center.

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# Chapter 7

## The Systems Aliveness Approach—Shifting Mindsets from Navigating Emergency to Stewarding Wellbeing on a Healthy Planet



Petra Kuenkel

**Abstract** This chapter suggests that humankind needs to reconsider its relationship with the planet’s amazing miracle: *Life*. Shifts in mindsets need to reflect this emerging new view of reality. COVID-19 as a global pandemic has alerted many people not only to the need to realign humankind’s relationship with nature, but also highlighted the global interconnectedness and the vulnerability of people. The increasing concern for the future of humanity and our life-support system needs reflections about the underlying view of reality that informs approaches to transformations. If humanity wants to rise up to collective stewardship towards stabilizing the trajectories of our planet, transformation actors need to become humble partners of life’s potential to renew and replenish. The chapter introduces the concept of *systems aliveness* as a guiding compass for transformative change. It emphasizes that understanding what gives life to systems needs to be at the centre of emerging transformation literacy. Drawing from multiple, interdisciplinary sources of the systems aliveness approach offers an avenue to reorientate transformation efforts around six generic principles. Using these principles as a lens to designing transformation initiatives and translating them into a stewardship architecture provides creative pathways for the long journey to regenerative civilizations.

**Keywords** Systems aliveness · Stewarding wellbeing · Healthy planet · Collective stewardship · Transformation literacy · Resilience · Interconnectedness · Regeneration

### 7.1 Introduction: Life as a Reference Point

The current state of the world suggests that, as humankind, we need to reconsider our relationship with the planet’s amazing miracle: *Life*. So far, with all explorative endeavours to Mars, according to our current scientific knowledge, our’s is the only

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P. Kuenkel (✉)

Collective Leadership Institute, Kurfürstenstr 1, 14467 Potsdam, Germany  
e-mail: [petra.kuenkel@collectiveleadership.com](mailto:petra.kuenkel@collectiveleadership.com)

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home in the universe that thrives on an ever-more complex dynamic of *Life*. It creates, fosters and regenerates *Life* in a perpetuating cycle of living and dying. *Life* is within us and around us, we sense it, feel it, know about it and mourn, if we see it disappearing. This mourning we all have experienced when a loved-one passes away, a relationship ends, or societies move into turmoil. But the mourning about losses at planetary scale, which some indigenous traditional cultures have predicted since long, has now reached many more people. If glaciers melt that are climate stabilizers and offer water security; if permafrost melts and releases carbon dioxide, aggravating in the atmosphere; or if forests, even rainforests are burning and extreme weather events kill people, the mourning is beginning to reach many more people's hearts. The heart's connection to these tremendous losses is a driver of the sense of urgency we need in order to halt the downward-spiralling trajectories of our future. Reconnecting the heart with our planet's miracle engenders the humility which we need in order to reshape our relationship with planetary health and human wellbeing.

It is increasingly clear that the coming 15–20 years will have a decisive impact on the conditions of life on Earth, more than in any period before (Steffen, 2018). COVID-19 as a global pandemic has alerted many people not only to the need to realign humankind's relationship with nature, but also highlighted the global interconnectedness and the vulnerability of people.<sup>1</sup> Awareness is rising about the urgency of dealing with climate change as the most palpable impact of human behaviour on the planetary system. Concepts such as the planetary boundaries (Rockström, 2009) have alerted many people, not only academics, to the need to turn the increasing concern for the future of humanity and our life-support system into action. In the year 2021, with a pandemic that, globally, is not yet over, and in a planetary emergency that shows how humans negatively impact on planetary life-support systems, reconnecting with *Life* is not only an intuitive urge, but a rational decision. It is scientifically substantiated and requires political, organizational and individual decision-making, everywhere and at all levels of the global society. Redefining what it means to be human in this world requires *heart* and *mind*. It requires memory, because with all achievements of modernity as well as human and technological advancements, the last few centuries have infiltrated us with the illusion of being separate from nature. We are not. The globally penetrating human consciousness development that created this notion of separateness from nature as well as the prioritization of masculine traits in societal development has a long history, but its accelerated impact on human behaviour can most profoundly be traced back to a scientific revolution (Merchant, 1980). It took place in Europe around 1600 onwards with, among others, the most influential protagonists such as Francis Bacon, who urged that nature needed to be conquered, penetrated and controlled; or Rene Descartes, who promoted a rational-analytic approach that denied nature living, sentient, interconnected qualities (Berman, 1981; Conner, 2005). This can be seen as a paradigm shift that happened in European human mindsets and subsequently generated both science and societies which achieved enormous technological advancements built on

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<sup>1</sup> Many articles and blogpost have suggested mindshifts as a result of the pandemic, a provocative summary of suggested shifts can be found in a blogpost by Chandran Nair (Nair 2021).

the notion of human separateness from nature. Increasingly, and today dangerously, this created a major threat to the conditions that support life and in particular, human life on Earth (Hawken, 2007; Raskin, 2016). But there is another paradigm shift underway that suggests to re-affirm human relationship with *Life*. COVID-19 reaffirms that we need to admit that our future is ‘biological, not digital’ (Nair, 2021). Technological advancements and also digitalization can be a tremendous help in regenerating and safeguarding our planetary life-support system. But unless we get our collective purpose clear, that is to advance a future in which wellbeing on a healthy planet is the centre of attention, and steward technological advancements towards this purpose, it will haunt us (WBGU, 2019). Only a few years ago, the many interdependent sustainability issues such as biodiversity loss, water scarcity, deforestation, ocean pollution, topsoil erosion, and growing inequality, among many others, were often seen as intractable or ‘wicked problems’ (Churchman, 1967; Rittel & Webber, 1973; Waddell et al., 2015) as if they had occurred without traceable cause, and as if they only called for political, technical and administrative solutions. While all such approaches have their purpose and validity, they tend to stay within a frame of thinking that can be identified as a worldview of disconnection from the underlying systemic interdependence of the world, and a disconnection from our intrinsic relationship with *Life* (Capra & Luisi, 2014; Korten, 2007; Yamash’ta et al., 2018; Wahl, 2016; Weber, 2016). This disconnected worldview is guided by a mechanistic conception of problems that need to be fixed as if a machine needed repair. It seduces us into the illusion of regaining control, ‘fighting’ climate change, ‘combatting’ the loss of species, and solving the damages of extractive industries by renewable energy technology only. None of these approaches is entirely wrong, the narrative of emergency fuels action for important approaches and behavioural changes that may work and are a glimpse into a more responsible future, such as greening the economy, switching to renewable energies, re-establishing wilderness zones, or introducing tax systems that not only reflect true and normally externalized production costs, but also redistribute wealth. However, as long as the understanding of the world does not shift from a machine-like controllable object to a *complex interconnected alive organism*, such approaches may fall short of their potential. What is needed is asking more fundamental questions of what the purpose of a responsible human endeavour should be on a planet that is in danger, and which is at the same time the support system that carries all forms of *Life*—also the human form of life. This chapter argues that a novel understanding of ‘what gives *Life* to systems’—in human (and natural) systems—needs to underpin the design of future economic and societal systems that model wellbeing on a healthy planet and the development of pathways towards transformative change.

## 7.2 Partnering with Life

What if our task as humankind is to develop (or regain) the capability to recognize, foster, regenerate and maintain the conditions for *Life* to thrive in the complex

hierarchy of systems that we are embedded in? Then, the cornerstone of transformation literacy is to steward (not steer and not control) multiple systems towards *aliveness*. The question ‘what gives Life to systems?’ will become the central question in partnering with *Life*. The results will never be perfect, and need to always be open for negotiation and new learning. But stewarding many small interlinked systems at the same time in many different places in the world will move our planet Earth out of the danger zone into the ‘safe operating space’ so many scientists are suggesting (Otto et al., 2020). A mindset shift towards reconnection with *Life*, both intuitively and rationally, is like a North Star or Southern Cross: a guiding force for working towards a world that works for 100% of humanity and our planetary home. This will happen differently in different contexts, but serve the overall integrity of *Life*. The question of what makes systems alive will become the guiding question for transformation literacy. *Systems aliveness* is here defined as the capability of small and larger systems to gain resilience, regenerate and maintain their vitality in mutual consistency with other systems (Kuenkel, 2019). Yet, the capability of systems—small or large—to develop a sufficient degree of vitality and resilience is not an end state to be reached, but a continuous process of learning and adaptation. It is a relational constellation of conditions that we can perceive and consciously influence.

In this context, it is important to remember the insight from the Santiago Theory of Cognition that the process of cognition is a constituting process of life (Capra & Luisi, 2014; Maturana & Varela, 1991). The ability to recognize patterns that enhance aliveness can be lifted into at least partial consciousness and this means that a discourse about aliveness patterns and their influence on transformations is possible, both individually and collectively. As Duane Elgin emphasizes: ‘Whether we regard the universe as dead or alive at its foundations has enormous consequences for our future, both individually and collectively’ (Elgin, 2009, position 367 kindle version). Such a discourse can enhance the understanding about both the manifold patterns that enhance a shared liveable future of humankind. Becoming aware of the patterned occurrence of *systems aliveness* is a cornerstone for recognizing patterns of behaviour, social interaction and socio-ecological-economic structures that enhance or prevent wellbeing on a healthy planet (Kelso, 1997; McKenzie et al., 2009).

Understanding the principles and patterns behind *systems aliveness* will engender us to ask how best we can steward aliveness in the multiple systems we influence and how we can become a guiding force for approaching the behavioural transformations we so deeply need. The collective capacity to create the transformative change across societal sectors, institutions and nations, will be enhanced by a narrative of fostering *systems aliveness* through recognizing, regenerating, maintaining and safeguarding life-support systems in all their variations. Subsequently, actors who are now driven by narratives of threat and fear could become conscious stewards of aliveness in socio-ecological-economic systems. Yet, have we scientifically and practically understood, what gives *Life* to systems and how, in our attempts to steward transformations towards a regenerative civilization, we can foster and support life? Not yet fully! However, there are many knowledge streams that open new pathways of thinking that not only challenge the outdated European-induced view of the world, but provide

openings for new mindsets. In this chapter, I will show how the *systems aliveness approach* cannot only inspire mindset shifts, but become the basis for designing transformative pathways and evaluating systems that may better match a regenerative future.

After looking at the emerging trend of *Life* as reference point for understanding the world and transformative collective action, I will explore the conceptual foundations of the *systems aliveness approach*. At its core are six principles that govern socio-ecological systems in support of *systems aliveness*. I will describe the principles in more detail based on transdisciplinary systems research and show how these principles can be translated into various different aspects of designing transformative change. I will conclude with suggestions on how the shift in focus towards *Life* as a reference point, enhances the stewardship task as the essence of *transformation literacy* and how this empowers change-makers to shift from navigating emergencies to stewarding systems aliveness.

### 7.3 An Emerging Trend to Refocus on Purpose

With the lens of *Life* as a reference point for transformative change, one notices that there is a growing body of scientific literature, monographs, policy papers, activists reports or mission statements for transformation initiatives that build momentum for a reorientation of purposeful and scientifically grounded collective action towards *systems aliveness*. Narratives about reorientating our relationship with *Life* have been emerging since the end of the last century (Berman, 1980; Capra, 1995; Deluca, 2016; Elgin, 2009; Eisler, 1988; Elworthy, 2014; Harding, 2006; Hawken, 1993; Korten, 2007; Kuenkel, 2019; Mies & Shiva, 1993; Yamash'ta et al., 2018). They are slowly taking root in policy-making, in community development and in the field of economics. Examples for this trend are manifold, of which a few should be mentioned in an illustrative way. The president of the EU commission adopted the term 'vitality' as a new narrative for the future of Europe in her State of the Union Address in September 2020.<sup>2</sup> The Global Commons Alliance, a cooperation of more than 50 organizations in policy, science, advocacy and business refers in their aims to the 'health of vital systems' for 'people and planet to thrive'.<sup>3</sup> Many new economic approaches that aim to reverse the focus on unlimited growth and to realign economic activities around values, make special reference to a redefined purpose such as 'an economy in service to life' (Lovins et al., 2018), a wellbeing economy (Fioramonti, 2017) or regenerative economies which focus on systemic health, self-renewal and the vitality of socio-economic systems (Fullerton, 2015). Korten's (2007) proposed

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<sup>2</sup> Vitality, vital and revitalizing were mentioned as strategic terms 7 times, e.g. in "A New Vitality for Europe", source: [https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\\_20\\_1655](https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1655); retrieved 3rd January 2021.

<sup>3</sup> Section About: Earth is Our Home. <https://globalcommonsalliance.org/about/>. Retrieved 3rd January 2021.

narrative for a living economy suggests that we need to refocus on a partnership with nature with the aim of maintaining the conditions that are essential for life to thrive. Not surprisingly this has also entered the domain of research and practice of what is considered human progress and how to measure it (Hoekstra, 2020). Among many other attempts to measure *systems aliveness* is the Quality of Development Index (QDI) (Raskin et al., 2010, p. 2631) which rates a set of indicators such as wellbeing in human lives, combined with the strength of communities, or the resilience of the biosphere. Similarly, the Organization for Economic Co-operation and Development (OECD, 2015) has developed a ‘Better-Life-Index’ with indicators that in combination rate individual wellbeing in relation to societal conditions *Systems aliveness* is also at the centre of initiatives such as the de-growth movement, which aims to ‘prioritize social and ecological wellbeing’ and ensure a ‘good life for all within planetary boundaries’.<sup>4</sup> In connection with the planetary boundaries, academic research that refers to the urgency of more conscious and effective sustainability transformations has introduced the idea of Earth stewarding as a way of safeguarding the ‘life-support system’ (Steffen, 2018; Otto et al., 2020)—symbolizing the multiple and relational conditions required for the overall health of our planetary system. Fundamentally, also the 17 Sustainable Development Goals (SDGs) can be interpreted as an attempt to shift dysfunctional patterns of activity in human and socio-ecological systems towards more functional, more flourishing—or alive—patterns that work better for all, including living beings other than humans (Kuenkel, 2019; Waddock & Kuenkel, 2019).

The current emerging communicative trend around systems vitality or aliveness has scientific and philosophical roots that take us back not only to the work of scholars that have advanced such a worldview in the last century. Apart from its origin in many indigenous wisdom communities around the world that see human beings as partners and servants of ecological harmony, a life-enhancing worldview was also widely recognized during exactly the times that created the foundation for a rational and rather reductionist scientific revolution. In the eighteenth century Alexander von Humboldt, among many other of his contemporary research fellows saw human beings unseparated from nature and in obligation to its safeguarding and care. Humboldt also urged his readers to notice the patterned connection between the destruction or exploitation of people in slavery and oppression with destruction of nature. He saw evolution as a non-hierarchical self-organized complexity—a republic of freedom, and with reference to Schelling and Goethe, as a living organism functioning in constant mutual relationality (Wulf, 2016). Yet with industrialization rising and a biased interpretation of the works of Darwin (Weizsäcker & Wijkman, 2018), the separation of nature from the human endeavour became the more popular worldview, accompanied by the many variations of machine metaphors that not only reduced the non-human world to ‘resources’ to be exploited, but also people to ‘labour’ and ‘human capital’, and ‘life’ to something to be controlled and managed. Although not mainstreamed, different worldviews emerged with the

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<sup>4</sup> See: <https://www.degrowth.info/en/what-is-degrowth/> retrieved 3rd January 2021.

advent of systems theory, quantum physics and semio-biology in the beginning of the twentieth century (Capra & Luisi, 2014; Weber, 2016).

An important insight from systems theory was that the properties of living systems cannot be reduced to those of their smaller parts. Moreover, living systems were seen as relational and arising from the pattern of relationships between the parts. This led to the confirmation of insights that were actually much older: that every organism, animal, plant, microorganism, or human being, but also landscapes, cities and communities must be seen as integrated wholes in constant communication and interconnectedness (Macy & Brown, 2014; Sahtouris, 2000). For an understanding of the relational nature of a system's aliveness or vitality, the concept of patterns is crucial. If the nature of reality and evolution is viewed as consisting of interconnected, co-evolutionary and purposeful patterns that generate aliveness (or the opposite) the question arises, which patterns are conducive to both individual and overall systems aliveness and which not (Alexander, 2002; Finidori et al., 2015; Kuenkel, 2019; Weber, 2016). The process of pattern cognition has been described as a constituting process of all life by systems thinkers (Capra & Mattei, 2015; Maturana & Varela, 1987). Lifting this process into consciousness and making it accessible to decision-makers and change agents would engender a collective discourse about *life-enhancing patterns*. Becoming aware of the patterned occurrence of life in evolutionary processes can be seen as a cornerstone for recognizing patterns of behaviour, social interaction and socio-ecological-economic structures that are either conducive or detrimental for systems aliveness. Developing new narratives and shared languages around *systems aliveness* enables collectives of actors to more consciously steward transformative change.

A deeper perspective both scientific and experiential on the process of recognition of conditions that further or hinder patterns of aliveness in smaller and larger systems opens pathways to new ways of designing and enacting transformative change. What is needed, is an accessible understanding of the foundational principles of 'what gives life' to systems and the ability to translate these principles into more life-enhancing transformative change. This is captured in the *systems aliveness approach* explored here.

## 7.4 The Systems Aliveness Approach

One of the roots of the conceptual foundation for the principles of *systems aliveness* is Alexander's (1979) approach to the 'quality of life' in art and architectural forms as he explains it in his work on pattern language and the nature of order. His breakthrough discovery that has found resonance not only in architecture but also in software development (Gabriel, 1996), was the insight that ordered space has an effect on the degree of 'life' in that space, which always extends from the degree of wholeness as a complexity in diversity and interaction of a given space (Alexander, 2004, 2005). Hence, he urges us to understand the patterns and conditions of ordering space and suggests that we have a responsibility to create life-enhancing spaces, not the

opposite. Before Alexander, the activist and urbanist Jane Jacobs (1961) wrote about *'The Death and Life of Cities'* portraying a view, in which, again, space in interaction constitutes aliveness of those who live, work, operate or enter the space. She also reminded us of the similarities between ecology and economy, when she suggested that, in their combination, they should be called 'bionomy' in the sense of 'life management', because exactly this should be their integrated purpose (Jacobs, 2000). It is just that in the common understanding of economics the idea of 'life' in all its complex dimensions has been reduced to the 'free market' doctrine that so vividly underpins the neoliberal economic framework which, undoubtedly, has contributed to the current endangered state of the planet (Lovins et al., 2018). Only recently, the notion of 'live-enhancement' is also entering the discourse around new forms of doing business (WBCSD, 2020).

Another novel approach to understanding systems aliveness comes from biology. The semi-biologist Andreas Weber (2016) concludes from explorations into biology and biosemiotics that 'life' is always intentional, not only human life. It seeks to go on, expand and regenerate again and again. In his view, human beings share this underlying urge for aliveness and yet also are gifted with reflective consciousness so that they not only experience aliveness, but can also understand the process of its emergence and intervene in it. In order for *Life* to thrive in global and local contextuality, value systems that underpin life-enhancing action need to be anchored in the living network of constant human/ecology interaction (Weber, 2013). *System aliveness*, then, is not an end-state to be reached, but a transitory moment that is based on iterative learning in a living network fashion, in constant reciprocal interactions, and continuous mutual transformations. It is a never-ending negotiation between what is good for the whole as well as for the individual, a continuous negotiation of power balances and interests pursued. *Systems aliveness* is not false harmony, but a deep accountability to co-evolutionary pathways that honour the integrity of the planet and of people. In regenerative civilizations with embedded regenerative economies working towards an alive and ecologically intact planet with a thriving humanity, the notion of *systems aliveness* would not only be deeply embedded in the societal value system, but also anchored in the way institutions, companies and citizens act. In such a future, companies would be purpose-driven in their contribution to the common good (Hollensbe et al., 2014). Licenses to operate would require transparency about how products and services further or diminish patterns of aliveness. Reporting against compliance-driven metrics as, e.g. water or carbon footprints would refer to overall and contextually agreed *systems aliveness* indicators. Governments would foster containment of geographical identities and would support collective performance in terms of local and national *systems aliveness* as well as a country's contribution to planetary health. Politicians would be judged and elected according to their capability to steward systems towards balanced vitality in a process of co-negotiation and co-creation with their citizens, both inspired and constraint by globally guiding criteria of planetary aliveness. Civil society organizations would broaden their mandate as guardians of ecological and social resilience, and expand their pioneering role in advocating for and monitoring of societal vitality. Governance systems at global, regional, national and local level would include multiple

stakeholders to ensure continuous learning and would arise for different issues. Multi-stakeholder collaboration would increase as needed in order to maintain or co-create patterns of aliveness in alliances, networks and partnerships. Educational systems would teach the narrative and foundation for seeing the world as an interconnected whole and would equip students with diverse competencies to further wellbeing on a healthy planet. A shift in consciousness towards recognizing, regenerating and safeguarding *systems aliveness* in its many contextualized variations would serve humankind individually and as a collective, and also serve the planet as a whole. But in order to take root, it needs to be accompanied by practical approaches and translated into the way the current institutions function.

This is the purpose of the *systems aliveness approach*. Conceptually grounded in multidisciplinary research into the work of many scholars<sup>5</sup> that substantiated the need for a reorientation towards *Life*, the approach shows that stewarding aliveness patterns is possible: in smaller and larger socio-ecological systems, in organizations, teams, networks and collaboratives. The *systems aliveness approach* identifies six essential and generic *principles*. The principles represent a thorough synthesis of major writings on different explications of aliveness. These writings have emerged from multidisciplinary highly diverse knowledge streams such as architecture, biology, consciousness research, cognition science, neuroscience, leadership research, psychology, systems theory, organizational development and software development (for the background research on the principles see Kuenkel, 2019; Kuenkel & Waddock, 2019; Waddock & Kuenkel, 2019). More recently the reorientation towards aliveness has been taken up even in the realm of leadership practice (Hutchins & Storm, 2019).

In their relational interaction, the principles engender a pattern of mutually supportive conditions for *aliveness* to emerge. This dynamic flow of relationality can be seen as a co-construction of *systems aliveness*. It requires a patterned connectivity, which is particular to a certain system, respectively to a multiplicity of systems (see also Bertalanffy, 1968; Capra & Luisi, 2014). This means that how the generic principles get translated into the variety of realms and levels of systems that require transformations are dependent on the context and purpose of transformative change. Their translation can be used to diagnose or monitor *systems aliveness* as an identifiable current and transitory state, or guide the strategic design of transformative change processes. These different applications are elaborated and illustrated with examples in Part 3 of this book. The purpose of the underlying generic principles is to advance a new mindset that places the question ‘*How can we steward aliveness in systems?*’ at the centre of advancing transformations (Kuenkel, 2019; Kuenkel & Waddock, 2019).

The six generic principles that constitute the *systems aliveness approach* support each other, each providing a lens and at the same time an entry point for generating or reviving vitality in a system. Figure 7.1 illustrates that their effect is in their togetherness. Like a compass with different lenses, they provide guidance for

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<sup>5</sup> A detailed compilation of the research revisited can be found in Kuenkel (2019), Kuenkel & Waddock (2019) and Waddock and Kuenkel (2019).



**Fig. 7.1** The six generic systems aliveness principles (copyright by the author)

different realms of transformative change and need to be contextualized. They may overlap, but there is enough differentiation among them to justify presenting them as six distinct principles.

### **7.4.1 Principle 1: Generativity**

**All life is intentionally generative.** Generativity is both the ability to co-create and to take care of future generations. This first principle reflects the urge of all living systems to continue into the future, including the capacity of natural and human systems (including organizations and institutions) to expand, renew, rejuvenate, replenish, and restore themselves in the process of staying resilient. It is this generative force of life that maintains and enhances the conditions for life to thrive.

Life processes are never rigid and always ambiguous, as they balance intentional generativity among many forms of life and between smaller and larger units.

Translating *Generativity* as a generic principle into human competencies for *transformation literacy* means focusing on intentions for life-enhancing collective action. **Advancing emotionally compelling future narratives around life-support systems and building accountability for future generations** invigorates the human connection to *systems aliveness* and the capability to collectively shape future. In transformative change, enlivening this human capability is an important lever for building the momentum needed for maintaining or regenerating global and local conditions that further *systems aliveness*. This refers to the maintenance or regeneration of natural ecosystems as much as to building thriving social and economic ecosystems. An example for such an emerging narrative, which is propelled by the global COVID 19 pandemic, is the emerging discourse on the interlinkages between human health, ecosystems or even planetary health and the purpose of the economy. A focus on *Life* will fundamentally reorientate economic actions (Lovins et al., 2018). Identifying future narratives that reconnect people with *Life* are a core element of *transformation literacy*. *Life* as a reference point and basis for a future narrative is a unifying connection between multiple issue-based transformative change initiatives, such as the movement around regenerative agriculture, agroecology or reforestation; initiatives that drive renewable energies; regenerative urban design; the re-establishment of local economies or initiatives that revive community relations. Yet, with generativity in ever-growing complexity, life works with discernible system identities that allow for containment, belonging and identity. This leads to the second principle.

### 7.4.2 *Principle 2: Containment*

**Life thrives on identity with permeable boundaries.** All living systems need sufficient containment and boundaries for cohesive identities to emerge. But in order for life to thrive this containment needs to be permeable in the sense of adaptability and agility. Such permeable containment holds generativity in check and creates pathways for what Maturana and Varela (1987) mention as a system's capability to develop as a result of perturbations in a combination of cyclical change and structural change.<sup>6</sup> Hence, cognition of other systems' identities, the perception of belonging, purposeful connectivity and a negotiable degree of openness for transforming identities is an essential facet of living systems (Ashby, 2011; Capra & Luisi, 2014; Prigogine, 1996; Swanson et al., 2009).

Translating *Containment* as a generic principle into human competencies for *transformation literacy* means **acknowledging the need for enabling structures, those that balance power and foster multiple purpose-driven communities,**

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<sup>6</sup> See the Santiago Theory of cognition (Maturana and Varela 1991).

which **connect in networked collective action**. This can take the form of cross-institutional or multilateral collaboration, global alliance, or local coalitions. The recently emerging initiatives, movements, coalitions, alliances and partnerships focusing on different facets of sustainability transformations are testimony to the need to bring people together in intentional and transformative communities. Organizing collaborative change, for example, for combating biodiversity loss or fighting climate change, establishing ecocide as a crime against humanity, the reduction of plastic waste or increasing the sustainability of value chains, increasingly takes place in local to global networks across societal stakeholders or academic disciplines. These purposeful communities form meta-structures that generate different forms of permeable containment more suitable to overall *systems aliveness*. In that way, they model the future. If these communities are networked (and not in competition), they influence (or perturb) outdated institutional arrangements and create change systems capable of addressing complex sustainability challenges. Yet, any form of containment always leads to structures, without which *Life* could not thrive, but which tend to become rigid and ineffective. The openness for transformations and rearranged new structures requires another principle.

### 7.4.3 *Principle 3: Novelty*

**Life is generously creative.** While maintaining overall containment the process of life is constantly unfolding novel pathways and new identities. The creation of novelty is an essentially undetermined process, integrally and inextricably linked with life (Capra & Luisi, 2014; Kauffman, 2016; Zohar & Marshall, 1994). This happens through invention, adaptation, exaptation, learning or other features that engender innovation. It can be said that living systems create ‘experiments’ with the purpose to keep the whole intact while enhancing resilience (Holling, 1973). This suggests a new understanding of ‘growth’ as an urge to expand in negotiated contextuality, while creating conditions that enable mutually supportive systems to flourish without necessarily getting bigger in a linear sense (Jacobs, 2000). Novelty is an essential aspect of vitality and takes the form of abundance, manifested as greater complexity with more diversity (Weber, 2013).

Translating *Novelty* as a generic principle into human competencies for transformation literacy means **engaging the human desire to find novel pathways, but guide innovation towards supporting regenerative practices**. The topic of innovation is high on the agenda of change-makers for sustainability transformations, as climate change and the current planetary crisis requires novel pathways, rapid innovation and local creativity. Interestingly, the discourse on innovation and the rise of methodologies such as design thinking (Liedtka & Ogilvie, 2011) acknowledge that innovation does not happen in isolation. Rather, it is socially constructed and so much more effective, if built on encounters, conversations and exchange of ideas (Stamm, 2008). The process of reconnecting novelty with purpose is most palpable in the emerging discourse on the role of digitalization and the re-owning of data.

Digitalization is a good example for the need to reorientate innovation purpose to serve ‘Life’ and flourishing societies rather than benefit large companies. This hints to the need for another principle that guides emergence of systems aliveness.

#### 7.4.4 *Principle 4: Consciousness*

**Life emerges from meaning-making cognition.** Cognition is a general property of living systems, and human consciousness is the most complex manifestation of this general property (Maturana & Varela, 1991). Where consciousness studies, cognition theory, quantum physics and Buddhist as well as Chinese philosophy align is around the insight that mind and matter are intertwined (Bohm, 1980; Bohm & Hiley, 1993). Consciousness, and in the human realm, thought, or awareness, give rise to matter and vice versa (Macy & Brown, 2014; Sheldrake, 2011). It matters what we think and manifested reality influences our thought.

The translation of *Consciousness* as a generic principle into human competencies for transformation literacy is multifaceted. It means **raising the human capability to reflect while acting and establishing metrics that help many people at the same time to notice progress**. The term ‘proprioceptive’ captures this—the ability to notice what is happening, or even anticipate what will be happening while something is happening, and while we act. There is a global trend in the sustainability movement towards changing the ‘thinking’ of people, most profoundly that of decision-makers towards shifts in mindsets and paradigms. This ranges from campaigns and advocacy to scenario planning, future modelling, extensive dialogues and deliberations as well as many different forms of contemplative practices. The valid assumption of all these very different strategies is that a shift in consciousness—most often awareness—leads to different actions. This is especially the case, if people are able to reconnect with their humanity. But translating this principle into capability aspects of *transformation literacy* is also multifaceted, reaching into realms that may not obviously be connected. The state of the world suggests reflecting while acting should not only be an individual ability, but a collective capacity. Recognizing patterns of *system aliveness* (or the opposite) at a collective scale requires forms of agreed measurements that make it easy for many people at the same time to perceive a situation, a current state, a certain development, or what they consider progress. For example, there are many calls to overcome the misleading measure of economic societal progress, the GDP, because it is a globally orientating measurement that incentivizes exploitation of people and nature (Costanza et al., 2014). Instead, many actors suggest to redefine what economic and societal process is, and translate this into metrics that take the quality of life as centre of attention: Examples are the Gross National Happiness Index in Bhutan, The OECD Life Index, or the Wellbeing Economy Indicators (Hoekstra, 2020). Important for transformation literacy is the realization that metrics help people to understand and improve a situation. Yet, metrics can only become truly empowering as an element of cognition, when they are based on collective deliberations. This hints to another principle that guides systems aliveness.

### 7.4.5 *Principle 5: Interconnectedness*

**Life requires networked diversity in constant reciprocal communication.** Life processes are built on the ability of living systems (large and small) to change and evolve in mutual consistency with each other, and situationally appropriate. They always do so in the relationality of a certain context, which may be layered, but is always discernible. This contextual interconnectedness among the diverse subsystems leads to a balance between the various layers of systems. Communicative and mutually supportive relationships are at the core of life and a prerequisite for resilience (Folke et al., 2010; Holling, 1973; Ruesch & Bateson, 2006; Wheatley, 1999). System aliveness patterns are self-referential and recursive. One can say that systems talk to themselves (Weber, 2016). Their connectivity provides constant feedback to maintain their vitality. Many scholars have supported the insight that, at the quantum level, all life, including living and non-living systems, is connected (Bohm, 1980; Capra, 1995; Capra & Luisi, 2014; Weber, 2013; Wheatley, 1999; Zohar & Marshall, 1994). Modern biology has now given evidence to the hypothesis that forest are interconnected communicative systems in mutual support. The same is true for societies. They are built on relationship patterns as well as a shared context of meaning sustained by continuous conversations (Luhmann, 1990). The human capability to converse, interact, gain insight, communicate, learn iteratively and adjust behaviour is a manifestation of this principle.

The translation of *Interconnectedness* as a generic principle into human competencies for transformation literacy means **building transformative collective action on forms of structured dialogue and multi-level governance mechanisms that are contextually appropriate.** They provide continuous feedback, respectively, iterative learning opportunities for transformative change. The key to life-enhancing communication is mutual respect for diversity. This can range from structured multi-level stakeholder consultations to more reflective conversational spaces. For example, it manifests in issue-related stakeholder governance systems for water or natural resource management, collaborative partnership in sustainable supply chains, or the establishment of governance structures for global commons (Ostrom, 2015). Well-functioning governance systems are at the forefront of sustainability transformations in the Anthropocene (Steffen et al., 2007) for which the variety of socially constructed realities need to be explored and harvested for a sustainable future. One results of such structures dialogues are agreements that safeguard overall systems aliveness. This hints to the last principle.

### 7.4.6 *Principle 6: Wholeness*

**Life safeguards integrated wholes.** Living systems are always integrated entities, and they are constituted of identifiable yet both parallel and nested ‘wholes’ or holons (Koestler, 1968) that mutually enhance each other. These wholes exist at multiple

levels and provide embeddedness, identity, coherence and orientation. They create mutual consistency, always in relation to a next level whole (Sahtouris, 2000). The architect Alexander (2002) as well as the quantum physicist Bohm (1980) note that system aliveness emerges from an underlying potentiality of wholeness. In Bohm's term, this is called the 'implicate order'. In Alexander's description, it is the degree of life in a certain space. Swanson et al. (2009) argues that living systems form integrated wholes as well as differentiation and co-creatively emerge to higher levels of complexity.

The translation of *Wholeness* as a generic principle into human competencies for transformation literacy has different facets that serve the same underlying intention: to enhance the human capacity to relate to the next level whole and acknowledge the need to safeguard the larger entity to the benefit of smaller entities. This also means to **help people see the bigger picture and create guiding regulations as a result of negotiating the needs of the commons, the collective and those of individuals**. The aforementioned trend, accelerated by the COVID-19 pandemic, to increasingly refer to the health and integrity of our planet is an indication for a shift in consciousness that enlivens this principle. Not all safeguarding requires regulatory frameworks, but too little, or too weak regulations or binding agreements, especially those at the multilateral level, endanger the life of future generations. Where regulatory approaches fail, it is increasingly the emotional connection to a larger story of the world, to a bigger purpose that draws people into action and advocacy. For example, in mobilizing responsible collective action to halt climate change, safeguard or regenerate biodiversity, or turn to green energy production. The increasing use of the visual image of the planet in transformative initiatives is testimony to a growing trend to adopt more responsibility for the whole. Yet, agreements to safeguard the commons, such as climate agreements, environmental regulations, tax systems, or environmental regulations that safeguard landscape ecosystems are necessary, because they also guide resource allocations, financial flow and investments. Hence, important for transformation literacy is the ability to take a systemic view—from local to global. This also means to move beyond competition in transformative change initiatives, and connect various different initiatives around an issue, or combine them at different levels to increase their impact.

## 7.5 A Stewardship Architecture for Transformation Literacy

*Systems aliveness* rests on diversity in complementarity and reciprocity, and it requires feedback loops of communication. The emergence of an underlying potential of vitality and resilience comes about as a result of this relational interdependency—in a physical or mental space as well as in visible interaction between people. In human systems, attention to the principles creates the condition for aliveness to emerge. Moreover, aliveness patterns emerge in fractals, which connect subsystems

with each other and nested systems within larger systems (Sahtouris, 2000; Shel-drake, 2011). What is known from purely ecological systems, is also valid for human systems as well as human–ecological interactions: The more biodiverse subsystems achieve a dynamic vitality and connect with each other, the more vitality they create in the overall system. Vitality spreads. This is a fundamental insight for *transformations literacy*, because it is the connected vitality or *systems aliveness* that furthers transformations. The capability to identify aliveness patterns that model regenerative practices, to foster and connect them, and to safeguard their emergence is the essence of becoming transformation literate. *System aliveness* is never a stable state, but consists of multiple connectivity processes in dynamic balance that allow for creative and agile responses to disturbances. *Life* strives for more life, and also for purpose-driven beauty without ever reaching perfection. But even under the most severe conditions of destruction, which we may experience as a result of climate change and biodiversity loss, the intentional urge of life to continue will have the inherent capacity to reconstruct *patterns of aliveness*, hence to adapt, regenerate and revive *Life*. If we learn to support this at scale, we can change the current life-endangering trajectories. This is at the core of a *collective stewardship* approach in transformation literacy. Across sectors, institutions, and nations, multiple actors need to drive simultaneous efforts towards regenerative civilizations, which may emerge in different forms and for which not all pathways can be prescribed in detail. The envisaged transformative change will need to be radical, if humankind wants to rescue its future on this planet, but they will occur in an incremental way (Goepel, 2016). Transformations will and must evolve in multiple different ways, and there is no recipe that fits all global and local contexts (Loorbach, 2007). Considering the complexity and multitude of the task, which lies ahead of us, these transformative efforts cannot be managed, controlled or even steered. They need to be stewarded collectively with a degree of humility that pays tribute to the pluriverse world and acknowledges the end of the westernized cultures’ dominance in the future-making. What is needed is a dynamic of mutually supportive and interacting self-organization, combined with multilateral agreements and regulatory guidance. *Transformation literacy*, then, is the humble acceptance of stewarding transformative change towards regenerative civilizations, while acknowledging that there will be many different pathways and practices. Table 7.1 shows how the generic principles can be translated into stewardship tasks that centre on *Life* as the essence of a regenerative civilizational future.

Many of these stewardship tasks are already happening in the global sustainability and transformation community. But there is a strong tendency of actors to focus on one or a few of the generic principles and the related stewardship tasks. However, it is the relational interaction of all principles that will help accelerate transformations. The *stewardship architecture* provides guidance for the design of small- and large-scale transformative change. Rising awareness of the complementarity of approaches and pathways could help actors see the patterned relationship between different transformative strategy. It will support them to get out of competition or insistence on owning the right path, and instead guide them to plan relational and reciprocal interventions towards regenerative systems.

**Table 7.1** The stewardship architecture (*Source* adapted from Kuenkel, 2019)

Generic principle	Generic task in transformation literacy	Stewardship tasks in transformation literacy
<p><b>Generativity</b> All life is intentionally generative.</p>	<p>Invigorate the human capability to collectively shape a purposeful future.</p>	<ul style="list-style-type: none"> <li>• <i>Orientate towards regenerative practices.</i></li> <li>• <i>Create future narratives that are empowering people to engage for vital and resilient systems.</i></li> <li>• <i>Encourage accountability for (social and ecological) life-support systems.</i></li> </ul>
<p><b>Containment</b> Life thrives on identity with permeable boundaries.</p>	<p>Engage the human desire for belonging, meaning-making exchange and structured collaboration.</p>	<ul style="list-style-type: none"> <li>• <i>Revisit and adjust institutional arrangements to support regenerative strategies</i></li> <li>• <i>Build dynamic networks of transformative actors and institutions.</i></li> <li>• <i>Enhance power-distributive, decentralized and self-organized structures.</i></li> </ul>
<p><b>Novelty</b> Life is generously creative.</p>	<p>Build transformative change on the human desire to venture into the unknown and create new pathways.</p>	<ul style="list-style-type: none"> <li>• <i>Prototype creative collaborative spaces for co-design of regenerative pathways.</i></li> <li>• <i>Identify niches and pioneers of regenerative practices, and connect and amplify them.</i></li> <li>• <i>Guide technological innovation towards contribution to regeneration.</i></li> </ul>
<p><b>Consciousness</b> Life emerges from meaning-making cognition.</p>	<p>Raise the human capability for reflection in action and the respect for the integrity of all life.</p>	<ul style="list-style-type: none"> <li>• <i>Create awareness of reality and regenerative future pathways;</i></li> <li>• <i>Co-develop overall and contextualized measurements for progress towards regenerative practices.</i></li> <li>• <i>Establish agile feedback mechanisms for iterative societal learning</i></li> </ul>

(continued)

**Table 7.1** (continued)

Generic principle	Generic task in transformation literacy	Stewardship tasks in transformation literacy
<p><b>Interconnectedness</b> Life requires networked diversity in constant reciprocal communication.</p>	<p>Leverage the human capability to thrive on diversity and act in networks of networks in dialogue.</p>	<ul style="list-style-type: none"> <li>• <i>Establish contextually relevant forms of stakeholder and citizen consultations and negotiations mechanism</i></li> <li>• <i>Implement transformative change in collaboration with complementary societal actors (government, private sector and civil society)</i></li> <li>• <i>Establish issue- peer-review and collective learning mechanisms (locally, regionally, nationally, internationally).</i></li> </ul>
<p><b>Wholeness</b> Life safeguards integrated wholes.</p>	<p>Nurture the human capabilities to engage with a bigger picture or the whole system and contribute to improving life for all.</p>	<ul style="list-style-type: none"> <li>• <i>Create and support global (and locally contextualized) regulatory frameworks that safeguard regenerative practices.</i></li> <li>• <i>Foster pluriverse and contextualized commitments or voluntary standards for regenerative practices.</i></li> <li>• <i>Incentivize and reallocate resources to regenerative pathways.</i></li> </ul>

## 7.6 Conclusion: Transformation Literacy Means Stewarding Systems Aliveness

In the generic process of *Life* and co-evolution, human beings, like the rest of nature, are in the constant conscious or unconscious, pursuit of patterns of aliveness. This is normal and the individual pursuit of aliveness and resilience needs to be constantly negotiated with overall *systems aliveness*. Yet, the current endangered state of the world is the symptom of a mindset of disconnection from the whole. In such a mindset, the pursuit of aliveness is individualistic, most often material-bound, and transitorily achieved at the expense of other peoples or nature’s aliveness. However, there is beginning hope that the increasingly obvious sustainability challenges revive the human ability for reflective consciousness. This would help us to go beyond an individualistic interpretation and manifestation of *systems aliveness* and enable us to learn to recognize and regenerate *system aliveness* as the quality of a patterned composition of mental or physical structures in natural or human system—small and large. The *systems aliveness approach* opens the possibility to use the six generic

principles as an underlying compass and consciously translate them into stewardship measures for human and planetary wellbeing. The above-mentioned new trend towards *Life* as a reorientation for social, ecological and economic collective action pays tribute to this emerging possibility.

Life processes operate with the above principles never in isolation from each other. The relationality works rather like the dynamic interaction and balance of an orchestra that creates musical variety, harmony and resonance in the togetherness of playing. Balance means that at times there is more attention to one set of instruments and at other times to other instruments, but the orchestra as a whole never loses sight of the overall patterned flow of the music. The same applies to the *stewardship architecture*. Each of the stewardship tasks is an entry point towards *systems aliveness*, but depending on the situation each entry point may have to be emphasized or prioritized for a certain period of time. Transformation literacy requires to not lose sight of the other principle-based stewardship tasks and bring them in over time.

Climate change and the transgression of planetary boundaries are global patterns that indicate a massive reduction of overall *systems aliveness*. Unhalted, it will not only increasingly impact social and economic patterns, but spiral towards tipping points: runaway feedback loops would increase the speed of diminishing *systems aliveness* towards a ‘Hothouse Earth’ (Steffen et al., 2018). This is why an evolutionary shift in consciousness among humankind needs to be supported. How people see reality or the planet Earth—as a machine to be repaired or a living organism to be enlivened—influences their feelings, their thinking, and above all their sense of responsibility. Such shifts (or reorientations) of mindset are a cornerstone of shared social agreements which lead to a redefinition of goals and constitute the most important leverage points for transformative change (Meadows, 1999). The emerging trend to take *Life* as a reference point for future collective behaviour is the beginning of this evolutionary shift. But operationalizing this trend requires new approaches, methodologies and capabilities. *Transformation literacy* means that many more societal actors understand the patterns and dynamics of socio-ecological-economic change, and how they compromise or foster system aliveness. The six generic principles function as a meta-guide for the development of methodologies for diagnosing patterns and planning concrete intervention strategies to steward *systems aliveness*. They foster a reconnection with an old human dream of human beings becoming a humble partner and caretaker of *Life*.

## References

- Alexander, C. (1979). *The timeless way of building* (Vol. 1). Oxford University Press.
- Alexander, C. (2002). *The nature of order. An essay on the art of building and the nature of the universe: Book I—The phenomenon of life*. The Center for Environmental Structure.
- Alexander, C. (2004). *The nature of order. An essay on the art of building and the nature of the universe: Book IV—The luminous ground*. The Center for Environmental Structure.
- Alexander, C. (2005). *The nature of order. An essay on the art of building and the nature of the universe: Book III—A vision of a living world*. The Center for Environmental Structure.

- Ashby, W. R. (1962). Principles of the self-organizing system. In: H. von Foerster & G. W. Zopf (Eds.), *Principles of self-organization*. Pergamon.
- Berman, M. (1981). *The reenchantment of the world*. Cornell University Press.
- von Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. George.
- Bohm, D. (1980). *Wholeness and the implicate order*. Routledge.
- Bohm, D., & Hiley, B. (1993). *The undivided universe. An ontological interpretation of quantum theory*. Routledge.
- Capra, F. (1995). Deep ecology: A new paradigm. In: *Deep ecology for the 21st century* (2nd ed., pp. 19–25). Shambhala.
- Capra, F., & Luisi, P. L. (2014). *The system's view of life—A unifying vision*. Cambridge University Press.
- Capra, F., & Mattei, U. (2015). *The ecology of law: Toward a legal system in tune with nature and community*. Berrett-Koehler.
- Costanza, R., Kubiszewski, I., Giovannini, E., Lovins, H., McGlade, J., Pickett, K. E., & Wilkinson, R. (2014). Development: Time to leave GDP behind. *Nature*, 505(7483), 283–285. <https://doi.org/10.1038/505283a>
- Churchman, C. W. (1967). Guest editorial: Wicked problems. *Management Science*, 14(4), B141–B142.
- Conner, C. (2015). *A people's history of science*. Bold Type Books.
- Deluca, D. (2016). *Realigning with nature*. White Cloud Press.
- Elgin, D. (2009). *The living universe*. Berrett-Koehler Publishers. Kindle-Version.
- Elworthy, S. (2014). *Pioneering the possible*. North Atlantic Books.
- Eisler, R. (1988). *The chalice & the blade. Our history, our Future*. Harper & Row.
- Finidori, H., Borhini, S. G., & Henfrey, T. (2015). Towards a fourth generation pattern language: Patterns as epistemic threads for systemic orientation. In: *Proceedings of the Purplsoc (Pursuit of pattern languages for societal change) Conference 2015*, Danube University, Krems, Austria.
- Fioramonti, L. (2017). *Wellbeing economy. Success in a world without growth*. Palgrave Macmillan Publishers Johannesburg.
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockstrom, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability.
- Fullerton, J. (2015). Regenerative capitalism. Capital Institute, April, 2015. Accessed Aug 23, 2016, from <http://capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf>.
- Gabriel, R. P. (1996). *Patterns of software*. Oxford University Press.
- Goepel, M. (2016). *The great mindshift. How a new economic paradigm and sustainability transformations go hand in hand*. Springer International Publishing.
- Harding, S. (2006). *Animate earth, science, intuition and gaia*. Green Books.
- Hawken, P. (1993). *The ecology of commerce. A declaration of sustainability*. HarperBusiness.
- Hawken, P. (2007). *Blessed unrest: How the largest movement in the world came into being and why no one saw it coming*. Viking Press. ISBN 978-0-670-03852-7
- Hoekstra, R. (2020). *Measuring the wellbeing economy: How to go beyond-GDP*. Accessed May 7, 2021, from <https://wellbeingeconomy.org/wp-content/uploads/WeAll-BRIEFINGS-Measuring-the-Wellbeing-economy-v6.pdf>.
- Hollensbe, E., Wookey, C., Hickey, L., George, G., & Nichols, C. V. (2014). Organizations with purpose. *Academy of Management Journal*, 57(5), 1227–1234. <https://doi.org/10.5465/amj.2014.4005>
- Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, 4(1), 1–23.
- Hutchins, G., & Storm, L. R., (2019). *The DNA of life-affirming 21st century organizations*. Wordzworth Publishing. Kindle-Version.
- Jacobs, J. (1961). *The death and life of great American cities*. New York: Vintage.
- Jacobs, J. (2000). *The nature of economies*. Knopf Doubleday Publishing Group. Ort: Kindle-Version.

- Kauffman, S. (2016). *Humanity in a creative universe*. Oxford University Press.
- Kelso, J. S. (1997). *Dynamic patterns: The self-organization of brain and behavior*. MIT Press.
- Korten, D. C. (2007). *The great turning: From empire to earth community*. Berrett-Koehler Publishers.
- Kuenkel, P. (2019). *Stewarding sustainability transformations: An emerging theory and practice of SDG implementation*. Springer.
- Kuenkel, P., & Waddock, S. (2019). Stewarding aliveness in a troubled earth system. *Cadmus Journal*, 4(1). <http://cadmusjournal.org/article/volume-4/issue-1/stewarding-aliveness-troubled-earth-system>.
- Liedtka, J., & Ogilvie, T. (2011). *Designing for growth: A design thinking tool kit for managers*. Columbia University Press.
- Loorbach, D. (2007). *Transition management. New mode of governance for sustainable development*. Doctoral Dissertation. Erasmus University, Rotterdam.
- Lovins, H. L., Wallis, S., Wijkman, A., & Fullerton, J. (2018). *A finer future. Creating an economy in service to life*. New Society Publishers.
- Luhmann, N. (1990). *Essays on self-reference*. Columbia University Press.
- Macy, J., & Brown, M. (2014). *Coming back to life*. New Society Publishers.
- Maturana, H. R., & Varela, F. J. (1991). *Autopoiesis and cognition: The realization of the living* (Vol. 42). Springer.
- Maturana, H. R., & Varela, F. J. (1987). *The tree of knowledge: The biological roots of human understanding*. New Science Library/Shambhala Publications.
- McKenzie, J., Woolf, N., Van Winkelen, C., & Morgan, C. (2009). Cognition in strategic decision making: A model of non-conventional thinking capacities for complex situations. *Management Decision*, 47(2), 209–232.
- Meadows, D. (1999). *Leverage points. Places to intervene into a system*. Sustainability Institute.
- Merchant, C. (1980). *The death of nature. Women, ecology and the scientific revolution*. HarperOne.
- Mies, M., & Shiva, V. (1993). *Ecofeminism*. Zedbooks.
- Nair, C. (2021). The Covid disaster in India shows that the future is biological, not digital. Accessed May 2, 2021, from [https://lite.cnn.com/en/article/h\\_1cfd5991bfc5bc492be47f5b781ad1f1](https://lite.cnn.com/en/article/h_1cfd5991bfc5bc492be47f5b781ad1f1).
- OECD. (2015). *System innovation. Synthesis report*. Accessed June 30, 2017, from [https://www.innovationpolicyplatform.org/sites/default/files/general/SYSTEMINNOVATION\\_FINALREPORT.pdf](https://www.innovationpolicyplatform.org/sites/default/files/general/SYSTEMINNOVATION_FINALREPORT.pdf).
- Ostrom, E. (2015). *Governing the commons. The evolution of institutions for collective action* (Canto Classics), Reissue Edition. Cambridge University Press. Kindle-Version.
- Otto, I. M., Donges, J. M., Cremades, R., Bhowmik, A., Hewitt, R. J., Lucht, W., Rockström, J., Allerberger, F., McCaffrey, M., Doe, S. S. P., Lenferna, A., Morán, N., van Vuuren, D. P., & Schellnhuber, H. J. (2020). Social tipping dynamics for stabilizing Earth's climate by 2050. *Proceedings of the National Academy of Sciences*, 117(5), 2354–2365. <https://doi.org/10.1073/pnas.1900577117>
- Prigogine, I. (1996). *The end of certainty: Time chaos and the new laws of nature*. The Free Press.
- Raskin, P. (2016). *Journey to Earthland: The great transition to planetary civilization*. Tellus Institute.
- Raskin, P. D., Electris, C., & Rosen, R. A. (2010). The century ahead: Searching for sustainability. *Sustainability*, 2(8), 2626–2651. <https://doi.org/10.3390/su2082626>
- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F. S., Lambin, E., & Foley, J. (2009). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society* 14(2), 32.
- Ruesch, J., & Bateson, G. (2006). *Communication: The social matrix of psychiatry*. Transaction Publishers.
- Sahtouris, E. (2000). *Earthdance: Living systems in evolution*. iUniverse.

- Sheldrake, R. (2011). *The presence of the past. Morphic resonance and the habits of nature*. Icon Books.
- von Stamm, B. (2008) *Managing innovation design and creativity* (2nd ed.). Wiley.
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., ... & Donges, J. F. (2018). Trajectories of the earth system in the anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252–8259. <https://www.pnas.org/content/pnas/early/2018/08/07/1810141115.full.pdf>.
- Swanson, G. A., & Miller, J. G. (2009). Living Systems Theory. *Systems Science and Cybernetics: Synergetics, I*(System Theories), 136–148.
- Waddock, S., & Kuenkel, P. (2019). What gives life to large system change? *Organization & Environment*. <https://doi.org/10.1177/1086026619842482SAGEPublishing>.
- Waddell, S., Waddock, S., Cornell, S., Dentoni, D., McLachlan, M., & Meszozely, G. (2015). Large systems change: An emerging field of transformation and transitions. *The Journal of Corporate Citizenship*, 58, 5–30.
- Wahl, D. (2016). *Designing regenerative cultures*. Triarchy Press.
- WBCSD (World Business Council for Sustainably Development). (2020). *From Challenge to opportunity. The role of business in tomorrow's society*. Accessed Apr 15, 2021, from <https://www.catedrarses.com.do/Portals/0/Documentos/CRSES/From%20challenge%20to%20opportunity.%20The%20role%20of%20business%20in%20tomorrow%27s%20society.pdf>.
- WBGU—Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen. (2019). *Unsere gemeinsame digitale Zukunft*. WBGU, Berlin. Accessed May 10, 2021, from [https://www.wbgu.de/fileadmin/user\\_upload/wbgu/publikationen/hauptgutachten/hg2019/pdf/wbgu\\_hg2019.pdf](https://www.wbgu.de/fileadmin/user_upload/wbgu/publikationen/hauptgutachten/hg2019/pdf/wbgu_hg2019.pdf).
- Weber, A. (2013). *Enlivenment. Towards a fundamental shift in the concepts of nature, culture and politics*. Heinrich-Böll-Stiftung.
- Weber, A. (2016). *Biology of wonder: Aliveness, feeling and the metamorphosis of science*. New Society Publishers.
- Weizsäcker, E. U., & Wijkman, A. (2018). *Come on! Capitalism, short-termism, population and the destruction of the planet*. Springer.
- Wheatley, M. (1999). *Leadership and the new science, discovering order in a chaotic world*. Berrett-Koehler Publishers.
- Wulf, A. (2016). *The invention of nature: The adventures of Alexander Von Humboldt, the lost hero of science*. John Murray.
- Yamash'ta, S., Yagi, T., & Hill, S. (2018). *The Kyoto manifesto for global economics*. Creative Economy Series. Springer Singapore. Kindle-Version.
- Zohar, D., & Marshall, I. (1994). *The quantum society: Mind, physics and a new social vision*. Quill/William Morrow.

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**Part II**  
**Systems that Enable and Safeguard**  
**Wellbeing on a Healthy Planet**

# Chapter 8

## Setting the Scene: Viewing the World as Interconnected Systems



**Kristin Vala Ragnarsdottir**

**Abstract** This chapter gives a conceptual overview for viewing the world as interconnected systems. Systems have interconnected stock and flows, and change in one part of the system has nonlinear effects on the whole system due to causes and effects that can be mapped. The systems that are outlined are the Earth system, the economic system, the financial system, the education system, and the innovation system. Other systems that are briefly mentioned include the food system, the biological system, the climate system, and community systems. All of these systems (and more) are interconnected in a complex manner, and to achieve a regenerative global system, it is not enough to focus in our education system on environmental and sustainability literacy but on an overarching transformation literacy as outlined in this book. Thus, due to of the interconnectedness of the various systems, holistic education and environmental policy making alone will not achieve the transformations called for.

**Keywords** Interconnected systems · Earth system · Economic system · Financial system · Education system · Innovation system · Transformation literacy

### 8.1 Introduction

Let us consider how a sustainable world might look like. Many ideas and images have been put forward and will not be summarized here. Only the definition of the system's thinker Alan AtKisson (2008, 2010) is given because it is holistic and serves the systems approach of this book section. He defines *sustainability* as a set of conditions and trends in a given system that can continue indefinitely, and *sustainable development* as a directed process and systemic change in the direction of sustainability. AtKisson's seven steps toward sustainability are also based on systems thinking: think long term; understand systems; know limits; protect nature; change commence; show equity; and support entrepreneurship and innovation. These

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K. V. Ragnarsdottir (✉)  
Institute of Earth Science, University of Iceland, Reykjavik, Iceland  
e-mail: [vala@hi.is](mailto:vala@hi.is)

definitions and steps show the importance of understanding systems and interconnectedness. He further outlines six traits that characterize a system's thinker: S/he looks for a big picture; looks for cycles; looks for causes and effects; sees how things within the system change with time; looks for new angles; investigates causes of short-term and long-term actions; and finds unexpected connections. Our thesis is that the systems perspective gives the conceptual framing to explore essentials and underlying principles of regenerative systems and how they can guide the move toward regenerative civilizations. In this context, regenerative is more than sustainable; it does not only aim for giving future generations a chance based on current resources, but also focuses on regeneration of nature and communities—in order to give future generations a better chance than the current generation has today. I propose here that we can add four steps to AtKisson's systems thinking as a basis for a regenerative world: think long term; understand systems; know limits; protect nature; **apply ecosystem principles to agriculture and forestry; redefine the purpose of the economy**; change commence; show equity; **build communities; change international law**; and support entrepreneurship and innovation.

Part two of this book explores *what kind of* systems would reflect a new worldview and how they can be co-constructed toward regenerative systems based on a partnership with life's evolution and enhanced transformation literacy (Kuenkel, 2019). The series of chapters (9–14) highlight emerging bottom-up systems that allow communities for change to take charge of their future and connect local to global system designs that are likely to support pathways toward a regenerative world. The contributions show concepts and implementation attempts of regenerative approaches to human-to-human and human-to-nature interactions that showcase a new operating model for humankind. The contributors come from a wide-ranging spectrum of expertise from all over the world to illustrate that the entry points for transformative change toward regenerative civilizations may come from very different angles and perspectives. The contributors showcase exemplary systems that model collective stewardship of planetary well-being.

It is from this system perspective that we investigate current influential global systems in this section. Current civilizations operate within the Earth system, the global economic and financial system, global to national educational systems, and innovation systems. There are other systems involved, and they cannot all be outlined here. The important angle presented here is that all of these systems are interconnected and operate in unison. Therefore, they need to be studied together and connection points found between the systems in order to be able to act collectively.

## 8.2 Systems

### 8.2.1 *The Earth System*

The Earth system comprises the geosphere, biosphere, hydrosphere, and atmosphere, and these four spheres are a part of the Earth's critical zone that comprises the whole Earth system. If left alone, the Earth system seeks a balance through natural processes, and change is slow, driven by natural cycles. These natural cycles include *plate tectonics* and movement of the Earth's crust on the plastic mantle—in cycles of millions of years; *evolution of life* on Earth over three billion years that influence the amount of oxygen and carbon dioxide in the atmosphere and hence affect climate; *Earth's rotation* on its elliptical axis and rotation around the Sun (100,000 year Milankovitch cycles) that affects climate and tips the Earth in and out of ice ages; and most recently the *exponential growth of population* on Earth over the past century, and was allowed by the “advancement” of technology and agricultural practices. Man's influence on Earth, in particular in burning fossil fuels that took biogeochemical processes and geological forces millions of years to produce, is much faster (decades) than the previously outlined natural cycles (hundreds of thousands to millions of years). Therefore, man now has a much more profound effect on Earth than natural cycles and hence the Earth system. We therefore live in a new geological epoch, the Anthropocene, a time period that started with the Great Acceleration in industrialization and globalization 70 years ago (Steffen et al., 2015), the post-WWII period, during which socioeconomic and Earth system trends increase at an exponential rate and also mark the beginning of the atomic age, evidence of which is found in sedimentary layers in oceans and lakes across the Earth (Zalasiewicz et al., 2021).

Man's influence on the Earth system is primarily through the extraction of natural resources that are converted to consumption goods (including fertilizer for food production) through work and the use of energy. With global markets and free trade agreements, goods and financial flows have limited restrictions, under the current dominating economic paradigm: neoliberal market economy. Over the past 50 years, compounding driving demands for energy and materials has been caused by the doubling of the human population, fourfold growth of the global economy, and tenfold growth of global trade (IBPES, 2019). Ecological signs of the declining state of the Earth include that wild animals have been reduced by 60% since 1970; there has been an 85% degradation of land ecosystems, and 65% degradation in ocean ecosystems; and one million species are endangered (IBPES, 2019). Furthermore there has been a 75% reduction in insect abundance in Germany and elsewhere since 1990s, and 30% of the world's soils are severely degraded. There now is talk of 60 harvests being left (FAO, 2015) unless agrological practices change drastically. Humanity and all life on Earth are in dire straits.

I hence come to the conclusion, that the destruction of the natural world and the accompanying warming of the planet due to burning of fossil fuels, still the dominating world energy production method (80%), is driven by the global socioeconomic system. Hence, in order to get away from the destructive path that humankind is on today, it is necessary to change the economic system. The economic system is manmade, and we therefore can redefine its purpose. With no nature, there is no economy and no future.

## 8.2.2 *The Economic System*

Neoclassical economics emerged in around 1900 to compete with the earlier theories of classical economics. It is a broad theory that focuses on supply and demand as the driving forces behind the production, pricing, and consumption of goods and services (Kenton & Kelly, 2021). Neoclassical economists argue that the consumer's perception of a product's value is the driving factor in its price and they call the difference between actual production costs and retail price the economic surplus. In 1947, a meeting was held with economists, historians, and philosophers attending in Mont Pelerin in Switzerland from which the Mont Pelerin Society emerged (Hartwell, 1995). With the action plan laid out in the so-called Powell Memorandum (Powell, 1971), many societies, starting from the USA, embarked on a plan for an economy built on neoliberalism. Neoliberalism is a policy model that encompasses both politics and economics and seeks to transfer the control of economic factors from the public sector to the private sector. Many neoliberalism policies enhance the workings of free market capitalism and attempt to place limits on government spending, government regulation, and public ownership (Kenton & Westfall, 2020). The policies of neoliberalism typically supports fiscal austerity, deregulation, free trade, privatization, and a reduction in government spending. Neoliberalism was adopted as economic policies of Ronald Reagan in the USA and Margaret Thatcher in the UK in the 1980s and from there spread around the world. There are many criticisms of neoliberalism, including its tendency to endanger democracy, workers' rights, judicial law, communications, education, and sovereign nations' right to self-determination.

The current neoliberal economic policy system thrives on perpetual growth. As outlined above, the economic system with focus on natural resource extraction, production, and consumption is driving the destruction of the natural world. The national growth mantra is fueled by international institutions such as the World Bank, the International Monetary Fund, and the OECD as well as by governments across the world, even though economists such as Kenneth Boulding stated in the 1960s that "anyone who believes that exponential growth can go on forever in a finite world is either a madman or an economist."<sup>1</sup> His physicist colleague at the University of Colorado, Boulder—Albert Allen Bartlett—devoted a large part of his life to

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<sup>1</sup> U.S. Congress, *Energy Reorganization Act of 1973: Hearings, Ninety-third Congress, First Session, on H.R. 11,510* (U.S. Government Printing Office, 1973), p. 248.

attempting to explain the consequences of exponential growth, and he stated repeatedly that “the greatest shortcoming of the human race is our inability to understand the exponential function.”<sup>2</sup> As an example, 3.5% economic growth which governments like to see annually is based on the throughput of goods and services to double in 20 years; 7% economic growth as observed in China in recent years doubles the flow in 10 years. Since the basis of the economy are natural resources (e.g., Meadows et al., 1972; Sverdrup & Ragnarsdottir, 2014; Ragnarsdottir & Sverdrup 2015) on a limited Earth, the economy cannot sustain such growth into this century due to us entering the era of peak production of resources that are used in our techno-centric world.

The Limits to Growth report to the Club of Rome in 1972 (Meadows et al., 1972, 1992, 2004) demonstrated through system dynamics modeling the consequences of exponential population growth. They generated eight scenarios, one of which was “business as usual (BAU),” i.e., continuation of exponential population growth and accompanying exponential extraction of and production from natural resources (including energy) and the coincident decline of the environment. Strong political forces ridiculed the Limits to Growth study (see overviews in Kanninen, 2013; Nörgård et al., 2010), and hence, we have sadly followed the BAU path (Turner, 2012, 2014). Almost 50 years on, we are entering the century where the consequences of exponential growth are widely visible, through population increase, entering the era of resource scarcity, and severe environmental degradation (Bardi, 2011; Bradshaw et al., 2021; Heinberg, 2001, 2005, 2011; IBPES, 2019; Sverdrup & Ragnarsdottir, 2014), while needing to refrain from forgetting to take into account the growing patterns of uneven development, resource use, affluent consumption, poverty, and inequality (Bluwstein et al., 2021).

Some took note of the Limits to Growth report and have since the 1970s been advocating for a different economic system, where nature is taken account of in the economic system, instead of being externalized. Scholars have asked why this economic system that reduces persons to consumers and environment to a resources had been so widely accepted (e.g., Rozack, 1989). New economy thinkers emerged and include (but are not limited to) Georgescu-Roegen, Boulding, and Daly in the 70s, and also transdisciplinary thinkers such as Costanza and Spretnak in the 80s and 90s (e.g., Daly, 1973; Boulding, 1978; Costanza, 1992; Georgescu-Roegen, 1971; Spretnak, 1991). Sharlene Spretnak who co-founded the US Green Party in the 1980s is quoted in Coope (2008) to have answered a student’s question in the following manner “... We are trying to reorient human society, including ourselves, to appreciate and live out basic human values—ecological wisdom, grass-roots democracy, nonviolence and so forth. To effect that kind of comprehensive transformation will surely require flexibility and creativity...”.

As outlined by Boyce et al. (2002) “equity, sustainability, resilience, and the ‘non-economic’ dimensions of human well-being are missing in the dominant economic ideology’s exclusive focus on ‘efficiency’.” Sustainability studies advocate how we

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<sup>2</sup> [https://en.wikipedia.org/wiki/Albert\\_Allen\\_Bartlett](https://en.wikipedia.org/wiki/Albert_Allen_Bartlett).

can sustain what we have into the future, but the damages of Neoliberal Hyper Capitalism also have to be repaired to give us a chance for a future. Sustainability has worthy goals, but without economic system change, this approach has simply delivered business-as-usual with a ‘green’ face (less material use and more renewable energy) and/or very slow progress that could always be undone by governments (Ragnarsdottir & Parker, 2022). For the past 15 years or so, there has been an explosion of new economy thinkers, with some of the most noted Prosperity Without Growth (Jackson, 2011), call for sustainable well-being within planetary boundaries built on ecological economics (Costanza et al., 2014, 2016, 2018, 2020a, b; Ragnarsdottir et al., 2014), Doughnut Economics (Raworth, 2017), Economy in Service of Life (Lovins et al., 2018), Economics of Arrival (Trebeck & Williams, 2019), and Less is More (Hickel, 2020). These authors build on values and principles and goals that take us in the right direction. But I consider that only one of them, Hickel (2020), has an action plan—based on how degrowth can change the world (see Chap. 9, Sect. 9.3.4).

We were told repeatedly by government and world leaders that we could not change the economic system dramatically as it would be too big a shock—but now we already have the COVID-shock—and we need to grasp opportunities for change and find answers for building regenerative well-being economies, regenerating nature and societies for the well-being of all. Taking on the values and principles and goals and new economy thinkers is a first step, kicking in the action plan of Hicks (2020) is a good way to start build up better—as now called for by many—including the Well-being Economy Alliance.<sup>3</sup>

If healthy nature is taken as the ultimate sustainable system—when left from human intervention—of note is that nature regenerates itself through the yearly seasons (Ragnarsdottir & Parker, 2022). Therefore, the new economy needs to be built on the principles of living systems, with equitable distribution of scarce resources to maximize well-being for people and nature within planetary limits.

### 8.2.3 *The Financial System*

Investment, both public and private, needs to be directed toward restorative functions (Ragnarsdottir & Parker, 2022). Fullerton’s investment model (Fullerton, 2015) mirrors his regenerative economic model (see Sect. 9.3.2) that is based on eight living system principles. His plan emphasizes that going from conventional investment we have so far embraced green investment (e.g., the Green Deal of the EU and the Green New Deal proposed in USA) and sustainable investment. But that is not enough, we need to focus on *restorative investment* and ultimately *regenerative investment* which is based on holistic thinking, patterns, and natural system design. The current *conventional investment* model involves neoliberal financial gymnastics

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<sup>3</sup> <https://wellbeingeconomy.org/>.

including passive index funds and mutual funds in addition to traditional LBO (leveraged buyout, i.e., one company's acquisition of another company using a significant amount of borrowed money to meet the cost of acquisition), activist hedge funds (that have investors who purchase shares of companies and become active by shaking up management with an aim to make the voice of shareholders heard more loudly) and passive Environmental, Social, and Governance (ESG) criteria (set of standards for a company's operations that socially conscious investors use to screen potential investments; environmental criteria consider how a company performs as a steward of nature; social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates; and governance deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights). Under *green investment* falls active engaged ESG. *Sustainable investments* involve impact investments and green bonds. *Restorative investment*, on the other hand, involves place-based integral capital and finally *regenerative investment* focuses on systemic investment with wide public-private partnerships (Fullerton, 2015).

It is important to refer to the wisdom of Satish Kumar from after the economic crash in 2008. While the financial system (banks, stock-markets, financial institutions) is in the hands of highly educated people, they have confused money with wealth; money is not wealth, money is a measure of wealth and a means to exchange wealth. "Real wealth is good land, pristine forests, clean rivers, healthy animals, vibrant communities, nourishing food, and human creativity" (Kumar, 2009). He goes on to state that we need skills not only in economy and ecology, but also in ethics—every day we hear the "...mantra of economy – while our ecology is in ruins, our ethics have been shelved, and our principles of justice and equity are put on the back burner." It is such transdisciplinary understanding of ethics, ecology, and economy that is fundamental for transformation literacy.

In this book, the not-for-profit economy presents a different pathway to a regenerative economy (Hinton; see Chap. 13 in book part 2) with social and ecological objectives that build in systemic investments, but profit goes not to the owners, but to social and ecological regeneration. The idea is that investment and profit sharing is fundamental to societal change, but can we also make our money work for our benefit? Mariana Bozesan (2020) presents her 21 principles in *Integral Investing*. In her book, she demonstrates how to use human-centered Artificial Intelligence (AI) to scale and digitalize the investment process. Her goal is to accelerate the use of exponential technology, capital, and consciousness leadership to transition to a sustainable global society, and this she terms the Investment Turnaround. Hence, there are many new ideas that have been represented that can aid us toward a regenerative Earth community pathway, and for that we need transformation literacy which is built on transdisciplinary and integral thinking. Finally, it is not enough to redirect our investments, the economic and finance system also needs to become just by stopping corporate tax avoidance as newly agreed by G7,<sup>4</sup> as well as addressing the fact that democratically elected officials are unable to address challenges because elites'

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<sup>4</sup> <https://www.politico.eu/article/g7-seals-breakthrough-deal-to-tax-global-companies/>.

philanthropic engagement that appears to be fighting for equality and justice—except in ways that threaten their position at the top (Giridhardas, 2020).

### 8.2.4 *The Education System*

Globally and nationally the education system is still primarily along subject lines, instead of being holistic, integrative, and innovative. While environmental science and sustainable development is touched upon in schools at all levels from nurseries to universities, the holistic framework is still missing. Also the educators lack the overview to deliver holistic education. But how can we change this box-thinking trend around?

Schumacher College in Dartington, Devon, UK, is known as being one of the first educational institutions to focus on holistic education. It opened its doors in 1991. The college emerged from the Dartington Hall Trust which in the 1980s was renowned for its gardens, music, and educational experimentation (Phillips, 2008), and it was Satish Kumar who proposed the college to the Trustees. He built his vision for the college on cultural historian Tomas Berry's vision of an intimate Earth community, a community of all the geological, biological, and human components to guide us on our way to a creative future (Berry, 1988). Three decades on and thousands of people have benefitted from short courses and masters' programs at the college. As outlined by sustainability educator Stephen Sterling (a student, helper, teacher, reviewer, and University liaison of the college), many students have claimed that they felt a 'transformation' between 'before' and 'after' being at the college; environmental literacy professor David Orr states that the college has been the incubator of the most creative minds of the past decades and that the college has attracted some of the most extraordinary students that he has had the privilege to know (see Phillips, 2008). For transformation literacy to emerge globally, collages of the caliber of Schumacher College need to be established across the world.

Sterling (2004) proposed three levels of higher education response to the combined crises that we are in: (1) Accommodative response: Education **about** sustainability. The content/skills gained is easily accommodated into the existing system, often by adding modules about sustainability. The students learn *about* change. (2) Reformative response: Education **for** sustainability. The institution embraces additional values and embarks on greening operations, including questioning of the institutions purpose, policy, and practice. The students learn skills *for* change. (3) Education where students are provided with an environment where learners gain the skills they need to contribute to a more sustainable society: Education **is** change. The students gain sustainability literacy skills and capacity building with an emphasis on action through a 'living' inquiry-based curriculum. The focus is on becoming permeable, experiential communities and organizations. The students learn to become *change makers*. It is the third level of response that is needed for transformation literacy to emerge. As suggested by Phillips (2009), curricula of institutions will have to be

revisited time and again, and be re-examined to see whether and how they contribute to the critically important agenda of re-orientating education toward sustainability.

Epistemic transformation involves a distinctive kind of change in the way we understand the world, one that comes from having a new kind of experience (Paul & Quiggin, 2021). A successful university education can transform through creating a distinctive, mentally significant kind of epistemic transformation that, in turn, creates personal transformation. Such personal transformation stems from a radical epistemic transformation that scales up into a change in “who we are” (Paul & Quiggin, 2021), and has been described being constituted by a change in one or more core personal preferences (Paul, 2014) that iterate out into a substantive shift in one’s desires, self-awareness, belief structure, and lived experience. While these studies are for university education in general, it can be applied to what kind of mentally significant epistemic transformations create personal transformation that leads to the students wanting to become change makers for sustainability. I thus view such epistemic and personal transformations as being an important part of underpinning transformation literacy.

Some of the new economic thinking that has emerged is that of the Circular Economy promoted by the Ellen MacArthur Foundation (EMF, 2013) and adapted into policy by the EU with strategy in 2015 and updated action plan 2020<sup>5</sup> and is further supported by the Global Alliance of Circular Economy and Resource Efficiency (GACERE) of 2021.<sup>6</sup> The skills that are needed for the circular economy call for a shift in education at all levels with particular emphasis on: product design and production, new business models, building cascades/reverse cycle, and as well as enablers to improve cross-cycle and cross-sector performance. These include cross-cycle and cross-sector collaboration facilitating factors, favorable investment climate, rules of the game to quickly reach scale and education to raise awareness in general public and business committee as well as integration of circular concepts in university curricula (EMF, 2013).

The decade of Education for Sustainable Development (ESD)<sup>7</sup> set forth by UNESCO 2005–2014 has impacted school curricula around the world, but the conservative university establishments have paid less attention. While many higher education institutions around the world have created courses that provide transdisciplinary inquiry that leads to the students being able to become change makers upon graduation, to my knowledge, no university has had the level of transformation needed as outlined in Sterling (2004). Educational institutions are conservative and hold on to the subject specialties, because promotions require publication of research in certain “prestigious” journals, and newer inter- and trans-disciplinary journals do not carry the same prestige. In my own experience, I did not start to work on inter-disciplinary research pertaining to sustainability until I had been promoted to full professor. Many young academics are frustrated at the lack of flexibility in the higher education “system” and university boards need to have a re-think about what sort

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<sup>5</sup> [https://ec.europa.eu/environment/strategy/circular-economy-action-plan\\_de](https://ec.europa.eu/environment/strategy/circular-economy-action-plan_de).

<sup>6</sup> [https://ec.europa.eu/environment/international\\_issues/gacere.html](https://ec.europa.eu/environment/international_issues/gacere.html).

<sup>7</sup> <https://en.unesco.org/themes/education-sustainable-development/what-is-esd/un-decade-of-esd>.

of research is important for society in order to support education for sustainability, let alone transformation skills.

Parallel to the development of Schumacher College was the discussion about first environmental literacy in the 1980s and 1990s (Mosley, 2000) and later sustainability literacy (Stibbe, 2009). Futures literacy is an important new concept for training members of society and policy makers to understand our responsibility for future generations and the future of the planet. Futures studies is a relatively new discipline at higher education level, providing comprehensive, multidisciplinary, and practical education for futures thinking (Wilenius & Haonen, 2017). Our education is based on history that takes us back to the beginning of agriculture (7000 years), but thinking into the future is mostly left out of education. One futures program that provides futures literacy in educating futurists is worth mentioning at the University of Turku in Finland,<sup>8</sup> and more programs are starting around the world. The fact is that people's behavior has not changed adequately and the future of our society and our Earth is in peril. I conclude that it is necessary for schools and universities to reform curricula in order to allow progress toward transformation literacy and futures thinking—as presented in this book.

### ***8.2.5 The Innovation System***

When referring to the innovation system, people are usually referring to innovation that leads to entrepreneurial activities and the establishment of new enterprises. Small- and medium-size enterprises are the foundation for the economies of many of the most successful countries in Europe, including Germany and Sweden. Many countries now have innovation ministries. Universities and related institutions are more and more supporting the incubation of entrepreneurial activities by setting up science parks, as well as competitions for innovators to take part in mentoring events, but the stumbling block often is that the person with the “new idea”—or innovator, often is not a clever business wo/man and suffers from not having the skills to set forth a successful business plan. As I have learned from developing and leading research projects, innovators need to learn to work with people that complement their own skills.

There is a need to understand the match between types of innovation and incubator archetypes (Barbero et al., 2014). The archetypes of incubator include basic research-, university-, economic development-, and private incubators, and analysis has shown that they generate different types of innovation (i.e., product, technological process, and organizational innovation). But innovation is generally aimed at building new companies that generate jobs and fuel economic growth. Can innovation be used to help nations adapt to a new economy that supports the transition needed that we are promoting in this book? Goal 9 of the United Nations Sustainable Development Goals is to build resilient infrastructure, promote inclusive and sustainable industrialization,

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<sup>8</sup> <https://www.utu.fi/en/study-at-utu/masters-degree-programme-in-futures-studies>.

and foster innovation. The Innovation Union<sup>9</sup> of the European Union is one of the seven flagship initiatives of the Europe 2020 strategy for a smart, sustainable, and inclusive economy. The European Institute of Innovation Technology (EIT) has the overall mission to stimulate sustainable EU economic growth and competitiveness by strengthening the innovative capacity of Member States and the Union. Therefore, there is a gap between the EU policy of growth and the European Green Deal<sup>10</sup> which aims to transform the EU into a modern, resource-efficient, and competitive economy ensuring no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and no person and no place left behind. The focus is on economic growth which we have demonstrated in this book to be incompatible with living within the planetary boundaries.

In her book, *The Entrepreneurial State*, the economist Mariana Mazzucato (2018), gives evidence to the fact that behind the large majority of innovations lies state funding. This revelation holds from new drugs to smartphones. The logical derivation is that for a nation to build up their small- and medium-size enterprises, create jobs, and stay ahead of the curve, transdisciplinary education with emphasis on natural sciences and systems thinking is key. It follows that universities and the state alike need to provide incubator spaces for technology and business development that are compatible with a healthy planet. As emphasized by Rutger Bregman in *Utopia for Realists* (2017), the reason why the large majority of innovation companies are in the US is because that is where the Venture Capitalists jump on board, once the government funding has provided the funding for proof of concept if not more. There is thus a need for national policies to be set in the USA, EU, and elsewhere for supporting the need for sustainable development and transitioning to a world within planetary boundaries with the well-being of all at heart. The innovation system needs transition literacy just like the other systems addressed here.

### 8.2.6 Other Systems

In our complex world, there are other systems that are very important and have a huge impact on the Earth system, but this introduction cannot go into them all in detail. Worthy of mentioning is the **Food System** that feeds 7.9 billion people around the world and has a huge impact on the degradation of soils, biodiversity loss, water use, and greenhouse gas emissions, affecting the **Biological Systems** and the **Climate System**. These systems were scrutinized in 2021 in the UN Food System Summit,<sup>11</sup> the UNEP Biodiversity Conference,<sup>12</sup> and the UN Climate Conference.<sup>13</sup>

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<sup>9</sup> [https://www.europarl.europa.eu/ftu/pdf/en/FTU\\_2.4.6.pdf](https://www.europarl.europa.eu/ftu/pdf/en/FTU_2.4.6.pdf).

<sup>10</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en).

<sup>11</sup> <https://www.un.org/en/food-systems-summit>.

<sup>12</sup> <https://www.unep.org/events/conference/un-biodiversity-conference-cop-15>.

<sup>13</sup> <https://ukcop26.org/>.

Also worthy mentioning are **Urban Systems**—with over 50% of the world’s population now residing in urban areas as well as alternative **Community Systems** that focus on cooperation and sustainability—including Ecovillages,<sup>14</sup> Transition Towns<sup>15</sup> and Co-housing<sup>16</sup> projects. I should not forget to mention **Energy Systems**, where the transition to renewables is paramount.

Last but not least, I here outline how the **international Criminal Law System** could be the biggest one step that humanity can take in getting us on the right path by making “ecocide” the fifth crime against humanity through inclusion in the Rome Statute<sup>17</sup> of the International Criminal Court. Ecocide law was first outlined by the late Polly Higgins in her book *Eradicating Ecocide* (2010). New definition of “ecocide” by twelve international and environmental lawyers<sup>18</sup> is gaining interests by political leaders, including in France and Pacific Islands.

All of these systems (and more) have an effect on systems outlined above: the Earth system, the Economic System, the Financial System, the Education System, and the Innovation System. And the complexity is ever increasing.

In the following contributions of this book, emerging bottom-up systems are highlighted that allow communities for change to take charge of their future, and connect local to global system designs that are likely to support pathways toward a regenerative world. The contributions show concepts and implementation attempts of regenerative approaches to human-to-human and human-to-nature interactions that showcase a new operating model for humankind. They come from a wide-ranging spectrum and illustrate that the entry points for transformative change toward regenerative civilizations may come from very different angles. The contributors showcase exemplary systems that model collective stewardship of planetary well-being.

**Chapter 9** by **Kristin Vala Ragnarsdottir** presents the rationale for why visioning a regenerative world in the future is important. Based on the visioning strategy of Donella Meadows, the future is envisioned from 2021 onward. In addition to answering the questions of Meadows of how a regenerative world would look like, the importance of building a sustainable economy is outlined, an economy that regenerates the natural world and communities. Several models have been outlined, and in this chapter, the focus is on the well-being economy, the regenerative economy in service of life, and the doughnut economy. An action plan is presented of how to direct the economy to operate within planetary boundaries based on degrowth for the global North. Other systems that are briefly outlined as being important include sustainable natural and food systems. All of these systems are interconnected in a complex manner and therefore need to be studied together.

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<sup>14</sup> <https://ecovillage.org/>.

<sup>15</sup> <https://transitionnetwork.org/>.

<sup>16</sup> <https://www.cohousing.org/>; <https://cohabitas.com/a-visit-to-saettedammen-co-housing/>.

<sup>17</sup> <https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf>.

<sup>18</sup> <https://www.stopecocide.earth/press-releases-summary/top-international-lawyers-unveil-definition-of-ecocide>.

**Chapter 10** by **Ingrid Stjernquist** and **Peter Schlüter** examines from a systems and livelihood perspective, using the Nemoral and Boral forest zones of the Global North and Sweden as an example, how forestry can meet current and future sustainability challenges, in particular with regard to climate change, both as a traditional resource base and with respect to other ecosystem services. Previous and current forest policy and governance is briefly described against the background that Swedish forestry is based both on a small number of very large industrial forest owners and a multitude of small individual, family, owned forest estates. Environmental issues have over time increased in weight as have the forest owners' degrees of freedom to manage their forests. However, increasing conflicts between different policy objectives are likely in the future. Multiple demands on the forest are poorly prioritized and analyzed. Successful delivery against objectives like biomass resource extraction, biodiversity preservation, increased carbon storage, etc., will require careful balancing and the active participation of local forest owners. The cumulative effects of old and new societal demands on forestry and their impact on local livelihoods pose in this respect a systemic risk as little consideration has been given to economic and social sustainability. There is a need for a more synoptic and systemic analysis of how, not only traditional, forestry is affected by multiple and partly contradictory demands and expectations from an increasing array of stakeholders, but also in order to enable a move toward a bio-based economy and a renewable and sustainable energy system. The authors suggest stakeholder-based group modeling as powerful analytic and conflict reducing approach in order to improve forestry contribution to the acute need to handle the climate change and sustainability challenges.

**Chapter 11** by **Catharina Any Sulistyowati** and **Renny Nurhasana** outlines the role of capacity building of local NGOs in Sumba, a poor island in the Eastern part of Indonesia. It is part of a larger initiative referred to as Sumba Iconic Island (SII), which aimed to solve poverty problems, transforming unequal gender relations while at the same time mitigating climate change. This study traced what happened in the six years after the project ended. It was done by exploring the project documentation and conducting interviews with the development agency's staff and program alumni representatives. Findings are that the capacity building has improved nature, community well-being, women leadership, and more equal gender relations. The chapter concludes that: (1) transformation is not a linear process, (2) the changes toward the vision are not direct but tortuous; (3) there are unintended consequences, which can be positively or negatively influence the initial goal; and (4) the capacity to analyze the situation, reflect, and create action is crucial in the transformation process.

**Chapter 12** by **Justine Braby** and **Reinhold Mangundu** presents the results of various approaches used by a group of young Namibians to shift the society toward a well-being economy. They sought to find more appropriate measurements of success and did this by conducting (a) a survey to measure progress, (b) different dialog processes to understand what a good quality of life actually means to citizens,

(c) co-constructing community well-being from the bottom-up, (d) communication, networking, and awareness to garner public support, and finally (e) attempting to influence high-level decision making in government. The authors measured nine domains, of which *state of mind* and *perceived health* were the only domains found to be sufficient. The domains *community strength* and *sense of belonging* were the lowest in the high-income area. The domains with the highest levels of dissatisfaction were *good governance* and *political freedom*. The process of co-constructing community well-being through a bottom-up approach had varying levels of success and was highly adaptive and flexible. The key findings were that the underlying components of well-being was trust (at all levels), a sense of belonging and healthy relationships, basic needs (home, food, water, sanitation, electricity), quality education (the kind that causes critical and systems thinking and develops creative potential), quality work (that is demanding and rewarding), and good health.

**Chapter 13** by **Jennifer Hinton** offers an overview and explanation of how society's relationship to profit plays a significant role in determining social and ecological outcomes. The way in which societies relate to profit plays out in terms of both formal and informal institutions. One formal institution that is key for sustainability is *relationship-to-profit*; the legal difference between for-profit and not-for-profit forms of business. Hinton explains how relationship-to-profit, as a basic building block of the entire economy, plays a critical role in determining whether the economy drives sustainability crises or allows for meeting everyone's needs within the ecological limits of the planet. Her analysis reveals that the social and ecological crises of the twenty-first century have the same driver: the pursuit and accumulation of private wealth inherent in the for-profit economy. Yet, existent not-for-profit types of business offer a viable way out of this conundrum. As a non-capitalist market economy, this model paves a way beyond the traditional market-state dichotomy and the stagnant discourse over whether sustainability requires more state or more market interventions, allowing for more fruitful discussions and more systemic interventions.

**Chapter 14** by **Jenneth Parker** discusses the example of Wales in some depth in order to give insights to how and why a well-being economy approach has been successfully initiated there, and some idea of its future prospects. The systems aspects of well-being economy are identified as being inherent in ambitions to develop transitional strategies that can achieve system change through combinations of measures across different aspects of economy, society, and ecology. Parker's analysis points to some of the ways that well-being economy can provide opportunities for progressive political actors, and vice versa. She concludes with some general points about the value of systems tools and approaches in helping to really bring well-being economy topics off the page and into reality. In particular, the complexity of the task of well-being economy is suited to systems approaches that can help to map coherent relationships between different areas and also aid in moving from loose alliances to more synergies. These tools and approaches can be powerful when combined with the extensive local knowledge and motivation that exists wherever we find communities and individuals working for a better future. Questions are also raised about the need for Well-being Economy Alliances to work together with other international actors in reforming the structures of the international economy at global scale.

## References

- AtKisson, A. (2008). *The ISIS agreement. How sustainability can improve organizational performance and transform the world*. Routledge.
- AtKisson, A. (2010). *The sustainability transformation: How to accelerate positive change*. Routledge.
- Barbero, J. L., Casillas, J. C., Wright, M., & Ramos Garcia, A. (2014). Do different types of incubators produce different types of innovations? *Journal of Technology Transfer*, 39, 151–168.
- Bardi, U. (2011). *The limits to growth revisited*. Springer Briefs in Energy. Springer.
- Berry, T. (1988). *The dream of the earth*. Sierra Books.
- Bluwstein, J., Asiyambi, A. P., Dutta, A., Huff, A., Friis Lund, J., De Rosa, S. P., & Steinberger, J. (2021). Commentary: Underestimating the challenges of avoiding a ghastly future. *Frontiers in Conservation Science*. <https://doi.org/10.3389/fcosc.2021.666910>
- Boulding, K. E. (1978). *Ecodynamics: A new theory of societal evolution*. Sage Publications.
- Boyce, J. K., Narain, S., & Stanton, E. A. (2002). Introduction. In: J. K. Boyce, S. Narain, & E. A. Stanton (Eds.), *Reclaiming nature. Environmental justice and ecological restoration*. Anthem Studies in Development and Globalisation. Anthem Press.
- Bozesan, M. (2000). *Integral investment. From profit to prosperity*. Springer.
- Bradshaw, C. A., Ehrlich, P. R., Beattie, A., Ceballos, G., Crist, E., Diamond, J., Dirzo, R., Ehrlich, A. H., Harte, J., Harte, M. E., Pyke, P., Raven, P. H., Ripple, W. J., Saltre, F., Turnbull, C., Wackernagel, M., & Blumstein, D. T. (2021). Underestimating the challenges of avoiding a ghastly future. *Frontiers in Conservation Science*. <https://doi.org/10.3389/fcosc.2020.615419>
- Bregman, R. (2017). *Utopia for realists, and how we can get there*. Bloomsbury Publishing.
- Coope, J. (2008). The ecological blind spot in postmodernism. In: W. Wheeler & H. Dunkerley (Eds.), *Earthographies: Ecocriticism and culture. New formations* (vol. 64, pp. 78–89).
- Costanza, R. (1992). *Ecological economics: The science and management of sustainability*. Complexity in Ecological Systems series. Columbia University Press.
- Costanza, R., Kubiszewski, I., Giovannini, E., Lovins, H., McGlade, J., Pickett, K. W., Ragnarsdottir, K. V., Roberts, D., de Vogli, R., & Wilkinson, R. (2014). Development: Time to leave GDP behind. *Nature*, 505, 282–285.
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, L. F., Picett, K., Ragnarsdottir, K. V., de Vogli, R., & Wilkinson, R. (2016). The UN sustainable development goals and dynamics of well-being. *Solutions*, 7(1), 20–22.
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, R. F., Pickett, K. E., Ragnarsdottir, K. V., de Vogli, R., & Wilkinson, R. (2020a). Measuring sustainable wellbeing in connection with the UN sustainable development goals. *Ecological Economics*, 130, 350–555.
- Costanza, R., Fioramonti, L., Giovannini, E., Kubiszewski, I., Lovins, H., McGlade, J., Mortensen, L. F., Pickett, K., Ragnarsdottir, K. V., Roberts, D., Trebeck, K., de Vogli R., Wallis, S., & Wilkinson, R. (2020b). After the crisis: Two possible futures. *Solutions*, September issue. <https://thesolutionsjournal.com/article/crisis-two-possible-futures/>.
- Costanza, R., Caniglia, B., Fioramonti, L., Kubiszewski, I., Lewis, H., Lovins, L. H., McGlade, J., Fogh Mortensen, L., Pilipsen, D., Pickett, K. E., Ragnarsdottir, K. V., Roberts, D., Sutton, P., Trebeck, K., Wallis, S., Ward, J., Weatherhead, M., & Wilkinson, R. (2018). Toward a sustainable wellbeing economy. *Solutions*, 9(2), April issue. <https://www.thesolutionsjournal.com/article/toward-sustainable-wellbeing-economy/>.
- Daly, H. (1973). *Toward a steady-state economy*. W.H. Freeman & Co.
- EMF. (2013). *Towards The Circular Economy, economic and business rationale for an accelerated transition*. Ellen MacArthur Foundation, Isle of White, UK.
- FAO (2015). *Status of the World Soil Resources (SWSR)—Main report*, 650 pp. Food and Agriculture Organisation of the United Nations and Intergovernmental Technical Panel on Soils, Rome, Italy. <http://www.fao.org/3/i5199e/i5199e.pdf>.
- Fullerton, J. (2015). *Regenerative capitalism. How universal principles and patterns will shape our new economy*. Capital Institute.

- Georgescu-Roegen, N. (1971). *The entropy law and the economic process*. Harvard University Press.
- Giridharadas, A. (2020) *Winners take all: The elite charade of changing the world*. Penguin.
- Hartwell, R. M. (1995). *A history of the Mont Pelerin society*. Liberty Fund Inc.
- Heinberg, R. (2001). *Peak everything. Waking up to the century of decline in earth's resources*. Clairview Book.
- Heinberg, R. (2005). *The party's over*. New Society Publishers.
- Heinberg, R. (2011). *The end of growth*. New Society Publishers.
- Hickel, J. (2020). *Less is more. How degrowth will save the world*. William Heinemann.
- Higgins, P. (2010) *Eradicating ecocide. Laws and governance to stop the destruction of the planet*. Shephard-Walwyn.
- IBPES. (2019). Global assessment report on biodiversity and ecosystem services of the intergovernmental science-policy platform on biodiversity and ecosystem services (E.S. Brodizio, J. Settele, S. Diaz, & H. T. Ngo (eds.)), 63 pp. IPBES secretariat.
- Jackson, T. (2011). *Prosperity without growth. Economics for a finite planet*. Routledge.
- Kanninen, T. (2013). *Crisis of global sustainability*. Routledge Global Institutions Series 74, New York.
- Kenton, W., & Kelly, R. C. (2021). Neoclassical economy. Investopedia. <https://www.investopedia.com/terms/n/neoclassical.asp>.
- Kenton, W., & Westfall, P. (2020). Neoliberalism. Investopedia. <https://www.investopedia.com/terms/n/neoliberalism.asp>.
- Kumar, S. (2009). Grounded economic awareness. In A. Stibbe (Ed.), *The handbook of sustainability literacy. Skills for a changing world*. Green Books.
- Kuenkel, P. (2019). *Stewarding sustainability transformations. An emerging theory and practice of SDG implementation*. Springer International Publishing.
- Lovins, L., Wallis, S., Wijkman, A., & Fullerton, J. (2018). *A finer future. Creating and economy in service of life*. New Society Publishers.
- Mazzucato, M. (2018). *The entrepreneurial state: Debunking public vs. private sector myths*. Penguin.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. (1972). *Limits to growth*. Universe Books.
- Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits. Confronting global collapse, envisioning a sustainable future*. Chelsea Green Publishing Company.
- Meadows, D. H., Randers, J., & Meadows, D. L. (2004). *Limits to growth. The 30 year update*. Universe Press.
- Mosley, C. (2000). *Teaching for environmental literacy* (vol. 74, issue 19, pp. 23–24). The Clearing House.
- Nörgård, J. S., Peet, J., & Ragnarsdottir, K. V. (2010). The history of limits to growth. *Solutions*, 1(2), 59–63.
- Paul, L. A. (2014). *Transformative experience*. Oxford University Press.
- Paul, L. A., & Quiggin, J. (2021). Transformative Education. *Educational Theory*, 70(5), 561–579.
- Phillips, A. (2008). *Holistic education*. Green Books.
- Phillips, A. (2009). Institutional transformation. In A. Stibbe (Ed.), *The handbook of sustainability literacy. Skills for a changing world*. Green Books.
- Powell, J. F. (1971). *Attack on American free enterprise system*. Written for the U.S. Chamber of Commerce. <https://www.greenpeace.org/usa/democracy/the-lewis-powell-memo-a-corporate-blueprint-to-dominate-democracy/>.
- Ragnarsdottir, K. V., & Parker, J. (2022) Regenerative wellbeing economy. In J. Blewitt (Ed.), *New economy, new systems*, forthcoming.
- Ragnarsdottir, K. V., & Sverdrup, H. (2015). Limits to growth revisited. *Geoscientist*, 25(9), 10–15.
- Ragnarsdottir, K. V., Costanza, R., Giovannini, E., Kubiszewski, I., Lovins, H., McGlade, J., Pickett, K. E., Roberts, D., de Vogli, R., & Wilkinson, R. (2014). Beyond GDP. Exploring the hidden links between geology, economics and well-being. *Geoscientist*, 24(9), 12–17.

- Raworth, K. (2017). *Doughnut economics. Seven ways to think like a 21st-century economist*. Random House.
- Rozack, T. (1989). *Where the wasteland ends: Politics and transcendence in postindustrial society*. Celestial Arts.
- Spretnak, C. (1991). *States of grace: The recovery of meaning in the postmodern age*. Harper.
- Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwiv, C. (2015). The trajectory of the Anthropocene: The great acceleration. *The Anthropocene Review*, 2(1), 81–89. <https://doi.org/10.1177/2053019614564785>
- Sterling, S. (2004) Higher education, sustainability, and the role of systemic learning. In P. B. Corcoran, & A. E. J. Wals (Eds.), *Higher education and the challenge of sustainability*, 49–70. Springer.
- Stibbe, A. (Ed.). (2009). *The handbook of sustainability literacy*. Green Books, Totnes.
- Sverdrup, H. U., & Ragnarsdottir, K. V. (2014). Natural resources in a planetary perspective. *Geochemical Perspectives*, 3(2), 129–341.
- Trebeck, K., & Williams, J. (2019). *The Economic of Arrival*. Policy Press, University of Bristol, Bristol.
- Turner, G. (2012). On the cusp of global collapse? Updated comparison of the limits to growth with historical data. *GAIA Ecological Perspectives for Science and Society*, 21(2), 116–124.
- Turner, G. (2014). Is global collapse imminent? An updated comparison of the limits to growth with historical data. MSSI Research paper 4, 21 pp.
- Wilenius, M., & Halonen, T. (2017). *Patterns of the future: Understanding the next wave of global change*. World Scientific Publishing Europe Ltd.
- Zalasiewicz, J., Waters, C. N., Ellis, E. C., Head, M. J., Vidas, D., Steffen, W., Adeney Thomas, J., Horn, E., Summerhayes, C. P., Leinfelder, R., McNeill, J. R., Galuszka A., Williams, M., Baronsky, A. D., de Richter, D. B., Gibbard, P. L., Syvitski, J., Jeandel, C., Cearreta, A., Cundy, A. B., Fairchild, I. J., Rose, N. L., Ivar do Sul, J. A., Shotyk, W., Turner, T., Wapreisch, M., & Zinke, J. (2021). The anthropocene: Comparing its meaning in geology (chronostratigraphic) with conceptual approaches arising in other disciplines. *Earth's Future*, 9(3). <https://doi.org/10.1029/2020EF001896>.

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# Chapter 9

## Everything is Connected—Envisioning How a Regenerative World Looks Like



Kristin Vala Ragnarsdottir

“If we don’t know where we want to go, it makes little difference that we make great progress”  
Donella Meadows

**Abstract** The rationale for why visioning a regenerative world in the future is presented. Based on the visioning strategy of Donella Meadows, the future is envisioned from 2021 on. In addition to answering the questions of Meadows of how a regenerative world would look like, the importance of building a sustainable economy is outlined, an economy that regenerates the natural world and communities. Several models have been outlined, and in this chapter, the focus is on the wellbeing economy, the regenerative economy in service of life, and the doughnut economy. An action plan of how to direct the economy to be within planetary boundaries based on degrowth for the global North is presented. Other systems are briefly outlined as being important including sustainable natural- and food systems. All of these systems are interconnected in a complex manner and therefore need to be studied together.

**Keywords** Visioning · Sustainable future · Sustainable economy · Wellbeing economy · Regenerative economy · Doughnut economy · Degrowth

### 9.1 Introduction: The Importance of Visioning

Donella Meadows was a master of visioning a sustainable future. As a system thinker and system dynamics modeler, she taught people around the world visioning. In one of Meadows’ most quoted papers “Envisioning a sustainable world” (Meadows, 1996), she emphasizes that vision is the most vital step in the policy process, yet she stated, vision is not only missing almost entirely from policy discussion—it is missing from the whole culture. In the quarter of a century since her paper was published, little has changed in our education and policy making. In this chapter, I will revisit the *Envisioning a sustainable world* of Meadows and add to that wisdom what I

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K. V. Ragnarsdottir (✉)  
Institute of Earth Science, University of Iceland, Reykjavik, Iceland  
e-mail: [vala@hi.is](mailto:vala@hi.is)

have gathered since 2008, when I started to teach my Sustainable Futures class—first at the University of Bristol in the UK and then at the University of Iceland. In that class, the students work together in various settings to envision and propose sustainability solutions globally, nationally, locally, and personally. Every year, they come up with new ideas. This class has been my favorite teaching endeavor since I started my teaching career, because in the class I go from being the professor who delivers the knowledge to being the facilitator who fosters the students to think together and come up with new visions and solutions toward sustainability. Wisdom and knowledge on sustainability thinking that I have included in my class have been fortunate to gain from the Schumacher Society UK and their leading annual lectures, The Royal Society of Arts and Commerce UK, Be the Change conferences in London, the Balaton Group and their annual meeting, The Club of Rome, the Schumacher Institute UK, and regular discussions with members of the Wellbeing Economy Alliance.

I have been fortunate to get many visitors to participate in my Sustainable Futures class, to contribute their expert knowledge, and lead workshops—either online or in person. This has enriched the class and the thinking that has emerged among the students. Examples of participating sustainability experts that I have called upon include the late Richard StGeorge (Schumacher Society, Bristol, UK), Alan AtKisson (formerly AtKisson Group, Sweden, now SIDA, Sweden), Sarah Cornell (Stockholm Resilience Centre, University of Stockholm, Sweden), Brynhildur Davidsdottir (Environment and Natural Resources program, University of Iceland), Harald Sverdrup (formerly University of Lund, Sweden, and University of Iceland now Norwegian Inland University of Applied Sciences), Trista Patterson (UNEP partner GRID, Arendal, Norway), Arran Stibbe (University of Gloucestershire, UK), Bente Elisabeth Endresen (Gallery Mols, Aarhus, Denmark), Petra Kuenkel (Collective Leadership Institute, Potsdam, Germany), and Monica Schüldt (Klarhet, Stockholm, Sweden). These experts brought into focus various perspectives that are important for sustainability thinking—including the wisdom of E.F. Schumacher, system thinking, science/policy interface, ecological economics, system analysis, visioning, sustainability literacy, art, collective leadership, and the time to think environment. In addition, I have also been fortunate to have several young teaching assistants who have brought in their perspectives of for example ecological footprinting, education for sustainable development, sustainable fisheries, gender perspectives, food security, natural resource management, and scenario building.

## 9.2 Sustainable World Future Visioning

Donella Medows (1996) put forward *her vision of a sustainable future*. It included that renewable resources are used no faster than they regenerate, and that pollution is emitted no faster than it can be recycled or rendered harmless. Furthermore, her vision included that prices internalize all costs, and there is no poverty. In addition,

her vision was that population is either stable or decreasing and that there is no hunger. I refer to this as the “basics” for a vision of a sustainable future.

Meadows also encouraged people to think about *their home in a sustainable world*. How would it look like? She had several sub-questions. Here, I answer the question from my own perspective for future Iceland. My water comes from clean groundwater and on my balcony and at our family’s summer house, there are trees with berries, and productive herbs, and vegetables growing. I am a member of an allotment scheme. My energy is renewable. Some good friends live nearby, and we meet regularly to share stories, and our harvests. All waste is minimized, sorted, and recycled. Biological waste is composted and put back into the soil. Children, adults with needs, and the elderly are cared for in a secure and fun-filled environment. I feel joyful when I wake up in the morning.

*What would work look like in a sustainable world?*—another question set by Meadows. Here are my answers: Sustainability is at the top of my teaching agenda—for ecosystems, soils, communities, and the economy which drives our activities. In a sustainable world, I am a teacher, facilitator, and trainer and an academic on sustainability issues. I am paid by my university, which is funded by the government. I am happy to share my knowledge and vision with others, free of charge. I work with people around the world who share my vision and passion for a sustainable world. We work together online and in person when we have the opportunity to meet. I go to work on foot/by bike/by bus/by electric car or I work at home. My work is my passion and I feel good.

*How do communities look like in a sustainable world?*—yet another of Meadows’ questions. In my sustainable world my answers are that people live in harmony with nature. The physical systems that sustain them are sustainable for energy and food as well as for energy and materials. I work with people locally and around the world that share my vision and passion for a sustainable world. People use conflict-free language and everyone’s voice counts in decision making. Also, everyone is valued, young/old, male/female/transgender, whatever talent, skills, or education. People live together in peace and collaboration, meet regularly, and talk to each other in respectful manner as well as caring about each other’s wellbeing.

Donella Meadows’ next question was *what does my nation look like when sustainable?* My answers to the questions are that Iceland meets its physical needs in a sustainable manner. The majority of all food is produced in the country. All kinds of people, goods, and information travel peacefully to and from my country to other places. Decisions are made through respectful dialogues where everyone’s voice counts and listening is an important practice, both for internal and external conflicts. My nation is diverse. Other nations and ethnic groups are respected both within borders and abroad.

The final question of Donella was *what are my feelings in a sustainable world?* In my vision, the answers to the questions are that people are fascinated by keeping their lives and nation sustainable. People minimize travel and enjoy their near environment. Progress is seen in everything that makes the world even more sustainable or better regenerative. Everyday life is respectful with good balance between work and private life. Everyone has strong connection with nature. People work on finding

solutions. I feel joyful and happy. There is harmony and wellbeing in this world once sustainable. People practice mindfulness to sustain a holistic world view that keeps things sustainable. And finally, people laugh when having fun together.

All of the questions above are good and get us to think about the essentials. But what other questions could be asked in 2021? What questions are my students asking? What is the vocabulary that is used today? In 25 years, the vocabulary has changed from centering around sustainability and sustainable development to balance, harmony, resilience, regeneration, futures thinking, transformation, health, inner world, spirituality... With this new vocabulary in mind, the sustainable world visioning is not only about how the sustainable world looks like but also about the possible transition pathways toward a not only a sustainable world but regenerative world. What are the solutions? How do we gain transition literacy? What are the leverage points in the world to g/local systems? Writing this chapter in the middle of the COVID-19 crisis begs the question what are the priorities to prevent pandemics? Below I attempt to answer some such questions.



**Fig. 9.1** A damaged planet depicted in an ecological economics framework where the outermost layer is the natural environment and the inner ring presents society and the center the economy. The figure depicts the growth economy that has led to a society of greedy and unhappy people, living in a discontinued manner within a damaged natural environment that suffers natural disasters, has polluted urban areas, and undertakes industrial agriculture. Graphics: Elín Elísabet

The questions now are how do we get from the degraded world (Fig. 9.1) we are in, to a regenerated healthy world, with the wellbeing of nature and people at its center? First, we have to acknowledge that it is the growth economy that is the destructive driving force for nature and society. In our current global North, far too many people are lonely and perplexed, have low self-esteem, poor mental health, etc. (Wilkinson & Pickett, 2011). The favorite life-fulfilling pass-time of all too many is shopping for more new things and has been questioned by many (e.g., Stewart, 2018). The throwaway culture is prevailing. With my sustainability hat on, it is only possible to go toward a healthy planet with healthy people by first changing the economic goal, then redefine the new economy. This will be discussed in the sections below. The focus is on the new economy, regenerative natural world, and wellbeing in society. The focus is on the new economy because all other transformations needed will follow and/or come in tandem. Without new economy tinkering, changing other systems will not bring us the regenerative world that provides equity and wellbeing for people and the rest of nature.

### 9.3 Sustainable Economy

How does the economy look like in a sustainable world? And how does the world look like once we have adopted this new economy? As outlined Chap. 8, there is now more and more a focus on a new economy that would allow the Earth system to become not only sustainable but regenerative. But this is only possible if the economic system has the goal of being within the Earth boundaries.

#### 9.3.1 *Wellbeing Economy*

Costanza et al. (2014, 2016, 2018, 2020a, b, c) have laid out the foundation of how a new economy must look like that fosters wellbeing instead of GDP growth. The aim is also to achieve the UN Sustainable Development Goals. We refer to a society that has such goals as the Republic of Wellbeing. In the Republic of Wellbeing, nature is regenerated, business has environmental and social responsibility policies that they follow, and the economy is regenerative—investing in business that regenerates nature and society. Government undertakes inequality reporting in order to eradicate poverty and to prevent actions to work against each other. The constitution has sustainability written into it to protect nature and the living world. There are maps of electoral programs in order to make sure all regions get the attention they need. Government supports societal progress. A living democracy thrives with active citizen. The citizen are healthy—physically and mentally. Wellbeing is achieved for people and the living world, and finally, ecosystems have human rights similar to people and corporations.



**Fig. 9.2** Vision of a regenerated planet. The economy has become circular and steady state. Society has healthy and happy citizen who share resources, grow their own food, care about each other, repair gadgets, and make their own condiments. Nature has been regenerated, wild animal flourish, and agriculture is regenerative according to agroecology principles. The urban areas are clean and sustainable. Graphics: Elín Elísabet

Figure 9.2 shows my vision of a regenerated sustainable world where the economy has become circular and steady state (or started degrowth in the developed world); the citizens are cooperative, feel happy, share their profit, and grow their own food; their energy is renewable; they repair their gadgets. Furthermore, nature has been restored and is regenerative. The commons have been extended. Wellbeing of people and nature has been achieved.

As outlined above recently, the idea of the “wellbeing economy” has been promoted with the purpose to deliver shared wellbeing on a healthy planet (Costanza et al., 2014, 2016, 2018, 2020a, b, c; Fioramonte, 2017; Hough-Stewart, 2019): wellbeing of people, wellbeing of nature and equitable distribution of wealth. For a healthy planet, it means that economic, investment, and financial activities need to be directed toward regenerating nature and creating just societies. It also means removing the key destructive drivers on nature to allow its natural powers to heal and restore (Ragnarsdottir & Parker, 2022).

The current economic growth agenda can no longer continue. A new focus is needed on the wellbeing of people and regeneration of nature and societies. The public want a wellbeing agenda, and it is not a new concept. The focus on providing wellbeing as a primary role of the state with all its human and ecological dimensions

has been advocated in Northern societies as a social and economic goal since early nineteenth century Utopian socialists in the UK, such as William Morris (Ragnarsdottir & Parker, 2022). A more recent approach was pioneered by the former king of Bhutan, and after him, the first Prime Minister of Bhutan and the current king. At their invitation, a number of people (including myself) came together first at the UN in 2012 and later the following year in Timphu, the capital of Bhutan, to discuss how to include Bhutan's emphasis on Gross National Happiness (GNH)<sup>1</sup> into the (then being developed) UN Sustainable Development Goals. The seventeen Goals with 169 targets give a broad development focus of which GDP growth is only one disputed target, because for achieving the other 16 goals growth cannot continue in the developed world, but it needs to be achieved in the global South.

Move along to 2017 where the Wellbeing Economy Alliance (WEAll) was founded by many of the Bhutan-goers in order to bring together all thinkers on the new economy. Over 200 individuals, organizations, academics, communities, and businesses across the globe have joined WEAll.<sup>2</sup> Also, governments have joined under the banner of Wellbeing Economies Governments<sup>3</sup> (WEGo)—at the leadership of the First Minister of Scotland. They include Iceland, New Zealand, Wales, and Finland. Could it be a coincidence that four out of the five countries/regions are led by women? Chapter 14 outlines the Wellbeing Economy agenda of Wales.

### 9.3.2 *Regenerative Economy in Service of Life*

Hunter Lovins et al. (2018) outline an economy in service of life, giving the principles that are needed to transition to such an economy. After studying regenerative agriculture, evolutionary biology, systems science, positive psychology, humanistic management, and ecological economics, they sought as ultimate goal an economic vision based on regenerative biological systems.

Such a regenerative economic system was first outlined by John Fullerton (2015). Fullerton describes how to build the regenerative economy through holistic thinking and pattern recognition. The regenerative economy is beyond the restorative economy that is based on regenerating natural system design. He promotes the regenerative economy with application of natural laws and patterns of systemic health. Such socioeconomic systems need to have self-organization, self-renewal, and regenerative vitality similar to natural systems.

Conventional degenerating economy (i.e., the current neoliberal paradigm) with mechanistic design and reductionist thinking is all in parts and both resource- and energy greedy. The “green” economy (with a focus on renewables and fewer resources, but otherwise business as usual) is not a solution, neither is the “sustainable” economy with less energy and material requirements. Fullerton proclaims the

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<sup>1</sup> <https://gnh.institute/>.

<sup>2</sup> <https://wellbeingeconomy.org/>.

<sup>3</sup> <https://wellbeingeconomy.org/wego>.

need to go beyond sustainability—first to restorative economy and then to the regenerative economy, built on patterns and principles that nature uses to build stable, healthy, and sustainable systems throughout the world, when undisturbed. The question now becomes, how do we build the regenerative economy?

Fullerton (2015) has set forth eight *principles* for the regenerative economy by applying nature’s laws and patterns of systemic health, self-organization, self-renewal, and regenerative vitality to socioeconomic systems. Others like to refer to eight *patterns* (e.g., the social enterprise Positive<sup>4</sup>). Fullerton’s principles as outlined in Lovins et al. (2018) are right relationship; innovative, adaptive, and responsive; views wealth holistically; empowered participation; robust circular flow; edge effect abundance; seeks balance; and honors community and place.

In more detail, the eight principles are:

(1) *Right relationship*: Human economy is embedded in **culture** which is embedded in the biosphere. The continuation of life is sacred. All systems—from molecular scale and all the way to cosmic scale—are nested, interconnected, and defined by overarching relationships of mutualism, within which day-to-day exchanges take place. (2) *Innovative, adaptive, and responsive*: Humans are innately **creative** and entrepreneurial. Humans have innate ability to innovate and “create a new” across all sectors of society. Even in failure, we “begin again.” (3) *Views wealth holistically*: True wealth is not money in the bank, but wellbeing of the whole, depending on belonging, community, and community-stewarded assets. It is achieved through the harmonization of the multiple forms of capital, with systemic health only as strong as the weakest link. Wellbeing depends on belonging, on community, and on an array of community-stewarded assets. (4) *Empowered participation*: People long to be part of something bigger than themselves, with wealth equitably distributed in context of systemic health. All participants in a system must be empowered to participate in and contribute to the health of the whole. Beyond whatever moral beliefs one may hold, financial and non-financial wealth must be equitably shared, although not necessarily equally distributed in the context of expanded understanding of systemic health. (5) *Robust circulatory flow*: Resources (material and non-material) must circulate up and down the system efficiently and effectively. Circular economy concepts for material and energy are important. (6) *Edge effect abundance*: Creative **collaborations across sectors** of the economy increase value-changes and resilience. (7) *Seeks balance*: Economic systems are designed for a **balance** of efficiency and resilience, built on patterns and principles that mirror those found in healthy, resilient natural systems. (8) *Honors community and place*: Nurturing healthy, stable communities and regions, real and virtual, in a connected mosaic of place-centered economics. There can be a dynamic, global economy so long as it ensures that every place, every ecosystem has integrity.

Continuing from the work of Fullerton (2015), recently a group of academics suggest what makes a society healthy (Fath et al., 2019). It is based on research on complex adaptive systems, flow networks, and ecosystem- and socioeconomic dynamics. They set forth ten principles in four categories to undergird systemic

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<sup>4</sup> <https://www.makeapositiveimpact.co/>.

economic health for measuring regenerative economics. Fath et al. (2019) propose a story that underpins the conclusions about the need for strategies to achieve the goals of a regenerative wellbeing economy. They set forth economic success in an integrated and measurable framework that includes robust circulation, balanced and integrated structures, investing in human and natural capacities, collaborative learning, and the dangers of concentration and extraction. These principles need to be discussed in society and taken up by policy makers.

### 9.3.3 *Doughnut Economy and Beyond*

The regenerative economy principles hold in the doughnut economics model of Kate Raworth (2017), that is cleverly set within the nine planetary boundaries of Rockström et al. (2009), providing similar social foundation of human needs as first defined by Max-Neef (1991) within the safe operating space for humanity. This provides the foundation for a regenerative and distributive economy. Both the principles for the regenerative economy and the doughnut representation are good basis for the way forward, but how do we implement them? Already the city of Amsterdam<sup>5</sup> is using the doughnut economic model for future city developments, and Costa Rica is on the same path. There are over hundred cities, regions, and countries adopting the doughnut model through the Doughnut Economics Action Lab (DEAL).<sup>6</sup> The good news thus is that there is positive change already happening which is worth following.

Other important issues pertaining to new economy are presented in the introduction to this book part (Chap. 8). Taken together, they lead us toward achieving transition literacy. Chapter 13 outlines the benefits of the not-for-profit economy as an important contribution to the new economy.

### 9.3.4 *Action Plan for Installing a New Economy Based on Degrowth*

It is now clear that in order to achieve the goals I have outlined in this chapter that a new economy must halt growth in the developed world and allow growth in the developing world. The principles of degrowth therefore must be at the core of the action plan. This has been set forth by Jason Hickel (2020).

Hickel's action plan may not be perfect, but it makes a lot of sense—so here it is in an abbreviated version: First **pull the emergency brake**: *End planned obsolescence; cut advertising; shift from ownership to usership; end food waste; and scale down ecologically destructive industries.* Second **shorten working week** to

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<sup>5</sup> <https://www.eni.com/en-IT/circular-economy/amsterdam-doughnut-economics.html>.

<sup>6</sup> <https://doughnuteconomics.org/>.

improve quality of life, give people time of pursuing interests and also share jobs; **reduce inequality** by introducing a living wage and set income ratio maximums (maximum/minimum) to something like 10/1; **decommodify public goods and expand the commons; embrace abundance** instead of scarcity (capitalism depends on artificial scarcity, and austerity is synonym of scarcity); **embrace the law of the jubilee** and cancel debt (e.g., student debt, developing countries debt); **create new money for a new economy**—create money by state banks that are free of debt and spend it in the economy (instead of lending it), in lieu of money being built on debt created by commercial banks as it is now; **through a post-capitalist imaginary** create an economy where people produce and sell useful goods and services, an economy where people make rational, informed decisions about what to buy, an economy where people get compensated fairly for their labor, an economy that satisfies human needs while minimizing waste, an economy that circulates money to those who need it, an economy where innovation makes better, longer-lasting products, reduces ecological pressure, frees up labor time and improves human welfare, an economy that responds to the health of the ecology on which it depends; **capture democracy from elites**—reject lobbyism and political capture of minority elites, who are happy to liquidate everything instead of the preferences of the majority who want to sustain our planet’s ecology for future generations. Kick money out of politics—focus on radical media reforms, strict campaign finance laws, reversing corporate personhood, dismantle monopolies, shifting to cooperative ownership structures, putting workers on company boards, democratize shareholder votes, democratize institutions of global governance, and managing collective resources as commons whenever possible.

This action plan set forth in *Less is More* (Hickel, 2020) is the best one I have come across and is therefore outlined above. It goes beyond principles, values, and frameworks and forces us to think about the important steps that we need to take toward the new economy we need for a regenerative, just world for the wellbeing of all.

## 9.4 Beyond the Economy—Visioning Other Sustainable Systems

### 9.4.1 Sustainable Natural- and Food Systems

Two decades into the twenty-first century, many of the questions pertaining to a sustainable world involve sustainable food production, sustainable soil, and sustainable forestry. Currently, the concept of sustainable is though not being used as much as resilient, healthy, and regenerative. Recent reports have demonstrated devastating degradation of the natural world (e.g., IBPES, 2019), that it is not enough to generate sustainable systems from the damaged systems that we have today, it is necessary to regenerate lost and severely degraded natural systems, so that they become healthy

and resilient to shock. With climate change, the regenerated systems may have to be somewhat different from the natural system that was in location say 50 years ago, because climate change has created new conditions for life to prosper.

How does a food production system look like in a sustainable world? Since World War II, industrial agricultural systems have degraded in terms of soil degradation (30% of soil severely degraded) that is visible by reduced soil health through the loss of soil mass, soil organic matter, and thus soil fertility, and there it is a need to shift to regenerative practices that are based on learning from ecosystems. Such agro-ecological practices (also referred to as regenerative agriculture) are already well known and have been called for by FAO (2015) as being the way forward to ensure food security for all as well as mitigating global warming (Spratt et al., 2021). Chapter 10 outlines how to use system analysis to achieve sustainable forestry.

### 9.4.2 Sustainable Communities and WellBeing

Chapter 11 focuses on achieving sustainable cohesion in a farming community, and Chap. 12 is about how to build wellbeing of people. The ultimate goal of the new economy is wellbeing for all people and nature. Chapter 14 presents the policies that Wales has adapted in order to build a wellbeing society.

## References

- Costanza, R., Kubiszewski, I., Giovannini, E., Lovins, H., McGlade, J., Pickett, K. E., Ragnarsdottir, K. V., Roberts, D., de Vogli, R., & Wilkinson, R. (2014). Development: Time to leave GDP behind. *Nature*, 505, 282–285.
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, L. F., Picett, K., Ragnarsdottir, K. V., de Vogli, R., & Wilkinson, R. (2016). The UN sustainable development goals and dynamics of wellbeing. *Solutions*, 7(1), 20–22.
- Costanza, R., Caniglia, B., Fioramonti, L., Kubiszewski, I., Lewis, H., Lovins, L. H., McGlade, J., Fogh Mortensen, L., Pilipsen, D., Pickett, K. E., Ragnarsdottir, K. V., Roberts, D., Sutton, P.L., Trebeck, K., Wallis S., Ward, J., Weatherhead, M., & Wilkinson, R. (2018). Toward a sustainable wellbeing economy. *Solutions*, 9(2).
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, R. F., Pickett, K. E., Ragnarsdottir, K. V., de Vogli, R., & Wilkinson, R. (2020b). Measuring sustainable wellbeing in connection with the UN sustainable development goals. *Ecological Economics*, 130, 350–555.
- Costanza, R., Fioramonti, L., Giovannini, E., Kubiszewski, I., Lovins, H., McGlade, J., Mortensen, L. F., Pickett, K., Ragnarsdottir, K. V., Roberts, D., Trebeck, K., de Vogli, R., Wallis, S., & Wilkinson, R. (2020c). After the crisis: Two possible futures. *Solutions*, September issue.
- Fath, B. D., Fiscus, D. A., Goerner, S. J., Berea, A., & Ulanowicz, R. E. (2019). Measuring regenerative economics: 10 principles and measures undergirding systemic economic health. *Global Transitions*, 1, 15–27.
- Fioramonte, L. (2017). *Wellbeing economy. Success in a world without growth*. Pan Macmillan SA.
- Fullerton, J. (2015). *Regenerative capitalism. How universal principles and patterns will shape our new economy*. Capital Institute.

- Hickel, J. (2020). *Less is more: how degrowth will save the world*. William Heinemann.
- Hough-Stewart, L., Trebeck, K., Sommer, C., & Wallis, S. (2019). What is a wellbeing economy? Different ways to understand the vision of an economy that serves people and planet. We all ideas: Little summaries of big issues. <https://wellbeingeconomy.org/wp-content/uploads/2019/12/A-WE-Is-WEAll-Ideas-Little-Summaries-of-Big-Issues-4-Dec-2019.pdf>.
- IBPES (2019). Global assessment report on biodiversity and ecosystem services of the intergovernmental science-policy platform on biodiversity and ecosystem services (E. S. Brodzio, J. Settele, S. Diaz, & H. T. Ngo, eds.) 63 pp. IPBES secretariat, Bonn.
- Lovins, H., Wallis, S., Wijkman, A., & Fullerton, J. (2018). *A finer future. Creating and economy in service of life*. New Society Publishers.
- Max-Nef, M. A. (1991). *Human scale development: conception, application and further reflections*. Apex Press.
- Medows, D. (1996). Envisioning a sustainable world. <https://donellameadows.org/archives/envisioning-a-sustainable-world/>.
- Ragnarsdottir, K. V., & Parker, J. (2022). Regenerative wellbeing economy. In J. Blewitt (Ed.), *New economy, new systems*, forthcoming.
- Raworth, K. (2017). *Doughnut economics. Seven ways to think like a 21st-century economist*. Random House.
- Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S., III., Mambin, E., London, T. M., Scheffer, M., Folke, C., Schellnhuber, H., Nykvist, B., de Wit, C. A., Hughes, T., van der Lleruw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., ... Foley, J. (2009). A safe operating space for humanity. *Nature*, 461, 472–475.
- Spratt, E., Jordan, J., Winsten, J., Huff, P., van Schaik, C., Jewett, J.G., Filbert, M., Luhman, J., Meier, E., & Paine, L. (2021). Accelerating regenerative grazing to tackle farm, environmental, and societal challenges in the upper Midwest. *Journal of Soil and Water Conservation*, 76(1), 15A–23A.
- Stewart, H. (2018). *The grace of enough: pursuing less and living more in a throwaway culture*. Ave Marie Press.
- Wilkinson, R., & Pickett, K. (2011). *The spirit level: Why greater equality makes societies stronger*. Bloomsbury Press.

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# Chapter 10

## Managing Forestry in a Sustainable Manner: The Importance of System Analysis



Ingrid Stjernquist and Peter Schlyter

**Abstract** This chapter examines from systems and livelihood perspectives, with Nemoral and Boreal forest zones of the Global North and Sweden as examples, how forestry may meet current and future sustainability challenges both as a traditional resource base and with respect to other ecosystem services. Previous and current forest policy/governance is briefly described against the background that Swedish forestry is based both on huge holdings by few industrial owners as well as on a multitude of small individual, often family owned, forest estates. Successful delivery against environmental objectives will require careful balancing of interests and the active participation of local forest owners. Cumulative effects of old and new societal demands on forestry and their impact on local livelihoods poses in this respect a systemic risk as economic and social sustainability often gets limited consideration. There is a need for a more synoptic and systemic analysis of how forestry is affected by multiple, partly contradictory, demands from an increasing array of stakeholders, in order to enable a move towards a biobased economy. Stakeholder-based group modelling is a potentially powerful analytic and conflict reducing approach that could help improve forestry's contribution to the acute need to handle the climate change and current sustainability challenges.

**Keywords** Forest management · System analysis · Stakeholders · Livelihood · Social sustainability · Cumulative effects

### 10.1 Introduction

Environmental and sustainability issues have scale and spatial dimensions. Traditionally, policies or action to address these types of issues has focussed on achieving improved outcomes with regard to the environmental effect or sustainability aspect,

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I. Stjernquist (✉)

Department of Physical Geography, Stockholm University, Stockholm, Sweden

e-mail: [ingrid.stjernquist@natgeo.su.se](mailto:ingrid.stjernquist@natgeo.su.se)

P. Schlyter

Department of Spatial Planning, Blekinge Institute of Technology - BTH, Karlskrona, Sweden

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issue by issue, at the spatial unit where the problem to be addressed occurred. As such, in most cases, trade-offs usually were between the outcome and the cost for regulating the issue (e.g., for the land owner, resource extractor, industry, regulator or consumer). While trade-offs between different policy objectives is nothing new, the overriding challenge of anthropogenic climate change, and the increasingly acute need to act against it, is likely to generate new and stronger conflicts between a number of environmental and sustainability issues at different scales and locations. This is particularly evident with respect to the ambition to reduce our reliance on fossil carbon for energy or for raw materials by increasing the use of biomass. Forests and forestry provide, a major potential resource for a biobased economy, a prime example of an area where conflicts between different environmental and wider sustainability policy objectives are likely to grow in the future.

The concept of sustainability, though widely embraced, has no generally accepted definition (Bennich, 2019). The concept has clear temporal and dynamic components, i.e., with regard to renewable resources their long-term productivity and rate of regeneration over time, but also a systems ability to function as a sink with respect to emission loads of various kinds. Additionally, it also has a problematic scale component; i.e., what is the appropriate spatial scale for assessing sustainability? While some aspects of sustainability like GHG emissions are relevant at the global scale, others are more meaningfully assessed at regional scales, at the extreme end of the local scale, the concept risks losing its utility. Nevertheless, at a general rhetorical level, the normative aspect of sustainable development would appear as relatively unproblematic and uncontentious even if the modern sustainability concept is continuously developing (Jordan, 2008).

## 10.2 A Livelihood Perspective

Forests are a resource that with wise use may be regarded as renewable. Forest management aiming for sustainable use is older than our current post-Brundtland debate on sustainability. An intensive use of the forest resource is not new. Increased need for forestry products in the Nordic countries in the early nineteenth century developed a forest management focused on long-term sustainable productivity. The concept of forest husbandry (Fritzboøger, 1994; Af Ström, 1837) illustrates this, and it is noteworthy that it was an object for French legislation as early as the seventeenth century (Glacken, 1967). The sustainability concept in modern terms is often, in the literature, linked to small-scale husbandry (Du Pisani, 2006), even when the perspective is more narrowly defined towards soil quality and productivity. Forest management and practices, however, vary enormously between different parts of the world, owing to the influence of a large number of factors, i.e., abiotic, edaphic and biotic conditions, social, legal, economic, technological, industrial and market conditions, as well as through path dependency with regard to most of these factors. Sustainable forestry requires the balancing of environmental, social and economic objectives, but the latter two aspects, affecting forestry dependent livelihoods, are,

nevertheless, frequently neglected in the sustainable forestry debate. This is due to the growing complexity of using forests as a resource and the unclear picture of causalities and the multi-effect consequences.

Finally, in discussing sustainable forest use, there may be a need to remind the reader that forests in Europe are cultural products. The forests were in no sense any wilderness but dynamic managed components in a man-made landscape changing over time owing to the resources needed. Also, ideas that the highest biodiversity is to be found in pristine forests in the Nemoral or Boreal zones reflect a false analogy with tropical rain forest. Ideas of pristinity or wilderness ought to be viewed with scepticism as they tend to reflect a romanticised, or outside Europe often an eco-colonial, perspective on forests and land use. Local people all over the world have managed and transformed forests and other habitats in various ways and degrees over centuries (Boivin et al., 2015; Lewis, 2007; Nelson & Callicott, 2008). Rachham (1998) stresses, in a European context, the importance of a mix of man-made and semi-open woodlands for creating a high biodiversity on the landscape level. The cultural landscapes of Europe by the end of the nineteenth century was composed of a mix of managed forests, pasture, and arable land, producing to the highest biodiversity over the last millennium both with regard to species and their distribution (Emanuelsson, 2009).

We use Swedish forest management as an example of forest management in the Nemoral to Boreal forest zones. Sweden, as the other Nordic countries, provide a useful example as it has ownership structures that represent both a large number of small-scale private (family) owners as well as a limited number of industrial corporate owners managing large tracts of land. As such it may be used to illustrate aspects of the complex environmental and social dynamics of sustainability. Over the last two centuries, these forests have been influenced by social, economic and environmental changes (Schlyter & Stjernquist, 2010) as well as a growing number of different stakeholder interests (Sverdrup & Stjernquist, 2002). The reader is cautioned against uncritically extrapolating arguments to institutional and ecological settings outside our geographical scope, e.g., the Global South.

### 10.3 New Challenges

Current concern over **climate change** and the attendant acute need to leave fossil carbon for energy, as well as a quest for renewable materials for a variety of uses currently based on fossil carbon, are strong drivers towards what has been termed a biobased economy. A more biobased economy is, however, likely to increase already existing conflicts between different uses of land (i.e., for food, raw materials, energy, conservation of biodiversity and landscapes) and the use of biomass, e.g., energy vs. food, food vs. raw materials, traditional biomass use vs. use for new materials or products, biomass use for use vs. as a carbon sequestration sink, etc.). Additionally, a wish to extract more biomass per unit area (be it for food, energy or raw materials) is likely to come in conflict with environmental concerns like biodiversity

loss, landscape impacts, eutrophication, long-term nutrient mass balance and soil productivity. Suggestions to fertilise forest to increase productivity is likely to result in competition with food production over globally scarce resources, e.g., phosphorous. The demands for increased biomass productivity, or paradoxically set aside for sequestration, are in some locations likely to come in conflict with local or indigenous land use. That is, the quest for global/large regional sustainability may conflict with local social and economic sustainability objectives. These issues will require careful consideration and a more multi-faceted and sensitive deliberation with a view to the larger social-ecological system than have hitherto often been the case. Given the urgency to address the climate challenge, the temptation to disregard complexity and systemic links between issues and at different scales, with attendant negative impacts on other aspects, scales and weaker stakeholders, is a risk to keep in mind.

The **boundaries for forest biomass productivity** are governed by climate, soil characteristics including nutrient content and other edaphic factors and, of course, forest management. Tree species composition and biodiversity reflect the basic conditions and constraints. Biomass extraction or rather the rate of nutrient export from the system beyond the influx either through weathering or fertilisation will over time cause nutrient deficiency. This will in turn impact the long-term biomass production negatively (Akselsson & Belyazid, 2018; Cartwright et al., 2020) and thus the degree to which a biobased economy can be supported. The need to mass balance the system should be considered as the hard outer boundary for biomass producing systems' long-term sustainability. The **time** perspective for assessing sustainability is fundamental as the effects of extraction, i.e., the nutrient loss, may only become apparent after several decades (Sverdrup & Stjernquist, 2002).

Under climate change, **biodiversity** in the Nemoral to Boreal forest zones will considerably change owing to higher temperature, changed precipitation volumes and patterns in space and time as well as more extreme weather conditions (Sverdrup & Belyazid, 2015).

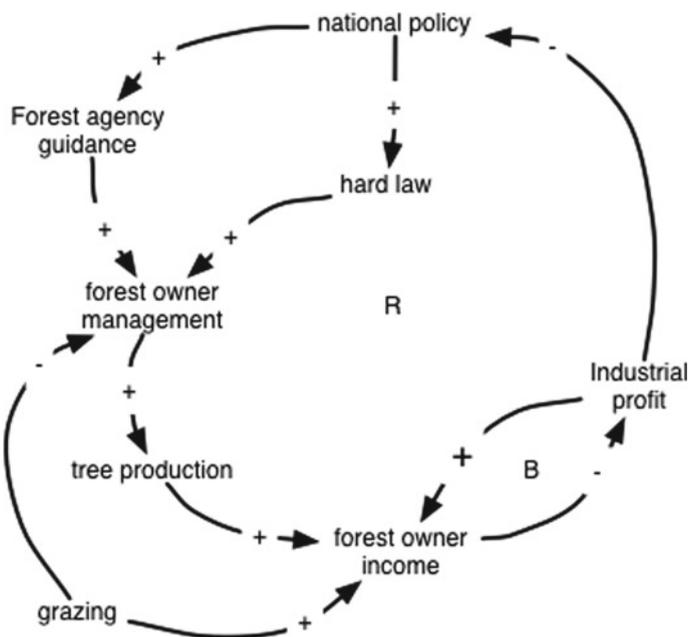
**Forest governance** reflects technology, economic and other societal values, as well as current knowledge, at a given time. It also reflects path dependency, not only in the sense that e.g., legislation may reflect earlier values, but above all in the physical forest. Owing to the fact that a rotation period in managed Boreal forests is about a century, current stands, to varying degrees, reflect previous states of knowledge, values, economic incentives as well as legal demands and constraints. Forests are palimpsests, representing a complex mixture of biophysical conditions, processes, human influences and wills.

## 10.4 Forest Management in Perspective—Sweden as an Example

### 10.4.1 Forestry and Livelihoods

Over several hundred years forest estates have, as economic and ecological units, been managed by landowners for a multi-objective sustainable resource outtake while, at the same time, providing livelihoods. Forested land has historically been used mainly for grazing but also as a source for fencing, firewood, building materials, and tar. Selling timber and pulpwood to the forest industries is a relatively late, and initially unregulated, development that contributed, from the late nineteenth century, to an improved economical output for the farmer.

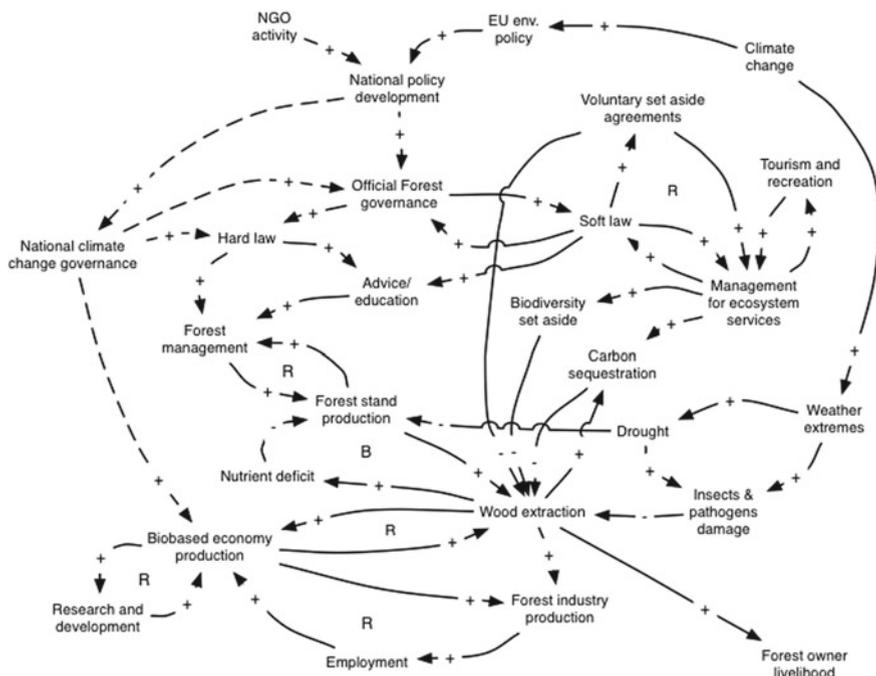
The forest legislation during the period from 1903 to 1970s can be considered as an deliberative period in Swedish forestry governance (Schlyter & Stjernquist, 2010), illustrated in the causal loop diagram (CLD) in Fig. 10.1. The forest owner’s management load is driven by national forest policy through hard law (the Forest Act) and an advisory organisation which’s advisory officers allowed for adaptation to local economic and ecological conditions in order to support livelihoods. This



**Fig. 10.1** Outcome efficiency depends on owner planning activity, period 1903–1979. In this causal loop diagram (CLD), arrows are used to show causal relationships between system variables. If they move in the same direction, the arrow is marked with +, and if they move in the opposite direction the arrow is marked with -. Feedbacks are either reinforcing (R) or balancing (B)

approach results in higher production and owner income through the forest owner's management loop. This income reduces industrial profits counteracting forest (over) exploitation (the reason for the first Forest Act 1903). Reduced industrial profits increase the need for an increased forest policy and a more detailed hard law to balance the forest sector. The diagram also illustrates how other framing activities contribute to the forest owner's income, livelihood, while at the same time reducing the need for forest management

The official forest management objective shifted after 1979 towards optimising forestry's economic contribution to the national economy, geared to supply existing and planned industrial capacity and providing industrial employment (Appelstrand, 2007). The state deployed the forestry organisation to in detail monitor, control and, potentially, sanction the forest owner's activities against schematic regulations down to the stand level to maximise long-term production; resulting in well ditched, uniform, even-aged single species forest stands with resulting low biodiversity. A reaction against reduced owner influence, schematic management guidelines and negative environmental outcomes resulted in new forestry legislation 1993 where production and environmental concerns were given equal weight, forest owners given greater freedom to manage their forest based on local conditions, and the official monitoring and control apparatus was greatly reduced in size and cost. At the same time, non-forest sector demands on forestry practices grew, and forestry is now subject to, partly contradictory, soft law requirements like 16 national environmental objectives, set aside demands, market governance through certification and a multitude of sectorial and NGO demands of various kinds and weight without analysing the impacts on the livelihood for the local actor who produce the biomass or the effects on the resource volumes available for a biobased economy. Figure 10.2 summarises the situation. As in Fig. 10.1, the forest owner depends on wood extraction for livelihood and the income depends partly on national forest policy through hard law and advisory activity, shown in the left side of the CLD. However, the reinforcing loop in Fig. 10.1 is replaced by a nutrient deficiency balancing loop. An increased wood extraction increases the soil nutrient deficit, resulting in decreased forest stand production. The wood extraction is driven by the demand from forest industry and the biobased economy. The right side of the CLD illustrates how drivers external from the forest sector, like EU regulations and NGO activity, influence wood extraction and livelihoods. The key factor is management for ecosystem services, increased by national soft law. The demand of biodiversity management and protection (biodiversity set aside and voluntary set aside agreement) decrease the wood extraction. The demand for carbon sequestration to counteract climate change decreases wood extraction through land set aside. The reinforcing loop of increasing soft law increases the voluntary land set aside agreement increases management for ecosystem services, which increase the need for more soft law. This loop is driving the land set aside demand. The CLD illustrates the need for a systems view to achieve sustainable forestry at all levels and the high risk of stymieing a biobased economy owing to single issue actor influence.



**Fig. 10.2** Factors influencing forest management, period 1999–2020. For explanation of the CLD structure, see Fig. 10.1. Broken arrows indicate policy linkages likely to increase in importance in the future

### 10.4.2 A Revised Forest Strategy

The increasing top-down requirements on the forest resource resulted in a National Forest Strategy for Sweden 2018 (Government Offices of Sweden, 2018). Following the advisory tradition of earlier Swedish forest management governance, the strategic objectives have been specified on a regional level and forest ownership is a key component. The process has been participatory in its approach including a wide array of stakeholders from different parts of the forest value chain in order to give legitimacy to the strategy.

## 10.5 Scale Conflicts and Future Tensions

Current demands on forest management and forest resource use emanating from different levels in society—e.g., through international law, various EU regulations, national law as well as from softer approaches like the SDG’s, national environmental objectives and different certifications schemes, etc. This creates a highly complex

management context for the forest owners likely to generate conflicts between these various objectives as well as between scales and different stakeholders.

### ***10.5.1 Global and Regional Scale Influence***

Calls for using forests as a carbon dioxide sink, both with regard to soil carbon content and tree biomass, in order to mitigate climate change require longer forest rotation periods. As an objective, this will be in conflict with the need to increase the use of wood resources in a biobased economy in order to shift away from fossil carbon, which would push forest management towards a shorter rotation time span. This driver is likely to become very strong as society increasingly will need not only to change the energy and transport sectors from using fossil fuels but also change to an economy where biomass resources are needed as substitute for fossil carbon resources in general. Building a biobased market with new innovations and job opportunities will require substantial biomass production. The demand for forest resources may push forest management towards long-term unsustainability with regard to nutrients through a too large biomass extraction. A choice of fast-growing tree material may have similar results.

A management strategy based on fast-growing spruce monocultures or selection breed trees may result in negative soil nutrient feedback from a high wood demand and is worsened by the increased tree growth caused by the man-made nitrogen deposition during the last decades as well as the higher carbon dioxide content in the atmosphere due to climate change. A nutrient imbalance in European forest is already identified as having the potential to reduce biomass production (Jornard et al., 2015).

### ***10.5.2 The Landscape Scale***

The landscape scale is the appropriate scale for managing biodiversity conservation (cf. Angelstam et al., 2018; Michanek et al., 2018). This poses a challenge as forest ownership frequently is distributed between a large number of individual owners each with a relatively small holding. Practical management occurs at the estate level (whether small-scale private or large-scale company/industry owned), while the landscape is affected by a large number of landowners with varying preconditions, abilities, opportunities, degrees of freedom of action and objectives with regard to forest management. However, ongoing climate change with higher temperatures and changes in precipitation patterns will affect the forest biomes, habitats and biodiversity on the landscape scale. For large areas in the Boreo-memorial and Boreal zones, the currently dominating tree species will change from conifers to deciduous species, profoundly affecting forest type and dependent flora and fauna. While a higher temperature stimulates tree growth, it also increases the risks associated with both traditional and new exotic forest pests and pathogens (Bentz et al.,

2019). Together with decreased tree vitality owing to summer drought (Akselsson & Belyazid, 2018), the negative effect of insect outburst on forest biomass production is likely to reduce the resource input for a future biobased economy.

### ***10.5.3 Potential Local Conflicts Between Different Aspects of Sustainability Objectives***

From a societal perspective, many forest-related ecosystem services, besides the tree, have frequently been seen as free. Conflicts have frequently arisen over areas for biodiversity conservation (Niemi et al., 2005), less so with regard to nature reserves than in areas with a large number of designated key habitats where the forest owner is expected to set these aside without economic compensation. Maintaining biodiversity and traditional forest qualities requires older forests, usually less intense forest management, mixed age and species composition, i.e., a forestry yielding lower growth and delayed harvest (Sverdrup & Stjernquist, 2002).

### ***10.5.4 Potential Conflicts Between Forest owner's Livelihood and Interests of National and International Objectives***

Objectives of global climate governance, national and other public environmental objectives may come in conflict with social and economic sustainability at the forest owner scale. Such conflicts between collective and individual rationality may exist but are more likely to develop through 'mission creep', i.e., the aggregation of multiple, each by itself non-controversial restrictive demands. At some point, increased demands on the forest owners to produce ecosystem services for society will require adequate economic compensation, in particular for small-scale forest owners depending on forestry for their livelihoods (cf. Gren et al., 2021).

### ***10.5.5 The Relationship Between Trust, Cooperation and Local Legitimacy in Forest Management***

The gaps between the objectives of the actors directly involved in forest management and the increasing number of objectives defined outside the sector increase the scope for conflict over outcomes. Perceived poor delivery by the forest owner toward external demands is likely to increase demands for hard governance approaches; in particular from stakeholders otherwise lacking means to directly affect local outcomes. This may be exemplified by the Swedish Society for Nature Conservation forest policy from 2014, which suggested a shift in forest governance from the

Forest Act to the Swedish Environmental Code. Such a shift is based on the assumption that a potentially harder legal framework *a priori* would be more successful in securing biodiversity preservation and other values of nature. As an adaptive management taking local conditions into account is needed for retaining biodiversity and may be an objective in itself, local owners/managers need to be involved. An alternative is difficult to envisage, as it would require detailed monitoring of compliance as well as enforcement over large areas, about half the Swedish territory, and be costly but also in other respects problematic. The forest owners, who anyway will be the main actors implementing any forestry policy on the ground, need to find policy objectives and means proportionate for perceived legitimacy to ensure effective implementation. Trust in central authorities and objectives will be central for any effective policy implementation. As Ostrom (2007) noted, authorities often operate on simplified predicative models of more complex social-ecological systems thereby often employing poorly suited universal solutions of resource overuse. As demands on forestry have multiplied, management by objectives has seemed increasingly attractive as a governance strategy. This is partly a chimaera as the difficulty of prioritisation between, or rather balancing of, different objectives still are left to local actors. As, frequently, operational objectives at the actor level are lacking, self-monitoring or for that matter external monitoring becomes very difficult. This has the obvious effect that self-adjustment towards objectives in practical terms is near impossible. Additionally, some environmental objectives have the weakness that they are more of a vision. This is true both for the global SDGs and the Swedish environmental objectives. Objectives may be classified into those easily scientifically defined, monitored and possible to operationalize and in those that are more value based or utopian in character, e.g., the Sustainable Forest Objective (Emmelin & Lerman, 2008). Poorly defined objectives obviously risk an implementation deficit through poor delivery. Even clear objectives risk poor delivery, in particular in situations where monitoring and enforcement of existing environmental policies and agreements are lacking or under-funded. Legitimacy and trust are important prerequisites for bottom-up approaches in contrast to top-down governance based on control and sanctions. Finally, vague general objectives not only make for ambiguous operational objectives and difficult monitoring, opens for ‘mission creep’. Even voluntary agreements need clarity. Stakeholder legitimacy is at risk if the end point risks becoming a moving target (cf. Jordan, 2008).

## **10.6 Future Strategic Challenges Call for a Systems Perspective on Sustainable Forest Management**

A growing number of interest/actors outside the forest sector, with varying degrees of single issue objectives, are likely to make it increasingly hard for forest managers

to deliver what may be deemed positive or reasonable outcomes by the stakeholder community. This development with multiple, frequently contradictory, societal demands, and policy objectives at different spatial and temporal scales is likely to increase further in the future; as will conflict over agendas and objectives. There will be a need to strike a balance between social, economic, and environmental sustainability if future forestry is to simultaneously contribute to a functional countryside, local livelihoods, a biobased economy and mitigating climate change as well as providing a wider set of ecosystem services. Single issue perspectives and seemingly simple solutions need to be avoided. Ineffective decisions often are an effect of a misalignment between an objective, reality and what is attainable (Kim & Andersson, 2012). Balancing between objectives will be needed if forestry is effectively to help meeting future economic, environmental and social challenges. The sustainability debate frequently focuses on the environmental aspects to the detriment of the social and economic aspects of sustainability (Schlyter et al., 2013). This is unfortunate, as the full triad is needed for policy legitimacy among a wider field of stakeholders and for achieving sustainable development in reality. Forestry, stepping up to the future challenges, will need to contribute towards global objectives, while at the same time at the local scale deliver sustainable livelihoods for forest owners and other actors as well as to locally acceptable outcomes with regard to ecosystem services, biodiversity and landscape values. This is a tall order, and success will require improved deliberative approaches to identifying conflicts and trade-offs between different societal and stakeholder objectives, at different scales, in order to arrive at working compromises seen as meaningful and legitimate by the involved parties.

Conventional consultations are unlikely to achieve the joint overview, social learning and shared understanding needed. In view of the negative silo governance effects illustrated in Fig. 10.2, we suggest that a systems approach through stakeholder group modelling is a more promising way forward in order to improve analysis and reduce conflicts over discourse (Schlyter et al., 2013). Ostrom (1998) identified trust as dynamically linked to reciprocity and reputation and, also, to cooperation for the common good. If the trust among local forest managers towards the authorities is low, the marginal costs for society is likely become high when it comes to effect change. Building a wider societal transformation literacy will require the use of local knowledge and involvement of a multitude of stakeholders (Kuenkel, 2019)—this calls for a systems thinking approach. A systems dynamic approach to forestry, with clear objectives and boundaries, will make the mental models of the different actors testable (cf. Kim & Anderson, 2012) through scenarios for sustainable forest management on different scales and geographical areas. Analysing feedback effects for alternative scenarios will improve decision making and deliberation on how to balance different objectives and management demands and helps avoiding imposing expert-driven top-down ‘solutions’. This concept was tested with forest owners on scenarios for forest growth, energy biomass extraction, soil acidification, and nutrient sustainability using a model of long-term soil nutrient balances (Sverdrup & Stjernquist, 2002) and later developed into an educational programme offered by the Swedish Forest Agency to Swedish private forest owners.

## 10.7 Conclusions

Given the acute and overriding interest at a global/national scale to use the forestry sector for reducing the climate change threat, this policy objective is likely to increasingly come in conflict with environmental concerns and social, economic and environmental sustainability objectives at local scales (Fig. 10.2). Careful considerations will be needed to balance different objectives and interests, not the least in order to ensure policy legitimacy with regard to global and national policy objectives. However, action is always local, as are some impacts, and local stakeholder interests need to be taken into account. This calls for a systems perspective analysing objectives, means and outcomes at different scales and for different stakeholders. A suitable approach needs to include dynamics and:

- An understanding of the forestry system, including soil, climate (including climate change dynamics) productivity and the vegetation components
- A systems perspective that allows the inclusion of major stakeholder perspectives in an analysis of biomass production, other ecosystem services, feedbacks, policy trade-offs and leverage points for system change
- A balancing of the components of ecological, economic and social sustainability
- A bottom-up and participatory approach involving forest owners and stakeholders for the development of trust between actors
- A learning process for all actors to reach transformation literacy

Developing integrated simulation models that allow assessments of different policy scenarios will be needed if gains and trade-offs are to be analysed with any precision by owners, industry, spatial planners and other stakeholders. Such models would also allow different stakeholders to analyse and game their interests and trade-offs for various scenarios. Models are available that allow analysis of the interplay between soil, hydrology, climate, air pollution, climate change, management and biomass extraction as well as for field layer biodiversity (Sverdrup & Belyazid, 2015; Sverdrup & Stjernquist, 2002).

## References

- Af Ström, A. D. (1837). *Handbok för skogshushållare (Manual for Forest Husbandry)*. Nordströms Boktryckeri.
- Akselsson, C., & Belyazid, S. (2018). Critical biomass harvesting—Applying a new concept for Swedish forest. *Forest Ecology and Management*, 409, 67–73.
- Angelstam, P., Naumov, V., Elbakidze, M., Manton, M., Priednieks, J., & Rendenieks, Z. (2018). Wood production and biodiversity conservation are rival forestry objectives in Europe's Baltic Sea Region. *Ecosphere* 9(3). <https://doi.org/10.1002/ecs2.2119>
- Appelstrand, M. (2012). Developments in Swedish forest policy and administration—from a “policy of restriction” toward a “policy of cooperation.” *Scandinavian Journal of Forest Research*, 27(2), 186–199.

- Bentz, B. J., Jönsson, A. M., Schroeder, M., Weed, A., Wilcke, R. A. I., & Larsson, K. (2019). Ips typographus and Dendroctonus ponderosae models project thermal suitability for intra- and inter-continental establishment in a changing climate. *Frontiers in Forests and Global Change*, 2, 1. <https://doi.org/10.3389/ffgc.2019.00001>
- Boivin, N. L., Zeder, M. A., Fuller, D. Q., Crowther, A., Larson, G., Erlandson, J. M., Denham, T., & Petraglia, M. D. (2015). Ecological consequences of human niche construction: Examining long-term anthropogenic shaping of global species distribution. *PNAS*, 113(23), 6388–6396. <https://doi.org/10.1073/pnas.1525200113>
- Cartwright, J. M., Littlefield, C. E., Michalak, J. L., Lawler, J. J., & Dobrowski, S. Z. (2020). Topographic, soil, and climate drivers of drought sensitivity in forests and shrublands of the Pacific Northwest, USA. *Scientific Report*, 10, 18486. <https://doi.org/10.1038/s41598-020-75273-5>
- Du Pisani, J. A. (2006). Sustainable development – historical roots of the concept. *Environmental Sciences*, 3, 83–96. <https://doi.org/10.1080/15693430600688831>
- Emanuelsson, U. (2009). *The rural landscapes of Europe. How man has shaped European nature*. The Swedish Research Council Formas.
- Emmelin, L., & Lerman, P. (2008). Environmental quality standards as a tool in environmental governance – the case of Sweden. In M. Schmidt, J. Glasson, L. Emmelin, & H. Helbron (Eds.), *Standards and thresholds for impact assessment* (pp. 463–486). Springer. <https://doi.org/10.1007/978-3-540-31141-6>.
- Fritzbøger, B. (1994). *Kulturskoven. Dansk skovbrug fra oldtid til nutid (Managed forests. Danish forestry in history until today)*. Gyldendal.
- Glacken, C. J. (1967). *Traces on the Rhodian Shore*. University of California Press.
- Gren, I.-M., Höglind, L., & Jansson, T. (2021). Refunding of a climate tax on food consumption in Sweden. *Food Policy* 100 (102021). <https://doi.org/10.1016/j.foodpol.2020.102021>.
- Jornard, M., Fürst, A., Verstraeten, A., Thimonier, A., Timmerman, V., Potocic, N., Waldner, P., Benham, S., Hansen, K., Merilä, P., Ponette, Q., De la Cruz, A. C., Roskams, P., Nicolas, M., Croise, L., Ingeslev, M., Matteucci, G., Decint, B., Bascietto, M., & Rautio, P. (2015). Tree mineral nutrition is deteriorating in Europe. *Global Change Biology*, 21, 418–430.
- Jordan, A. (2008). The governance of sustainable development: Taking stock and looking forwards. *Environment and Planning C: Government and Policy*, 26, 17–33.
- Kim, H., & Andersen, D. F. (2012). Building confidence in causal maps generated from purposive text data: Mapping transcripts of the Federal Reserve. *System Dynamics Review*, 28, 311–328.
- Kuenkel, P. (2019). *Stewarding sustainability transformations. An emerging theory and practice of SDG implementations*. Springer Nature Switzerland AG.
- Lewis, M. (Ed.). (2007). *American wilderness. A new history*. Oxford University Press.
- Michanek, G., Bostedt, G., Ekvall, H., Forsberg, M., Hof, A. R., de Jong, J., Rudolphi, J., & Zabel, A. (2018). Landscape planning- Paving the way for effective conservation of forest biodiversity and a diverse forestry? *Forests*, 9(9), 523.
- Nelson, M. P., & Collocott, J. B. (2008). *The great wilderness debate rages on—Continuing the great new wilderness debate*. University of Georgia Press.
- Niemel, J., Young, J., Alard, D., Askasibar, M., Henle, K., Johnson, R., Kurttila, M., Larsson, T.-B., Matouch, S., Nowicki, P., Paiva, R., Luigi Portoghesi, L., Smulders, R., Stevenson, A., Tartes, U., & Allan Watt, A. (2005). Identifying, managing and monitoring conflicts between forest biodiversity conservation and other human interests in Europe. *Forest Policy and Economics*, 7, 877–890.
- Ostrom, E. (1998). Behavioral approach to the rational choice theory of collective action: Presidential address, American Political Science Association, 1997. *The American Political Science Review*, 92(1), 1–22.
- Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *PNAS*, 104(39), 15181–15187.
- Rachham, O. (1998). Savanna in Europe. In K. J. Kirby & C. Watkins (Eds.), *The ecological history of European forests*. CAB International.

- Government Offices of Sweden (2018). Accessed March 6, 2021, from <https://www.government.se/information-material/2019/01/fact-sheet-swedens-national-forest-programme/>.
- Schlyter, P., & Stjernquist, I. (2010). Regulatory challenges and forest governance in Sweden. In K. Bäckstrand, J. Kahn, A. Kronsell, & E. Lövbrand (Eds.), *Environmental politics and deliberative democracy*. Edward Elgar Publishing Limited.
- Schlyter, P., Stjernquist, I., & Sverdrup, H. (2013). Handling complex environmental issues— Formal group modelling as a deliberative platform at the science-policy- democracy interface. In M. Schwanninger, E. Husemann, & D. Lane (Eds.), *Proceedings of the 30th international conference of the system dynamics society at St. Gallen, Switzerland, July 22–26, 2012*, (vol. 4, pp. 3525–3539).
- Sverdrup, H. U., & Stjernquist, I. (2002). *Developing principles for sustainable forestry in Sweden*. Kluwer Academic Publishers.
- Sverdrup, H. U., & Belyazid, S. (2015). Developing an approach for Sweden, Switzerland, United States and France for setting critical loads based on biodiversity including management, pollution and climate change. *Ecological Modelling*, 306, 35–45.

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# Chapter 11

## Sustainable Community Transformation Process. The Role of Capacity Building in Sumba, Indonesia



Catharina Any Sulistyowati and Renny Nurhasana

**Abstract** This chapter is about the role of capacity building of local NGOs in Sumba, a poor island in the Eastern part of Indonesia. It is part of a larger initiative referred to as Sumba Iconic Island (SII), which aimed to solve poverty problems, transforming unequal gender relations while at the same time mitigating climate change. This study traced what happened after six years after the project ended. It is done by exploring the project documentation and conducting interviews with Hivos staff and the alumni representatives. We find that it has improved nature, community wellbeing, women leadership, and more equal gender relations. We conclude that: (1) transformation is not a linear process; (2) the changes toward the vision are not direct but tortuous; (3) there are unintended consequences, which can be positively or negatively influence the initial goal, and (4) the capacity to analyze the situation, reflect, and create action is crucial in the transformation process.

**Keywords** Capacity building · Participatory learning · Community transformation · Sustainable development · Women empowerment · NGO

### 11.1 Introduction

Sumba is an island of eleven thousand km<sup>2</sup> located in East Nusa Tenggara Province. It is one of the poorest provinces in Indonesia, with more than 700 thousand inhabitants. Most of the region are rocky with thin topsoil (Fig. 11.1). The forest covers only less than 10% of its area. It has a dry climate, with 3–4 months of the rainy season and 8–9 months of the dry season. The ecology of Sumba affects water availability and soil fertility, the essential elements for agriculture and livestock systems on this island. Both activities are crucial for the food supply of the community (Sulistyowati, 2014).

Most of the Sumba people are subsistence farmers and ranchers. They live scattered across the island. Women play a very crucial role in the food supply. Sumba women spend most of their time finding water and undertaking subsistence farming

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C. A. Sulistyowati (✉) · R. Nurhasana  
School of Strategic and Global Studies, Universitas Indonesia, Jakarta, Indonesia  
e-mail: [catharina.any@ui.ac.id](mailto:catharina.any@ui.ac.id)



**Fig. 11.1** Landscape in East Sumba during the rainy season. *Source* KAIL Project Documentation, 2015

to produce food stocks throughout the year. In addition, women are also in charge of cooking, gathering firewood, and maintain small livestock. With this kind of work pattern, women spend most of their time on domestic work to meet the various needs of the household. After accomplishing domestic work, women use their time to weave. They make *sarung* (Indonesian skirt) for additional income or customary purposes (Sulistyowati, 2014).

In Sumba, tradition plays a central role in the social system and culture. Both Sumba men and women spend considerable time for these various cultural activities. Birth, death, marriage, and looking after sick relatives are examples of cultural activities. The caste system creates a gap in the decision-making, ownership of assets, and income in Sumba society. There is also a gap between men and women. Men have greater power in terms of asset ownership and decision-making power (Sulistyowati, 2014).

Hivos, an international NGO based in the Netherlands, initiated Sumba Iconic Island (SII) Project in 2010. The vision of SII is to ensure the supply and utilization of new and renewable energy sources to promote an inclusive and gender justice economy for improving the welfare of the Sumba people. The goals of this program are that by 2025 there will be (1) an increase in energy access for Sumba people, (2) an increase in the security of energy supplies which are from new and renewable energy, (3) sufficient energy infrastructure, (4) an increase in the efficient use of

energy, and (5) development of the industry and the regional economy to increase the purchasing power of energy (Sulistyowati, 2014).

Through the SII, Hivos hopes to intervene above conditions for creating a better life for the Sumba people. Specific conditions expected by Hivos are as follows: increasing community access to energy, increasing the security of energy supplies from the renewable energy source, availability of sufficient energy infrastructure, increasing the efficient use of energy, the development of inclusive and gender justice industry, and regional economy, so it can improve people purchasing power of energy, as well as empower women economically and socially. NGOs, government, indigenous leaders, community groups, and schools are stakeholders involved in this transformation process (Sulistyowati, 2014).

In 2014–2015, Hivos funded a capacity-building project for five local NGOs and supported them with one-year funding for women empowerment activities in their selected sites (KAIL Team, 2015). This chapter describes the process of that capacity-building program and what has changed from that time until now. It focuses on the individual transformation process and how it has influenced the transformation at higher levels.

## 11.2 Methods

The information in this article was collected from (1) the first author involvement in this project as the capacity-building project leader for five local NGO staffs in Sumba (2014–2015), (2) collection of field notes, reports, and publications, (3) interviews with the representative of alumni of the capacity-building program, and Hivos staff based in Sumba. During the interviews, the three questions were—what changes have happened at the personal, organization, and community levels because they participated in the capacity-building program. The interview could go further based on the interviewee's answers.

The first author of this article had the opportunity to be part of the transformation process through her involvement as the project evaluator for the micro-hydro project in Sumba in 2012 and as the project leader in the one-year capacity development program for local NGOs in Sumba in 2014–2015. During that involvement, she had the opportunity to stay for a few days with a Sumba family at the Kamanggih village in 2012 and seven–ten days of travel each month for facilitating the workshops, monitoring, and evaluation during the capacity-building process in 2014–2015 (KAIL Team, 2015; Sulistyowati & Kurniawan, 2012). This experience also contributes to the detailed description presented in this article.

### 11.3 The SII Capacity-Building Program for NGOs in Sumba, 2014–2015

This capacity-building project was to prepare individuals and local organizations in Sumba to be involved in a transformation process across the island. Hivos selected five key local NGOs in Sumba to be involved in that process. Hivos assigned the KAIL team to facilitate this capacity-building process. KAIL is an NGO based in Bandung that specialized in facilitation and capacity building for change agents toward a just and sustainable future. It is well known for its expertise in using systems thinking for designing transformation processes toward sustainable development. The capacity-building process consisted of the following components, i.e., (a) planning workshop, (b) series of capacity-building workshops, and (c) coaching services. Below is a more detailed description of each process (KAIL Team, 2015; Sulistyowati & Kurniawan, 2012).

The planning workshop was in Waingapu, on July 21–25, 2014. In this workshop, each NGO presented its one-year project plan for women's empowerment in their community. In this workshop, participants discussed problems and strategies using systems thinking, resulting in the revised project proposal based on the leverage points identified during the workshop. Hivos reviewed the revised proposal and provided grants for each NGO to implement the project for one year from September 2014 to August 2015 and capacity-building support for the project implementation. Each NGO could send two representatives to join this capacity-building program (Sulistyowati, 2014, 2015).

In this planning workshop, the participants were introduced to systems thinking for project planning. It consisted of the following process: (1) visioning process of sustainable future for each community, (2) mapping the problems and opportunities of the current situation, (3) designing pathways for change from the current situation to the vision, (4) finding leverage interventions, and (5) planning specific actions. The participants worked in a small group of each NGO were assisted by a group facilitator, who became their coach for a year of project implementation. The participants shared their group discussion results after each stage and got feedback from other participants and the facilitator team (Sulistyowati, 2014).

During the project implementation, participants joined the series of capacity-building processes. These processes aimed to equip participants with the knowledge and skills to implement their project. The facilitator team reviewed the results and feedback from each workshop, analyzed them, found the gaps, and developed content and process for the next stage (KAIL Team, 2015).

There were several aspects of these programs as follows: personal leadership (personal visioning, time management, finance management), team building (group visioning, team learning, and collaboration), community organizing (participatory mapping and community planning), sustainable development (principles, renewable energy, and sustainable economy), gender awareness, business management (finance, marketing, value chain), project management (planning, monitoring, evaluation, and reporting), and project documentation and publication (Sulistyowati, 2015).



**Fig. 11.2** Coaching session in the community. *Source* KAIL Project Documentation, 2014

This project used various methods depends on the characteristic of the content and the participants' condition. As an example, for community mapping and planning, the workshop was done in the community (Fig. 11.2) so that participants could apply concepts and methods directly in the field. After the workshop, all participants applied the skills and knowledge in their communities (KAIL Team, 2015).

For more conceptual content like principles of sustainable development, the workshop was in a classroom with a combination of lectures, group discussion, individual work, and games. The systems thinking playbook (Sweeney & Meadows, 1995) was one of the references used. *Games* were helpful to explain complex issues such as ecological carrying capacity in a way that was easier for participants to understand and remember (KAIL Team, 2015).

Discussing participants' cases were effective in more technical contents such as finance and time management. The participants could practice the principles with their cases and gain direct results from them. Issues that emerged from that practice were then discussed in the plenary so that everybody could learn from it. Other technical content which interested participant was making video documentation and the use of social media. Since mobile phones and the Internet were not widely available in Sumba in 2014, this topic was relatively new for the participants. They learned how to write their field stories and put them in the blog or Facebook. They also made videos of their work (KAIL Team, 2015; Sulistyowati, 2015; KAIL Team and Sumba Capacity-building Participants 2015) .

For content like personal leadership and group leadership, we found a place where participants could have their own time, relaxing together in a circle, and discussing



**Fig. 11.3** KAIL facilitator team and the capacity-building participants. *Source* KAIL Project Documentation, 2015

any issues, such as their frustration as a change agent for sustainable development. It formed a safe container for each participant to support each other (KAIL Team, 2015).

Besides regular workshops, coaching was the central element of this capacity-building program. The coaching session was at the individual and organizational levels. During personal coaching, the participants could pick any issues they would like to discuss with the coach. The coaching session could be conducted in their free time during the workshop, usually in the evening. The individual coaching was voluntary. The organizational coaching was part of the workshop schedule. It was mainly on project management to check the stage of their project implementation and if some issues need to be solved. Sometimes issues emerged during group/individual coaching, which would be discussed during the next session or in the next workshop, depending on the urgency and time availability. Each group had one coach, who assisted them from the planning until the evaluation workshop. The participants could also contact their coach through email/phone (KAIL Team, 2015). The facilitator team and capacity-building participants are depicted in Fig. 11.3.

## 11.4 The NGO Projects

Five NGOs selected for this capacity-building program were Yayasan Peduli Kasih (Sandika), Yayasan Wali Ati (Yasalti), Lembaga Pelita Sumba (Pelita), Yayasan Sosial Donders (Donders), and Yayasan Bahtera (Bahtera). The focus of their projects

was women's empowerment through sustainability initiatives at the community level. The projects supported were for salt producers in East Sumba (Sandika), for weaver women in East Sumba (Yasalti), Central Sumba (Bahtera), and Southwest Sumba (Donders), and for farmers in East Sumba (Pelita) (Arwida, 2015; KAIL Team, 2015).

Despite differences in geography and type of activities, the projects shared some similar women problems in Sumba. Firstly, Sumba women had to spend much time doing domestic work, such as collecting water and preparing food. Some women had to walk for three hours every day to go back and forward to collect water for the family (Sulistyowati, 2014; Sulistyowati & Kurniawan, 2012). They also had to spend significant time preparing, cooking, and cleaning up. Women further had to collect the wood for cooking. Most families in Sumba used the traditional stove for cooking. If they cooked inside the house, the smoke from the stove would fill the kitchen. It was not healthy, especially for women who spent much time in the kitchen (Sulistyowati & Kurniawan, 2012). Many communities in Sumba at that time still did not have electricity. In that situation, it was hard to do productive activities and learning during the evening (Sulistyowati & Kurniawan, 2012; Sulistyowati, 2014; Hivos Web site 2021<sup>1</sup>).

Secondly, there was little room for women to gain economic benefit from their productive work. Many women had some skills which enable them to produce something to earn some money to increase the family income, such as making some beautiful woven fabric. However, since their time for domestic work was plenty, they had limited time for doing this. If they had the products to sell, they had to go to the market. Since the market was far from their home, they had to spend some time and money to go there so that the margin from their product sales was not much. So far, they had asked their husband to sell their woven fabric. When helping their wife selling their products, some husbands used part of the money for cigarettes, gambling, and drinking. Therefore, women only got a smaller fraction of the income. Another option was to sell the product to a middleman, who bought products at a low price (KAIL Team and Sumba Capacity-building Participants 2015; Sulistyowati, 2014).

The other problem was related to the environmental condition. As a dry island, Sumba had limited water resources. People adjusted their planting season with rainfall. During the rainy season, they planted corn and rice as their staple food subsistence. Lack of water made planting vegetables in the backyard difficult. This condition influences their food stock as well as food expenses (Sulistyowati, 2014).

## 11.5 Six years Later

In May–June 2021, we interviewed three alumni of the capacity-building program, representing three organizations. We wanted to know what changes had happened from 2015–2021, six years after the capacity-building program ended. We also aimed

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<sup>1</sup> <https://hivos.org/program/sumba-iconic-island-initiative/> as on 30.06.2021. For more detailed information about Sumba Iconic Island visit <https://sumbaiconicisland.org/>.

to understand how the capacity-building process has influenced their life and their work. At the time, we could not interview the other two organization representatives due to limited communication access. Below is the summary of the interview results.

### ***11.5.1 Story from Trouce Landukara (Sandika, East Sumba)***

Trouce Landukara (Ibu Oce) was one of the participants from Sandika, East Sumba. With her colleague, Darius Dadi Manumesa, she set up Sandika. In 2014, Sandika was a small organization, with both of them as the founders and the staff. They assisted a community in Pamalala village in East Sumba, which produced salt for a living. In 2015, we visited the salt production site in the coastal area to meet the women there. They were poor women who produce salt in wooden huts on the coast. They collected wood on the beach and dried them for fuelwood to make salt. The salt production process was simple. Traditionally, it used a wooden furnace which created plenty of smoke. With technology improvement, they could use a new type of furnace that produced less smoke. It improved women working conditions to be healthier. These women set up a saving and loan group to help them access the production capital and financial security in difficult times (KAIL Team, 2015; Landukara, 2021).

In 2021, Sandika has grown into a larger organization with seven staff members. Ibu Oce is still the leader of Sandika. Her current influence is much beyond Sandika. For Ibu Oce, the most influential contribution of the capacity-building process was finance management. That training content had opened her mind to several principles to live financially independent so that she had the freedom to do her social work without any dependency on external funding. She likes to do mentoring activities that she is currently doing, but she does not want to be financially dependent on these activities, which depended on the donor's money. More than that her position as a single parent required her to take care of all financial matters by herself. So, she started her own business (Landukara, 2021).

Ibu Oce loves sewing and used that skill to make *sarung kambuli* (*sarung*), a scabbard used by Sumba women. This *sarung* is mostly for cultural events such as death, birth, and marriage ceremonies. In Sumba, those ceremonies require cloth to be worn or given to the party holding the ceremony. This type of *sarung* uses clothes purchased at the local shop. A *sarung* needs 1.60 m of cloth which costs her about fifty thousand rupiahs (around 3.5 US\$) per meter. It was then sewn into a *sarung* and embroidered with the motif required by the buyer. In the past, Ibu Oce asked somebody else to draw the motif for her, but now, she can do her drawing. By drawing on her own, Ibu Oce can better understand consumer desires. Once finished, the *sarung* price is between Rp. 350.000 to Rp. 650.000 (around 23–43 US\$) per piece, depending on its quality (Landukara, 2021).

From this business, Ibu Oce has managed to live independently. She teaches these skills to her siblings, especially those who do not have a job yet. From this business, they can support their families and send their children to school. One of them even can finance going to college. Apart from family, Ibu Oce also formed groups. Each

group consists of 10–32 women involves in these *sarung*-making groups (Landukara, 2021).

To market her *sarung*, Ibu Oce uses social media, such as Facebook. Although she has already involved many women as part of the *sarung*-making groups, sometimes Ibu Oce gets too overwhelmed when she receives many orders. That is why she did not accept pre-finance because she is afraid of failing to finish on time. Customers only pay after they receive their *sarung*. She also made a stock of *sarungs* because some customers would like to buy ready-to-use *sarungs*. Ibu Oce accepts orders at least a month in advance. Only in selected cases, she accepts orders with less time to deliver. She would like to maintain the quality of the *sarung*. It should be made carefully and not in a hurry. It takes about two days to make a small *sarung* and 4–5 days for a large one (Landukara, 2021).

To maintain the quality, before giving a *sarung* order to the group, she first assessed the capacity of each group member. She informed them the quality standards of the *sarung* and taught them how to achieve these standards. She then ordered a *sarung* and to see the results. Based on the results, she provided suggestions for necessary improvements. When they were good, she could give them orders for more *sarungs*. Ibu Oce provided all the materials for making the *sarung*, such as clothes, thread for embroidering, and the embroidery motif. They just had to focus on the *sarung* making. Ibu Oce would come at the appointed time to take the *sarung* and make the payment (Landukara, 2021).

From her *sarung* business, Ibu Oce has the opportunity to continue her social work, such as the community work in Sandika. She has involved in politics. Ibu Oce was approached by a political party and become the woman candidate in the local election. She lost in that election due to the lack of preparation and experience. However, it was a valuable lesson for her. She was one of the facilitator team for the Hivos renewable energy project. Through that involvement, she had the opportunity to empower women in many places in Sumba. She also had experiences in another province and abroad (Landukara, 2021). Now, she is the Haba Hammu leader, a network consisting of eight local NGOs in Sumba, namely Pelita, Sandika, Bahtera, Donders (the capacity-building participants), and other four organizations recruited in 2020, namely Satu Visi, Humbai Lulu, Sabana Sumba, and KPI (Kefi, 2021; Landukara, 2021; Opang, 2021).

### 11.5.2 Story from Imelda Sulis (Donders, East Sumba)

For Imelda Sulis (Ibu Sulis), a transformation process was happening at three levels. Firstly, at the individual level. It aided her role as program manager. It helped her doing her organizational tasks, such as planning, problem analysis, strategy formulation, collaboration, and program integration. She learned a lot from the theory of change approach (ToC) (Sulis, 2021). In the theory of change approach, the participants draw causal systems maps to design leverage intervention toward their vision.

ToC is very useful for project design, proposal formulation, and community planning (KAIL Facilitator Team, 2015; Sulistyowati, 2014).

This personal transformation also transforms Ibu Sulis' organization. She disseminated the knowledge and skills to the 26 field workers of her organization through their internal meetings and mentoring process. For example, they used ToC for designing programs on disaster management, energy, and environmental programs. It helped them to write a proposal and get funding from donors. Ibu Dewi and Ibu Epin, two other capacity-building participants from Donders applied the skills in their fieldwork on women empowerment and sustainable agriculture. They use the causal diagram to map community problems and discuss them to seek a solution together with the community. Until now, there are no single fixed procedures in applying ToC. They modified the tools according to local context and their specific needs (Sulis, 2021).

To spread the knowledge within Donders was not an easy process. They created regular discussion events to facilitate sharing and learning processes internally, where they could learn from each other. The participants complement each other so that all of them could master all contents. It was also not easy to understand the tools at the theoretical or conceptual level, and therefore, they also facilitated the learning directly in the field by practicing together. Solving community problems using a regular type of workshop was not effective. It was time-consuming and hard to be followed by all participants. According to Ibu Sulis, the community was more enthusiastic in discussing the problems and solutions in the field (Sulis, 2021).

Funding support from Hivos focused on strengthening groups of Sumba weavers. In 2021, these women's groups are still active. Donders organized the marketing for the groups' products. Besides *sarung*, now, they can also create various woven products, such as scarves and prayer mats. Donders sells weaving products, coffee, moringga leaf product, and some other products. They have a shop and training facility, which was very basic in 2014. Now, it is equipped with air conditioning and a fan. They also built a meeting room on the 2nd floor (Sulis, 2021).

At the community level, some of the women are not only active in their community. They were weaving teachers in some weaving training sessions in Sumba. One of the active members of the group, Ibu Kristina, was involved in public spaces. She became the head of the neighborhood (*Ketua Rukun Tetangga*), as the health/malaria cadres, and participated in the village meeting (*Musrenbang*). With better knowledge, women can play more roles in society (Sulis, 2021).

Ibu Sulis also observed several other changes in the community. Women's involvement in the productive and public role brought about changes in the community division of labor. In the past, it was hard to find a man who replaced his wife to sell vegetables in the market. Now, we can find some of them in the market. The discussion on the division of roles between women and men was increased. There was a changing perspective on women's involvement in productive and public activities. In the past, women were not involved in village planning meetings. Now, women have to be involved in decision-making, especially regarding programs that are related to them. In Donders'-assisted villages, perhaps around 65% of those villages have already acknowledged the importance of women's participation. So far, the response from the other women is positive. They would like to be involved also (Sulis, 2021).

The social change process toward gender equality and the improvement of women's wellbeing is still part of the advocacy agenda of Donders. The change required mindset changes. It requires collective awareness in all Donders staff as well as support from the government and communities. That is why education/capacity building for staff and the communities are central in Donders' work. They traced the change through the monitoring and evaluation process involving staff and community members, including women, men, children, and other minority groups (Sulis, 2021).

### ***11.5.3 Story from Yulius Opang (Pelita Sumba Foundation)***

Yulius Opang (Om Lius) is the head of Yayasan Pelita Sumba (Pelita). The most valuable and unique contents for Om Lius were the value chain analysis and the theory of change (ToC) (Opang, 2021). Value chain analysis calculates and compares the distribution of efforts and benefits along the product chains. Based on that calculation, they can determine the fair price for their product. It is fundamental knowledge because usually, the community did not include their labor in the production cost. This labor cost is what they usually called profit. With this skill, they can determine their product price and have a better bargaining position in the market (KAIL Team, 2015). ToC improved Pelita's skills in project design and fundraising (Opang, 2021).

Hivos fund was for strengthening farmers' groups to plant vegetables in forest areas. The community got the right to cultivate the forest from the Ministry of Forestry. The agreement was that the community could grow vegetables as long as they also plant fruits and timber. Vegetables provided them with short-term cash, while fruits would provide them with income after five years or later without cutting the trees. Through this intervention, the forest could have conservation as well as productive purposes. After that project completion, Pelita was no longer getting support from Hivos. However, they managed to get funding from other sources where they can have the opportunity to continue their community organizing work as well as forming new vegetable farmers groups (Fig. 7) (Opang, 2021).

Farmer groups in Meurumba are still active in producing vegetables. Farmers transport their harvest to the weekly market in the sub-district or to the market in Waingapu. Like six years ago, they still plant chili. Chili is easy to carry and can grow better in the rainy season compared to shallots and tomatoes. Fruit trees and wood planted in forest lands are already growing high and block the sunlight from reaching the ground. Starting this year, they will harvest candlenuts. In the long term, candlenut is the next source of income for farmers. Farmers can harvest the candlenut, while the Ministry of Forestry will ensure the conservation purpose (Opang, 2021).

According to Om Lius, there are many challenges in establishing an equal role between men and women. In East Sumba, leaders are identical to men. The enabling process of women's involvement in the public sphere is as follows: They practiced talking among women first, then after they get used to it, they can speak in public. Their experience in Meurumba village concluded that it was less effective to address

gender issues by only involving women. Without men's support, the involvement of women will only occur during project time. After the project ends, the men/women relations will be back to their original habits. When husband and wife both gain gender awareness, it is more effective in transforming their relations (Opang, 2021).

In 2021, Pelita has seven staff. Om Lius expects that all staff will have gender, poverty, and environmental awareness. Pelita focused on people who live around forests. Through working with these people, they got the opportunity to transform poverty by improving the environment. This work required Pelita staff to live in the community and have direct involvement with their problems. According to Om Lius, this is a hard job with little financial reward compared to the income from other professions. Therefore, it is a challenge to find cadres from the younger generation (Opang, 2021).

Despite this challenge, a former Pelita volunteer and staff, Rambu Tamu Ina was nominated to be the village head by the community. The election will be on August 25, 2021. When she was a volunteer at Pelita, she learned a lot from a various capacity-building processes provided by Pelita. Then, she became the community assistance for Meurumba village. If elected, she will be one of the five village heads in East Sumba. Since women leaders are rare in Sumba, even speaking in public is still rare and difficult for women; this will be one of the breakthroughs for women's empowerment (Opang, 2021).

## 11.6 The Lessons and Conclusion

From the alumni stories of capacity building six years ago, below are some lessons from the transformation process in Sumba:

- The transformation process does not occur in an instant. It is a gradual process that involves the awareness of the various parties involved in the transformation process.
- The original plan is often different from what happens in the field. On many occasions, theory, concept, and methodology need to be modified and adjusted according to the local context, resulting in a unique and rich experience from the field. Through these field experiences, knowledge will be enriched and shape further learning and actions.
- The network of people with similar visions is strategic for the success of the transformation. The network can help change agents maintain the spirit of change. Friends are valuable, especially in the time of a lonely struggle.

We conclude that transformation is not a linear process. The changes toward the vision are not linear but tortuous. Along the way to that vision, there are unintended consequences that positively or negatively influence the goal. The capacity to analyze the situation, learn, reflect, and create action is very important to the success of the transformation process.

## References

- Arwida, S. D. (2015). *Evaluation report of capacity building for “women and renewable energy capacity building program.”* External Evaluation Report. (Unpublished).
- Hivos. (2021). Sumba Iconic Island. Retrieved January 06, 2021, from <https://sumbaiconicisland.org/>.
- KAIL Facilitator Team. (2015). *Kumpulan Materi Peningkatan Kapasitas LSM Sumba* (Vol. 1). (C. A. Sulistyowati, Ed.) KAIL, Bandung, West Java. Indonesia. Retrieved June 30, 2021, from <http://cerita-dari-sumba.blogspot.com/p/kumpulan-materi-peningkatan-kapasitas.html>
- KAIL Team. (2015). *Sumba Capacity Building*. Final Project Report. KAIL, Bandung, West Java. Indonesia. (Unpublished).
- KAIL Team and Sumba Capacity Building Participants. (2015). *Cerita Dari Sumba*. Retrieved December 06, 2021, from <https://cerita-dari-sumba.blogspot.com/>.
- Kefi, R. (2021, June 3). *Impact of Capacity Building in Sumba 2014–2015*. (C. A. Sulistyowati, Interviewer).
- Landukara, T. (2021, May 19). *Impact of capacity building in Sumba 2014–2015 for Sandika*. (C. A. Sulistyowati, Interviewer).
- Opang, Y. (2021, June 14). *Impact of capacity building in sumba 2014–2015 for Pelita*. (C. A. Sulistyowati, Interviewer).
- Sulis, I. (2021, May 27). *Impact of capacity building in Sumba 2014–2015 in Donders*. (C. A. Sulistyowati, Interviewer).
- Sulistyowati, C. A. (2014). *The use of theory of change for strengthening women in Sumba*. KAIL, Bandung, West Java. Indonesia. Retrieved June 30, 2021, from <http://cerita-dari-sumba.blogspot.com/p/the-use-of-theory-of-change-for.html>.
- Sulistyowati, C. A. (2015). *Capacity building program for NGOs in Sumba 2014–2015*. KAIL, Bandung, West Java. Indonesia (Unpublished).
- Sulistyowati, C. A., & Kurniawan, A. (2012). *Laporan Evaluasi Proyek Mikrohidro IBEKA—Hivos*. Evaluation Report (Unpublished).
- Sumba Iconic Island Initiative (2018). Retrieved June 30, 2021, from <https://hivos.org/program/sumba-iconic-island-initiative/>.
- Sweeney, L. B., & Meadows, D. (1995). *Systems thinking playbook: Exercises o stretch and build learning and systems*. Chelsea Green Publishing.

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# Chapter 12

## Toward Transformation to a Well-Being Economy in an African Country: A Case Study from Namibia



Justine Braby and Reinhold Mangundu

**Abstract** In this chapter presents the results of various approaches used by a group of young Namibians to shift the society toward a well-being economy. They sought to find more appropriate measurements of success, and did this by conducting (a) a survey to measure progress, (b) different dialog processes to understand what a good quality of life actually means to citizens, (c) co-constructing community well-being from the bottom up, (d) communication, networking, and awareness to garner public support, and finally (e) attempting to influence high-level decision-making in government. The authors measured nine domains; of which, state of mind and perceived health were the only domains found to be sufficient. The domains community strength and sense of belonging were the lowest in the high-income area. The domains with the highest levels of dissatisfaction were good governance and political freedom. The process of co-constructing community well-being through a bottom-up approach had varying levels of success and was highly adaptive and flexible. The key findings were that the underlying components of well-being were trust (at all levels), a sense of belonging and healthy relationships, basic needs (home, food, water, sanitation, electricity), quality education (the kind that causes critical and systems thinking and develops creative potential), quality work (that is demanding and rewarding), and good health.

**Keywords** Wellbeing economy · Community · Systems thinking · Circular economy · Transformation · Namibia

### 12.1 Introduction

It has become widely recognized that our current global development path is not taking us in the right direction (Constanza et al., 2014; Rogers et al., 2012; Steffen et al., 2015; Stiglits et al., 2009; Whitby et al., 2014). Vast numbers of people live in poverty, and those countries that are deemed successful according to our economic paradigm have major health problems (Compas et al., 2012; Rogers et al., 2012),

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J. Braby · R. Mangundu (✉)  
Progress Namibia, Windhoek, Namibia

depression, and anxiety (Bromet et al., 2011; Streib, 2007). In addition, the globally dominant economic system dependent on industrialization is increasingly putting Earth, and its ecosystem, goods and services, under untenable pressure, which has direct effects on human wellbeing (Constanza et al., 2014; Stiglits et al., 2009).

It is important to consider that the point of economic growth is to drive equity and life quality, while making sure not to harm the natural systems on which our economy and life, in general, is based. However, the focus on growth alone without understanding and strategizing what kind of growth and for whom has resulted in the opposite in many countries. In most countries, in the world over the last 40 years, more than half of the wealth generated by economic growth has gone to the top 1%, while the poorest half has received less than 1% of that growth in wealth (Hardoon et al., 2016). In Namibia, less than 10% earns more than NAD 11,000 per month, while more than 60% of Namibians earn less than NAD 2,000 per month (NSA 2011).

Economic growth, in itself, is neither good nor bad. It can range from really good (e.g., higher incomes and better health) to really bad (e.g., opioid addictions or armed conflict)—all of these are forms of economic growth. Polluted ground water means that the population is forced to buy more plastic bottled water. This has shown to contribute to further plastic pollution, and microplastics in our guts which can be harmful to our health—hence more spending on health care. This all contributes to growth, but it certainly does not make life better; in fact, it is detrimental. So, the central question becomes: what do we want to grow, and why?

Namibia is a developing country with the driest climate in sub-Saharan Africa. Namibia's *Vision 2030* is for the country to be industrialized by the year 2030. However, it also states that this development must also be sustainable, and the ultimate direction is toward the well-being of Namibia's citizens (Republic of Namibia 2004). Namibia needs to develop. For growth to be a net positive in a country like Namibia, it needs to be (1) equitable, (2) clearly defined in terms of types and assumed benefits, and (3) environmentally and socially sustainable. Most vital development does not necessarily require growth, but rather depends on inclusivity, reciprocity, efficiency, and above all, quality.

In 2012, a group of young Namibians (including a myself—a sustainability professional, with a medical doctor, a physicist, a land use planner, a youth development expert, a social entrepreneur, and an engineer, hereafter referred to as the committee) embarked on a journey to question what progress means to ordinary citizens, what alternative indicator system could be used to measure this progress, and influence the decision-making processes around development and economic growth in the country. This work formed part of the For Progress Namibia Project ([www.progress-namibia.com](http://www.progress-namibia.com)). This chapter narrates this journey and attempts to synthesize lessons learnt to improve approaches for further work in this area in Namibia, and other countries that want to embark on transformation toward a well-being economy. In his book titled *Success in a World Without Growth*, Fioramonti (2017) describes a “well-being economy” as one that seeks to uphold the well-being of both social and ecological systems without undermining them. At the core of this paradigm, people and the environment are equally valued as the two constitute an interdependent system. A

well-being economy calls for a common narrative on what progress and a good life would mean to people. Progress does not necessarily mean material consumption but sees the need for things that truly matter. Some of these things do not have any monetary value but contribute greatly to our state of being, e.g., community trust, social cohesion, peace, and happiness (Fioramonti, 2017).

This chapter attempts to take a system's lenses and outlines various points of entry (or leverage points) in the system where the committee attempted to intervene. A survey was used to measure perceptions on progress, while several in depth dialogs and community working groups were established. Other interventions include communications and awareness to attempt to change mental models around progress, and finally, attempting to influence high-level decision-making. The ultimate aim of the project was to support and guide development in Namibia by looking at what is important for citizens to lead a good quality of life using the strengths and resources of Namibia and focusing on local decentralized economic development.

## **12.2 Approaches to Shifting Namibian Society Toward a Well-Being Economy**

The attempts made to shift Namibian society toward a well-being economy were not strategic as the For Progress Namibia project learnt as it went along, taking an organic, flexible, adaptive approach. The project started in 2012, when a few young Namibians who were working on joint youth development projects at the time, came together to discuss progress and the inefficacy of the gross domestic product (GDP) as a measurement of progress. The results of this study, starting with a survey, as well as the work of some of the members of the committee, resulted in a multi-faceted approach to transformation in Namibia (to ultimately varying, and in some cases, very limited, success).

The approach and methodology are discussed in more detail under the sub-headings below. The project started through the formation of the For Progress Namibia Committee (the committee), basically a group of volunteers who all shared a passion for their country and its citizens' well-being. Its main initial aim was to find more appropriate measurements of success, and it did this by conducting (a) a survey to measure progress, (b) conduct and test different dialog processes to understand what a good quality of life actually means to citizens, (c) co-constructing community well-being from the bottom up, (d) communication, networking and awareness to garner public support, and finally (e) attempting to influence high-level decision-making in government. Excluding the survey which was done at the onset, all these approaches were ongoing and sometimes done at the same time, between 2012—and continue today. It is important to note that in retrospect the project made mistakes, faced several challenges, and had a lot of mentorship and technical support along the way; as in reality, it was setting a trail that had not previously been undertaken in such a holistic manner by one group of people.

### ***12.2.1 Survey to Measure Progress***

A literature review of the existing alternative indicators of welfare and well-being globally was conducted as well as the use and advisory support from various experts in the field. Perception indicators were chosen using the approach of Bhutan's Happiness Index<sup>1</sup> and the Happiness Alliance.<sup>2</sup> A questionnaire was developed using these foundations. The survey was conducted in the capital city of Namibia, Windhoek, in four suburbs of different income levels: Ludwigsdorf (high income), Windhoek West (middle income), Shandumbala (low-middle income), Okuryangava (low income), Hakahana (low income). Volunteers were trained to conduct the surveys, and surveys were conducted between August and October 2012. Approximately, 600 people were surveyed in total, and suburban variation depended on various factors, such as willingness to answer, and number of surveyors.

### ***12.2.2 Interviews and Focus Group Discussions***

To better understand how we measure progress, the project embarked on using various dialog and depth facilitation processes to collect narratives on what Namibian citizens think progress means, a "good life" means, and what thriving society would look like.

The committee used the following different formats:

1. Interviews (mostly one-on-one) with citizens from different demographics
2. Community discussions using the Bohm dialog format (between 5 and 20 people)
3. Using gaming and simulations followed by depth dialogs (creating a safe space using different depth dialog processes) (see Mangundu & Braby, 2019)
4. Co-creating (e.g., community gardens, cooking together in someone's home) and having informal discussions
5. Community visioning exercises in a workshop format (groups were put together to draw their ideal neighborhood)

### ***12.2.3 Co-Constructing Community Well-Being Bottom up***

As part of the survey study, the committee identified a community/suburb of the four survey suburbs in Windhoek to work with to (a) present the findings and results of the survey and (b) co-identify and work on priority areas that could improve sufficiency. Because of the committee's existing community involvement and residency, Shandumbala was chosen. The work of this was conducted in the following manner:

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<sup>1</sup> ([www.grossnationalhappiness.com](http://www.grossnationalhappiness.com)).

<sup>2</sup> ([www.happycounts.org](http://www.happycounts.org)).

1. A Shandumbala Community Workshop was held in 2016 where results were presented and where community visioning was conducted. Here, central government was invited to attend (of six Ministries invited, only two attended, namely from the National Planning Commission, and one Member of Parliament). Local Government was invited, including the Mayor of the City of Windhoek (who seconded some staff to join) and the Katutura East Constituency Councillor at the time. In addition, some NGOs and International Development Partners were invited, of which most notably the UNDP Resident Representative of Namibia attended. Approximately, 50 residents attended and together worked on visioning what their ideal suburb would look like in 2036 (20 years from time of workshop).
2. A community meeting followed a month after (2016), hosted by the Katutura East Councillor who had requested the committee to include the entire constituency (several suburbs of which Shandumbala was only one suburb). At this meeting, over 100 people were attended (Fig. 12.1). A prioritization exercise was conducted in which four components were identified as priority areas that the community wanted to focus on and improve (see Fig. 12.2). These were (a) community trust, (b) safety, (c) education, and (d) land rights at an informal settlement called Sonderwater. People were asked to sign up to be part of “task teams” to work on individual areas. Each area had approximately ten task team members, including one person from the committee.



**Fig. 12.1** Residents of Katutura east constituency partaking in an envisioning exercise (Van Schalkwyk, 2016)

**Fig. 12.2** Elder from Sonderwater community prioritizing land rights (Van Schalkwyk, 2016)



3. For the “trust task team” community dialogs were hosted with minimal success. This was mainly due to internal personality clashes between some members of the trust team consisting of community members which could not be solved through committee facilitation. These are discussed below as part of the overall reflection of this process.
4. For the “safety task team,” it was decided to set up a neighborhood watch, which included a successful partnership with the Police. This neighborhood watch is still ongoing in 2020 and has been successful in limiting crime in Katutura East.
5. The “education task team” initiated with letters to the Ministry of Education in support of improving school conditions in Katutura East (to minimal success), the use of the councilor building for matric students to have a quiet place to study, and the partnership with the Physically Active Youth (with whom the Committee had a long-standing relationship with) who provide a safe, home-style setting to school children in the afternoons to supplement education that is lacking in the formal school system.
6. The “Sonderwater task team” has been the most active, mostly due to strong leadership from one community member in Sonderwater, as well as active and engaged facilitation from one committee member. Sonderwater is an informal settlement of 150 residents who live in informal housing (tin shacks/plastic shacks) without tenure to land or access to sanitation or power. The work here

started with meetings with the City of Windhoek which allowed for the “formalization” of the suburb (which meant a stop to the forceful removal of residents there) and the installation of water, so residents have access to water. In addition, a local economic development project was started using carpentry as a medium. The task team partnered with a carpentry training center, and interested and engaged residents looking for employment were trained in carpentry using pallets to make furniture (see Fig. 12.3). After training, a small business/cooperative was formed where pallets (mostly from Coca Cola Namibia) were delivered for free and repurposed into furniture (an auction was held successfully). Demand grew and clients (like restaurants) made orders, raising the potential for the business to become successful. However, the lack of financial management expertise, lack of work ethic and rampant drug addiction in the community caused the failure of the business, leaving only a few individuals, continuing on their own. These individuals were supported with a container and tools set up within the Sonderwater area. In addition, in 2020, community gardens were developed by community members in a larger partnership which had rising success and is being used as a model in various platforms of food security and adaptation during the covid pandemic.



Fig. 12.3 Processes of the pallet project (Mangundu, 2018)

### 12.2.4 *Communication, Networking and Awareness—Public Support*

The Progress Namibia Project was well aware of the influence that communication and awareness raising can make, especially when it came to influencing decision-making in Namibia. For this reason, a communications strategy was developed already at survey stage and was further adapted as the work progressed and moved into different avenues.

The following aspects were part of this “living” strategy:

1. Every event, paper published, meeting, or other news-worthy activity were put into a media advisory note and sent to all media houses (including newspapers, radio, and television) in Namibia (starting in 2012).
2. As a result of the above, members of the committee were frequently interviewed, and thus, various topics received multiple platforms, most notably and influentially, the Namibia Broadcasting Corporation’s TV shows “Good Morning Namibia” (a news show), “One on One” (a debate show), and “Talk of the Nation” (a panel show discussing “hot topics”). Multiple radio interviews and newspaper articles were also done.
3. One of the committee members (the senior author) was invited to be part of the “WE-Africa Lab” (a think-tank of 28 participants across Africa developing strategies on a well-being economy for Africa) which included three lab sessions across Africa and resulted in the inclusion and ultimate Secretarial Leadership of the For Progress Namibia project in the well-being economy Africa Action Network. One of the more notable pieces of work (although not part of the For Progress Namibia Project) was the publication of a book entitled “Transformational Infrastructure: for Development of a Well-being Economy in Africa” (Mebratu & Swilling, 2020).
4. A prominent figure and author on the well-being economy (Prof Lorenzo Fioramonti) was invited on a mission to Namibia. This included various TV and radio interviews, meetings with Ministers, and an extremely well-attended public talk co-organized with the Namibia Economic forum and the Pupkewitz Business School at the Namibia University of Science and Technology entitled “Real Economic Transformation in Africa: breaking free from growth and embracing well-being.”<sup>3</sup>
5. Weekly blog news articles starting in 2017 called “Progress Namibia Weekly” mailed out to an automated list (which grew to several hundred) of emails, as well as published on the Progress Namibia Web site.<sup>4</sup>
6. Presentations at multiple meetings, conferences, including *inter-alia*, the well-being economy Africa Festival held in Pretoria in 2017, and the Resilience Conference held in Stockholm in 2017.

<sup>3</sup> The talk was filmed and made into a video ([https://www.youtube.com/watch?v=BmDrRTK0jMA&t=318s&ab\\_channel=ProgressNamibia](https://www.youtube.com/watch?v=BmDrRTK0jMA&t=318s&ab_channel=ProgressNamibia)).

<sup>4</sup> See link to the Progress Namibia website ([www.progress-namibia.com](http://www.progress-namibia.com)).

A large majority of the influence at political and high level was due to the debate and public support garnered through the media's interest in this work. This is discussed below.

### ***12.2.5 Influencing High-Level Decision-Making***

It was always the intention of the For Progress Namibia project to influence high-level decision-making in the development and economic planning arenas, and as a result, various strategies and activities were employed in this regard, including:

1. A policy brief was developed of the survey (Braby, 2016), which was handed to every member of Parliament, sent to every Minister in Cabinet, and used as the information brief on which meetings were held with various politicians.
2. Several meetings were held in 2016 to garner interest in the work with the Shandumbala community. This included (a) a meeting with the Chair of Parliament, (b) subsequent presentations and meetings with parliamentary committees (see Fig. 12.2), (c) a meeting with the Mayor of the City of Windhoek. Letters were drafted and sent to every minister requesting a meeting (of which none responded).
3. During the visit of Lorenzo Fioramonti (2017), various meetings were held with UNDP, various bi-lateral organizations, as well as the Minister of the National Planning Commission (in charge of economic and development planning in Namibia).
4. Eventually, toward the end of 2018, the Presidential Advisors (mostly due to the TV debate shows) contacted one of the committee members (the author) for meetings and advice. By 2019, the committee member was appointed to the High-Level Panel Advising the President of Namibia on the Economy. This appointment was from 2019 to 2020 and had limited to no success. The lack of success was due to the following factors: (a) while the appointment was done with the aim of the Presidential Advisors to support a more systems-thinking visioning of what development in Namibia should look like, the actual terms of reference was focused almost exclusively on growth and investment to trigger more growth in the short-to-medium term, (b) the panel had 22 seats of which most were neo-liberal economists, (c) the panel did not have a clear direction and instead focused on very short-term solutions, (d) there was a lack of transparency, (e) the composition of the panel (heads of banks, investment institutions, some with political aspirations) which included political appointees in an election year (i.e., pleasing certain constituencies) led to many alternative voices not being heard, (e) the committee member, despite having spent an enormous amount of effort in writing visions, blueprint strategies (including for energy, education, work, economic development), as well as various meetings with individual panelists, did not have the capacity to infiltrate the thinking of the panel leadership. The committee member requested to resign at various

occasions, but this did not happen, also for various reasons. What resulted from this panel was very little, and during 2019/2020, a corruption scandal in the fishing industry (referred to as #fishrot), the covid pandemic, further diluted any powers the panel had. Overall, the appointment of the committee member to the panel was perhaps “ahead of its time.”

5. The running of one of the committee members in the local constituency elections (Constituency Councilor for Katutura East), while close, lost out to the dominant political party.

## 12.3 Results

This section presents the results obtained from the different approaches and the methodology applied by the For Progress Namibia Project, as presented in the previous section. The results from the survey showed an overall sufficiency (or, in layman terms “satisfaction rate”) of 45.9%. Generally, well-being seemed to correlate along the income line, with the exception of Okuyrangava. Of nine domains measured (state of mind; health; time balance; community strength; education, recreation and culture; area and environment; good governance and political freedom; material well-being; work), state of mind, and perceived health were the only domains found to be sufficient. Community strength and sense of belonging to a community are immensely important components—these were the lowest in the high-income area. The domain with the highest levels of dissatisfaction were good governance and political freedom. The detailed survey results and discussion can be found in Braby et al. (2016).

Through the interviews and focus group discussions carried out between 2012 and 2018, it was found that interviews specifically did not allow for deeper digging (this of course depended on the questioning format), but generally, respondents would answer very superficially, the type of answers that come from manipulation caused by advertising such as (e.g., “I want to have Nike shoes” “I want to drive a hummer” “I want to have a big house”); mental environmentalism looks at the counter-culture to advertising causing societal manipulation (e.g., see Menees 2014). This processes also confirmed some of the ideas outlined in Costanza et al. (2017) which outlines societal addiction to short-term rewards and addictions to over-consumption. Depth dialog processes, especially when respondents felt safe and trusting, managed to draw deeper and more reflective thoughts.<sup>5</sup>

The process of co-constructing community well-being through a bottom up approach had varying levels of success and was highly adaptive and flexible. Because the committee was small (five people) and funding was minimal, some activities had to be dropped. Some task teams suffered from leadership issues within the community (relationship issues between members, ego versus “good of community”, inappropriate use of funds, etc.). Various issues with the councilor’s office (including signs

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<sup>5</sup> This short video publication was released showing some of the processes the committee took ([https://www.youtube.com/watch?v=t7pkhDPhWK4&ab\\_channel=ProgressNamibia](https://www.youtube.com/watch?v=t7pkhDPhWK4&ab_channel=ProgressNamibia)).

of corruption, sexism, and internal leadership issues) meant that the work was eventually done in partnership, but with minimal support from the office. More detailed outcomes were published in Braby et al. (2017).

Leadership, championship, and facilitation expertise, as well as engagement and partnership support had a lot of influence on the success of the community work. Because surveys were not conducted again, it is impossible to say with confidence whether sufficiency was improved in Shandumbala. However, it can be said that the community at Sonderwater has improved, including access and general livelihoods—based on qualitative discussions. Notably, community championship was resulted from the best interests of community, good facilitation, and engagement from the committee members, as well as support and interest from outside.

The key findings from the qualitative collating of these narratives were that the key underlying components of a “content society” were (in no particular order) as follows: trust (at all levels), a sense of belonging and healthy relationships, basic needs (home, food, water, sanitation, electricity), quality education (the kind that causes critical and systems thinking and develops creative potential), quality work (that is demanding and rewarding), and good health. Above these, basic foundational components were perspectives and mental models, which varied from person to person.

The overall findings supported the development of a vision for a “thriving Namibia” which was presented by one of the committee members (the senior author of this chapter) who was appointed in 2019 by the President of Namibia to serve on the high-level panel on the economy (advising the President on “bold and practical solutions to arrest the triple challenge of unemployment, income inequalities, and poverty”) (Braby, 2019).

## 12.4 Conclusions

Globally, continued economic growth is neither sustainable nor desirable, while countries like Namibia do have to grow (in terms of opportunities for our people, life quality, health, education, clean renewable energy, etc.), others will have to shrink (e.g., carbon emissions, resource depletion, plastic pollution, national debt, etc.).

However, Namibia still follows the mainstream growth development model. In 2019, the annual budget, while aiming to stimulate “growth” in key areas like infrastructure (instead of leap-frogging infrastructure, most budget went into roads and other infrastructure that will likely be obsolete in years to come), social safety nets (complicated and lots of red tape, instead of investment into a universal basic income which had been very successfully tested in the country), agriculture (mostly unsustainable), youth and SME support. However, the Ministry of Defense was allocated 6 billion NAD where youth entrepreneurship projects were allocated less than 50 million and SME development 110 million.

The work of For Progress Namibia Project could be potentially upscaled to other communities in Namibia. The communities supported by the For Progress Namibia project have shown a great improvement over the years, particularly Sonderwater

where there's now access to general livelihoods and services such as clean water and sanitation. The growing interest of the community to improve existing living standards through initiatives like gardening proves the importance of small local community led initiatives. It creates an opportunity to synthesize and document similar approaches to shape development in Namibia. While the For Progress Namibia Project seems to have achieved a lot in terms of rethinking transformation at grassroots, certainly, much more needs to be done to truly transform economic thinking in the country. One of the key areas for positive change toward environmental protection in so far community development and tourism. Here, Namibia has adapted a strong community-based natural resource management approach that is promising in terms of environmental protection and the improvement of human well-being. Local communities are given the power to control and manage their resources, as a way of safeguarding the environment while improving livelihoods. This approach is promising in terms of adapting new economic thinking unlike other key areas such as mining and fisheries which have seen increases of lack of transparency and corruption. However, tourism, which carried a huge proportion of the country's employment, showed a lack of resilience during the covid pandemic when it was shown how vulnerable such a sector can be when over investment is made into high-end international supply in the tourism sector.

Corruption is a large and systemic problem, already previously spoken about in various publications, including Melber's informative book "Understanding Namibia" (Melber, 2014), but recently popularized by the uncovering of the #fishrot saga (e.g., Aljazeera's "Anatomy of a Bribe" expose, 2019). Hope is being glimpsed now that several high officials and their family members are currently on trial due to the #fishrot saga—and the whistle blower is receiving a sustainability award in Sweden in 2021.<sup>6</sup>

However, public support has been garnered, and the younger generation is thinking differently about development. The fact that there has been so much volunteer support in this project, as well as overall participation, debate, and engagement, shows the deep need for further leadership.

The committee certainly made mistakes from which they have learned important lessons. But, it is important to note that transformations are uncomfortable, new, and difficult, and the more flexible and adaptive, organic, and opportunistic one can be in this movement toward a sustainable society, the more successful the eventual result will be.

There is no doubt that we are at a precipice of big change. Certainly, the solutions are there, and they are embedded in a more symbiotic, cooperative approach to human development. The most important aspect is to change perspectives and mental models about the idea of "success" and "progress" in society. The future is going the sustainability route. There is no other way. The challenge for political parties, governments, businesses, and societies in general is to shape a constructive, resilient, and creative future today, or risk being left as bystanders as events take their course.

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<sup>6</sup> [http://winwingothenburgaward.com/theme-2021-anticorruption/?fbclid=IwAR0mgXXJ8L\\_ljOHjJCJMArad-UtKcHJLRikWpFC5fvb--oVM2f54umjCGh8](http://winwingothenburgaward.com/theme-2021-anticorruption/?fbclid=IwAR0mgXXJ8L_ljOHjJCJMArad-UtKcHJLRikWpFC5fvb--oVM2f54umjCGh8).

## References

- Aljazeera. (2019). Anatomy of a bribe: a deep dive into an underworld of corruption. <https://www.aljazeera.com/features/2019/12/1/anatomy-of-a-bribe-a-deep-dive-into-an-underworld-of-corruption>.
- Braby, J. (2012, August). For progress Namibia surveyor training session [Photograph]. Progress Namibia. <https://www.progress-namibia.com/page/for-progress-namibia/>.
- Braby, J. (2016). Citizen wellbeing: Towards more appropriate measures of Namibia's success and progress. Policy Brief to Namibian politicians. <https://cms.my.na/assets/documents/p1ae4q4nu1i1ird5rij142r1s7g1.pdf>.
- Braby, J. (2019). What kind of a Namibia do we want? Progress Namibia Weekly (a weekly blog). <https://www.progress-namibia.com/main/post/what-kind-of-namibia-do-we-want/>.
- Braby, J., Lavelle, J. J., Mulunga, J., Nekwaya, N., Mathias, F., & Angula, A. (2016). Citizen wellbeing and GDP: Toward more appropriate measures of Namibia's success and progress. *Journal of Social Change*, 8(1), 26–38.
- Braby, J., Mulunga, J., Nekwaya, N., Lavelle, J. J., Ndimbira, M. J., Mangundu, R., & Angula, A. (2017). Towards wellbeing indicators in Africa: A case study from Namibia. *Solutions Journal*, 8(3). <https://www.thesolutionsjournal.com/article/towards-well-indicators-africa-case-study-namibia/>.
- Bromet, E., Andrade, L. H., Hwang, I., Sampson, N. A., Alonso, J., de Girolamo, G., & Kessler, R. C. (2011). Cross-national epidemiology of DSM-IV major depressive episode. *BMC Medicine*, 9, 90. <https://doi.org/10.1186/1741-7015-9-90>
- Compas, B. E., Jaser, S. S., Dunn, M. J., & Rodriguez, E. M. (2012). Coping with chronic illness in childhood and adolescence. *Annual Review of Clinical Psychology*, 8, 455–480.
- Constanza, R., Kubiszewski, I., Giovannini, E., Lovins, H., McGlade, J., Pickett, K. E., Ragnarsdottir, K. V., Roberts, D., De Vogli, R., & Wilkinson, R. (2014). Development: Time to leave GDP behind. *Nature*, 505, 283–285.
- Costanza, R., Atkins, P. W. B., Bolton, M., Cork, S., Grigg, N. J., Kassner, T., & Kubiszewski, I. (2017). Overcoming societal additions: What can we learn from individual therapies? *Ecological Economics*, 131, 543–550.
- Fioramonti, L. (2017). Wellbeing economy: Success in a world without growth. Johannesburg: Pan Macmillan.
- Hardoon, D., Ayele, S., & Fuentes-Nieva, R. (2016). An economy for the 1%: How privilege and power in the economy drive extreme inequality and how this can be stopped. Oxford, UK: Oxfam International. Retrieved from [https://www.oxfam.org/sites/www.oxfam.org/files/file\\_attachments/bp210-economy-onepercent-tax-havens-180116-en\\_0.pdf](https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp210-economy-onepercent-tax-havens-180116-en_0.pdf).
- Mangundu, R., & Braby, J. (2019). Games for sustainable development goals Namibia: Towards youth engagement in achieving sustainability. *Solutions Journal*, 10(3). <https://www.thesolutionsjournal.com/article/games-sustainable-development-goals-namibia-towards-youth-engagement-achieving-sustainability/>.
- Mangundu, R. M. I. (2017). Professor Lorenzo Fioramonti delivers a public talk at the Namibia University of Science and Technology [Photograph]. <https://www.facebook.com/ProgressNamibia/photos/843127819196563>.
- Mangundu, R. M. I. (2018). Processes of the pallet project [Photograph]. [https://www.facebook.com/ProgressNamibia/photos/?ref=page\\_internal](https://www.facebook.com/ProgressNamibia/photos/?ref=page_internal).
- Mangundu, R. M. I. (2020, November). One of the project partners setting up a new backyard garden [Photograph]. <https://www.facebook.com/photo.php?fbid=2297386463726300&set=pb.100003649061342.-2207520000.&type=3>.
- Mebratu, D., Swilling M. (Eds.). (2020). Transformational infrastructure for development of a wellbeing economy in Africa. African Sun Media.
- Melber, H. (2014). *Understanding Namibia*. Hurst Publishers.
- Menees, J. (2014). Mental environmentalism: The true goal of the occupy wall street movement. Senior Theses. 24. [https://scholarcommons.sc.edu/senior\\_theses/24](https://scholarcommons.sc.edu/senior_theses/24).

- Namibia Statistics Agency. (2011). Census. Government of Namibia.
- Republic of Namibia. (2004). Vision 2030: Policy Framework for long-term national development. Windhoek, Namibia: Author. Retrieved from <http://www.met.gov.na/Documents/Vision%202030.pdf>.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S. III, Lambin, E., & Foley, J. (2009). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, 14(2), 32.
- Rogers, D. S., Duraiappah, A. K., Antons, D. C., Munoz, P., Bai, X., Fragkias, M., & Gutscher, H. (2012). A vision for human well-being: Transition to social sustainability. *Environmental Sustainability*, 4, 1–13.
- Sanzila, G. (2016, February 29). Justine presents on the For Progress Namibia survey for the Parliamentary Standing Committee on Gender Equality, Social Development and Family Affairs [Photograph]. Progress Namibia. <https://www.progress-namibia.com/page/for-progress-namibia/>.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson L. M., Ramanathan, V., Reyers, B., Sörlin, S. (2015, February 15). Sustainability. Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855. <https://doi.org/10.1126/science.1259855>. Epub 2015 Jan 15. PMID: 25592418.
- Stiglitz, J., Sen, A., & Fitoussi J. P. (2009). Report by the Commission on the measurement of economic performance and social progress. Retrieved from [http://www.communityindicators.net/system/publication\\_pdfs/9/original/Stiglitz\\_Sen\\_Fitoussi\\_i\\_2009.pdf?1323961027](http://www.communityindicators.net/system/publication_pdfs/9/original/Stiglitz_Sen_Fitoussi_i_2009.pdf?1323961027).
- Streib, L. (2007). World's fattest countries. Forbes. Retrieved from [http://www.forbes.com/2007/02/07/worlds-fattest-countries-forbeslife-cx\\_ls\\_0208worldfat.html](http://www.forbes.com/2007/02/07/worlds-fattest-countries-forbeslife-cx_ls_0208worldfat.html)
- Van Schalkwyk, L. (2016). Elder from Sonderwater community prioritizing land rights [Photograph]. <https://www.facebook.com/ProgressNamibia/photos/a.681665728676107/681667302009283>.
- Van Schalkwyk, L. (2016). Residents of Katutura-East Constituency partaking in an envisioning exercise [Photograph]. <https://www.facebook.com/ProgressNamibia/photos/674968879345792>
- Whitby, A., Seaford, C., Berry, C., & BRAINPOoL Consortium Partners. (2014, March 31). BRAIN-POoL Project final report: Beyond GDP: From measurement to politics and policy. BRAIN-POoL Deliverable 5.2, A collaborative programme funded by the European Union's Seventh Programme for research, technological development and demonstration under Grant Agreement No. 283024. World Future Council. Retrieved from <http://www.brainpoolproject.eu/wp-content/uploads/2014/05/BRAINPOoL-Project-FinalReport.pdf>.

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# Chapter 13

## A Not-For-Profit Economy for a Regenerative Sustainable World



Jennifer B. Hinton

**Abstract** This chapter offers an overview and explanation of how society's relationship-to-profit plays a significant role in determining social and ecological outcomes. The way in which societies relate to profit plays out in terms of both formal and informal institutions. One formal institution that is key for sustainability is *relationship-to-profit*, the legal difference between for-profit and not-for-profit forms of business. This chapter explains how relationship-to-profit, as a basic building block of the entire economy, plays a critical role in determining whether the economy drives sustainability crises or allows for meeting everyone's needs within the ecological limits of the planet. This analysis reveals that the social and ecological crises of the twenty-first century have the same driver: the pursuit and accumulation of private wealth inherent in the for-profit economy. Yet, existent not-for-profit types of business offer a viable way out of this conundrum. In a market composed of not-for-profit businesses, all economic activity and profit would be oriented toward social benefit, keeping financial and material resources circulating to where they are most needed. The financial surplus of business activity would not accumulate in the hands of a few owners, as it does in the for-profit economy.

**Keywords** Sustainable economy · Sustainable business · Systems thinking · Post-growth economy · Degrowth · Not-for-profit business

### 13.1 Introduction

In order to understand how we might have a sustainable economy, we must first understand what is unsustainable about the current economy. Modern economies are predicated on the constant expansion of production and consumption. Without consistent growth, capitalist economies go into crisis (Magdoff & Foster, 2011). Less consumption in such an economy leads to less investment, less employment, and less economic stability—also known as a recession. We saw this in the global

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J. B. Hinton (✉)

Department of Economic History and International Relations, Stockholm University, Stockholm, Sweden

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financial crisis of 2008 and as we are seeing it again now, with the economic slowdown caused by the covid-19 pandemic. The solution commonly put forward by economists is to restart economic growth. Yet, increasing consumption and production entails environmental impacts (Parrique et al., 2019), and the planet's biosphere is already in a dangerous state of decline (UN Environment 2019). Furthermore, the last few decades of economic growth have concentrated the world's wealth in the hands of a few, leaving hundreds of millions of people in poverty. In 2017, more than 80% of the new wealth generated by economic growth went to the richest 1% of the world's population, while the poorest 50% got none of it (Alejo Vázquez Pimental et al. 2018). It is clear that the current economic paradigm is failing in terms of ecological, social, and economic outcomes.

Economies must be reorganized to meet everyone's needs within the planetary boundaries. But, what kind of economy would that be? How would it be organized? What kinds of institutions would it have? Many sustainability scholars have identified competition for profit in the market as a key driver of economic growth, social exploitation, and ecological degradation (e.g., Jackson, 2017; Kallis, 2018; Magdoff & Foster, 2011; Schnaiberg et al., 2002). Yet, the solutions typically offered do not get to the roots of the problem. Proposals for more state intervention, redistributive taxes, and tighter regulations are end-of-pipe solutions that do not address the nature of the problematic economic institutions themselves. Some propose that a sustainable economy can be achieved through increasing the number of cooperatives, social enterprises, and sustainability certifications, but it is unclear how these business models would change the aggregate dynamics of the economy. Meanwhile, the discussion about transforming the whole economy is stale, often centered on around only two alternatives: capitalism versus the state-planned economy. Fortunately, there are other options.

The existence of not-for-profit types of business means that economies could be organized in a very different way. In the book *How on Earth*, we put forth the vision of a sustainable not-for-profit market economy (Hinton & Maclurcan, 2016). Such an economy can be expected to have very different dynamics than a capitalist for-profit economy. This chapter offers an overview of how the for-profit economy has a systemic tendency to drive sustainability problems, and how the not-for-profit way of organizing the economy opens up a whole new horizon for concrete possibilities beyond the trite debate of capitalism versus the state-planned economy. It puts forth a vision of a sustainable regenerative not-for-profit economy and offers some ideas about how such a transformation might take place.

## 13.2 The Institutional Building Blocks of the Economy

Before jumping into a discussion about alternative economic systems, it is worth clarifying the basic concepts and components of the economy for the diverse readership of this book. I use the term *economy* broadly to refer to any system in which people produce, consume, buy, sell, and trade products and services. Most of us

participate in the economy every day, whether through our work or our consumption of goods. Think of the food you eat, the clothes you wear, the electricity you use, and the forms of transportation you use. Most of us access these goods by participating in the economy. Businesses, markets, and profit are key components of the economy. *Businesses* produce and sell goods. *Markets* are where businesses and customers meet in order to buy and sell their goods. *Profit* refers to the financial surplus left over after business expenses have been paid, such as wages, rent, and taxes (this type of profit is also known as “accounting profit”).

Businesses, markets, and profit are not necessarily sustainable or unsustainable. Different ways of organizing these economic institutions will have different social and ecological outcomes. *Relationship-to-profit* is an institutional element that plays a key role in determining the sustainability of an economy (Hinton, 2021). As the legal distinction between for-profit and not-for-profit forms of business, relationship-to-profit encompasses the legal purpose and ownership rights of firms. The dominant forms of business in an economy have important implications for the sustainability of that economy as a whole. Thus, economies can be thought of as being mostly for-profit, mostly not-for-profit, or somewhere in between. Most economies today, including the global economy, are predominately composed of for-profit types of business.

### ***13.2.1 Relationship-To-Profit is a Legal Dimension of Business***

The building blocks of the economy are structured according to institutions—sets of social rules (Scott, 2014). Relationship-to-profit is a formal economic institution, as it encompasses a bundle of legally binding rights and responsibilities that pertain to firms. The two key institutional elements of relationship-to-profit are: financial rights and legal purpose. Financial rights are an essential part of organizing the economy, as they determine whether or not private owners are allowed to receive the profit of economic activity (Libecap, 1986). These rights are intimately linked to the legal responsibilities and purpose of the firm. Private financial rights (i.e., the right to distribute profit and assets to private owners) serve the legal purpose of delivering financial gain to owners. In contrast, collective financial rights serve the legal purpose of social benefit. The for-profit type of business allows for private financial rights and a financial gain purpose, while the not-for-profit type locks in a social benefit purpose and collective financial rights. In other words, not-for-profit (NFP) firms have a legal responsibility to deliver social benefit, and in order to make sure, they use all of their resources to that end; they are legally prohibited from distributing profit and assets to private owners (James & Rose-Ackerman, 1986). This key feature that distinguishes a for-profit from a not-for-profit entity is the nondistribution constraint (Hansmann, 1980). As Sect. 13.3 shows, this feature has significant implications for the larger sustainability-related dynamics of the entire economy.

Not-for-profit business can also be distinguished from traditional nonprofit organizations in that the former generates all or most of its revenue from the sale of goods and services (Hinton & Maclurcan, 2017)—also known as a “commercial nonprofit.” This financial self-sufficiency is important for many reasons. It allows NFP businesses to have more control over the way they operate, rather than having to bend to the desires of their funders. More importantly, financial self-sufficiency means that NFP businesses are not just an extension of the for-profit economy, but actually have the potential to replace it.

The not-for-profit category includes a variety of business types, including charities that conduct trade, businesses that are wholly owned by a nonprofit foundation or charity, mutual companies, consumer cooperatives,<sup>1</sup> and state and municipally owned enterprises. In our research, my colleagues and I have found examples of NFP companies around the world and in all different sectors of the economy, including, healthcare providers, insurance companies, farms, retailers, energy providers, software designers, manufacturers, civil engineer companies, real estate agents, law firms, grocery stores, restaurants, gyms, cinemas, and banks (e.g., Hinton, 2021; Hinton & Maclurcan, 2016, 2017). There really are all of the ingredients for an entirely not-for-profit economy.

I choose to focus on *not-for-profit* rather than “social enterprise” because the latter has no solid legal definition; rather, it is a broad category that can be used to describe any business that has some sort of social mission (Borzaga & Tortia, 2007). A social enterprise’s mission does not have to be legally binding. This means that large transnational corporations can operate their own social enterprises, to pursue social objectives in whatever terms they want to define “social benefit.” This can lead to cooptation of the social enterprise label, which can diminish the public’s trust in the label, just as greenwashing has diminished trust in eco-friendly terminology (Alves, 2009). Lastly, many social enterprise legal frameworks are for-profit, such as benefit corporations in the US (Berger, 2015). As I argue in Hinton (2020), these models do not have much potential to transform the for-profit economy and its dynamics in the systemic way that is needed because they maintain an alignment with the pursuit and accumulation of private financial gain.

### ***13.2.2 The Informal Dimensions of Relationship-To-Profit***

Although relationship-to-profit refers to a legal distinction, it also has corresponding informal social dimensions. These different types of business can be seen as aligning more with certain assumptions about human nature, motivation, and needs.

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<sup>1</sup> It is worth noting that not all cooperatives are NFP. Worker cooperatives and producer cooperatives can usually be operated for the financial gain of their private owners. As such, they do not comply with the non-distribution constraint and can contribute to some of the destructive dynamics of the for-profit economy outlined in Sect. 13.3.1.

The underlying logic of the for-profit type of business includes outdated economic myths such as:

- Money is a good measure of success and progress, as “the bottom line”
- Human nature is mostly competitive and acquisitive
- Pursuing one’s own financial self-interest is the rational thing to do
- Investment for profit drives innovation and progress
- Consumption is a suitable proxy for the satisfaction of needs
- Technology can absolutely decouple economic activity from environmental impacts

The corresponding logic of the not-for-profit type of firm includes ideas like:

- Social (and ecological) well-being are measures of success and progress
- Money is best treated as means to achieve social (and ecological) outcomes
- Helping other people and the community, as a whole, is rational behavior
- Human nature is complex and shaped by context
- Investment should be made for positive social and ecological impact

These social norms, logics, and beliefs play a role in guiding and constraining the behavior of actors in the market (Scott, 2014). For instance, a community that takes for granted that human nature is ruthlessly competitive, and the profit motive is the best way of incentivizing innovation will influence its members to act differently than a community that holds a shared belief that human nature is highly cooperative and that all people have an innate drive to innovate. Likewise, actors shape the institutions around them by acquiescing, reinforcing, resisting, or changing their institutional contexts (Ibid). As key actors in the economy, businesses both shape and are shaped by the institutions around them. Accordingly, the formal and informal institutional aspects of relationship-to-profit guide and constrain businesses’ behavior.

### **13.3 The System Dynamics of Relationship-To-Profit**

A clear understanding of relationship-to-profit as a basic institutional building block of the economy allows for important insights into the wider system dynamics. In particular, it allows us to see the social and ecological effects of different ways of organizing business and markets, due to the rights, responsibilities, incentives, and constraints embedded in relationship-to-profit.

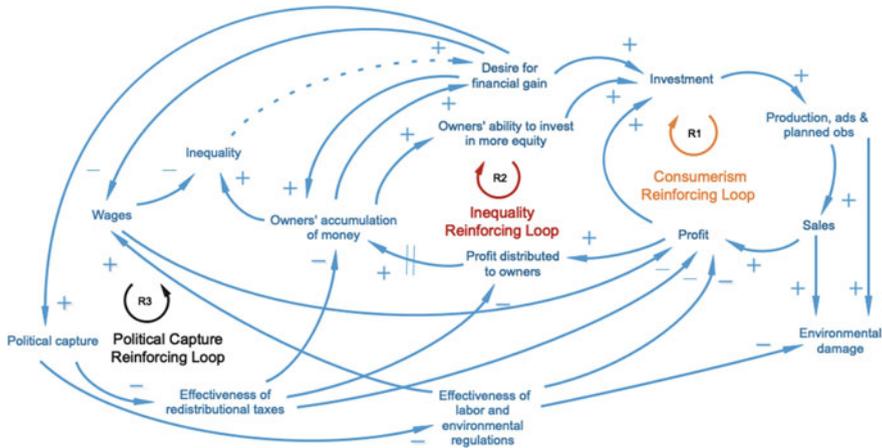


Fig. 13.1 For-profit economy dynamics from Hinton (2020), p. 251

### 13.3.1 The For-Profit Economy is Unsustainable

The for-profit way of organizing the economy (i.e., the capitalist economy) tends to drive unsustainable system dynamics.<sup>2</sup> The financial gain purpose and private financial rights lead to consumerism, environmental damage, inequality, market concentration, and political capture. Business managers are drawn to using certain types of strategies in seeking to deliver unlimited returns to the owners who hold the private financial rights of the company. In particular, they are incentivized to use exploitative cost-cutting strategies. For instance, the higher wages are, the less profit there will be, so there is an incentive to keep wages low (as shown in the inequality loop in Fig. 13.1).<sup>3</sup> Similarly, moving production to places where wages are low and regulations are relaxed can keep costs down. Lobbying for tax cuts, subsidies, and deregulation is another quite lucrative strategy (as shown in the political capture loop in Fig. 13.1). In seeking profit, business managers and owners are inherently incentivized to evade taxes, as a key business cost. Disregarding labor regulations and

<sup>2</sup> Capitalist economies are market economies in which businesses are privately owned and operated for profit (Oxford Dictionary 2020). As such, for-profit business is a defining feature of capitalism and the capitalist economy can be thought of as the for-profit economy (Hinton and Maclurcan 2017).

<sup>3</sup> Figures 13.1 and 13.2 are causal loop diagrams, a tool often used in systems thinking to map out the relationships between key variables in a system in order to identify causal loops that drive the system's behavior over time. The arrows depict causal relationships between two variables. A plus sign (+) signifies a positive causal relationship (e.g., an increase in investment leads to an increase in production, and a decrease in investment leads to decreased production). A negative sign (-) represents a negative causal relationship (e.g., higher wages lead to lower profits, or lower wages lead to higher profits). The R symbol signifies a reinforcing feedback loop, whereas the B symbol signifies a balancing feedback loop. Both Figs. 13.1 and 13.2 are described in more detail in Hinton (2020).

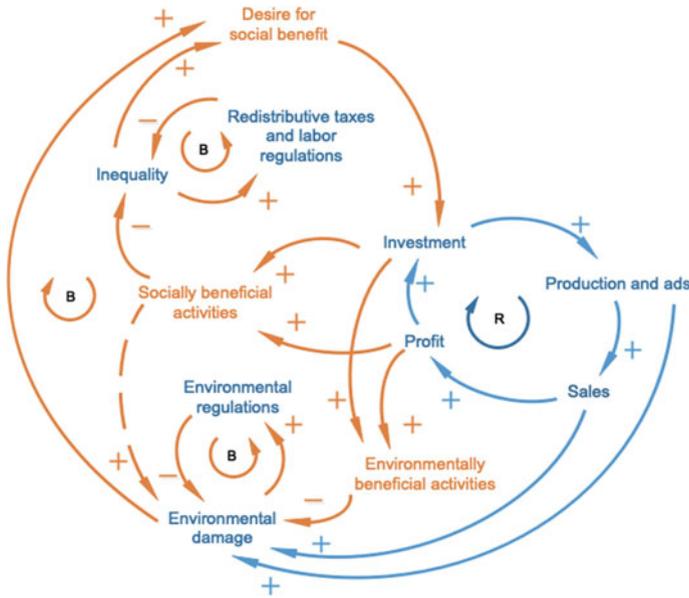


Fig. 13.2 Not-for-profit economy dynamics from Hinton (2020), p. 254

environmental regulations can also be quite an effective cost-cutting strategy. Profit-seeking managers are also incentivized to use harmful revenue-maximizing strategies such as: advertising and planned obsolescence (which push consumers to buy more products), price mark-ups, collusion and cartels, and mergers and acquisitions (Hinton, 2021).

Although companies are understandably reluctant to reveal how they employ these strategies, their widespread use can be seen in the global statistics. The International Labor Organization (ILO) has stated that wage stagnation characterizes the global economy (ILO, 2016). Oxfam reports that the phenomenon of political capture, in which private interests have an illegitimate influence on policy-making, is rampant around the world (Fuentes-Nieva & Galasso, 2014). Tax havens are estimated to result in about 200 billion USD of profit every year (which represents foregone tax revenue for governments around the world) (Wier, 2020). Nearly, 150 billion USD of profit is made from forced labor every year (ILO, 2014). And the ecological consequences of companies disregarding or negatively influencing environmental regulations is evident in the large-scale destruction of ecosystems around the world—whether one looks at plastics in the ocean, deforestation of rainforests, poaching of protected species, dumping of effluents into waterways, illegal fishing, or the loss of pollinators and fertile soil due to industrial chemicals (UN Environment 2019).

The widespread use of these strategies creates paths of least resistance; meaning that the more certain types of strategies are used, the more all businesses are under pressure to use them. Indeed, even well-meaning companies are often compelled to use exploitative strategies just to stay afloat in such a market. For example, if a

clothing company increases its market share by offering lower prices than its competitors, which it is able to do because it sells products made in sweat shops at the expense of exploited workers, then it puts pressure on its competitors to also use exploitative production practices to be able to offer low prices.

Furthermore, the built-in incentive to suppress wages combined with the distribution of profit to private owner's results in increasing levels of inequality (Hinton, 2020). As owners accumulate more wealth, they are able to buy more shares in companies, delivering even more profit to them (as shown in the inequality loop in Fig. 13.1). This helps explain the fact that inequality is steadily increasing both within and between nations (Fuentes-Nieva & Galasso, 2014; Hardoon et al., 2016). Inequality is also exacerbated by the market concentration and political capture inherent in the for-profit economy.

In these ways, the for-profit economy drives increasing levels of consumerism, environmental degradation, inequality, market concentration, and political capture (see Fig. 13.1). This type of economy is fundamentally at odds with sustainability in systemic ways. Importantly, there is no feedback to signal that sufficient production and consumption has occurred because the key source of motivation is financial gain, which inherently has no limits. This system both drives and requires constant growth. In encouraging (and indeed even compelling) companies and managers to exploit people and planet for profit, it also entails structural violence.

To the extent that there is investment in socially and ecologically beneficial activities in a for-profit economy, these dynamics will be slowed down. However, the more financial surplus that is channeled into regenerative activities, such as planting forests or protecting vulnerable people, the less there is to distribute to private owners. That is why for-profit businesses tend to only invest in sustainability-oriented activities that align with achieving higher profitability, even though those activities are not very high-impact (Hahn et al., 2010; Lodsgård & Aagaard, 2017). Companies can even do more harm than good when they undertake corporate social responsibility efforts in order to increase their profitability, as they do so in a way that results in market expansion (Schneider, 2020). The expansionary and homogenizing tendencies of the for-profit economy decrease the diversity of economic actors and practices, which makes the system even more vulnerable to shocks. This type of economy abounds with vicious cycles that decrease stability and sustainability (as represented by the reinforcing (R) feedback loops in Fig. 13.1).

### ***13.3.2 A Not-For-Profit Economy Provides a Basis for Sustainability***

As I have explained in the sections above, a truly sustainable and regenerative economy are not likely to take shape within a for-profit institutional framework. How might the not-for-profit framework lead to different outcomes? Not-for-profit economies can be expected to be more sustainable due to their social benefit purpose

and collective financial rights. The fact that a financial gain purpose and the private distribution of profit are precluded from these kinds of business, means that there are quite different system dynamics. There is no equity-based investment in these types of business, so there is no pressure on managers to deliver unlimited returns to owners. Instead, not-for-profit firms raise capital through debt-based investment, which entails the repayment of the loan or bond with a limited return on investment in the form of interest, or donation-based investment, which entails no financial returns to investors. The focus of NFP investment is to generate social and ecological well-being, rather than to increase financial flows (as shown in Fig. 13.2). Social benefit can include a wide variety of aims, including the provision of: education, health care, healthy food, transportation, housing, and renewable energy, as well as the protection of the environment. Not-for-profit businesses are legally required to use all of their resources to achieve their social benefit missions, which means that resources and surplus go to where they are needed most in an NFP economy (Hinton, 2020). Importantly, because investment is guided by social and ecological needs, the NFP type of economy has a feedback to signal when those needs are met or when more investment is required. This is shown by the multiple balancing feedback loops in Fig. 13.2. These kinds of balancing dynamics are not a systemic feature of the for-profit economy, which explains why inequality and environmental crises have been worsening so quickly in recent decades.

It is also worth emphasizing what the not-for-profit type of economy *does not* do, compared to its for-profit counterpart. It does not systemically enable and encourage a handful of private owners to accumulate evermore of the finite resources and wealth of the planet. It does not have built-in incentives for business managers to exploit workers, consumers, local communities, other value chain actors, ecosystems, and society as a whole, in order to generate more profit. As such a not-for-profit economy opens up the space for effective sustainability interventions, and allows for economic activity to slow down or even shrink, in ways that the for-profit economy does not (Hinton, 2020) (see Fig. 13.2).

Importantly, a focus on relationship-to-profit as a defining feature of different types of economies allows for a wider spectrum of possibilities than the usual dichotomy: capitalism versus the state-planned economy. The latter can be considered not-for-profit, but so can decentralized market economies that are organized to focus on social benefit rather than private Not-For-Profit, such as the not-for-profit World model in Hinton and Maclurcan (2016).

A not-for-profit market economy could function much more smoothly than the current economy. In the *How on Earth* book (Hinton & Maclurcan, 2016), we describe how a not-for-profit market economy could have much better social and ecological outcomes than the for-profit economy. The market becomes a sort of safety-net alongside a partner state, with both state and market working to make sure everyone's needs are met. Without the waste of time and resources in trying to redistribute accumulated wealth via government programs and philanthropy, the NFP market economy is inherently more efficient and leaner. Due to less of a desire for financial gain and limits on returns on investment, this kind of economy has less financial speculation than an economy driven by the quest for unlimited returns. Less financial

speculation and fewer investment bubbles in turn lead to a more stable economy. As a market economy, it is decentralized, allowing for a diverse mix of businesses to take context-dependent approaches to meeting the needs of their communities. The decentralized aspect also allows for more flexibility, responsiveness, and resilience than a more rigid centralized type of economy, which can become quite bureaucratic and is more vulnerable to corruption and other shocks.

With higher levels of economic equality and accessibility to resources, a not-for-profit economy allows for less production and consumption, as well as less work. In the absence of the profit-driven pressure to constantly produce and consume more, people would have more time. This time can be spent on fulfilling needs that are often best met outside of the economy, like the needs for affection, participation, leisure, identity, understanding, and creation (Max-Neef et al., 1991). This time can also be spent on meeting our material needs in more eco-friendly ways; for instance, sharing resources with neighbors rather than working to buy or produce new goods in the market. There would also be more time for self-provisioning of essential items, like growing your own food in a community gardens or mending or refashioning clothes rather than buying new ones.

### 13.4 A Regenerative Not-For-Profit Economy

The not-for-profit way of organizing business and markets provide the basis for a wider range of economic possibilities than is commonly discussed. It opens up possibilities for sustainability, but does not guarantee them. As such, it is best seen as a necessary, but not sufficient, condition for sustainability. A host of other institutional shifts need to happen in order to arrive at a truly sustainable not-for-profit economy. This section offers a brief vision of some of the other aspects of the economy that must change in order to have a sustainable, regenerative world.<sup>4</sup> It is worth noting that many of these ideas and practices have been central to Indigenous and non-Western ways of life around the world for many centuries. Therefore, the focus of these shifts is mostly on globalized capitalist societies. Furthermore, most of the shifts outlined below would need to take shape differently according to different local contexts.

Overall global levels of consumption and production need to decrease in order to allow ecosystems to recover (Parrique et al., 2019), so sufficiency-based values and lifestyles are a necessary ingredient for a regenerative economy. Sharing of goods and resources needs to increase, which entails emphasizing *access* to goods over ownership. Voluntary simplicity—or choosing to minimize consumption and not to pursue money and material possessions as a measure of success—has an important role to play in a regenerative economy (Alexander, 2015) and can also benefit our psychological well-being (Dittmar et al., 2014).

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<sup>4</sup>For more proposals for regenerative economies, I can recommend: Alexander's *Sufficiency Economy* (2015), Eisler's *The Real Wealth of Nations* (2007), Gibson-Graham et al.'s *Take Back the Economy* (2013), and Kothari et al.'s *Pluriverse* (2019).

Accordingly, more accurate notions of human nature, motivation, and success are needed. For instance, contrary to conventional economic assumptions, humans are a highly cooperative species (Bowles & Gintis, 2013), and people's behavior and decision-making are largely shaped by their cultural and institutional contexts (Henrich et al., 2010; Scott, 2014). Thus, human nature is best understood as complex and context dependent. Furthermore, the economy can only satisfy human needs to a limited extent because many needs are the best met outside of the economy (Doyal & Gough, 1991; Max-Neef et al., 1991). Many needs are best met through connecting with others and with nature. Individual well-being is intimately tangled up with the well-being of one's whole community (Wilkinson & Pickett, 2010). A sustainable economy must also be based on an understanding of humans as part of nature, as one of many millions of species that share the Earth. This means fostering a sense of ecological stewardship (West et al., 2018) and acknowledging that there are ecological limits to economic activity (Jackson, 2017). Luckily, a shift in social norms, beliefs, and values in this direction may be well underway, with the rise of concern about social and ecological justice issues—as can be seen in globally connected social movements like FridaysForFuture, Extinction Rebellion, and Black Lives Matter.

In terms of the larger-scale policies and strategies that would be necessary for a regenerative economy, activists and scholars propose that governments should use social and ecological measurements of progress (e.g., O'Neill, 2012). Gross domestic product (GDP) can tell us how much economic activity is happening, but not how well people's needs are being met or how well ecosystems are doing. There are also calls for a shorter work week (Coote et al., 2021). Production and consumption need to happen as locally as possible because shorter supply chains are more resilient and reduce environmental impacts from the transportation of goods (Scott Cato, 2017). Products and waste must be recycled and reused wherever possible. Land ownership needs to be reformed in order to align with non-extractivist, not-for-profit principles. This can be done through community land trusts and ownership of land by not-for-profit entities. We also need strong laws that protect nature (Wijdekop, 2016) and investments in regenerating ecosystems, without the expectation of a financial return.

Education systems also need to change, in order to support and align with the transformations suggested above. Rather than preparing students to become cogs in the wheels of an exploitative capitalist system, education must instill an understanding of complex social-ecological systems and how we can provide for human and ecological well-being within these systems. To this end, education must encourage critical thinking, systems thinking, and democratic engagement with policy-making. We need curricula that encourage students to be empathic and care for each other and the biosphere.

## 13.5 Transformation Pathways

A major transformation of the economy requires a global social movement motivated by a collective vision of a better system. Maja Göpel's (2016) concept of *radical incremental transformation* is useful here. Radical change is necessary if we are to address the sustainability crises of the twenty-first century, so we need a radical vision for the future that we desire. However, we cannot get there with the snap of our fingers. Even radical change requires incremental steps over time. The key is that those incremental steps are clearly oriented toward the radical vision of the desired future. The not-for-profit world provides a radical vision, but the path to get there will have to be paved through incremental steps. This involves feedbacks between bottom-up social movements, calls from citizens for change, top-down policies, business transformations, and shifts in consumer behavior. A key aspect of institutions is that they are not written in stone, but are socially defined and altered over time in response to changing conditions (North, 1990).

The accumulation of wealth and power in the hands of a relatively small number of actors in the global economy means that NFP businesses cannot be expected to simply outcompete their for-profit peers. Rather they must be supported by a large social movement that simultaneously builds the NFP economy from the ground up and pushes for top-down policies that can open up the space for NFP businesses to flourish. A good start for policy-makers is to take away the subsidies and tax cuts that the largest for-profit players currently enjoy. Policies can also be drafted to encourage entrepreneurs to start their businesses as NFPs and to encourage existing for-profits to become NFPs. For instance, government seed-funding programs can focus on NFP forms of business. Critically, policies must protect not-for-profit entities' ability to do business, as there is mounting pressure from for-profit competitors to kick them out, based on the argument that not-for-profits do not belong in the market.

## 13.6 Conclusion

Social systems are in a constant state of flux—as we shape, and are shaped by the institutions around us. Just as our institutional contexts guide and constrain our behavior, we can accommodate, reinforce, resist, or work to change these institutions. As social norms and values shift in response to our planetary crises, the legitimacy of conventional ways of organizing business and markets is increasingly being called into question. There is a search for appropriate alternatives that align with the pursuit of social-ecological justice in the twenty-first century. The not-for-profit way of organizing business and markets—with its focus on using resources for social benefit rather than financial gain—opens up a range of possibilities for organizing economies more sustainably.

As the previous chapters of *Transformation Literacy* have laid out, the global sustainability crisis is a systemic problem that calls for systemic transformations.

A not-for-profit economy is a systemic transformation that gets to the roots of the crises of the capitalist economy, while also providing the basis for the other kinds of transformations that are necessary for a regenerative sustainable world.

## References

- Alejo Vázquez Pimental, D., Macías Aymar, I., & Lawson, M. (2018). *Reward work, not wealth: To end the inequality crisis, we must build an economy for ordinary working people, not the rich and powerful*. Oxfam GB.
- Alexander, S. (2015). *Sufficiency economy: Enough for everyone, forever*. Simplicity Institute.
- Alves, I. M. (2009). Green spin everywhere: How greenwashing reveals the limits of the CSR paradigm. *Journal of Global Change and Governance*, 2(1), 26.
- Berger, M. (2015, November 10). California social purpose corporation: An overview. *Nonprofit Law Blog by NEO Law Group*. <http://www.nonprofitlawblog.com/california-social-purpose-corporation-an-overview/>.
- Borzaga, C., & Tortia, E. (2007). Social economy organisations in the theory of the firm. In A. Noya & E. Clarence (Eds.), *The Social Economy: Building Inclusive Economies* (pp. 23–60). OECD. <https://doi.org/10.1787/9789264039889-3-en>.
- Bowles, S., & Gintis, H. (2013). *A cooperative species: Human reciprocity and its evolution* (1. paperback print). Princeton University Press.
- Coote, A., Harper, A., & Stirling, A. (2021). *The case for a four-day week*. Polity Press.
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107(5), 879–924. <https://doi.org/10.1037/a0037409>
- Doyal, L., & Gough, I. (1991). *A Theory of Human Need*. Palgrave Macmillan.
- Eisler, R. T. (2007). *The real wealth of nations: Creating a caring economics* (1st ed). Berrett-Koehler Publishers, Inc.
- Fuentes-Nieva, R., & Galasso, N. (2014). *Working for the few: Political capture and economic inequality*. Oxfam GB.
- Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013). *Take back the economy: An ethical guide for transforming our communities*. University of Minnesota Press.
- Göpel, M. (2016). *The great mindshift* (Vol. 2). Springer International Publishing. <https://doi.org/10.1007/978-3-319-43766-8>
- Hahn, T., Figge, F., Pinkse, J., & Preuss, L. (2010). Trade-offs in corporate sustainability: You can't have your cake and eat it: Trade-offs in corporate sustainability: You can't have your cake and eat it. *Business Strategy and the Environment*, 19(4), 217–229. <https://doi.org/10.1002/bse.674>
- Hansmann, H. B. (1980). The Role of Nonprofit Enterprise. *The Yale Law Journal*, 89(5), 835. <https://doi.org/10.2307/796089>
- Hardoon, D., Ayele, S., & Fuentes-Nieva, R. (2016). *An Economy for the 1%: How privilege and power in the economy drive extreme inequality and how this can be stopped*. Oxfam GB.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33(2–3), 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Hinton, J. B. (2020). Fit for purpose? Clarifying the critical role of profit for sustainability. *Journal of Political Ecology*, 27(1), 236–262. <https://doi.org/10.2458/v27i1.23502>
- Hinton, J. B. (2021). *Relationship-to-Profit: A Theory of Business, Markets, and Profit for Social Ecological Economics* [Doctoral dissertation]. Stockholm University.
- Hinton, J., & Maclurcan, D. (2016). *How on Earth: Flourishing in a Not-for-Profit World by 2050 (working draft)*. Post Growth Publishing. <http://arxiv.org/abs/1902.01398>.
- Hinton, J., & Maclurcan, D. (2017). A not-for-profit world beyond capitalism and economic growth? *Ephemera Journal*, 17(1), 147–166.

- ILO. (2014). *Global Wage Report 2014/15*. International Labour Organization.
- ILO. (2016). *Global Wage Report 2016/17: Wage inequality in the workplace*. International Labour Office.
- Jackson, T. (2017). *Prosperity without growth: Foundations for the economy of tomorrow* (2nd ed.). Routledge.
- James, E., & Rose-Ackerman, S. (1986). *The Nonprofit enterprise in market economics*. Harwood Academic Publishers.
- Kallis, G. (2018). *Degrowth*. Agenda Publishing.
- Kothari, A., Salleh, A., Escobar, A., Demaria, F., & Acosta, A. (Eds.). (2019). *Pluriverse: A post-development dictionary*. Tulika Books and Authorsupfront.
- Libecap, G. D. (1986). Property rights in economic history: Implications for research. *Explorations in Economic History*, 23(3), 227–252. [https://doi.org/10.1016/0014-4983\(86\)90004-5](https://doi.org/10.1016/0014-4983(86)90004-5)
- Lodsgård, L., & Aagaard, A. (2017). Creating value through CSR across company functions and NGO collaborations. *Scandinavian Journal of Management*, 33(3), 162–174. <https://doi.org/10.1016/j.scaman.2017.05.002>
- Magdoff, F., & Foster, J. B. (2011). *What every environmentalist needs to know about capitalism: A citizen's guide to capitalism and the environment*. Monthly Review Press.
- Max-Neef, M., Elizalde, A., & Hopenhayn, M. (1991). *Human scale development: Conception, application and further reflections*. Apex Press.
- North, D. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press.
- O'Neill, D. W. (2012). Measuring progress in the degrowth transition to a steady state economy. *Ecological Economics*, 84, 221–231. <https://doi.org/10.1016/j.ecolecon.2011.05.020>
- Oxford Dictionary. (2020). "Capitalism." In *Oxford Dictionary*. Oxford University Press. <https://www.lexico.com/definition/capitalism>
- Parrique, T., Barth, J., Briens, F., Kerschner, C., Kraus-Polk, A., Kuokkanen, A., & Spangenberg, J. H. (2019). *Decoupling Debunked: Evidence and arguments against green growth as a sole strategy for sustainability*. European Environmental Bureau.
- Schnaiberg, A., Pellow, D. N., & Weinberg, A. (2002). The treadmill of production and the environmental state. In A. Mol & F. H. Buttel (Eds.), *The environmental state under pressure* (pp. 15–32). Elsevier Publishing Ltd.
- Schneider, A. (2020). Bound to fail? Exploring the systemic pathologies of CSR and their implications for CSR research. *Business and Society*, 59(7), 1303–1338. <https://doi.org/10.1177/0007650319856616>
- Scott Cato, M. (2017). The bioregional economy: Celebrating the local in production and consumption. In C. L. Spash (Ed.), *Routledge handbook of ecological economics: Nature and society* (pp. 487–496). Routledge.
- Scott, W. R. (2014). *Institutions and organizations: ideas, interests, and identities* (4th ed.). Sage Publications.
- UN Environment (Ed.). (2019). *Global environment outlook—GEO-6: Healthy planet, healthy people*: (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781108627146>.
- West, S., Haider, L. J., Masterson, V., Enqvist, J. P., Svedin, U., & Tengö, M. (2018). Stewardship, care and relational values. *Current Opinion in Environmental Sustainability*, 35, 30–38. <https://doi.org/10.1016/j.cosust.2018.10.008>
- Wier, L. (2020, February 27). *Tax havens cost governments \$200 billion a year: It's time to change the way global tax works*. World Economic Forum. <https://www.weforum.org/agenda/2020/02/how-do-corporate-tax-havens-work/>.
- Wijdekop, F. (2016, August). Against ecocide: Legal protection for earth. *Great Transition Initiative*. <https://greattransition.org/publication/against-ecocide>.
- Wilkinson, R. G., & Pickett, K. (2010). *The spirit level: Why greater equality makes societies stronger* (1. American ed., rev.updated). Bloomsbury Press.

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# Chapter 14

## Politics, Systems Thinking and Building the Wellbeing Economy: The Example of Wales



Jenneth Parker

**Abstract** This chapter discusses the example of Wales to give insights to how and why a Wellbeing Economy approach has been successfully initiated there, and some idea of its future prospects. The systems aspects of Wellbeing Economy are identified as being inherent in ambitions to develop transitional strategies that can achieve system change through combinations of measures across different aspects of economy, society and ecology. The example of Wales includes the historical, cultural and economic background to help understanding of the bases on which Wellbeing Economy commitments can be supported in a population. The chapter concludes with some general points about the value of systems tools and approaches in helping to really bring Wellbeing Economy topics off the page and into reality. In particular, the complexity of the task of Wellbeing Economy is suited to systems approaches that can help to map coherent relationships between different areas and also aid in moving from loose alliances to more synergies. These tools and approaches can be powerful when combined with the extensive local knowledge and motivation that exists wherever we find communities and individuals working for a better future.

**Keywords** Wellbeing economy · Systems · Politics · Wales · Alliances · Synergies

### 14.1 Introduction

This chapter explores issues of the conception and roles of politics in creating a constituency of support for Wellbeing Economy transformations. It focuses on the case study of Wales, a small country currently within the UK, but with a devolved government, the Welsh Senedd. This case also gives some perspectives on how the individual situation and historical circumstances of different countries affect and inform the path that Wellbeing Economy might take. Wales is particularly of interest as the current Welsh government has joined the Wellbeing Economy Governments (WEGo) coalition of governments supporting a Wellbeing Economy approach.

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J. Parker (✉)  
Wales Systems Forum & Schumacher Institute, Barry, Wales, UK  
e-mail: [jennethparker@gmail.com](mailto:jennethparker@gmail.com)

Current membership in the coalition includes Scotland, New Zealand, Iceland and Finland in addition to Wales. Wales has in place some relevant foundational legislation, the Wellbeing of Future Generations Act (2015), which helps to provide a framework for Wellbeing outcomes across a range of related areas. How we manage, engage and communicate wellbeing is of concern when we consider the complex systems aspects of transitioning to Wellbeing Economies. The experience of Wales may help to illuminate some possible ways forward.

This chapter also draws on the current attempts being made in Wales to engage with the electorate and wider civil society to give their support and vote for Wellbeing in the 2021 Senedd (Welsh Assembly) elections. In so doing, the analysis goes beyond the limited conception of politics as being concerned primarily with state actors, using an expanded conception that includes civil society organisations and social movements as important political actors. This approach follows that taken by the Wellbeing Economy Alliance which has governmental and civil society wings. This exploration gives a view of how these relationships might play out in the case of different countries. Some of the strategies for communication and engagement may be of interest for others concerned with gaining political support and legitimacy for the Wellbeing Economy project in their own contexts. Finally, the conclusion raises questions about politics and systems thinking, proposing that systems-informed transition strategies will be needed.

‘Wellbeing Economy’ is a very broad concept (Hough-Stewart et al., 2019), but there are several key elements to highlight for the purposes of this chapter. Firstly, there is the need to move to deliberate design of economic frameworks that structure and enable the activity of economic agents. This point is linked to the commitment to making the economy work for wellbeing outcomes and clearly makes the links between social and political goals and values and economic governance. In this way the Wellbeing Economy is opposed to the neoliberal concept of a ‘value-neutral’ economy which should be allowed to take its own path irrespective of the harm it may do to people, communities or nature along the way. The commitment to wellbeing outcomes implies a wide interdisciplinary research and development programme to work out how to achieve these, with many different strategies and tools proposed (Blewitt ed, forthcoming). Secondly, there is the key recognition that the economy has to be designed to keep in being life-support systems of the planetary ecology and climate. Not only do we need to keep in being that which currently exists, but also to repair and regenerate the living systems on which we all depend. Finally, the approach to change is based in a systems understanding which proposes that a combination of changes in different areas can add up to progressive system change understood as ‘transitional’. This brings the hope that system change can be designed in ways that could keep key social functions and provisioning in place whilst change is managed. Whilst this demands a high and developing awareness on the part of actors, it may be able to avoid destructive episodic change which has frequently resulted in new forms of oppression and environmental damage.

In order to discuss, the historical bases from which a Wellbeing Economy might emerge we would therefore want to inquire into the cultural, religious and ethical roots of values and identities. We might also want an idea of social norms and the

texture of community life. The material infrastructure and economic sectors that have developed will be important; along with the way that these have shaped the land and ecologies. Environmental history is still in development, building from the huge achievements of J.W. Moore (2003), but there is no environmental history of Wales as such. Here, I refer to John Davies (1996) work 'The Making of Wales' as it covers infrastructure and environment along with social history. The account below is necessarily a compressed overview that combines elements of social, economic and environmental history to provide context to the development of the Wellbeing Economy in Wales.

## 14.2 Welsh History and the Changing UK

The history of Wales is important in order to understand the challenges and potentials of the current time. Wales has been called an 'internal colony,' a term designed to indicate the balance of a relationship that is colonial in certain respects, but also includes, and implicates, the country in other wider colonial ventures (Price, 2020).

Wales was colonised early in the formation of the UK (thirteenth century) and many look back with regret to the destruction of legal frameworks, social norms and the Welsh language. For example, the laws of Hwyl Da (Hwyl the Good) are held to have been more equal, for example with respect to gender (Owen, 1841). Whilst there was continuing conflict, the imposition of the Norman state in the Marches (or borders) put in place forms of estate land ownership and class structure (as in the rest of the UK). The spread of Christianity also affected land and ecology as for example, estates granted to the Cistercians were material in bringing in intensive sheep farming driving deforestation (Davies, 1996). Social divisions were heightened in Wales due to the clashing of cultural norms and the prevalence of the Welsh language spoken by the ordinary people. The importance of the cultural aspects can perhaps be seen in the fact that the current Eisteddfodau cultural celebrations, and the youth festivals or Urdd, are the largest in Europe, quite an achievement for a small nation of approximately 4 million (Davidson, 2020). As a nation Wales has been developed in a classic extractive pattern, with infrastructure designed for these purposes (as can be seen from road and rail maps for example), and with attempts to suppress or destroy indigenous culture and institutions. The rules against speaking Welsh at school, and the punishments, are within living memory (Gower, 2012).

### 14.2.1 *Leading the Early Industrial Revolution*

The economic history centrally includes the huge social upheaval of a farming nation turning to industries based on extraction and processing of raw materials, including slate, lead, copper and coal (Davis, 1996). These early industrial sites are found throughout the north and south but south Wales became profoundly shaped by the

contribution of the Welsh mining communities to the first industrial revolution based on fossil fuel energy, located mostly in the south Wales coalfield in a challenging landscape of deep valleys. The availability of fuel and minerals drove the development of industries such as steel (Gower, 2012). These later developments changed south Wales with much incoming immigration and created cultural divisions between the south and the north still felt to this day. In some ways the history of south Wales has more in common with industrial communities in the north of England than with rural areas of Wales.

The West is a mix of Welsh-speaking farming communities and areas with longstanding English connections from the time of the Norman conquest (eleventh century) onwards. In the south, many of the coal, iron and limestone mines were owned by historical aristocratic landowners who made vast fortunes. These developments also prompted infrastructure to speed Welsh coal across the British Empire as it was then, for example the ports of south Wales at Cardiff and Barry (Davis, 1996). The production of steel in Wales also supported international British infrastructure across the Empire and beyond. In addition, the Welsh population supplied services and inspiration to the wider UK in the form of domestic service, army personnel, educators, writers, musicians, poets and playwrights.

### ***14.2.2 Agriculture***

In agriculture, Wales also suffered from the ‘English disease’ of the turn to sheep which has led to upland deforestation and destruction of biodiversity (Davies, 1996). Vast fortunes could be made in the wool industry and rural workers were displaced from their subsistence livelihoods, in order to extend sheep farming. More recently, industrial agri-business has taken hold in Wales to a great extent with pollution problems arising from artificial phosphate fertilisers and the loss of soil and fertility caused by massive farm machinery. The Welsh family farm is struggling with the multiple demands of the market, subsidies regimes and policy and regulatory requirements (Morris, 2021). The impact of the shift to agri-business production models on Welsh wildlife has been huge, and also contributes to climate change (Wales Wildlife Trust, 2019). As farming emissions come to be taken more seriously in climate agreements internationally there are more drivers in place supporting a transition of farming to more agro-ecological models (Institute of Welsh Affairs, 2019).

### ***14.2.3 Fishing and Coastal***

Wales has a great deal of very beautiful coastline and historic fishing and port communities were centres of trade when much transport was seaborne owing to lack of good roads. Fishing is suffering from the over-fishing of the recent past and major port activities are still linked to fossil fuels including oil into Milford Haven for fuels and

into Barry dock for use in the plastics industry. Ports also include holiday and business traffic between Wales and Ireland. The coast, including various important islands, has become a major centre for tourism from Victorian (Queen Victoria, reigned from 1837–1901) times, encouraged by the arrival of the railways. The tourism industry includes nature tourism and the state of the environment and of populations of charismatic animals such as seals and puffins are a key concern for the industry as well as for conservationists. This includes the state of the marine environment where diving is popular (Wales Wildlife Trusts, 2020). In this respect, Wales can be seen to have the potential for schemes similar to Community Based Natural Resource Management (CBNRM) which has had success in parts of Africa for example. Whilst tourism provides jobs these are still often seasonal and increasingly there is a great deal of pressure on the housing stock. The campaign against second homes continues to be a feature of Welsh political life, with housing for locals made even more difficult by the recent pandemic-inspired flight from city living (Brennan, 2021).

#### ***14.2.4 Culture and Religion***

The rise of non-conformist churches and the development of the Welsh bible also made a big contribution to the radical and ethical roots of social change (Gower, 2012), keeping alive forms of spirituality and identity, reflected in music and song. Wales has always had a high value for literacy and learning and the cultural dimensions of identity have kept robust partly through these traditions and their association with the wider Celtic revival in both Ireland and Scotland (Paxton, 2020). For example, many miners in Wales spoke Welsh and some had poetry societies, in addition to the Miners' Institutes and Libraries (Millard, 2020). As a key source of energy for the UK Wales was subject to sometimes brutal control by centralised UK government. For example, in the Welsh valleys it is well remembered that the British army was ordered to open fire on striking Welsh miners in 1910 in Tonypandy (Williams, 1973). The miners were striking to protest the way that a cartel of mine-owners were keeping wages low, just one example of many historical injustices that have helped to form the diverse identities of Wales.

#### ***14.2.5 The 'Modern' Economy***

The UK Thatcher government of the 1980s decided to break the hold of the mining unions on UK energy supplies, closing the mines thereby of a large amount of the skilled industrial workforce of Wales. This was enabled by the rapid globalisation of development and cheaper production costs elsewhere (Gower, 2012). As Britain lost the wider Empire neo-liberal agendas developed London as a hub of global finance and the financial activity of the city has become the biggest net provider of revenue for the UK (Westminster) government. London became the exchange

centre for Euro-Dollars and thus an important intermediary between the growing EU economy and the US, a fact which will be important in understanding the potential for economic collapse of the Brexit project. Economically, with its industrial base destroyed, Wales was thus reduced to an economic supplicant with social services, and unemployment benefits supplied by the centralised Westminster government (Davies 1996). The balance of revenue from and to Wales is in dispute however, one fertile source of disagreement is the lack of specifically Welsh economic data (Independence Commission, 2020).

With the link between energy supply and Welsh labour power broken, the need to exercise such a high degree over Wales became less pressing for the wider UK. Increased demands for parity for the Welsh language and more national self-government were gradually heard. However, it took a great deal of campaigning action by Cymdeithas Yr Iaith Gymraeg (Welsh Language Society) to gain a TV channel in Welsh (S4C), with a highly respected Welsh cultural figure Gwynfor Iwan, threatening a hunger strike and forcing the hand of the British (UK) government. Calls for independence resulted in a referendum on independence in 1997 with a majority against at that time (Gower, 2012).

Economically, failure to appreciate the need to plan for new and clean technology, along with market fundamentalism, has meant that much money has been wasted in Wales by those trying to attract corporate finance to older industrial areas. Rural areas of Wales have struggled in the face of international competition, often being kept solvent in more recent times by EU subsidies. Car-based tourism has flourished in Wales, but along with this has come pressure on local housing and a dismal level of local public transport and infrastructure for local people. Finally, Wales and the rest of the UK has experienced the terrible effects on communities of Westminster-led economic austerity, following the 2008 financial crash. In summary, this presents a history of extraction and exploitation of communities and nature (Independence Commission, 2020).

Although Wales is proud of its industrial history, and the linked stories of human solidarity and community, the early industrial revolution exacted a terrible toll on the Welsh environment. The spoil heaps of the mines (many still unsafe particularly with climate change induced high rainfall), the imposition of monocultures of forest plantations (known as the 'Green Desert' as they support so little wildlife), and the flooding of valleys to provide water for cities, being some well-known examples (Davies 1996). More recently, the parlous state of biodiversity in Wales is being headlined, with the recognition that iconic landscapes such as the Brecon Beacons are severely deforested and impoverished in terms of wildlife. The phenomenon of 'empty landscapes' has been recognised and rewilding of parts of Wales is now more under open discussion with some encouraging examples underway although some prefer other terms (Cambrian Wildwood, 2020).

### ***14.2.6 Devolution and Brexit***

The model of UK governance over the past 30 years has been progressive devolution and the Welsh Government has control over Education, Health, Environment and a range of other areas. The wide support for the Senedd (formerly the Welsh Assembly) and the official status of the Welsh language have meant that Welsh capacity for self-directed political change has greatly increased. However, as the implications of Brexit become more apparent, it is clear that the developing Welsh and Scottish devolution settlements, and the Northern Ireland Peace Agreement, have grown up within the frameworks of EU membership.

For some forces in the UK Brexit presents an opportunity to recentralise the UK and re-establish a greater degree of control. The recent Brexit bill was used to make provision for an extraordinary re-balancing of power towards the centre and consequent damage to the internal settlement of the UK. The provisions for the 'internal market' contained in the Brexit bill were couched in 'neutral' economic language but the implications for the power of the Welsh and Scottish governments to shape the economy are profound. It has been stated in the Welsh Assembly that these measures drive a coach and horses through the Wellbeing of Future Generations Act and the Welsh Government's commitment to the Wellbeing Economy (Senedd 21).

One clear example of the effect on the prospects for the Wellbeing Economy is the question of the replacement for the EU structural funds. During the Brexit debate, it was promised that Wales would not miss out on the EU funds it used to gain, which were under the control of the Welsh Government. What was not said was that these replacement funds would be centrally controlled by Westminster and based in the old neoliberal market logics now presented as 'Global Britain.' The Welsh Government's commitments to progressive environmental and social policies is thus under threat as these will mean nothing if any measures can be over-ridden by Westminster in the name of 'neo-liberal UK market logics.'

Here, we have a clear, ongoing example of how political frameworks with the power to make change directly influence the viability of the Wellbeing Economy project. This shows how the development of meaningful subsidiarity and self-governance has to be considered a vital aspect of the Wellbeing Economy enabling frameworks, considered further below.

The recent elections for the Welsh Senedd have made it politically more difficult for this planned centralisation to be aggressively pursued for now. The predicted surge for the conservatives following the general UK polls did not happen to any great extent. Instead, the current Welsh Government, largely run by Welsh labour, had a ringing endorsement from the electorate. Why was this? many are crediting this win to the care-focused and cautious approach to the pandemic from the Welsh Government which is widely seen as more successful than in England. However, there may also be some recognition that the Welsh Devolution settlement is under attack. Can it be perhaps that the vote for the current Welsh Government was also in part a defensive reaction and a re-assertion of the desire for at least an effective

degree of self- government? At present the union in the United Kingdom is held to be voluntary, and whilst this is still the case, negotiation and mediation will need to take the place of undermining legislation by stealth disguised as purely ‘economic’ enablement (McAllister, 2022).

## **14.3 The Foundations of the Wellbeing Economy in Wales**

But what does this history tell us about the resources and potential for Wales to be play a significant role in the development of the Wellbeing Economy? This section will review some of the more significant elements before proceeding to an analysis that identifies some generic features that could help us understand potential and strategy elsewhere. This review is not intended to imply that the road is easy in Wales, nor that really substantial progress has been made as yet, but rather that some of the necessary ingredients seem to be in place and could be built on further.

### ***14.3.1 Does Wales Have a Culture of Equality?***

The continuing struggle to maintain, rediscover and create forms of community and wellbeing in Wales has succeeded in keeping alive forms of social solidarity which are a real strength in times of difficulty. Wales was a huge force in the development of the labour movement, with many Welsh cultural and political figures contributing to the post WWII social contract which included the National Health Service (NHS) and the fledgling welfare state (Gower, 2012). The political calls for independence have often been heard alongside strong anti-racist and internationalist attitudes and action, although Welsh nationalism can have its bigoted and exclusionary aspects. The campaign for Welsh independence has yet to fully establish a cosmopolitan vision of an inclusive form of Welsh identity that the Scottish National Party (SNP) under Nicola Sturgeon has made so attractive (Scothorne, 2021). Wales did narrowly (52% to 48%) vote for Brexit and there has been prejudice against some EU workers who are believed to have lowered wages, especially in the skilled trades.

Wales has many innovative organisations in civil society in addition to some ground breaking not-for-profits and a generally socially conscious public. As noted, one very important tendency in Welsh history and society is the relatively strong support for equality. This is relative to England and hence is perhaps more akin to norms in Nordic countries rather than anything more radical. There is a growing awareness of intersectional equality issues in addition, although much remains to be done. As we have seen dramatically in American and other examples, where extreme climate impacts strike, inequality greatly worsens without specific measures being taken. There will be an increased need to support all communities in developing resilience but support will be especially needed for weaker communities, otherwise future events will produce a worsening social tragedy. There are some signs that

these points are gradually being taken on board in Wales and resilience is one of the Wellbeing goals as outlined below.

### ***14.3.2 Innovative Organisations***

One way to consider social change is to look at the intersection of different social sectors—government, civil society and business and the roles they might play—but also what enabling and enforcing actions might be required across these sectors. In Wales, there is a range of very influential organisations that are now **hybrid organisations**—that is they comprise elements of all three sectors. Examples that are big in Wales are housing associations; health trusts; universities; and other social/not-for-profit businesses such as Welsh Water. All these organisations have a relationship to public money and some form of social accountability to produce public benefit. From traditional economic perspectives, the balance of the Welsh economy towards such organisations has been criticised as needing to be rebalanced more towards private enterprise. However, in seeking to build a more social and ecological economy, many of these organisations are a valuable asset as they have a track record of positive social innovation and partnership working. We will need to learn from these experiences and skills if we are to respond effectively to climate and nature emergencies and to build resilience in a Wellbeing Economy.

These organisations and their spending power, have been the basis for the development of interest in the Foundational Economy (Welsh Government, 2021a). The model here is to use the power of public money to help support local economy and not-for-profit economy developments in the wider goal of an economy that exists to provide public value. Similarities with developments in former industrial communities in the north are of interest here, the Foundation Economy has also been called the ‘Preston Model’ based in community wealth building. Of significant interest here is that the Cardiff Business School, housed in the wider eminent Russell Group (group of prestigious universities in the UK) of Cardiff University, has been reoriented around the concept of ‘public value.’ This change of orientation reflects and supports the wider commitments in Wales to Wellbeing, developments which have been underway for some time.

### ***14.3.3 The Wellbeing of Future Generations Act***

The Wellbeing of Future Generations Act, WFGAct (2015) was the outcome of an extensive period of consultation and development, linked to the constitution of the then Welsh Assembly (2006). In the same period the Welsh Government brought commitments to Sustainable Development and addressing Climate Change into the constitution. ‘The Wales we Want’ National Conversation (Cynnal Cymru, 2006) helped to give legitimacy and bring more voices to the table in setting up these

commitments. The WFG Act was also the result of intense personal commitment of politician Jane Davidson, explored in her (2020) book ‘future gen: Lessons from a Small Country’, and the activity of a loose coalition of NGOs and agencies all committed to sustainable development.

The constitution also importantly included a commitment to Education for Sustainable Development and Global Citizenship or ESDGC. These measures, although not being strongly mandatory, have formed the background to the adoption of Wellbeing Economy commitments and form part of the political legitimacy for the concepts in Wales. The Wellbeing Framework of the Welsh Government guides reporting and policy development and comprises the following key goals:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language
- A globally responsible Wales

These goals also help enable and support commitments to the UN Sustainable Development Goals or SDGs (Wales SDGs, 2021).

#### ***14.3.4 WEAll Cymru and Advocacy***

The Welsh Government signed up to the Governmental Wellbeing Economy Alliance (WeGo) in 2020 in a move that was widely welcomed by Welsh progressive groups. A civil group was also formed, the Wellbeing Economy Alliance Cymru in order to spread awareness in civil society more widely and to help build the social consensus to really make these commitments mean something. In common with the wider WEAll approach, WEAll Cymru (2021) has constructed itself as a broad network, recognising and amplifying the existing work of a wide range of already existing organisations, many of whom were central to the development of the WFG Act. There is still a long way to go in developing many of the key themes of the Wellbeing Economy in Wales, some of which are identified below in the analysis.

One direct action that the WEAll Cymru has taken recently is to develop joined-up advocacy for Wellbeing at the 2021 Senedd Elections. This took the form of a hustings where party representatives were invited to respond to a series of pointed questions. The hustings were very well attended and this was one of the lively political events in the run up to the elections, raising the profile of the Wellbeing Economy at the same time as pushing for more action (WEAll Cymru, 2021a). At the time of writing WEAll Cymru is relatively new, but the signs are good that it can become a hub for agreement and joint action across a wide range of progressive civil society groups. Of note here is that Oxfam Cymru (2020) has produced a Donut Economics analysis of the situation in Wales, outlining the scale of the challenge in terms of environment and

equality. Also World Wildlife Fund (WWF) Cymru (2017) is ahead in recognising the links between biodiversity crisis and climate change and advocating for joined up solutions that have greater equality as a key feature. Finally, it is important that the Welsh Government (2021b) has made a big commitment to Circular Economy and although this is in its early stages there are some good civil society organisations which are supporting and extending the debate (Circular Economy Wales 2021). One further development springs from the history of different approaches to community wealth such as investments in cooperatives. Recently, we have seen the development of a Welsh Bank, Banc Cambria (2021) which is committed to financial inclusion. In addition, proposals for innovative forms of finance for funding the scale of the transition to zero carbon that is needed have been proposed by the Wales Green Party (2021) amongst others. There is also an acknowledged need for a wider systemic understanding of how all these different elements can support each other, in order to make good progress to link up these various agendas.

## 14.4 Analysis of Generic Elements

This section contains some reflections on the political aspects of the development of the Wellbeing Economy agendas in Wales with some possible lessons for other areas of a general nature.

### *14.4.1 Wellbeing Economy Can Help to Support a Vision for a Different Future*

Considering both the Welsh and Scottish devolved governments' commitments to a Wellbeing Economy we can see that this helps to give form and substance to the distinctiveness of the national projects which they each outline. Wherever constitutional change is happening there are opportunities, but there is a need for solid implementation plans to really make plans work. The existence of an international Wellbeing Economy agenda, together with associated developing areas of expertise and agreement in various position papers helps to give both the Welsh and Scottish government more credibility in their attempts to carve out a distinctive approach to economy within the current UK constitutional settlement. In other words, the Wellbeing Economy helps make the case for the salience of more locally embedded and responsive forms of economy that could be seen as part of an 'economic democracy' agenda. This might lead us to consider that a Wellbeing Economy approach may meet resistance from very strong states that resist forms of more local autonomy. This consideration highlights the need for development of further agency for real local economic democracy. Where strong states are resistant this might be accomplished under the heading of building resilience for local areas to cope with the

problems of climate change and biodiversity loss. Locally informed action is priceless when it comes to citizen support and engagement and this may be a bargain that even strong states might come to recognise as necessary.

#### ***14.4.2 Wellbeing Economy as Distinctive is not Necessarily Strong on Environment***

The case for the links between greater equality and economic democracy identified above and real action on nature/biodiversity and climate crises is still being made. This needs to be stronger and more evidenced. This is one reason that the current alliance between the Scottish Greens and the Scottish National Party (SNP) is to be welcomed. This might be a point for the Wellbeing Economy Alliance to prioritise in terms of international exchange, learning and strategy. This consideration highlights the importance of the Wellbeing of Future Generations Act in Wales which makes specific links between equality and the health of the natural environment. However, it remains to be seen whether the Welsh Government will live up to its environmental commitments and so far the record of achievement is not good. Even though much more could be done with soft power the Welsh Government needs to gain more effective regulatory powers in order to really make this work.

#### ***14.4.3 Leveraging Existing Green Shoots and Creating Alliances***

Knowing who to engage with in any context means a real knowledge of the history and potentials of the area and context. In the Welsh case there is less of a cultural schism between civil society organisations such as NGOs and other civil associations such as unions than there can be in some other locations. The acceptance of the need for ‘just transition’ that recognises the importance of workers’ rights and involvement in change is one feature of this which again might be a learning point for others. The importance of the Foundation Economy approach as a part of a Wellbeing Economy set of strategies could also be a feature to be included more centrally in Wellbeing Economy debates and literature. This recognises the creativity of organisations linked to the labour movement and the long history of such initiatives in different areas. Wellbeing Economy is not all ‘new’ by any means.

South Wales post-industrial – including the South Wales Valleys and coastal industrial towns.	Urban and administrative centres, cities and university towns.
More prosperous rural areas – retirees and those commuting to more highly paid employment from desirable rural locations.	Smaller struggling rural areas including tourist locations and farming and market towns.

**Fig. 14.1** Different areas of Wales

### ***14.4.4 Addressing the Particular Make-Up and Problems of Specific Areas***

The example of Wales helps us to see that in order to really gain traction for Wellbeing Economy approaches it is necessary to identify the problems and issues of different regions, even in a small country. How can we explain the difference that a Wellbeing approach would really make to each area? The different kinds of Welsh communities could be simply categorised as shown in Fig. 14.1.

All these different kinds of communities would need to see direct improvements to Wellbeing in order to really embed new economy and Wellbeing Economy approaches. This suggests a ‘menu’ approach of measures which could be debated and prioritised differently in different geographical regions.

### ***14.4.5 Working Across Regions and Sectors for a Wellbeing Economy***

Further, we need to consider how to work with the many different sectors of the economy and how to begin to develop networks that can work across sectors, linking together various different kinds of knowledge. Some kind of mapping and logistical function is necessary across networks to help make Circular Economy a reality, identifying the possibilities for material flows and cooperation. The kinds of Wellbeing principles on which action is based need to be fleshed out more in terms of what they really mean for action. For example, commitments to equality suggest a firm commitment to ‘just transition’ processes that recognise the agency and interests of workers in all economic sectors.

### ***14.4.6 Joined-Up Action and Systems Thinking Across Scales***

Interdisciplinary systems approaches can recognise the complexity of tasks such as that of WEAll, but also bring tools and approaches to manage and think through the complexity. Spreading the awareness and use of systems approaches is a key aim of the Wales Systems Forum which has proposed a broad landscape mapping exercise

to the Welsh Governments' Build Back Better forum. Systems approaches can be very illuminating, but only in conjunction with embedded knowledge from economic actors, including all those many great organisations that have been working for so long to change the Welsh economy for the wellbeing of all.

This chapter has largely been about the small country of Wales and the Wellbeing Economy Alliance. However, as we know we are all part of a global economy which runs on certain dominant (or 'reserve') currencies). No more localised actions or innovations can work completely without wider reforms being brought into play. Wider questions of the possible and/or necessary synergies between more localised and macro-economic reforms will need to be addressed. The call to action from an alliance of smaller countries may help to push this wider agenda in conjunction with progressive alliances of countries in different global regions.

## 14.5 Conclusions

This chapter has discussed the example of Wales in some depth in order to give insights to how and why a Wellbeing Economy approach has been successfully initiated here, and some idea of its future prospects. In so doing links have been made between political history and current issues, demonstrating how the Wellbeing Economy is helping political actors to achieve some of their goals and set out an alternative vision, supported by a wider international alliance. Some generic points have been identified, and it is hoped that others may draw some of their own conclusions about elements that may be transferable, and to question more deeply what might be the already existing grounds and green shoots on which Wellbeing Economy commitments might be built in their own context. The chapter has concluded with some general points about the value of systems tools and approaches in helping to really bring Wellbeing Economy topics off the page and into reality. These tools and approaches can be powerful when combined with the extensive local knowledge and motivation that exists wherever we find communities and individuals working for a better future.

## References

- Banc Cambria. (2021). <https://www.cooperatives-wales.coop/banc-cambria/>.
- Blewitt, J. (2021), ed. Forthcoming. *New Economy*, New Systems, Good Works Publishing: Bristol, UK.
- Brennan, S. (2021). Second homes reaching crisis point for communities in Wales. *The Nation*, Cardiff, Cymru. <https://www.thenational.wales/news/19350987.calls-action-tackle-wales-housing-crisis/>.
- Cambrian Wildwood. (2020). <https://www.cambrianwildwood.org/rewilding/>.
- Circular Economy Wales. (2021). <https://circulareconomy.wales/>.
- Cynnal Cymru. (2006). <https://cynnalcymru.com/the-wales-we-want-national-conversation/>.

- Davidson, J. (2020). *Future gen: Lessons from a small country*. Chelsea Green, London, UK.
- Davis, J. (1996). *The making of wales*. The History Press Limited.
- Gower, J. (2012). *The story of wales*. BBC Books.
- Hough-Stewart, L., Trebeck, K., Sommer, C., & Wallis S. (2019). What is a wellbeing economy? Different ways to understand the vision of an economy that serves people and planet. WEAll Ideas: Little Summeries of Big Issues. <https://wellbeingeconomy.org/wp-content/uploads/2019/12/A-WE-Is-WEAll-Ideas-Little-Summaries-of-Big-Issues-4-Dec-2019.pdf>. <https://mondediplo.com/2021/06/04scotland>.
- Independence Commission. (2020). *Towards an Independent Wales*. Y Lolfa, Ceridigion, Cymru.
- Institute of Welsh Affairs. (2019). The future of farming in Wales. IWA, Cardiff, Cymru. <https://www.iwa.wales/agenda/2019/03/the-future-of-farming-and-nature-in-wales/>.
- McAllister. (2022). The Independent Commission on the Constitutional Future of Wales: putting Wales on the front foot. The Constitution Unit. <https://constitution-unit.com/2022/01/20/the-independent-commission-on-the-constitutional-future-of-wales-putting-wales-on-the-front-foot/>.
- Millard, W. (2020). Hidden Wales. BBC series. <https://www.bbc.co.uk/iplayer/episodes/b0bt3z4f/hidden-wales-with-will-millard>.
- Moore, J. W. (2003). The modern world system as environmental world history. *Theory and Society*, 32, 307–377. <https://jasonwmoore.com/wp-content/uploads/2017/08/Moore-The-Modern-World-System-as-Environmental-History-Theory-Society-2003.pdf>.
- Morris, S. (2021). Its about community, culture and language: Welsh family farmers dig in for their future. *Guardian*, 29th Dec, 2021. <https://www.theguardian.com/environment/2021/dec/29/its-about-community-culture-and-language-welsh-family-farmers-dig-in-for-their-future>.
- Owen, A. (Ed.). (1841). *Ancient laws and institutions of wales*. Eyre and Spottiswoode.
- Oxfam Cymru. (2020). The Welsh Doughnut. <https://policy-practice.oxfam.org/resources/the-welsh-doughnut-2020-a-framework-for-environmental-sustainability-and-social-620979/>.
- Paxton, J. (2020). Online course at. <https://www.thegreatcoursesdaily.com/revival-of-the-celtic-culture-in-wales/>.
- Price, A. (2020, June 21). Wales colonised and coloniser a reflection. *Nation Cymru*. <https://nation.cymru/opinion/wales-colonised-and-coloniser-a-reflection/>.
- Sothorne, R. (2021). Is Scotland closer to independence? *Le Monde Diplomatique*.
- Senedd. (2021). <https://www.bbc.co.uk/iplayer/episode/m000tswk/senedd-cymru-welsh-parliament-20032021>.
- Victory, S. (1997). *The celtic church in wales*. SPCK Publishing.
- Wales Green Party. (2021). Green transformation fund. <https://wales.greenparty.org.uk/2021/04/29/wales-green-partys-release-transformation-fund-plan-to-finance-secure-future-for-wales/>.
- Wales SDGs. (2021). [https://www.futuregenerations.wales/wp-content/uploads/2019/07/Wales\\_-\\_SDGs\\_-\\_VNR\\_-\\_Supplementary-Report-for-Wales\\_-\\_Version-10.1-Final-w-cover-ENG.pdf](https://www.futuregenerations.wales/wp-content/uploads/2019/07/Wales_-_SDGs_-_VNR_-_Supplementary-Report-for-Wales_-_Version-10.1-Final-w-cover-ENG.pdf).
- Wales Wildlife Trusts. (2019). *The State of Nature 2019*. WWT, Bridgend, Cymru. <https://www.welshwildlife.org/state-of-nature-2019/>.
- Wales Wildlife Trusts. (2020). *Living Seas*. WWT, Bridgend, Cymru. <https://www.welshwildlife.org/living-seas/>.
- WEAll Cymru. (2021). Movement. <https://wellbeingeconomy.org/cymru-wales>.
- WEAll Cymru. (2021a). <https://www.youtube.com/watch?v=P8g6NQnGEOQ>.
- Welsh Government. (2021a). The foundational economy. <https://gov.wales/foundational-economy>.
- Welsh Government. (2021b). Beyond Recycling. <https://gov.wales/beyond-recycling>.
- WFGAct. (2015). <https://www.futuregenerations.wales/about-us/future-generations-act/>.
- Williams, L. J. (1973). The road to Tonypandy. *Llafur Journal of Welsh Labour History*, 1, 41–52.
- WWF Cymru. (2017). Welsh Carbon Budgets. <https://www.thececc.org.uk/wp-content/uploads/2018/01/WWF-Cymru-CFE-Welsh-Carbon-Budgets.pdf>.

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**Part III**  
**Stewarding Transformations Towards**  
**Wellbeing and a Healthy Planet**

# Chapter 15

## Setting the Scene: How to Enhance the Knowledge and Practice of Transformation Literacy



Petra Kuenkel

**Abstract** This chapter looks at the scale and modes of transformations needed toward regenerative civilizations. Societal transformations have always happened in human history, and many have been consciously and actively promoted. What is new about the situation at the beginning of the twenty-first century is both scale and depth of transformations required. Institutional and political structures on which our globalized current systems are built, tend to perpetuate the status quo. It is therefore important to create new strategic and communicative structures in the form of cross-sector and cross-institutional collaboration that initiate and facilitate transformations. The chapter suggests that transformation agents need to act more consciously as part of *transformation systems* around issues such as climate protection, regenerative pathways and economic systems change. The chapter elaborates three strategic core approaches that require conscious attention in *transformation literacy*: *Collective stewardship* as the pro-active engagement for a regenerative future in mutually supportive strategies; *visionary multiplicity* as the acknowledgment of plural approaches to the quality of life; and *network leverage* as the deliberate and reflective use of power across institutions. The chapter concludes with an overview of the different authors' chapters.

**Keywords** Systems aliveness · Transformation systems · Visionary multiplicity · Network leverage · Healthy planet · Collective stewardship · Transformation literacy

### 15.1 Introduction

Societal transformations have always happened in human history, and many have been consciously and actively promoted. What is new about the situation at the beginning of the twenty-first century is both scale and depth. The scale of transformations needed—as the result of the impacts of climate change—is almost globally

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P. Kuenkel (✉)  
Collective Leadership Institute, Kurfürstenstr, 1, 14467 Potsdam, Germany  
e-mail: [petra.kuenkel@collectiveleadership.com](mailto:petra.kuenkel@collectiveleadership.com)

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acknowledged. No country, no government, no company and no citizen can escape climate change. But the depth of change needed is only partly accepted. While there is increasing realization that there is an intrinsic connection between the effects of global warming, biodiversity loss, global health threats, endangered natural habitats and widespread social inequity, the consequences of this realization are still widely ignored. This is not surprising as the institutional and political structures on which our globalized current systems are built on, tend to perpetuate the existence of the multi-faceted global arrangement that took us to the sustainability challenges we face. Most people working in these global to local institutional structures, are busy implementing their management tasks: the improvement of service delivery, the growth of their companies, the rescuing of people in need or the delivery of development. Some of the required transformative efforts get integrated in the management tasks: for example, the monitored steps toward environmental protection and ecosystems rehabilitation at different administrative government levels; the anchoring of sustainable development goals in company performance measures; the integration of social quality indicators as part of development efforts; or the reduction of pesticides in industrial agricultural practices. Other transformative efforts take place outside the dominant institutional structures, partly out of the frustration that change from within structures is too slow, partly, because transformative social innovations have always emerged from niches outside the mainstream (Verborg and Loorbach, 2012). Often, future visions and the practices that emerge from them, require the space of safe and like-minded communities, which build the momentum for elements of regenerative civilizations in mutual support. Multiple of such communities have emerged around sustainability transformations, economic systems change and regenerative practices. With a view to finding pathways toward regenerative civilizations such intentional communities are pioneers of the future as well as learning laboratories. In transformation as well as transition research, it is widely acknowledged that social change at scale requires top-down approaches, such as advanced and future-oriented policy decisions, and the connection and mutual learning of bottom-up approaches which model the societal, or even global change (Avelino et al., 2014; Loorbach et al., 2016; Rotmans & Loorbach, 2010). It is important to note that in addition to administrative transformation efforts and innovative communities, a new phenomenon has emerged in the last ten years: global alliances and networks of networks which subscribe to transformative change at scale and organize around issues and themes across the globe (Waddell, 2016; Waddell et al., 2015). Inspired by the technological possibilities of the Internet both as information and meeting facility, coupled with an increasing community identifying as global citizens, they have emerged across continents. They take the form of alliances or networks around certain transformative issues they identify with collectively. This can range from regenerative agricultural practices to transformation research or to carbon-capture initiatives. Often, these are alliances or networks of organizations and individuals at the same time, and many of them span globally. Their occurrence is particularly important to understand how to gage the potential for transformations to regenerative civilizations. We argue that these alliances and networks of networks are not only vehicles to achieve both the

scale and depth of transformations needed, but they are at the same time laboratories of the way future regenerative civilizations may function. Networked action is a patterned constellation that mirrors dynamic life structures much more than the ordinary, most often clearly delineated and hierarchical institutional set-up. It is generally built on respecting differences in identities, on participation and non-hierarchical interaction as well as on collaborative approaches. A brief look into the history of the emergence of these potentially transformative structures helps to identify key elements of pathways to regenerative civilizations.

## 15.2 Trajectories Toward Transformative Systems Change

Such networks and collaboration have always been a driving force behind civilizing human development, from the abolishment of slavery to international negotiations for global climate agreements. Yet, despite the many networked activities, transformations to sustainability are slow, and transformative actions to regenerative civilizations are still niche activities. It is interesting to note that since the advent of the concept of sustainable development in the Brundtland report (Brundtland, 1987), not only the focus of what is seen as societal progress has changed, but also the ways of working toward change. In the last decade of the twentieth century efforts to further sustainable development was mainly seen as a task of development agencies and governments. Many efforts, with the best of all intentions to achieve the millennium development goals took place in silo approaches as fragmented or isolated activities, often duplicating efforts and in competition for funding sources. Enormous effort went in designing projects that needed to show linear cause and effect to achieve what was considered a targeted impact—the improvement of a situation, for example, the income of a certain part of a population, or the rehabilitation of the environment. Participation of stakeholders and target groups in the design of projects were high on the agenda, but often failed to take into account that sustainability and development challenges showed up as definable problems, yet were the result of a constellation of multiple conditions, factors and trends that escaped the linear cause-effect project planning. Moreover, societal sectors were neatly delineated in their efforts to change: they operated according to their institutional identities as public sector, private sector and civil society. With the new millennium emerging, the approaches began to change. Gradually, the idea of increasing effectiveness through collaboration between different societal actors took root. Not astonishingly, this was a consequence of realizing that complex challenges require complex approaches. Systems thinking, which had been for so long on the fringe of societal and global development took root in its various forms as more actors became aware that complexity and interdependence required new approaches to change. More practically, experiments with pioneering cross-sector initiatives began, for example, in the introduction of social and environmental standards into commodity value chain such as coffee, tea, cocoa, palm oil or more recently textiles (Kuenkel, 2019; Kuenkel et al., 2020). Such multi-stakeholder initiatives opened up exciting avenues for societal and global learning.

Civil society actors approached collaborations with companies to green their production, governments entered into partnerships with the private sector and acknowledged the important advocacy role for sustainability of civil society. Companies, also driven by the emerging concept of corporate sustainability began to embrace the idea that societal development, environmental compliance and economic performance need to go together. An unprecedented opportunity for societal learning emerged with the attempts to overcome sectoral and institutional silos. With the final agreement on the 17 Sustainable Development Goals in 2015, and the goal no 17 “Partnerships for the Goals” the new collaborative approach received additional credibility (United Nations, 2014). Multi-actor-partnerships have gradually become the new norm in approaches to tackle complex sustainability challenges which no one actor can solve alone even if there is still a lot of learning going on to make them successful (Kuenkel et al., 2020). Partnerships, or more general stakeholder collaboration has been established for water resource management, sustainable value chains, addressing ocean acidifications, sustainable city development or introducing national circular economy strategies.

The decisive step which is important to understand for *transformation literacy*, is that these partnerships and collaborative initiatives began to knit new communicative and action-oriented structures into the given institutional arrangements. While in the last decade of the twentieth century it was certainly strange to sit at the same table with company representatives, civil society activities and government officials, today, this is perfectly normal. While these multi-stakeholder partnerships have not always been easy to implement and may have had questionable results, they contributed to cross-societal learning, to overcoming stereotyped thinking and to developing new working relationships across societal sectors (Bierman et al. 2007; Kuenkel et al., 2020), which is a prerequisite for the collaborative capacity pro-active transformations need. Meanwhile, and partly parallel, the above-mentioned networks and alliances emerged. Some are composed of intentional communities of people and institutions who pursue the same sustainability goals in their different practices, others are deliberate networks of actors that intent to accelerate change in institutions at scale. Their purpose is to influence institutional and political actors in many entities across the globe at the same time. Often, they create meta-collaborations between existing initiatives and networks. Hence, they, again, create dynamic, new, non-hierarchical, cross-sectoral and complex structures that bring forward transformative change across and within the existing institutional set-up. These multi-stakeholder transformation networks are at the forefront of pathways to regenerative civilizations, because they model many aspects of future societies, that will be crucial for the way such societies will operate, such as complex adaptive structures, broad strategizing and joint responsibilities. They allow for fast communication across silos and institutional boundaries. Subsequently, they are able to adapt and adjust strategies more quickly; or, they develop strategies, information and action plans collectively in communication loops, which are non-hierarchical and allow for co-created results, and contextualized implementation in different areas. They have the potential to enliven not only their own members to experience that co-creating future is possible, but also bring the vision of regenerative civilizations into existing institutions.

These networks of networks and alliances are laboratories for a regenerative future and do what the systems thinker Alexander suggested as knitting the new way of creating life into the existing structures. He suggested that, conceptionally, we need to learn from nature, which preserves certain structures, but grows organically into more and more complexity (Alexander, 2005). In this sense, an evolutionary approach to transformations acknowledges the overall composition and structure of the existing system, but reinforces or amplifies avenues for change through the emergence of networked structures. Transformations have always been and will also in future to a certain degree be structure-preserving transformations (ibid.). Disruptions are important, as they bring perturbations into a system, without which systems do not change or transform structurally (Maturana & Varela, 1991; Prigogine, 1996). The case of Greta Thunberg and the Friday for Future Movement is a vivid example of such perturbations. Yet, the actual transformations, for example, the commitment to climate neutrality by all actors and its translation into societal narratives, policies, laws and regulations, are the actual steps that bring about transformations. This, then, needs to be translated in rearranged structural conditions as well as measurable targets. Disruptions, or perturbations are catalysts for change, if they get ignored, they wither, if they fall on a situation, in which many actors are ready for transformative change, they get enormously amplified. This is where networks play an important role—in creating the readiness for change, in amplifying disruptive change and in anchoring change in the institutional set-ups. Actors driving transformations in collaborative networks need to be clear in their purpose to contribute to increasing vitality of smaller and larger systems, from the individual to the globe, socially and ecologically.

Stewarding transformative change in patterns of collaborative networked action will sooner or later become the main and conscious managerial task of politicians, administrators, companies, societal actors and citizens. Only cross-sectoral and cross-institutional structures can cope with the speed that sustainability transformations require. But there is a next step on the horizon of the trajectories toward transformations for which networked action as described above is the basis: the stewardship of *transformation systems*. The complexity of sustainability challenges is coupled with the insight that loosely coordinated intentional and collaborative systems of actors from within and outside institutional structures need to work together in a complementary way. Today, the many initiatives that operate globally begin to connect with each other, but tend to stay oblivious to understanding themselves as loosely connected parts of *transformation systems*. These interventions need to be implemented in appreciative acknowledgment of each other, without centralized coordination, and they also need to function as a collective learning system. Figure 15.1 shows the trajectories of emerging forms of networked and collaborative action toward stewarding transformative and structural systems change. Of course, the periods overlap: there are still many isolated projects happening driven by institutional or sectoral silos, and only few countries have adopted a collaborative multi-stakeholder partnership approach to overcoming sustainability challenges. But the trends are clear: pathways to regenerative civilizations require networked action and large systems change requires the stewarding of complex transformation systems

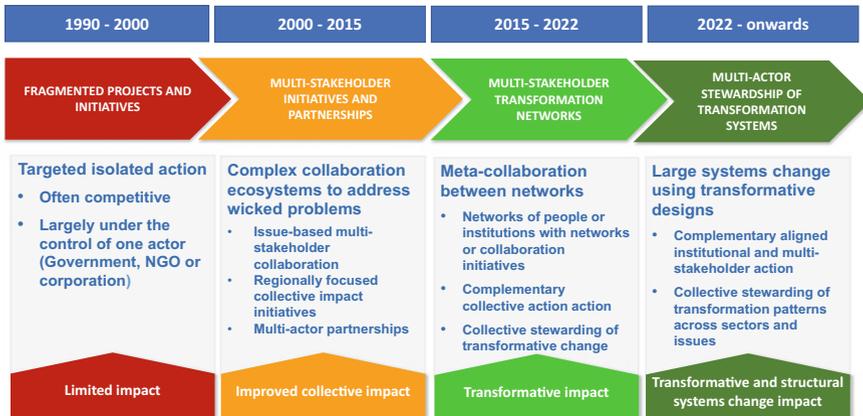


Fig. 15.1 Trajectories toward transformative systems change (copyright by the author)

with many institutional and non-institutional actors involved. Yet, I believe, we are only at the beginning to understand what it really means to build and leverage *transformation systems* for the transformative and structural systems change our planet and humankind needs.

### 15.3 The Stewardship Task as a Patterned Transformation Approach

It is apparent that stewarding transformations and advancing pathways to regenerative civilizations are a collective task, implemented across entire stakeholder landscapes. This raises issues that tend to be pushed into the background—the need for increased human capabilities to deal with complexity, uncertain processes and volatile social, political and environmental dynamics. Stewarding transformative systems change takes place at the edge of chaos, the precise area, where learning and the potential for change is greatest (Kauffman, 2016). But also, where dangers are high—oscillating between the urge to keep the old order in place and the threat to drown in the chaos. The sweet spot of transformative resilience lies between order and chaos. This means that the ability to hold high degrees of ambiguity, uncertainty and complex dynamics is a faculty which actors who aspire to transformative efforts must learn. The only possible trajectory to the resilience needed that will help to bear the chaos and restructure the old order into a new order, is to apply a form of systems thinking that respects diversity, acknowledges plural approaches and accepts non-simultaneity. It has taken a long time for systems thinking to leave the scientific niches and settle into the practice of doing change.

Taking the perspective of *transformation systems* invites us to take care of the many small and large change efforts that already exist. Pathways to regenerative

**Table 15.1** Overview: strategic core approaches of transformation literacy

Collective stewardship	The pro-active engagement for a regenerative future takes place collaboratively by many complementary actors without centralized control. Mutually supportive strategies towards safeguarding planetary and human wellbeing at different levels of the global society connect in transformation systems
Visionary multiplicity	The strategic acceptance that the potential of humankind's future lies in its diversity allows for plural approaches to the quality of life as an underlying principle of regenerative civilizations. There cannot be one vision that fits all circumstances and contexts. The broad agreement on properties of regenerative civilizations allows for a plurality of interpretations and manifestations to be anchored in the political and institutional landscape
Network leverage	Network leverage crosses boundaries to make use of the power and influence of the variety of actors involved in networks, alliances, movements or communities. Bridges between pioneering niche initiatives and the institutional landscapes create leverage to influence and finally shift structures and strategies of existing institutions

civilizations are organic processes that involve multiple approaches and practices. They are decidedly nonlinear based on multiple visions of regenerative civilizations that require translation into different contexts. There is no “one right way” to drive transformations. The more freedom there is to experiment with pioneering the future, the higher is the potential that transformative change happens. Yet, the experiments need to be exposed to collective learning, and ultimately, they need to be integrated in both existing and new structures. For the enhancement of *transformation literacy* this means that actors from within and outside institutions need to become familiar with new approaches that tune into the emerging trend of dealing with the complexity of transformations in a more effective way. There are three strategic core approaches that require conscious attention in *transformation literacy*: *Collective stewardship* as the pro-active engagement for a regenerative future in mutually supportive strategies; *visionary multiplicity* as the acknowledgment of plural approaches to the quality of life as an underlying principle of regenerative civilizations; and *network leverage* as the deliberate and reflective use of power and influence across sectors and institutions. While Table 15.1 shows an initial overview of these the strategic core approaches of *transformation literacy*, the following sections will explore them in more detail.

### 15.3.1 *Collective Stewardship*

The *first* strategic core approach of *transformation literacy* is to embrace the non-linearity of transformative change and take a *collective stewardship* approach to foster socio-ecological interaction patterns that model how an alive, resilient and regenerative future should look like. Cause-effect analysis and planning will always be important, yet they need be coupled with fast collective learning and the acceptance of

the essential patterned complexity of transformative change. Collective stewardship is different from steering and requires the pro-active and collaborative engagement for a regenerative future by many complementary actors without centralized control. Mutually supportive strategies and multiple pathways align around a sense of responsibility for safeguarding planetary and human well-being at all levels of the global society. Such *collective stewardship* approaches can be issues-based, such as driving the widespread adoption of climate neutrality, regenerative food systems or circular economy practices across an entire stakeholder landscape; or they can be place-based, such as stewarding transformations for multiple issues within a certain circumscribed area. Examples are multi-stakeholder strategies toward regenerative cities that involve multiple social, ecological and technological issues, or the adoption of a well-being economy approach in a country. Naturally, these approaches are more holistic and can be built on strong community identification. They work best, if the entities are not too large, for example at small country level, city level, district level or community level. Inevitably, both approaches need to go hand in hand: issue-based approaches are less holistic, but can be implemented at a larger scale (e.g., switch to renewable energies, or climate neutrality), yet they may be fragmented as they leave out the complexity of issues (e.g., biodiversity loss or social cohesion). Geographically- or place-based approaches are more systemic, yet they may hit the wall when it comes to conditions set by the larger system which determines conditions for transformations (e.g., effects of national policies that undermine regenerative city efforts). Hence, both approaches of *collective stewardship* are inevitably enshrined with each other.

### 15.3.2 Visionary Multiplicity

The *second* strategic core approach of *transformation literacy* is to embrace visionary *multiplicity*. It is important to foster agreements about the vision of future regenerative civilizations, and also anchor them in the current political and institutional landscape. The increasing use of narratives that describe a future with renewable energy, social equity and healthy ecosystems are testimony to an emerging shift that furthers visions of regenerative civilizations in the global communities of change-makers. The increasing use of terms like eco-civilization, regenerative cities, regenerative agriculture, agroecology, or well-being on a healthy planet, etc. shows the shift in thinking that is happening. Yet, it is important to consider that there cannot be one vision that fits all circumstances and contexts. Images of the future and goals are transformational guidance rather than an end state to be reached. The vision of a regenerative future should never be so tight that it will not allow for a plurality of interpretations and manifestations. The potential of humankind's future lies in its diversity and the plural approaches to the quality of life as an underlying principle of regenerative civilizations. Setting goals, defining transformative impact and creating measurable targets are crucially important. Such goals are contextualized transformative guidance for a range of targets for which interconnections, interdependencies

and impact need to be continuously crosschecked. Embracing a plurality of visions in transformation literacy means to identify properties of future regenerative civilizations that as many people as possible can agree on, and using them as a frame, within which many different visions can emerge and manifest. Transformative action at the pace and scale needed requires self-organization and self-efficacy in decentralized or distributed initiatives.

### **15.3.3 Network Leverage**

The *third* strategic core approach of *transformation literacy* is to leverage networks, alliances, movements and coalitions, as well as their connections so that they form a deliberate transformation system. The Internet-based communicative possibilities have greatly advanced the proliferations of communities of change, even though we may still have to work hard to overcome silo mentalities and competition in transformation efforts. But network leverage is more than staying within a community of like-minded actors pursuing the same goal. It acknowledges patterned, complementary and nested change initiatives and it means crossing community boundaries to make use of the power and influence of the variety of actors involved in the networks, alliances, movements or communities. Because it is the capability to create bridges between pioneering niche initiatives and institutional landscapes, which creates the leverage. Hence, network leverage will increasingly also come from actors within the existing institutions with the intention to transform these institutions. The human capability to co-create future is unprecedented, if not blocked and deadened by outdated structures and the clinging to power of people who claim the past as the future. Network leverage is the route to dismantling such outdated power structures, when actors in networks are able to influence and finally shift structures and strategies of existing institutions. Evenly important is to transition from loosely organized network and alliance toward becoming part of the institutional landscape. The institutionalization of networks as a form of meta-structures with influence on the system might not always be the route to take, because it often means that dynamic structures solidify and are more difficult to adapt, but it is important to keep in mind that eventually, new structures that take well-being on a healthy planet to heart, are the cornerstone of a transformed future.

## **15.4 Multiple Transformative Approaches**

In the complexity of transformative systems, change with multiple actors in diverse places and various institutions who have different interests and capabilities, it is important to recognize that no one network, movement or alliance can solve the multi-faceted sustainability problem because of their very embeddedness. Multiple

contributions, all referring to the broad vision of properties of a regenerative civilization are the pathway to better functioning, more vital systems. No matter how small or large change initiatives are, they are evenly important, because multiple small system change is the cornerstone of large systems change (Hinrichs & Kangas, 2003; Waddell et al., 2015). *Transformation literacy* integrates complementary approaches—from technical to social to cultural to economic (Schneidewind, 2013). It is built on the understanding of essential features of life’s processes which guide evolutionary processes. The design of transformative change needs to reach people’s hearts and minds—because this is the pathway to dynamic and self-driven change in behavior. The agent of change is human, hence leveraging human competencies is central to the acceleration of change. The contributions of part three therefore encompass a range of different approaches to transformations.

**Chapter 16** by **Mariana Bozesan** looks at how mind shifts can turn into transformation leadership. She notes that in spite of the enormous efforts trying to address the COVID-19 pandemic, humanity is still struggling to come together in a collective effort to address the existential threats posed by the grand global challenges. The current pandemic and the assault on democracy, which culminated in the US Capitol riot on January 6th, 2021, are only the latest in a series of obvious challenges facing humanity in the disruption era. Beyond the existential threats to planetary integrity that the climate crisis posits, there is a crisis in consciousness. Yet we are currently witnessing a noteworthy mind shift that is actively changing outdated systemic structures to accommodate the necessities of the new global reality and regenerative futures. Spurred into action by personal emergencies, a whole host of consciousness leaders from all areas of life including business, finance and philanthropy, to name a few, have surfaced as major players and seem to act more daringly in the world. This chapter will focus on (1) the circumstances that enable, facilitate and accelerate societal polarization; (2) revealing the underlying dynamics and the influencing factors that are at play in the current broken information ecology; (3) understanding when and how the mind shift toward unification can occur; (4) how we can harness and foster our astonishing human capacity to cooperate toward addressing current existential threats; (5) how we can become more aware of the many cognitive biases that twist our picture of reality and how we can learn to separate the truth signals from the fake noise.

**Chapter 17** by the artist and curator **Bente Elisabeth Endresen** describes the transformative potential of arts and science collaboration. The aim of the Nordic art and science project “Red Snow—When the Climate Bleeds” which was undertaken in 2014–2016, was to increase people’s awareness of the accelerating climate changes we are witnessing in the twenty-first century. This chapter shows how people can be encouraged to take action for the care of our planet and to live in a more sustainable way. The project was centered around an exhibition, consisting of artwork and scientific presentations, established collaboration with students at schools and universities and was implemented in four countries. In order to highlight the urgency of the need for change, the project showed some future scenarios presented by climate researchers and made the public aware, via neutral scientific information, of how current human activity is affecting the climate. With the use of visual art, music and

dance, it was possible to reach a larger audience than science alone could: this opened people's hearts and minds to new knowledge. The chapter concludes that the collaboration between the arts and science is increasingly important. Art can successfully go beyond the mental mindset, and speak directly to the emotions of the audience, and once works of art have made an impression, visitors are generally more open to new impressions, new information and new knowledge.

**Chapter 18** by **Kora Kristof** shows the skills required for transformation literacy. She reminds us that climate change and many other problems show clearly that fundamental change is necessary. However, many good ideas get stuck in implementation. Therefore, the question is how can change be orchestrated more successfully by many actors? We take sports courses or go to music lessons to learn, to get better quickly or to avoid hurting ourselves. Professionals in sport, art and other fields also receive intensive coaching from experts. However, when it comes to make successful progress toward sustainability, people often rely on "home recipes". It is time to become more professional in this area as well. To achieve this, it is important to make targeted use of the findings of transformation research and key success factors as well as to develop transformation literacy. In this chapter, the models of change approach is presented, which focuses on central success factors for social change and shows ways to successful drive transformations.

**Chapter 19** by **Ladeja Godina Košir and Petra Kuenkel** take a deep dive into ways of strengthening transformations toward a Circular Economy in Europe. Extractive economies take resources, produce goods and drop waste, as if resource could never get depleted, and waste would not accumulate as environmental threat. Fortunately, the mindset shift is underway, not only because resources are increasingly getting scarce, while populations increase, but also because greenhouse gas emissions have reached a point which lets people begin to experience the volatility of the future. Yet, there is a tendency to believe, a Circular Economy is mainly about technology and recycling. But it is more than that: it includes many aspects of actions that lead to an overall regenerative operating system at the core of economic activities, such as product design, material and component re-use, recycling of materials, refurbishing, upgrading products, as well as regenerative energy production. Practitioner pioneers require support from governments, and without national strategies and roadmaps, pathways to regenerative future will be underutilized. This chapter looks at the need for collaborative approaches to transformative change. In an interview with an experienced promotor of Circular Economy approaches the most important strategies get highlighted, and the challenges elaborated. The chapter concludes with recommendations to governments on how to drive the transition toward Circular Economies.

**Chapter 20** by **Elisabeth Kuehn** continues the deep dive into the practice of transformative change. She suggests that transformation literacy needs to incorporate the understanding that achieving the vision of vital and regenerative systems requires actors to drive change that models the future systems aliveness. Only then, she proposes, can they become successful transformation systems. Practical experience shows that the shift to transformative impact happens best in enlivening networks across systems, in what is called *transformation networks*. This chapter shows that

a necessary systemic perspective on transformation network means they can and need to be strategically built. It introduces six *transformation network enablers* that support such strategic guidance in building networks, and who were used in two practical examples of setting up transformation networks. The first example is on the local level and looks at a network of youth civil society for Good Governance in central Tunisia. The second example is on the other end of the spectrum: It examines a global network of professionals toward a new economic future.

**Chapter 21** by **Petra Kuenkel** explores how different actors in economic systems change can become part of a more coherent transformation system toward economic systems change that focuses on economies in service of life. The chapter suggests that this is greatly supported by understanding what gives life to systems and making this the guiding force of transformative efforts. It will introduce a combination of organizing principles for new economies that would safeguard planetary and human integrity, while allowing for different interpretation and manifestation. The role these principles play will be illustrated by the example of transformations in the energy sector. The chapter asks how actors who are part of a transformation system toward new economies can more consciously steward the change collectively by leveraging strategic drivers. It elaborates six of these drivers as entry points for collaborative systemic change, and briefly illustrates the strategic application of these drivers in the energy sector transformation. It concludes with deliberations on how to use the principles and drivers to accelerate economic systems change toward a new operating system, in which planetary life support systems are as much valued as the dignity of people.

**Chapter 22** by **Ndidi Nnoli-Edozien** explores the mindset humanity needs to develop in preparation for an emerging future, from an African perspective. The required human consciousness, and inevitable change toward it spoken of within this chapter, must be holistic and encompassing, bridging the gap between thought and action, linking the past to the present and the future, democratizing access, in moderation, to resources, eliminating waste and fostering regeneration. One opportunity in view is leveraging the power of emerging twenty-first century technology, specifically blockchain based decentralized financial (De-Fi) networks, because of their potential to build a global community where trust is once more a currency and where we can rely on humanity to do good for each other and for the planet. But, prior to investing in technology, we need a shared understanding that ensures our dreams are achievable without destroying the planet. We need to design solutions and approaches that enable all persons, especially those marginalized in emerging economies, to find their voices and fulfill their aspirations. The author makes a strong case for combining past wisdom with contemporary know-how to create a new future that is more inclusive and equitable. Drawing on African traditional philosophy and practices, learning from Ubuntu and the Igbo people, she explores the balance between individual rights and communal values. The chapter also offers insights into the SevenPillars framework that allows business interests, private and public, to thrive whilst safeguarding our natural ecosystem and upholding human dignity and equity.

## References

- Alexander, C. (2002). *The nature of order. An essay on the art of building and the nature of the universe: Book I - The Phenomenon of Life*, Berkeley, CA: The Center for Environmental Structure.
- Alexander, C. (2005). *The nature of order. An essay on the art of building and the nature of the universe: Book III—A Vision of a Living World*, Berkeley, CA: The Center for Environmental Structure.
- Avelino, F., Wittmayer, J. M., O’Riordan, T., Haxeltine, A., Weaver, P., Kemp, R., Loorbach, D., & Rotmans J. (2014). *Gamechangers and transformative social innovation. The case of the economic crisis and transformative social innovation*. TRANSIT Working Paper, TRANSIT: EU SSH.2013.3.2–1 Grant agreement no: 613169.
- Bateson, G. (2000). *Steps to an ecology of mind*. The University of Chicago Press.
- Biermann, F., Man-san Chan, A. M., & Pattberg, P. (2007). Multi-stakeholder partnerships for sustainable development: Does the promise hold? In Glasbergen, P., Biermann, F., & Mol, A. (Eds.), *Partnerships, governance and sustainable development: Reflections on theory and practice*. Northampton, Massachusetts: Edward Elgar.
- Brundtland, G. (Ed.). (1987). *Our common future: The world commission on environment and development*. Oxford University Press.
- Hinrichs, K., & Kangas, O. (2003). When is a change big enough to be a system shift? Small system-shifting changes in German and Finnish pension policies. *Social Policy, & Administration*, 37(6), 573–591.
- Kauffman, S. (2016). *Humanity in a creative universe*. Oxford University Press.
- Kuenkel, P. (2019). *Stewarding sustainability transformations—An emerging theory and practice*. Report to the Club of Rome. Springer Nature.
- Kuenkel, P., Kuehn, E., Stucker, D., & Williamson, D. F. (2020). *Leading transformative change collectively. A practitioner’s guide to realizing the SDGs*. Routledge.
- Loorbach, D., Avelino, F., Haxeltine, A., Wittmayer, J., O’Riordan, T., Weaver, P., & Kemp, R. (2016). The economic crisis as a game changer? Exploring the role of social construction in sustainability transitions. *Ecology and Society*, 21(4), 15. <https://doi.org/10.5751/ES-08761-210415>
- Maturana, H. R., & Varela, F. J. (1991). *Autopoiesis and cognition: The realization of the living* (Vol. 42). Springer.
- Prigogine, I. (1996). *The end of certainty: Time chaos and the new laws of nature*. The Free Press.
- Rotmans, J., & Loorbach, D. (2010). Towards a better understanding of transitions and their governance: A systemic and reflexive approach. In J. Grin, J. Rotmans, & J. Schot (Eds.), *Transitions to sustainable development: New directions in the study of long term transformative change* (pp. 105–222). Routledge.
- Schneidewind, U. (2013). Transformative literacy: Understanding and shaping societal transformations. *GAIA - Ecological Perspectives for Science and Society*, 22(2), 82–86.
- United Nations. (2014). *The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet*. New York, NY, USA: United Nations. Retrieved June 23, 2017, from [http://www.un.org/disabilities/documents/reports/SG\\_Synthesis\\_Report\\_Road\\_to\\_Dignity\\_by\\_2030.pdf](http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf).
- Verbong, G., & Loorbach, D. (Eds.) (2012). *Governing the energy transition: Reality, illusion or necessity?* Routledge Studies in Sustainability Transitions, Band 4.
- Waddell, S. (2016). *Change for the audacious: A doers’ guide to large systems change for a flourishing future*. Boston, MA, USA: NetworkingAction.
- Waddell, S., Waddock, S., Cornell, S., Dentoni, D., McLachlan, M., & Meszoely, G. (2015). Large systems change: An emerging field of transformation and transitions. *The Journal of Corporate Citizenship*, 58, 5–30.
- Weber, A. (2016). *Biology of wonder: Aliveness, feeling and the metamorphosis of science*. New Society Publishers.

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# Chapter 16

## Turning Mindshifts into Transformation Leadership



**Mariana Bozesan**

**Abstract** This chapter analyzes how mindshifts turn into transformation leadership. The COVID-19 pandemic has demonstrated humanity's collective ability to provide solutions to a disruptive threat in record time. It is this mindset and political will that are required to address the much bigger, existential threats including nuclear, climate change, unsafe AI, and unethical social engineering that is assaulting democracy. After introducing Wilber's integral theory as an underlying map of consciousness, the author discusses some hidden truths of the current consciousness crisis and maintains that any transformation literacy, individual or collective, must go beyond exterior aspects of the world out-there to include interior, mindshifting factors of the world in-here. The author shares research performed on consciousness leaders and emphasizes (1) the complexity of the human psyche including the circumstances that enable, facilitate, and accelerate societal polarization; (2) the underlying dynamics facilitating broken information ecologies; (3) the major aspects leading to individual and collective mindshifts; (4) how the human capacity can be enticed to cooperate toward addressing current existential threats; (5) how to uncover cognitive, emotional, moral, and other biases that twist our picture of reality; and (6) how to learn to separate the truth signals from the fake noise.

**Keywords** Integral theory · Ken Wilber · Integral investing · Mind shift · Sensemaking · Mind set · Vertical growth · Horizontal integration · Emotional intelligence · Ego-centric · Ethno-centric · World-centric · AQAL · Near-death experiences · Flow · AI · Consciousness

### 16.1 Mindshift: The Hidden Truth of Evolution

On January 20th, 2021, Joe Biden was sworn in as the 46th president of the United States and promised to be the president of all Americans not only of those who voted for him. To achieve that, his biggest task is arguably not to combat the worst public

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M. Bozesan (✉)  
AQAL Capital and AQAL Foundation, 81679 Munich, Germany  
e-mail: [mbozesan@AQALfoundation.org](mailto:mbozesan@AQALfoundation.org)

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health crisis in 100 years, not unemployment, not the massive wealth inequality, it is not even the existential threat posed by climate change. Biden's biggest challenge is perhaps the unification of a deeply divided nation because the election results leading to his victory<sup>1</sup> did not produce a landslide repudiation of Donald Trump, the previous president making the ongoing societal polarization the only clear winner of the election.

However, neither Biden's victory in 2020, nor Trump's presidential triumph in 2016, nor the Brexit of the UK from the European Union should have come as a surprise.<sup>2</sup> According to researchers of the Carnegie Endowment for International Peace, the US can expect even more polarization in future due to ideological divisions and the inability to unify around common goals (Carothers, 2020). The rise of right-wing, populist, and nationalist political parties has been in the working for several decades in the democratic world. This includes the Alternative für Deutschland (AfD) party in Germany,<sup>3</sup> the Italian Lega Nord,<sup>4</sup> and France's Front National,<sup>5</sup> to name a few more. McCoy et al. argue that the continuing "severe political and societal polarization" occurs not only in the US or the European Union, but across the free world and could have several outcomes including (a) a democratic gridlock, (b) the destruction of democracy under new elites, (c) the democratic annihilation under old elites, or (d) lead to reforming democracy, which would be the best-case scenario (McCoy et al., 2018).

What does come as a surprise, however, is the speed with which the fake news is spreading on the Internet through AI-driven social media all of which appear to have one goal and one goal only: profit maximization at all cost. The democratic discourse has moved from the legally mitigated public domains onto private servers of profit-hungry and not tax-paying Internet-based monopolies. What makes this polarization even scarier is the helplessness of democratic governments that seem to be taken by surprise and are unprepared to counteract it. Former BBC journalist and co-founder at Rebel Wisdom, David Fuller, considers this polarization to be a direct response to the (1) limitations of the twentieth century traditional TV, (2) blindness of democratic institutions and political systems with respect to the impact and growing importance of twenty-first century Internet-based social media, and (3) "shadow side of liberalism" that has ceased to be just and inclusive and "secretly judges and despises people that do not think in the same way."<sup>6</sup> What began as political division across the isles of democratic parliaments, evolved to outright hatred, a split society that is increasingly ruled by fake news and shows open disregard for science and facts—seen by the way the COVID-19 pandemic is being handled. This seems supported through an "us-versus-them" type of activism that could lead to further tribalism, increased inequality, violence, and eventually collapse of democratic systems.

<sup>1</sup> <https://tinyurl.com/yxq2ud5c>.

<sup>2</sup> <https://www.economist.com/graphic-detail/2016/06/24/who-said-brexite-was-a-surprise>.

<sup>3</sup> [https://en.wikipedia.org/wiki/Alternative\\_for\\_Germany](https://en.wikipedia.org/wiki/Alternative_for_Germany).

<sup>4</sup> [https://en.wikipedia.org/wiki/Matteo\\_Salvini](https://en.wikipedia.org/wiki/Matteo_Salvini).

<sup>5</sup> [https://en.wikipedia.org/wiki/National\\_Rally](https://en.wikipedia.org/wiki/National_Rally).

<sup>6</sup> <https://tinyurl.com/y4jejc22> starting with min. 18.

The current pandemic and the assault on democracy, which culminated in the US Capitol riot on January 6th, 2021, are only the latest in a series of obvious challenges facing humanity in the disruption era. This is why in this chapter I will focus on (1) the circumstances that enable, facilitate, and accelerate societal polarization; (2) revealing the underlying dynamics and the influencing factors that are at play in the current broken information ecology; (3) understanding when and how the mindshift toward unification can occur; (4) how we can harness and foster our astonishing human capacity to cooperate toward addressing current existential threats; (5) how we can become more aware of the many cognitive biases that twist our picture of reality, and how we can learn to separate the truth signals from the fake noise.

### 16.1.1 Making the Case for Truth

In spite of the enormous efforts trying to address the COVID-19 pandemic,<sup>7</sup> humanity is still struggling to come together in a collective effort to address the existential threats posed by the grand global challenges.<sup>8</sup> There are many reasons for that and Otto Scharmer of MIT attributes it to an “intellectual bankruptcy” and to “the blind spot of economics and economic theory [that] is our own *consciousness*” crisis (Scharmer, 2010, p. 17) while Donald Hoffman (2019) makes a case against our old understanding of reality. This consciousness crisis is not new, and Göpel (2016) argues that we are currently witnessing a noteworthy mindshift that is actively changing outdated systemic structures to accommodate the necessities of the new global reality. Spurred into action by personal emergencies, a whole host of consciousness leaders from all areas of life including business, finance, and philanthropy, to name a few, have surfaced as major players and seem to act more daringly in the world (Balandina, 2016; Bozesan, 2016; Giving Pledge, 2020; Godeke et al., 2009; Hoffman, 2019; Soros, 2008; Strong, 2009). Further, research supports the view that an increasing number of these leaders have *awakened to later stages of consciousness*, driving them toward exterior transformation referred to as *integral* or *second tier* (Arnsperger, 2010; Balandina (2011); Balandina, 2016; Bozesan, 2010; Bugg-Levine & Emerson, 2011; Brill et al., 2015; Clark et al. 2015; Torbert & Kelly, 2013; Senge et al., 2005; Sisodia et al., 2007). When looking more closely beneath, this collective mindshift phenomenon, one can detect a trend toward personal growth that has been going on for quite some time (Adams, 2005; Boyatzis & McKee, 2005; Cook-Greuter, 2005; Cook-Greuter, 2013; Goleman et al., 2002; Hendricks & Ludeman, 1996; Jaworski, 1996; Kelly, 2011; Marques et al., 2007; Mitroff & Denton, 1999; Ray & Anderson, 2000; Rooke & Torbert, 2005; Senge et al., 2005). Such transformations in consciousness have occurred and evolved over thousands of years (Wilber 1998 & 2000a, b, 2017) and have been developmentally modeled by renown researchers such as (a) Abraham Maslow (Maslow et al.,

<sup>7</sup> <https://www.nature.com/articles/d41586-020-03564-y>.

<sup>8</sup> <https://su.org/about/global-grand-challenges/>.

1998) who became known for his *hierarchy of needs*, (b) Jean Gebser (Gebser, 1984) and his *structures of human consciousness*, (c) Robert Kegan (Kegan, 1994) and his *order of consciousness* model, and (d) Donald Hoffman (2019) who in his book *The case against reality* indicates “why evolution hid the truth from our eyes,” to name only four of the most commonly known. While such models help us make sense of the trajectories of human consciousness evolution, phenomenological investigation into the interior transformation of the participating agents has been relatively scant, despite increasing occurrences of individual dissatisfaction within the financial, and business worlds (Kofman, 2006; Ray & Rinzler, 1993; Secretan, 2006; Stiglitz et al., 2018; Stiglitz, 2010,2011), which has become my own area of interest, research, and expertise over the past three decades (Bozesan, 2010, 2020).

The desired changes toward this type of consciousness transformation are taking place within an extremely complex context, whose complexity grows exponentially (Diamandis & Kotler, 2020; Hoffman, 2019; Kurzweil, 2005; von Weizsaecker & Wijkman 2018) and which must include changes not only in environmental, financial, economic, and social perspectives but also in individual and collective behaviors (Wilber, 2017). What Nobel Prize laureate Paul Krugman named “obsolete doctrines that clutter the minds of men” Krugman (2012, p. 191) are actually socio-political and inter-objective rules, conditions, and regulations that often impede transformation. These rules are a reflection of culturally interior, intersubjective, and deeply ingrained norms such as ethics and morals (Stückelberger & Duggal, 2018) which heavily influence both our individual and our collective behaviors. Therefore, in order to navigate this ever-growing complexity, multi-perspectival and far-reaching frameworks are needed that enable us to navigate the outside world while empowering us to better understand ourselves on the inside, both individually and collectively including our shadows, belief systems, traditions, and cultures to name a few. Such a framework would help us (1) comprehend how consciousness has evolved throughout the centuries; (2) better understand the evolution of life, including the development of human knowledge from science to mathematics to developmental growth; (3) gain a better perspective not only on ourselves and our purpose in the world; (4) simplify our decision-making process, and (5) acquire both a larger perspective of but also bigger insights into the future.

### 16.1.2 *The Integral Model: A Theory of Everything*

Since the beginning of the twenty-first century, I found Ken Wilber’s integral theory (Wilber, 2000/1995)—which has been applied successfully, albeit mostly under the radar of mainstream systems, in more than 50 disciplines worldwide (Esbjörn-Hargens, 2010)—to be the perfect framework for my own work in academia, business, entrepreneurship, and investing because, it provides a veritable theory of everything. It helps make sense of the exponentially growing complexity of the world and simplifies reality by condensing all major components thereof into five simple elements called quadrants, levels, lines, states, and types (see also Fig. 16.1).

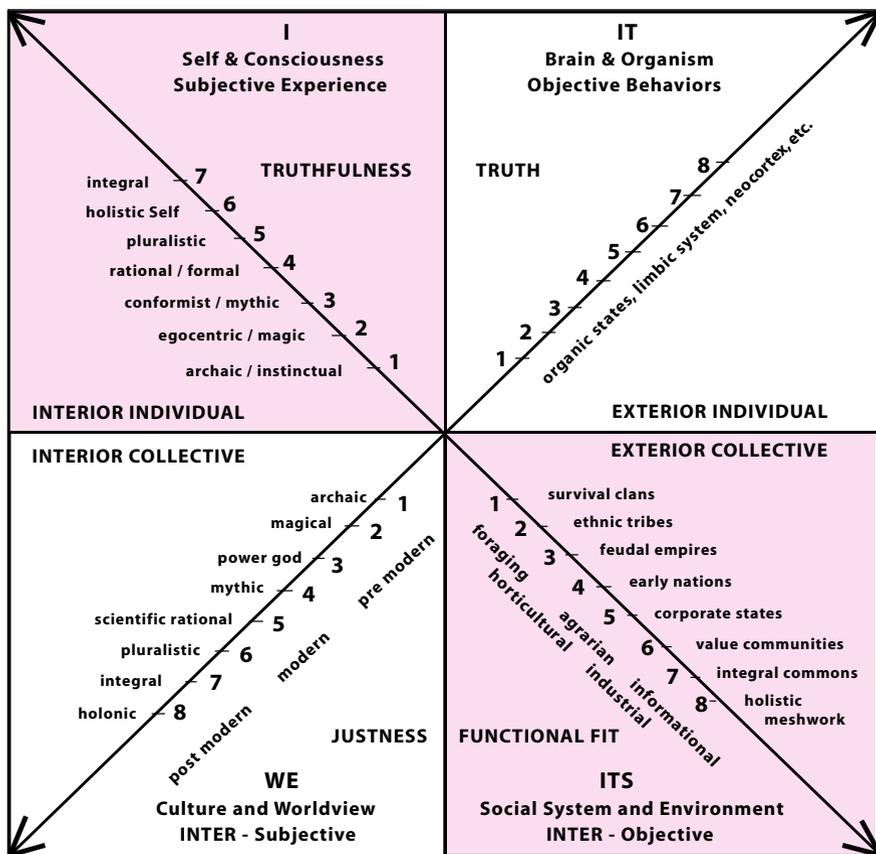
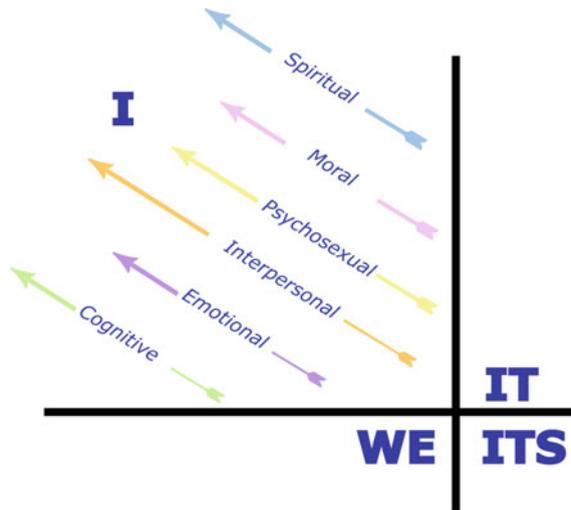


Fig. 16.1 Wilber’s quadrants and stages of consciousness (adapted after Wilber, 2000a, b, c; Bozesan, 2020)

These five elements also give the integral framework its common name, the AQAL (pronounced ah-qwul: all quadrants, all levels, all lines, all states, and all types). The theory behind the integral framework is based on Plato’s (1961/1938) *value spheres of humanity*—the *beautiful* (art/self), the *good* (morals/culture), and the *true* (science/nature)—and the understanding that these three *value spheres* are ever present, are indivisible, and are constantly co-arising whether we are consciously aware of them or not. In other words, everything that occurs has three dimensions, or points of view (Fig. 16.1): an individual, subjective view (the *Beautiful*); a collective-subjective, cultural view (the *Good*); and an objective view that can be proven by scientific facts (the *True*). Integral theory provides a post-postmodern framework of life that is based on the theory of evolution and integrates humanity’s irreducible value spheres, the big three, as these value spheres are also called, and which are also embedded in William James’s great chain of being (James 2017/1890). It also draws on Immanuel Kant’s big three critiques (Kant, 1993/1949): The critique of



**Fig. 16.2** Individual lines of development (adapted after Wilber, 2000a, b, c; Bozesan, 2020)

pure reason, critique of practical reason, and critique of judgment or subjective reality, as well as Jürgen Habermas's (1990) indivisible three worlds: the objective, the subjective, and the cultural (see Fig. 16.1).

Wilber (2000a, b, c) linked the first-person singular pronoun, the *I*, with Plato's *beautiful* value sphere, or subjective truth. The first-person plural pronoun, *WE*, is associated with Plato's value sphere called *good* and that represents the intersubjective truth and morals that make up the interior-collective culture in which we live. And the third-person singular gender-neutral pronoun *IT* is correlated with Plato's *true* value sphere, or objective truth associated with science. To achieve a higher granularity and be more inclusive with respect to additional exterior aspects of reality such as the social and the environmental aspects, Wilber added a fourth quadrant, the exterior collective, which is the lower-right quadrant as seen in Fig. 16.1. This fourth, lower-right quadrant, which Wilber associated with the pronoun *ITS*, can be best understood from a systems theory (Von Bertalanffy 2006/1969) or complex systems perspective such as the environment, society, and science.

Equipped with the lens of integral theory as a more holistic map of consciousness which enables a deeper insight into and higher granularity of reality, let us dig deeper and analyze (1) how its elements can help us make better sense of what is currently going on, (2) how it could help address the consciousness crisis at hand, and (3) which potential solutions could emerge that would help us address the challenges discussed earlier. As we have seen, the lower-right quadrant in Fig. 16.1 is the *territory of systems theory and analysis* (ITS). This quadrant is the area in which traditional institutions, businesses, economics, ecology, and geopolitical organizations usually interoperate in an objectively measurable and systemic way. Similar to



**Fig. 16.3** Vertical growth versus horizontal integration across the AQAL (Bozesan, 2020)

the upper-right quadrant (IT), the *terrain of behavior* also called the *individual exterior/objective domain*, the right side of AQAL is also the domain in which science is active and which warrants an inter-objective perspective driving both the individual and the collective exterior behavior which affects our economic and financial systems, as well as ecological, infrastructure, and social systems. These two right-hand quadrants represent Plato's *true* value spheres, the areas in which we first notice the manifestations (individual and collective) of current crises including the grand global challenges discussed earlier (from individual behaviors to the shared actions manifested in our social and natural systems). We have also seen that all AQAL quadrants co-arise (whether we realize it or not) and cannot be reduced to one another. This fact is particularly important when trying to understand the causes of current systems collapse and building new and more resilient ones.

A whole systems view is crucial, yet this is exactly what we seem to lack according to Barrett C. Brown (2007, pp. 19–41). In his paper entitled *four worlds of sustainability: drawing upon four universal perspectives to support sustainability initiatives*, Brown explains what is missing. He uses the lens of integral theory to take an all-quadrant view of several bestselling books on sustainability (Brown 2006; Hawken, 1993, 2017; Hawken et al., 1999; Holliday et al., 2002; Jackson & Svensson, 2002; McDonough & Braungart, 2002; Nattrass & Altomare, 1999; World Commission on Environment and Development, 2009/1987). In his analysis, Brown applied an ontological methodology without an epistemological elucidation and analyzed every sentence in each book, classifying the sentences according to the AQAL quadrant on which they focused. He surveyed each sentence to assess whether it was taking an interior or exterior view, and/or an individual or collective perspective of reality.

And he found out that the lower-right quadrant perspective (Fig. 16.1) dominated because the authors describe and address reality using a primarily social and environmental/systems view of the world. The interior aspects such as the collective intersubjective, shared values and vision, the culture, as well as the individual interior perspective, individual mindsets, or individual external behaviors, and action were exemplified in only a very small manner. While Brown agrees that the lower-right quadrant is the soundest and most powerful influencer for societal change, he also demonstrates why there is little chance of a holistic solution without an integral sustainability approach, one that applies the entire AQAL and not just one particular value sphere/quadrant.

The current cultural polarization—including, for example, the reviving of the White Supremacy<sup>9</sup> or the Black Lives Matter movements<sup>10</sup>—supports this distinction and shows that change occurs when individuals and/or collective groups are not only cognitively but also, and more significantly, emotionally impacted. That is, when people’s interiors are touched in a deep way, which can occur during times like the prolonged COVID-19 lockdowns (Armour et al., 2020). Or even worse, when people are fed falsehoods such as Trump’s election fraud and subsequent loss with enough intensity that they are even ready to incite an assault on democracy by attacking the US Capitol.<sup>11</sup>

### 16.1.3 *The Complexity of Transformation*

The above examples show how easily lies can be turned into truths to manipulate not only individuals but whole populations, which demonstrate once more the importance of these hidden dimensions and why they play a much more important role than the previously acknowledged (see the AQAL framework represented in a simplified way in Fig. 16.1).

The two interior *territories of felt experience*, individual mindsets (upper-left quadrant) and *culture, and worldview* (lower-right quadrant), the collective shared values and vision have, unfortunately, been neglected and excluded for too long by existing systems (lower-right quadrant) because their existence and influence were believed to be too difficult to prove in a scientific manner. So, they were left out altogether. While it is true that the right-hand side terrain of AQAL is more easily measurable with the scientific methods available today and includes “the brain mechanisms, neurotransmitters, and organic computations that support consciousness” Wilber (2000a, p. 63), the technologies addressing the interior/left-hand side of AQAL’s quadrants have advanced as well (Bozesan, 2010, 2016; Cook-Greuter, 2013; Goleman et al., 2002; Hendricks & Ludeman, 1996; Jaworski, 1996; Marques et al., 2007; Mitroff & Denton, 1999; Ray & Anderson, 2000; Rooke &

<sup>9</sup> [https://en.wikipedia.org/wiki/White\\_supremacy](https://en.wikipedia.org/wiki/White_supremacy).

<sup>10</sup> <https://tinyurl.com/yxuqo4b5>.

<sup>11</sup> <https://www.bbc.com/news/world-us-canada-55640437>.

Torbert, 2005; Senge et al., 2005). The *interior individual* domain, or the *terrain of personal/individual experience*, represents the personal subjective area as it relates to the inner life of each individual including our feelings, sensations, thoughts, and spiritual awakenings.

The lower-left quadrant, the *terrain of culture*, enlarges the perspective of reality through the intersubjective areas of culture such as collective beliefs, norms, justness, and goodness. Wilber defined this quadrant as “the values, meanings, worldviews, and ethics that are shared by any group of individuals” Wilber (2000b, p. 63)—it is the cultural context in which finances, business, and politics occur. This cultural context helps give our existence meaning. In fact, we become almost inseparable from it, because it becomes what we perceive to be our reality. It is the territory where mindshift actually occurs. To understand this better, let us dig deeper into the interior quadrants themselves because they are also subject to evolutionary development as shown in Fig. 16.1 through the stages of evolution. Depending upon the location on the evolutionary ladder, the *stage* or *level* of development—individually or collectively—will enable a different view of reality and thus a different reaction in the world. Thus, the application of Wilber’s integral model allows for a much more differentiated view of individual and collective behavioral patterns depending upon the vertical position in each quadrant and how well the horizontal integration across all quadrants (shown Fig. 16.1) has occurred.

#### 16.1.4 Intelligence is Not One

Researcher Brown (2018) joins Cook-Greuter (2013), Goleman et al. (2002), Rooke and Torbert (2005), and Wilber (2017) in their assessment that mindset growth occurs naturally through the regular process of consciousness evolution. His work points particularly to vertical growth that can help people accelerate their mindshift by (1) expanding their world views; (2) helping them perform better across several mission-critical domains; (3) inspiring their vision to become better leaders through transformational change (4) improving their cognitive abilities in all areas including strategically, systemically, and contextually; (5) becoming better collaborators and problem solvers, as well as in building better relationships; (6) improving their decision-making abilities that led to improved reframing of challenges better and to the creation of more innovative solutions; and (7) developing an enhanced capacity to tolerate ambiguity to better navigate complexity. I do not know anybody who cares about transformation who would not want to benefit from such growth, particularly since we are all familiar with the difficulties, we encounter when we try to change an unwanted behavior or let go of things that hurt us. The question is how can mindshift be triggered and how can it be accelerated both individually and collectively now that we need it most? And what in the world is vertical growth (shown Fig. 16.3).

According to Wilber (2000a), the upper-left quadrant “includes the entire spectrum of consciousness as it appears in any individual, from bodily sensations to mental ideal to soul and spirit” (pp. 62–63). And in *A brief history of everything*,

he argued that the evolution of consciousness has a direction, and the mindshift occurs along various lines of development (shown in Fig. 16.2), which he calls intelligences (Wilber, 2000b). Harvard professor and author of *changing minds: The art and science of changing our own and other people's minds* Howard Gardner (2004) considers the cognitive intelligence to be only one of nine different lines of interior development that influence our mindshift and sensemaking processes. Gardner goes beyond the logical-mathematical intelligence, that we mostly measure through traditional IQ tests, and recognizes linguistic intelligence, musical intelligence, special intelligence, bodily-kinesthetic intelligence, naturalist intelligence, interpersonal and intrapersonal intelligence, and existential intelligence. He posits that human personality contains all of these, that they all influence human development, behavior, sensemaking, and ultimately our mindshift. In each and every one of us, these lines are more or less developed—making us unique—and no one line is to be favored over another. Wilber (2017) associated each line of development with fundamental life questions and groundbreaking developmental (shown Fig. 16.2) scientists in the following ways:

- The *cognitive* logical-mathematical (IQ) intelligence/line of development helps respond to life questions such as *What am I aware of?* It is the most popular in the Western world due to its importance in the scientific world. It was identified, researched, and popularized by Jean Piaget (1976/1972) and further developed by Robert Kegan (1982)
- The *emotional* intelligence/line of development addresses the main question associated with *how we feel about this?* and was popularized through the work of Daniel Goleman ((1995) & (2000)), who developed the emotional quotient
- The *needs* line of development represents the core of Abraham Maslow's (1999/1968) work, and addresses the question *what do I need?*
- The *values* line of development deals with *what is significant to me?* within human evolution as life's circumstances change and has emerged out of the work of Clare Graves (Beck & Cowan, 1996)
- The *self/ego-identity* line of development is a major line of development of individual ego/identity evolution that deals with the life's question *who am I?* and emerged from the work of Susanne Cook-Greuter (2008) who built upon Harvard researcher's work Jane Loevinger (1977)
- The *moral* line of development deals with the question *what should I do?* and has been researched by both Kohlberg (Kohlberg & Ryncarz, 1990) and Gilligan (1993/1982). The moral line of development is extremely important particularly within the context of the massive transformation literacy discussed in this paper. The world's major religions have tried to get their followers to adhere to their own form of moral guidelines without much success over the centuries. For example, Christianity has the ten commandments, or Decalogue, Buddhism has the eightfold path, and Islam has the Islamic Decalogues (Armstrong, 2001/1944, 2001/2000, 1993; Smith, 1995/1958; Wilber, 2017).

All intelligences or lines of development are, of course, interrelated and subject to individual personal growth, cultural and social context, and evolution at large.

Vertical growth also occurs along stages/levels of *growing up* (Wilber, 2017) (see also Fig. 16.2) and evolves from the (small) egoic *self* to a higher, *ethnocentric self* (belonging to my *tribe* a la America first), to a *world-centric self* (all of us), or even Kosmos-centric *self* in a Buddhist sense. Research indicates that mindshift occurs and is often triggered through *state, change* or *waking up*, experiences within the context of what Maslow (1999/1968) called transcendent or *peak* experiences, meditative or contemplative experiences, *near-death experiences*, or *out-of-body experiences* (Grof, 2006); or what Mihaly Csikszentmihalyi (1990) called *flow* state or unity consciousness experiences, exceptional human experiences, transpersonal experiences, or other spiritual emergencies (Bozesan, 2010).

## 16.2 Why Growing Up Needs Waking Up

One word of caution is indispensable here: The idea of eternal growth is so deeply ingrained in our culture that one could fall into the trap of believing that later stages of development are somewhat better than earlier ones. Yet, this is not inevitably true. Why? Because, for example, high cognitive development paired with low moral development could lead to terrible destruction like the development of the atom bomb and its subsequent dropping over Hiroshima and Nagasaki during World War II. Traditional education systems emphasize cognitive development while leaving ethics and moral education mostly to the family and the church. This must change in the future. Ethics and moral development ought to become our guiding force if we want to address the current global grand challenges. Vertical growth must be rooted in a healthy ego-identity because only then it can be of service to the group or tribe and later serve the world. Hence, the horizontal integration at each stage of development across all four AQAL quadrants is the premise for healthy vertical growth (see Fig. 16.3).

While vertical growth accelerates the mindshift toward later stages of development from egocentric to ethnocentric to world-centric views of the world, horizontal integration focuses on the skillset development at the same level of consciousness across all four quadrants (Fig. 16.2)—individual, culture, society, and the environment. And, while vertical growth helps us achieve not only higher cognitive intelligence (IQ), but also higher emotional intelligence (EQ), moral, and inter- and intrapersonal intelligences, horizontal integration helps achieve a well-grounded and highly developed sense of self-identity which helps us find our own healthy place in our culture and society. Both vertical and horizontal growth are instrumental to personal growth that helps us to hasten our mindshift and our path of self-actualization toward wisdom and global caring and to develop awareness and multiple perspectives across all quadrants. The result can be an enhanced ability to handle and navigate complexity swiftly in addition to an increased ability to deal with uncertainty in a fast-changing world. In *changes of mind*, Jenny Wade (1996, p. 267) asserts why people whose center of gravity is at “higher stages of consciousness comprehend lower stages, but the reverse is not true.” This could provide us with important clues as to how

to address the current societal polarization and to accelerate our (1) *collaborative capacity*: the ability to integrate diverse perspectives with the intention of developing all-encompassing and successful solutions; (2) *contextual thinking*: the ability to reflect on and analyze problems in terms of the larger systems and contexts to which they belong; and (3) *cognitive complexity*: the ability to think in a multi-perspectival manner about complex issues (Stein et al. 2010).

Transformation occurs whether we like it or not and is accelerated today by exponentially growing, AI-driven technologies, some of which we carry in our own pockets. As we have seen, they are unfortunately *not* driven by high morals nor world-centric ethics but unmitigated and subject to profit-only, or politically motivated egocentric and/or ethnocentric biases and take place under the radar of democratic value systems (Stückelberger & Duggal, 2018). What is even scarier is that these technologies drive the rate of exponential growth exponentially, which is even more difficult to understand let alone control (Bozesan, 2020). Thus, a truly inspiring future can *only* be created if we win the race against such systems and the growing power of unethical, AI-driven egocentric and/or ethnocentric mind sets. Time is of the essence for the scientific community which has long been warning about climate emergency that leaves us with only 10 years to address it (Masson-Delmotte et al., 2018; Randers et al., 2018). To win this race, we must get it right from the start and implement world-centric solutions that are based on world-centric and integral mindsets and levels of consciousness. Our generation does not have time to learn from our own mistakes as was the case in the past when human actions had only a local impact and could freely explore the downfalls of combustion engines, or even the atomic power.

In their paper, *rethinking humanity: five foundational sector disruptions the life-cycle of civilizations and the coming of age of freedom*, authors James Arbib and Tony Seba (2020) confirm that the 2020s are decisive for the future of humanity for we will be completely disrupted in all major sectors that make up the global economy including “information, energy, food, transportation and materials, and [where] costs will fall by a  $10 \times$  or more, while production processes an order of magnitude more efficient will use 90% fewer natural resources with  $10x-100 \times$  less waste.” In their view, we can choose to implement the UN SDGs within planetary boundaries (Randers et al., 2018) within the next ten years or collapse and descend into another dark age as previous civilizations. “Dark ages do not occur for lack of sunshine, but for lack of leadership” said Arbib & Seba (2020, p. 6) and propose the following high-level leadership action plan (p. 67):

- Acknowledgements that we are at a breaking point without equilibrium and there is no going back because there is no “normal” to which we could go back.
- *Brace for the impact* caused by the breaking down of every major system we know including financial, environmental, social unrest, state failure, and mass migration, all of which will be compounded by technological disruption.
- *Beware of the cascading impact of further disruptions* such as the massive decrease in oil prices triggered by the transformations taking place in the transportation industry.

- Balance the need for quick change with the need for social, economic, and political stability
- *Create a clear vision and a tactical implementation plan* to manage adverse outcomes (instability, unemployment, etc.)
- *The race to the top has begun*; make sure nobody is left behind
- Smaller communities and big cities such as Shanghai, Seattle, and Silicon Valley will be more likely to succeed over big countries.
- Resiliency and robustness will win
- Rethink old concepts like economies of scale and efficiency that are not shock absorbent under new circumstances
- Apply existing technology and tools to solve the problems; do not waste time to develop new ones
- Exponential thinkers are more likely to succeed than linear thinking forecasters.

Massive transformations require radically different mindsets which is the reason why former Google ethicist Tristan Harris founded the Center for Humane Technology.<sup>12</sup> Harris' intention is to accelerate the development of transformational literacy by counteracting social media companies who currently profit from collective weaknesses such as addictions, depression, hate, and other divisions eloquently shown in *The Social Dilemma* movie.<sup>13</sup> According to Tristan Harris, the social media technology has become the new twenty-first century infrastructure but it is more intimately embedded in our minds and nervous systems than any previous infrastructure be it electricity, cars, printed books, or planes. Such digital infrastructure attacks the very foundations of our humanity and sensemaking, because we lack a good understanding of the underlying technology and how it manipulates us to make a profit. Our addiction to technology and ultimately social media has become like a brain implant without our explicit volition, large scale tests, or approval by an accredited organization such as the FDA. Instead, the sensemaking of the billions of people on social media is dictated by (mostly young) AI programmers who are just implementing the requests of their bosses without a deep understanding of the long-term impact their AI code might have on the society at large.

For similar reasons, MIT professor Max Tegmark founded the Future of Life Institute together with other concerned scientists including the late Stephen Hawking, Ray Kurzweil, Dennis Hassabis, and serial entrepreneur Elon Musk.<sup>14</sup> The institute came up with 23 Asilomar AI principles to ensure the ethical application of AI.

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<sup>12</sup> <https://www.humanetech.com/>.

<sup>13</sup> <https://www.netflix.com>.

<sup>14</sup> <https://futureoflife.org/>.

## 16.3 Conclusions for Transformation Literacy

Systemic change is non-negotiable if we want to ensure humanity's future on this planet. New systems will have to replace current fossil-fuel-based, unsustainable free-market economies with integrally sustainable economies, to name just one such key system. The argument made in this chapter is that in order to succeed, the necessary transformation literacy must be integrally sustainable and go beyond exterior aspects of the world out-there to include interior, mindshifting factors of the world in-here. Integral theory (AQAL) by Ken Wilber, which has already been successfully applied in more than 50 academic disciplines, was introduced to serve as a holistic map for the human agency that supports of the necessary transformation literacy. In order for the mindshift to occur to the next level of consciousness, we need to address the entire complexity of reality, the platonic value spheres, because they are co-arising whether we are aware of them or not. The hidden, interior dimensions of reality are, therefore, emphasized. These covert dimensions include the collective intersubjective aspects of culture as well as the individual subjective, the unseen aspects that determine human personality, the mindshift, and ultimately the behavior of each and every one of us. The collective mindshift occurs when the individual mindshift happens at large scale and the tipping point for the collective next level of consciousness has been reached.

We can take advantage of existential challenges as an opportunity to evolve to the next stage of human civilization or regress to nationalism, populism, and dictatorship either through ineptitude or out of fear. The future will show. However, one thing is certain: times of crisis provide an indisputable opening for transformation because they remind each and every one of us that we cannot control the outside world, we cannot control other people, we cannot control the climate, and we certainly cannot control a pandemic. We can influence them, at best. What we can control is our own psychological state, what we think, what we do, and who we become during a crisis. It may not be easy, but we can still choose. We can lose faith and despair and become a burden to others or we can become part of the solution, an inspiration, and a force for good. Evolution takes place with or without us. We can consciously participate in it and shift our minds to the next stage of evolution or regress and eventually be eliminated by more resilient manifestations of life. Our psychological strength and mindset will determine our sense of happiness. As long as we have free will, the choice is ours. And if enough of us chose to grow beyond our old selves and address our shadows, the collective transformation to the better becomes unavoidable. Our past attests to that immense realization.

## References

Adams, J. D. (Ed.). (2005). *Transforming leadership*. Cosimo on Demand.

- Arbib, J., & Seba, T. (2020). *Rethinking humanity: Five foundational sector disruptions, the lifecycle of civilizations, and the coming of age of freedom*. Accessed 5 Feb 2021 <https://www.rethinkx.com/humanity>
- Armstrong, K. (1993). *A history of God: The 4000-year quest of Judaism*. Ballantine Books, New York.
- Armstrong, K. (2001/1944) *Buddha*. Penguin, New York.
- Armstrong, K. (2001/2000). *Islam: A short history*. Random House, New York
- Armour, C., McGlinchey, E., Butter, S., McAloney-Kocaman, K., McPherson K. (2020). The COVID-19 psychological wellbeing study: Understanding the longitudinal psychological impact of the COVID-19 pandemic in the UK; a Methodological Overview Paper. *J Psychopathol Behav Assess*. <https://doi.org/10.1007/s10862-020-09841-4>. Accessec Jan 31 2021 <https://rdcu.be/cewxk>
- Arnsperger, C. (2010). *Full-spectrum economics: Toward an inclusive and emancipatory social science*. Routledge.
- Baier, A. C. (1996/1994) *Moral prejudices*. Harvard University Press, Cambridge, MA
- Balandina, J. J. (2011). *Guide to impact investing: Managing wealth for impact and profit for family offices and high net worth individuals* (Self-published by the author)
- Balandina, J. J. (2016). *Catalyzing wealth for change: Guide to Impact Investing*. (Self-published by the author)
- Beck, D. E., & Cowan, C. C. (1996). *Spiral dynamics — Mastering values, leadership, and change*. Blackwell.
- Boyatzis, R., & McKee, A. (2005). *Resonant leadership*. Harvard Business School.
- Bozesan, M. (2010). *The making of a consciousness leader in business: An integral approach*. Published Ph.D. Dissertation, ITP Palo Alto. SageEra, Redwood City, CA
- Bozesan, M. (2016). Integral sustainability of how evolutionary forces are driving investors' trust and the integration of people, planet, and profit. In O. M. Lehner (Ed.), *Routledge handbook of social and sustainable finance* (pp. 296–321). Routledge.
- Bozesan, M. (2020). *Integral investing: From profit to prosperity*. Springer Nature, Cham, Switzerland.
- Brill, H., Kramer, M., Peck, C., & Cummings, J. (2015). *The resilient investor: A plan for your life, not just your money*. Berrett-Koehler Publishing.
- Brown, B. C. (2007). *Four worlds of sustainability: Drawing upon four universal perspectives to support sustainability initiatives*. Integral Sustainability Center. Accessed 16 Aug 2019 <http://nextstepintegral.org/wp-content/uploads/2011/04/Four-Worlds-of-Sustainability-Barrett-C-Brown.pdf>
- Brown, B. C. (2018). *The future of leadership for conscious capitalism*. Apheno advisory. viewed 12 august 2019 at <https://tinyurl.com/yb25u6sb>.
- Brown, L. B. (2006). *Plan B 2.0: Rescuing a planet under stress and a civilization in trouble*. W.W. Norton & Company
- Bugg-Levine, A., & Emerson, J. (2011). *Impact investing: Transforming how we make money while making a difference*. Jossey-Bass.
- Carothers, T. (2020). *Postelection: More polarization ahead*. Accessed 13 Nov 2020 <https://tinyurl.com/y2eskewa>
- Cook-Greuter, S. R. (2005). Ego development: Nine levels of increasing embrace. Accessed 1 Feb 2021 <https://tinyurl.com/ycvmtk9o>
- Cook-Greuter, S. R. (2008). *Mature ego development: A gateway to ego transcendence?* [Electronic version]. *Journal of Adult Development*, 7(4), 227–240.
- Cook-Greuter, S. R. (2013). *Nine levels of increasing embrace in ego development: A full-spectrum theory of vertical growth*. Accessec 15 Aug 2019 <http://www.cook-greuter.com/Cook-Greuter%209%20levels%20paper%20new%201.1%2714%2097p%5B1%5D.pdf>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper Perennial.
- Clark, C., Emerson, J., & Thornley, B. (2015). *The impact investor: Lessons in leadership and strategy for collaborative capitalism*. Jossey-Bass, San Francisco.

- Diamandis, P. H., & Kotler, S. (2020). *The future is faster than you think: How converging technologies are transforming business, industries, and our lives*. Simon & Schuster.
- Esbjörn-Hargens, S. (2010). *Integral theory in action: Applied, theoretical and constructive perspectives on the AQAL model*. Suny Press, Albany NY. Accessed Jan 31, 2021 at <https://www.sunypress.edu/pdf/62114.pdf>
- Gebser, J. (1984/1949). *The ever-present origin*. Ohio University Press, Athens, Ohio.
- Gilligan, C. (1993/1982). *In a different voice: Psychological theory and women's development*. Harvard University Press, Cambridge, MA.
- Gardner, H. (2004). *Changing minds: The art and science of changing our own and other people's minds*. Harvard Business School Press.
- Giving Pledge. (2020). Forty U.S. families take giving pledge: Billionaires pledge majority of wealth to philanthropy. <http://givingpledge.org>
- Godeke, S., Pomares, R., Bruno, A. V., Guerra, P., Kleissner, C., & Shefrin, H. (2009). *Solutions for impact investors: From strategy to implementation*. Rockefeller Philanthropy Advisors.
- Göpel, M. (2016). *The great mindshift: How new economic paradigm and sustainability transformations go hand in hand*. SpringerOpen.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.
- Goleman, D. (2000). *Leadership that gets results* [Electronic version]. Harvard Business Review, March-April, 78–91. Reprint No. R00204. Viewed 11 March 2020 at <https://hbr.org/2000/03/leadership-that-gets-results>
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Harvard Business School Press.
- Grof, S. (2006). *When the impossible happens: Adventures in non-ordinary realities*. Sounds True, Boulder, CO
- Habermas, J. (1990) *The philosophical discourse of modernity*. Trans. F. Lawrence. Cambridge, US: MIT Press.
- Hoffman, D. (2019). *The case against reality: Why evolution hid the truth from our eyes*. W.W. Norton & Company.
- Holliday Jr. Ch., Schmidheiny, S., & Watts, P. (2002). *Walking the talk: The business case for sustainable development*. Greenleaf Publishing.
- Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability*. HarperBusiness.
- Hawken, P. (Ed.). (2017). *Drawdown, the most comprehensive plan ever proposed to reverse global warming*. Penguin Books.
- Hawken, P., Lovins, A., & Lovins, L. H. (1999). *Natural capitalism: Creating the next industrial revolution*. Little Brown & Company.
- Hendricks, G., & Ludeman, K. (1996). *The corporate mystic: A guidebook for visionaries with their feet on the ground*. Bantam Books.
- Jackson, H., & Svensson, K. (2002). *Ecovillage living: Restoring the earth and her people*. Green Books.
- Jaworski, J. (1996). *Synchronicity: The inner path of leadership*. Berret Koehler.
- Kant, I. (1993/1949). *The philosophy of Kant*. The Modern Library, New York
- Kegan, R. (1982). *The evolving self: Problem and process in human development*. Harvard University Press.
- Kegan, R. (1994). *In over our heads*. Harvard University Press.
- Kelly, E. (2011). *Exercising leadership power: Warren Buffet and the integration of integrity, mutuality, and sustainability*. In: Weir, D., & Sultan, N. (Eds.) From critique to action: The practical ethics of the organizational world (pp. 315–337). Cambridge Scholars, Newcastle, UK
- Kohlberg, L., & Ryncarz, R. A. (1990). Beyond justice reasoning: Moral development and consideration of a seventh stage. In C. N. Alexander & E. J. Langer (Eds.), *Higher stages of human development: Perspectives on adult growth* (pp. 191–207). Oxford University Press.
- Kofman, F. (2006). *Conscious business: How to build values through value*. Sounds True, Boulder, Colorado.
- Krugman, P. (2012). *End this depression now!* Norton & Co.

- Kurzweil, R. (2005). *The singularity is near: When humans transcend biology*. Viking Penguin.
- Loevinger, J. (1977). *Ego development: Conceptions and theories*. Jossey-Bass.
- Maslow, A.H. (1999/1968). *Toward a psychology of being*. John Wiley & Sons, New York.
- Marques, J., Dhiman, S., & King, R. (2007). *Spirituality in the workplace*. Personhood Press.
- McCoy, J., Rahman, T., & Somer, M. (2018), Polarization and the global crisis of democracy: Common patterns, dynamics, and pernicious consequences for democratic polities. *American Behavioral Scientist*, 62(1), 16–42 © 2018 SAGE Publications Reprints and permissions: [sagepub.com/journalsPermissions.nav](https://sagepub.com/journalsPermissions.nav) DOI: <https://doi.org/10.1177/0002764218759576> journals.sagepub.com/home/abs, Accessed 13 Nov 2020 <https://tinyurl.com/y3j8lk3e>
- Maslow, A. H., Stephens, D. S., & Heil, G. (1998 & 1968). *Maslow on management*. John Wiley & Sons.
- Maslow, A. H. (1999/1968). *Toward a psychology of being*. John Wiley & Sons, New York.
- Masson-Delmotte, V. et al. (2018). Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
- McDonough, W., & Braungart, M. (2002). *Cradle to cradle: Remaking the way we make things*. North Point Press.
- Mitroff, I. I., & Denton, E. A. (1999). *A spiritual audit of corporate America: A hard look at spirituality, religion, and values in the workplace*. Jossey-Bass.
- Nattrass, B., & Altomare, M. (1999). *The natural step for business: Wealth, ecology and the evolutionary corporation*. New Society Publishers.
- Plato (1961/1938). *The collected dialogues of Plato: Including the letters*. Princeton University Press, Princeton, NJ.
- Piaget, J. (1976/1972). *The child and reality*. Penguin, New York.
- Randers, J., Rockström, J., Stoknes, P.E., Gölücke, U., Collste, D., Cornell, S. (2018). *Transformation is feasible. How to achieve Sustainable Development Goals within Planetary Boundaries. A report to the Club of Rome*, for its 50th anniversary, 17 October 2018. Stockholm Resilience Center. Accessed 3 Apr 2020 <https://tinyurl.com/y9epzlmk>
- Ray, M., & Rinzler, A. (Eds.). (1993). *The new paradigm in business: Emerging strategies for leadership and organizational change*. Jeremy P. Tarcher/Pedigree.
- Ray, P., & Anderson, S. R. (2000). *The cultural creatives: How 50 million people are changing the world*. Three Rivers Press.
- Rooke, D., & Torbert, W. (2005). *Seven transformations of leadership*. Harvard Business Review OnPoint Article, 1–11. Reprint No. R0504D
- Scharmer, O. (2010). Seven acupuncture points for shifting capitalism to create a regenerative ecosystem economy. *Oxford Leadership Journal*, 1(3). Accessed 18 June 2019 <https://tinyurl.com/y32cospb>
- Secretan, L. (2006). *One: The art and practice of conscious leadership*. The Secretan Center, Caledon, Ontario, Canada.
- Senge, P., Scharmer, C. O., Jaworski, J., & Flowers, B. S. (2005). *Presence: An exploration of profound change in people, organizations, and society*. Currency Doubleday.
- Sisodia, R., Sheth, J., & Wolfe, D.B. (2007) *Firms of endearment: How world-class companies profit from passion and purpose*. Wharton School, Upper Saddle River, NJ.
- Smith, H. (1995/1958). *The illustrated world's religions: A guide to our wisdom traditions*. Harper Publishing, San Francisco.
- Soros, G. (2008). *The new paradigm for financial markets: The credit crisis of 2008 and what it means*. PublicAffairs.
- Stiglitz, J. (2010). *Freefall: America, free markets, and the sinking of the world economy*. Norton, New York.
- Stiglitz, J. (2011). Of the 1%, by the 1%, for the 1%. Vanity Fair May 2011. Accessed 3 Apr 2020 <http://www.vanityfair.com/society/features/2011/05/top-one-percent-201105>

- Stiglitz, J., Fitoussi, J., Durand, M. (2018). *Beyond GDP: Measuring what counts for economic and social performance*. OECD Publishing, Paris. Accessed 19 Feb 2019 [https://read.oecd-ilibrary.org/economics/beyond-gdp\\_9789264307292-en](https://read.oecd-ilibrary.org/economics/beyond-gdp_9789264307292-en)
- Strong, M. (2009). *Be the solution: How entrepreneurs and conscious capitalists can solve all the world's problems*. Wiley & Sons.
- Stükelberger, C., & Duggal, P. (2018). *Cyber ethics 4.0: Serving humanity with values*. Globethics.Net, Geneva. Accessed 23 May 2019 <https://tinyurl.com/y5kt7ffe>
- Stein, Z., Dawson, T., & Fischer, K.W. (2010). Redesigning testing: Operationalizing the new science of learning. In Khine M.S. Saleh IM (Eds.), *New science of learning: Cognition, Computers, and collaboration in education*. Springer New York Dordrecht Heidelberg London.
- Torbert, W., & Kelly, E. (2013) *Developing transforming leadership: The case of Warren Buffett*. Revised paper originally presented at the Integral Theory Conference, San Francisco, July 2013. Viewed 23 August 2019 at <http://www.williamrtorbert.com/wp-content/uploads/2013/09/EKellyWRTBuffett.pdf>
- von Bertalanffy, L. (2006/1969). *General systems theory: Foundations, developments, applications*. George Brazillier, New York.
- Von Weizsäcker, E. U., & Wijkman, A. (2018). *Come On! Capitalism, short-termism, population and the destruction of the planet – A report to the Club of Rome*. Springer Nature.
- Wade, J. (1996). *Changes of mind: A holonomic theory of the evolution of consciousness*. State University New York.
- Wilber, K. (2000/1995). *Sex, ecology, spirituality: The spirit of evolution*. Boston: Shambhala.
- Wilber, K. (2000a). *A theory of everything: An integral vision for business, politics, science, and spirituality*. Shambhala.
- Wilber, K. (2000b). *A brief history of everything*. Shambhala.
- Wilber, K. (2000c). *Integral psychology: Consciousness, spirit, psychology, therapy*. Shambhala.
- Wilber, K. (2017). *The religion of tomorrow: A vision for the future of the great traditions*. Boulder:Shambhala.
- World Commission on Environment and Development. (2009/1987). *Our common future*. Oxford University Press, Oxford.
- Wilber, K. (1998). *Marriage of sense and soul*. Random House, New York.

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# Chapter 17

## Models of Change: Strategies to Make the Socio-ecological Transformation a Success



**Kora Kristof**

**Abstract** Climate change and many other problems show us more and more clearly that fundamental change is necessary. However, many good ideas get stuck in implementation. Therefore, the question is how we can change more successfully. We take sports courses or go to music lessons to learn, to get better quickly or to avoid hurting ourselves. Professionals in sport, art and other fields also receive intensive coaching from experts. However, when it comes to making successful progress towards sustainability, people often rely on ‘home recipes’. It is time to become more professional in this area as well. To achieve this, it is important to make targeted use of the findings of transformation research and key success factors as well as to develop transformation literacy. In this chapter, the models of change approach is presented, which focuses on central success factors for social change and shows ways to successful change.

**Keywords** Change process · Successful change · Models of change · Theories of change · Transformation · Transition · Success factors

### 17.1 Introduction: Challenges

How does transformation towards sustainability succeed? We all need an answer to this ‘one million dollar’-question.

Since the 1980s, we have known that climate protection is necessary. The social debate on this issue has gained significant momentum in recent years with the Paris Agreement on Climate Protection and civil society protests such as Fridays for Future. Politicians but also more and more companies and citizens are setting out on the path to a fundamental transformation towards greenhouse gas neutrality. Their goal is to stop producing greenhouse gas emissions and if this is not 100% successful, to completely offset their remaining emissions.

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K. Kristof (✉)  
Umweltbundesamt, Wörlitzer Pl. 1, 06844 Dessau, Germany  
e-mail: [kora.kristof@uba.de](mailto:kora.kristof@uba.de)

But it is not only climate change that requires change. The ecological limits of the earth are also evident, for example, in the loss of biodiversity, acidification, eutrophication and the unsustainable use of natural resources. Environmental problems also threaten human health - such as pollutants in air, water and food or noise.

Social issues, including global and intergenerational justice, also call for profound change.

Briefly summarised: Wherever we look, we see large and complex needs for change.

Resource-efficient, emission-neutral, equitable – these are central goals of the upcoming major changes if we take the stress limits of the earth system, the well-being of all people and the idea of global and intergenerational justice seriously (e. g. Rockström et al., 2009; Jackson, 2009; WBGU, 2011; Daschkeit et al., 2013).

For the necessary ‘Energiewende’, mobility transformation, food transformation and many other transformations, there are countless proposals for policy instruments (e. g. taxes) and measures (e. g. reparability of products) for the different target groups. These approaches are intensively discussed in sustainability-oriented science, the scientific policy advice based on them, as well as in the social debates and political processes. And they are constantly evolving. At the centre of this, **transformational research** is always the question of what should change concretely and in what direction.

Some ideas have been successfully implemented, in many other places, things are moving slowly or not at all, as one would wish and as would be necessary because of the urgent problems. We know a lot about what should change, but often fail miserably in the concrete implementation.

So, it is not enough for us to only deal with the question ‘what should change’? Rather, it is becoming increasingly important to know how we can also successfully implement the upcoming changes. It is, therefore, a question of the central success factors for social change and their application in practice.

In addition, resistance and obstacles often characterise the everyday life of change. In order to deal with them, implicit models are often used that have formed more or less consciously in our heads from past experiences with change processes.

How the upcoming changes can be realised more successfully has also become increasingly interesting for science: **Transformation research** focuses on the central success factors for social change and their practical application. In addition to ex-post studies of change processes, ex-ante approaches are increasingly coming into focus, which identify the central success factors and allow the change agents to reflect on the change process and their role in it and to consistently use the central success factors (e. g. Rotmans & Loorbach, 2009; Kristof 2010a, b; Smart CSO 2011; Geels, 2011; Rasmussen, 2013; Fünfschilling, 2014; Griebßhammer et al., 2015; Smart CSO, 2015; Kristof, 2020). In addition to overall models, there are a number of approaches that focus on interesting partial aspects or that compare different approaches (e. g. Alexander et al., 2011; WBGU, 2011; Ernst and Welzer 2015; Heinecke et al., 2013; Loske, 2012; Rückert-John et al., 2014; Schneidewind and Singer-Brodowski 2013; Sommer and Welzer 2014; Welzer and Sommer et al., 2014; Wolff et al., 2018;

Schneidewind, 2018; Schöpke 2018; Wagner and Grunwald 2019; Oberlack, 2019; Köhler 2019).

In a complex and dynamic world, there are neither ‘recipes’ nor guarantees for successful change processes. What we can use, however, are typical patterns and key success factors to increase the probability of success of our change processes. My ‘models of change’ approach, which has now been further developed, combines my own research findings, the insights from many in-depth interviews with experts of transformation research and from the more recent literature (see above), as well as experiential knowledge from my research-based policy consulting.

## 17.2 How Can the Necessary Changes Succeed?

Briefly summarised: Moreover, having good ideas for change is not enough. They do not automatically become accepted or realised. We need answers to the central question: How can the necessary changes succeed? What is needed is, firstly, knowledge of the success factors and patterns of success and secondly, their consistent use.

What are the most important success factors? The models of change approach provides a number of answers to this question (Kristof, 2020; Kristof 2011a; Kristof 2011b). Three illustrations give a brief overview of the models of change approach (see Figs. 17.1, 17.2 and 17.3).

### 17.2.1 Core Skills

I would like to start with the central skills, which are important success factors.

Figure 17.1 shows which competencies are central to the success of social change: The basic skills aim at the basic attitude towards change and resistances that arise in the process. Procedural competences ensure a successful handling of actors, time and complexity.

Let us take a brief look at the most frequently unused skills.

First of all, this is the reflexive and self-reflexive attitude of the change actors which is necessary for successful change processes. It is important to constantly reflect on the change and the change process with the necessary distance in order to be able to continuously adapt along the central success factors.

The challenge of ‘loving resistance’ is also difficult for many change agents. It is promising to deal actively and positively with resistances and conflicts of interest instead of seeing them as annoyance.

What someone perceives as resistance is a question of perspective: Is the behaviour of the change actors themselves not also resistant?

It is important not to see the representatives of resistance automatically as ‘evil opponents’, but to accept their legitimate criticism and recognise their different interests.



**Fig. 17.1** Models of change: basic and procedural skills (copyright by the author)

Resistance is always a good indicator of the potential for improvement of the change idea, the proposed solutions or the change process. If you understand resistance, you can also use it in a solution-oriented way. Residual resistances can be weakened, for example, by compensating for disadvantages or sharing advantages.

Complexity is the norm in fundamental change. Actors must, therefore, abandon the idea that change can be controlled and learn to deal adequately with complex dynamic systems. An analysis of the system relevant to the change is the basis for being able to orient oneself. Starting from the basic vision and the core goals of the change agents, the aim is to identify both the central problems, risks, conflicting goals, dynamics and tipping points as well as the central levers and ‘low hanging fruits’.

In addition to scientific expertise, system, process and experiential knowledge as well as competences in pattern recognition, creativity and intuition should be used in the analysis—because complex systems cannot be analysed completely, but a better understanding of the system can be achieved through different perspectives (Stark et al., 2017; Sommer & Welzer, 2014). The development of these holistic competences should be specifically promoted in education and training.

At the same time, scenarios and models of possible future developments can help to better recognise the interrelationships and possible effects of action or non-action, to make directionally sound decisions for different possible future developments and to

draw conclusions for today's actions. Scenarios show, for example, that some instruments would show good results in quite different developments and other instruments only fit well in a certain future development.

Since complexity can never be fully understood, problems with serious consequences can also arise unexpectedly. Therefore, it makes sense to always include the 'necessary safety margin'. In the environmental policy debate, the precautionary principle, reversible or correction-friendly solutions and resilience are, therefore, discussed for the selection of instruments and measures. But the process of change can also be adapted accordingly: iterative procedures to solve emerging problems in small steps, testing on a small scale and solution diversity to limit the problems to a manageable area, as well as monitoring to quickly identify the problems.

Time is relevant to the success of change in many ways. In change processes, different, often incompatible time logics usually collide (e. g. temporal routines, speeds, time horizons such as quarterly figures, election periods, biological cycles). Furthermore, the temporal scope plays a role - in terms of the consequences of action (e. g. short-lived pollutants, climate impacts, extinct species) as well as the measures and instruments taken (e. g. temporary driving bans to reduce emissions, restructuring of the energy system). Change processes also build on a history and have an impact on the future. Change agents need to be aware of the impact of the past on change processes in order to specifically reap the 'fruits' of the past and not fail because of old problems. Today's decisions also create the conditions for future change or prevent it (e.g., path dependencies, irreversible developments).

Since time logics and path dependencies have a great influence on change processes, they must be recognised and actively used in the change process (e.g., align change processes with election cycles and the windows of opportunity that open up in the process).

Change processes also need a lot of time. Since time is scarce, it is important to prioritise and focus consistently. This sounds trivial, but change processes often fail because the time required is significantly underestimated and insufficiently prioritised by the involved actors. Change agents underestimate the time they need to develop options with the target group, to resolve resistance and conflicting interests and to accompany participants in the change process when problems arise. Learning processes of the target groups to adapt to the change (e. g. changing behavioural routines, acquiring new qualifications) often take longer than expected.

Moreover, the temporal structures of changes in complex systems can only be described to a limited extent. Therefore, the timing of different activities can only be an approximation that needs to be continuously developed through monitoring. Deceleration can also be an important option.

Sometimes (unexpected) windows of opportunity open up and offer new opportunities for change (e.g., changed framework conditions, new actors, crises, new resources for change processes). In order to take advantage of these windows of opportunity, actors need to recognise them early and be prepared for them (e. g. create a knowledge base, develop attractive 'blueprints' in pilot projects), because they sometimes close again so quickly that there is not enough time to develop ideas and proposed solutions until then.

### 17.2.2 Central Process Elements

In addition to the central change skills, promising patterns for change processes can be identified (see Fig. 17.2).

This involves inspiring visions and narratives, which are often the ‘source of energy’ for change processes. These should be combined with related core goals and viable initial proposals for solutions as well as the framework conditions for dissemination. In addition to establishing the new (phase-in), it is always a matter of replacing the existing (phase-out or exnovation).

Amongst the success patterns of change processes, small-scale testing is often insufficiently appreciated, because one would rather have ‘large solutions immediately’. The typical complexity of fundamental changes, however, speaks in favour of testing on a small scale such as niche developments, pilot projects or real-life laboratories. This makes it possible to develop different solutions, learn from problems that arise, reduce risks and avoid resistance. In addition, the new and its advantages become concrete.

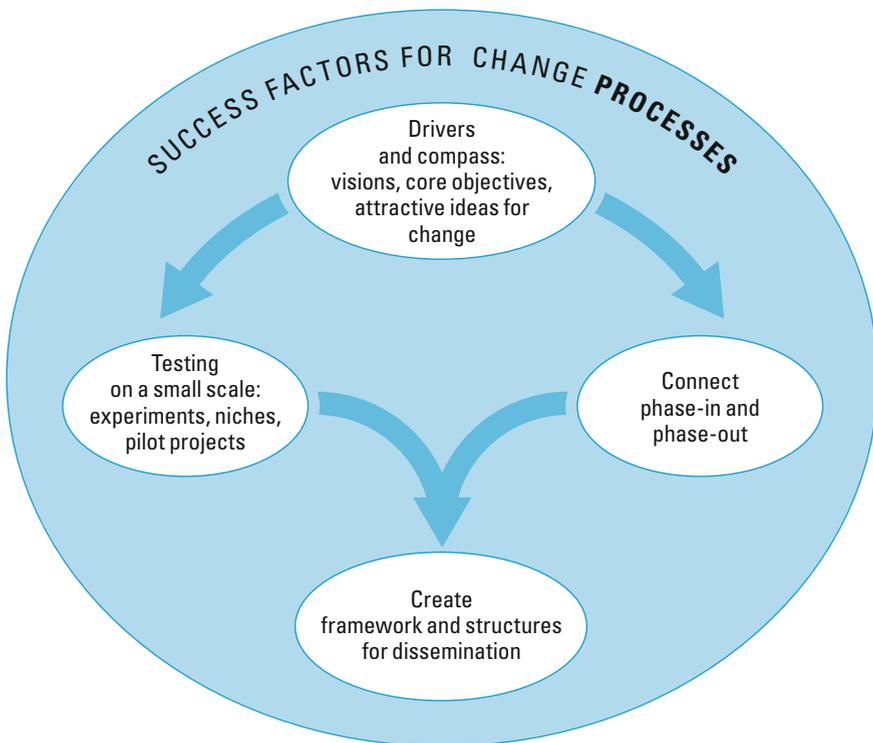


Fig. 17.2 Models of change: central process elements (copyright by the author)

Disseminating the solutions becomes easier if the solutions are already developed on a small scale in such a way that they can be connected for dissemination (e.g. through modular and adaptable solutions, etc.). Dissemination can then also be secured in the longer term through government frameworks, new institutions, new business models or changing routines of those affected. In a dynamic world, however, the solutions can quickly prove to be no longer suitable.

In addition to establishing the new (phase-in), it is also always a question of replacing the existing (phase-out/exnovation). This also requires a change process of its own. The mostly different actors of phase-in and phase-out should network well in order to be able to tap synergies. An important part of the exnovation process is that the change actors deal with what is to be replaced in a differentiated way. In doing so, the deficits of the existing as well as its losers and beneficiaries should become transparent. It must also be questioned whether the existing can always remain the 'normal case' in a changing world.

### ***17.2.3 Entire Process and Consistently using Success Factors***

Figure 17.3 combines the central skills and successful patterns with a look at the entire process of the change.

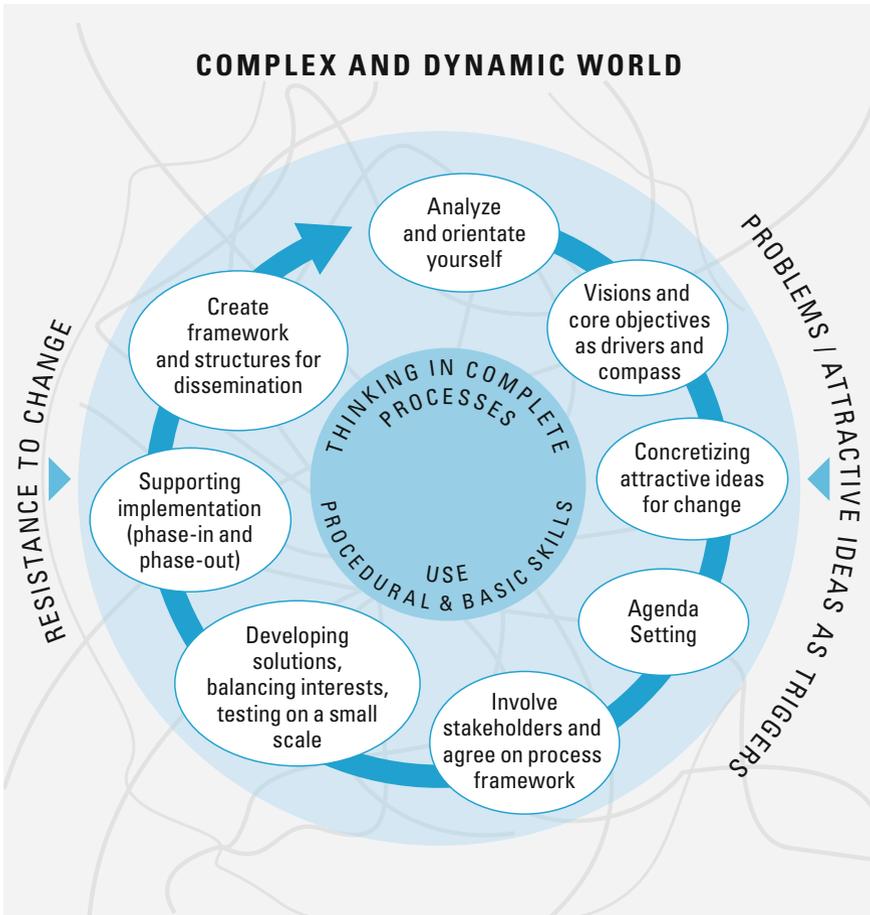
The analysis creates orientation and is the basis for the visions, the core objectives and the first ideas for implementation. Agenda setting makes it possible to set up a change process, to involve stakeholders and to reach an agreement on the process. Solutions are sought together with all stakeholders and developed step by step. It is also important to think about the concrete implementation of the new and its dissemination as well as the replacement of the old. Since there can be no optimal and permanently valid solutions in a complex and dynamic world, the process of change is never completed.

In a complex world, this process of change does not proceed step by step one after the other and the different activities are not independent of each other.

It is very challenging to think in terms of overall processes and to continuously keep an eye on all central success factors. The core skills as well as the successful patterns of change processes should be used consistently throughout the entire change process.

## **17.3 Conclusion: Using Success Factors and Building Up Skills**

It is clear that in a complex world, changes cannot be planned in detail. But what can be identified are important success factors and patterns of successful change. So, two tasks arise



**Fig. 17.3** Models of change: entire process and consistently using success factors (copyright by the author)

On the one hand, to look ex-post at what has worked or not and why, on the other hand, to identify ex-ante success factors and success patterns and to use them consistently.

Success in change processes requires that the change agents have the central change skills and know the central success factors and patterns.

For changes towards sustainability, people often rely on the implicit models in their own heads. In other areas of our lives, we are more professional: we take sports courses or go to music lessons.

We should also become more professional in change processes, making targeted use of the knowledge gained and building up the necessary skills - in schools, universities and in professional training.

The first teaching programmes on the success factors from transformation research have already been developed (for example in our project ‘Transformation wagen (‘Dare to transform’; [www.polsoz.fu-berlin.de/en/polwiss/forschung/systeme/ffu/forschung-alt/projekte/laufende/19\\_TrafoWag/index.html](http://www.polsoz.fu-berlin.de/en/polwiss/forschung/systeme/ffu/forschung-alt/projekte/laufende/19_TrafoWag/index.html) or by Smart CSO). This kind of training opportunities should be actively used.

## References

- Alexander, C., Ishikawa, S., & Silverstein, M. (2011). *Eine Muster-Sprache: Städte – Gebäude Konstruktionen*, 2nd ed. Löcker.
- Daschkeit, A., Kristof, K., Lorenz, U., & Veenhoff, S. (2013). Deutschland bis zum Jahr 2050 - Bausteine für eine nachhaltige Zukunft. *Jahrbuch Ökologie 2014*.
- Ernst, A., & Welzer, H. et al. (2015). Scenarios of perception of reaction to adaptation, final report of the ‘SPREAD’-project.
- Fünfschilling, L. (2014). A dynamic model of socio-technical change: Institutions, actors and technologies in interaction.
- Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental Innovation and Societal Transitions*, 1(2011), 24–40.
- Griefhammer, R. et al. (Öko-Institut / Kulturwissenschaftliches Institut / Zeppelin Universität) (2015). Wie Transformationen und gesellschaftliche Innovationen gelingen können.
- Heinecke, H. J., Kristof, K., Pfriem, R., Smrekar, O., & Stark, W. (2013). Veränderungsfähigkeit lernen: Initiative für eine Schule zur Kunst des Wandels. *GAIA*, 22 (1), 34–38.
- Jackson, T. (2009). Prosperity without growth? The transition to a sustainable economy.
- Köhler, J., et al. (2019). An agenda for sustainability transition research: State of the art and future directions. *Environmental Innovation and Societal Transition*, 31(2019), 1–32.
- Kristof, K. (2010a). *Models of Change: Einführung und Verbreitung sozialer Innovationen und gesellschaftlicher Veränderungen in transdisziplinärer Perspektive*. vdf Hochschulverlag an der ETH Zürich.
- Kristof, K. (2010b). *Wege zum Wandel: Wie wir gesellschaftliche Veränderungen erfolgreicher gestalten können*. oekom.
- Kristof, K. (2020). *Wie Transformation gelingt: Erfolgsfaktoren für den gesellschaftlichen Wandel*. oekom.
- Loske, R. (2012). *Wie weiter mit der Wachstumsfrage?* Basiliken-Presse.
- Oberlack, C. (2019). Theories of change in sustainability science: Understanding how change happens. *GAIA*, 28 (2), 106–111.
- Rasmussen, C. (2013). Green Transformation: grüne Managementkompetenz für zukunftsfähige Unternehmen. Leitfaden 01 bis 04.
- Rockström, J., et al. (2009). A safe operating space for humanity. *Nature*, 461, 472–475.
- Rotmans, J., & Loorbach, D. (2009). Complexity and transition management. *Journal of Industrial Ecology*, 13(2), 184–196.
- Rückert-John, J., Jaeger-Erben, M., & Schäfer, M. (2014). Soziale Innovation im Aufwind: Ein Leitfaden zur Förderung sozialer Innovationen für nachhaltigen Konsum.
- Schäpke, N., et al. (2018). Jointly Experimenting for Transformation? Shaping Real-World Laboratories by Comparing Them. *GAIA*, 27(S1), 85–96.
- Schneidewind, U. (2018). *Die Große Transformation: Eine Einführung in die Kunst gesellschaftlichen Wandels*. Fischer.
- Schneidewind, U., & Singer Brodowski, M. (2013). Transformative Wissenschaft: Klimawandel im deutschen Wirtschafts- und Hochschulsystem Metropolis
- Smart CSO. (2011). Effective change strategies for the Great Transition: Five leverage points for civil society organisations.

- Smart CSO (Narberhaus, M., & Sheppard, A.) (2015). Re.imagining activism: A practical guide for the Great Transition.
- Sommer, B., & Welzer, H. (2014). *Transformationsdesign: Wege in eine zukunftsfähige Moderne*. München: oekom.
- Stark, W., Vossebrecher, D., Dell, C., & Schmidhuber, H., (Hg.) (2017). *Improvisation und Organisation: Muster zur Innovation sozialer Systeme*. Bielefeld: transcript.
- Wagner, F., & Grunwald, A. (2019). Real-world labs: popular, arbitrary, or something in between: Taking stock of this transformative design. *GAIA*, 28 (3), 260–264.
- WBGU. (2011). *Gesellschaftsvertrag für eine Große Transformation*.
- Welzer, H., & Sommer, B., et al. (2014). *Wie gute Beispiele nachhaltigen Handelns in einem breiten gesellschaftlichen Kontext verankert werden können*. Final report/UFOPLAN-project 'Von der Nische in den Mainstream'/FKZ 371311102.
- Wolff, F., & Jacob, K., et al. (2018). *Transformative Umweltpolitik: Nachhaltige Entwicklung konsequent fördern und gestalten*.

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# Chapter 18

## Red Snow—When the Climate Bleeds: A Nordic Art and Science Project Aimed at Overcoming Climate Apathy Through Collaboration Between Artists and Scientists



**Bente Elisabeth Endresen**

**Abstract** This chapter describes the transformative potential of arts and science collaboration. The aim of the Nordic art and science project “Red Snow—When the Climate Bleeds” which was undertaken in 2014–2016 was to increase people’s awareness of the accelerating climate changes we are witnessing in the twenty-first century. This chapter shows how people can be encouraged to take action for the care of our planet and to live in a more sustainable way. The project was centred around an exhibition, consisting of artwork and scientific presentations, established collaboration with students at schools and universities and was implemented in four countries. In order to highlight the urgency of the need for change, the project showed some future scenarios presented by climate researchers. With the use of visual art, music and dance, it was possible to reach a larger audience than science alone could: this opened people’s hearts and minds to new knowledge. The chapter concludes that the collaboration between the arts and science is increasingly important. Art can successfully go beyond the mental mindset, and speak directly to the emotions of the audience, and once works of art have made an impression, visitors are generally more open to new knowledge.

**Keywords** Climate change · Climate crisis · Climate apathy · Nordic art · Sustainability · Collaboration

### 18.1 Introduction

In my years as an artist and curator, I have had profound experiences of how art has the capacity to reach people’s hearts. Art can successfully go beyond the mental mindset and speak directly to the hearts and emotions of the audience, thus gaining a completely different dialogue. I have witnessed people overwhelmed by emotions, just by looking at a painting or other artwork, be it naturalistic or abstract. It has

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B. E. Endresen (✉)  
Freelance Visual Artist, 8420 Knebel, Denmark

been surprising to me that art can affect the viewer just as strongly emotionally as music can affect listeners. And once works of art have made an impression, I have observed that visitors are generally more open to new impressions, new information and knowledge. In my belief, the vibrations sent out by art, by colour, form, and the energy the artist has put into her work, are being reflected in the attentive observer. And in this way, it opens up new reflections and insights.

The aim of the Nordic art and science project “Red Snow—When the Climate Bleeds”<sup>1</sup> which was undertaken in 2014–2016, was to increase people’s awareness of the accelerating climate changes we are witnessing in the twenty-first century. We wanted to encourage people to take action to take better care of our Planet and to live in a more sustainable<sup>2</sup> way (Red Snow—When the Climate Bleeds, 2015). The project was centred around an exhibition, consisting of artwork and scientific presentations, and was held in four countries, starting in Greenland’s Cultural House Katuaq in Nuuk, Greenland in 2014. The next exhibition was at the North Atlantic House in Copenhagen, Denmark in 2015, followed by an exhibition in the Nordic House, Reykjavik, Iceland. In 2016, the exhibition was held in the Nordic House in Torshavn, Faroe Islands. Music events, meetings with local artists and scientists, and lectures were also held at the exhibition venues. Where possible, we established collaboration with students at schools and universities.

When I initiated the “Red Snow”—project in 2009, I was sure that art could be a way to both give the visitors an artistic experience, and also be a door-opener to get the public to take in new information about climate change, which at that time was not an everyday topic. This was confirmed by the participants’ reactions during the project’s journey around the Nordic countries.

For example, during the first exhibition in Nuuk, Greenland in 2014, one young student, clearly shaken, after having heard a public lecture on climate change, asked in a trembling voice, “Is this the worst-case scenario”? We regretfully had to answer: “No, this is only a moderate projection of the speed at which we see the glaciers melting and retreating”. For a moment she looked devastated. But then she steadied herself and asked in a voice that was both loud and clear, “And what can we do”?

This young person made a strong impression upon me and gave me hope. She had seen the exhibition, watched a drum-dance performance from Greenland and attended a scientific lecture on how the Arctic ice cap is melting and at what pace the glaciers in the Arctic are disappearing, because of climate change. And now she was taking part in the discussion about what could be done to help. The young student became a symbol of the impact the project, presented here, was able to have on people. By taking in knowledge that was obviously new to her, and reacting with an intention and a will to act on the facts, she was proof that the aim of the project “Red Snow – When the Climate Bleeds” was achievable.

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<sup>1</sup> For more information, see: <https://benteelisabeth.dk/climate-art/red-snow/>.

<sup>2</sup> **Sustainability** focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs. I define sustainability as Gaia Education does, as consisting of four dimensions; the social -, the ecological - , the economic - and the worldview dimension. Ref: <https://www.gaiaeducation.org/elearning-programmes/design-for-sustainability/>.

## 18.2 The Purpose of the Project “Red Snow—When the Climate Bleeds”

As mentioned in the introduction, the purpose of the Nordic art and science project “Red Snow—when the Climate Bleeds” was to raise awareness of the already visible effects of today’s climate change and make more people realize that something must be done. In order to highlight the urgency of the need for change, we wanted to show some future scenarios presented by climate researchers and make the public aware, via neutral scientific information, of how current human activity is affecting the climate. With the use of visual art, music and dance, we hoped to be able to reach a larger audience than science alone could: we wanted to open people’s hearts and minds to new knowledge. Our aim was also to show that art and creativity can be sources of inspiration to find new solutions. For decades, climate scientists have been trying in vain to get the attention of both the public and politicians, on the often-inconvenient facts about the climate change we are witnessing. We wanted to impart some of this knowledge, whilst maintaining a sense of hope and an encouragement that it is possible, with the help of creativity, do something to turn the tide.

Our project provided a multifaceted approach to the theme of climate change, involving both art and science. On the artistic side, there were various contemporary contributions, interpreting the subject through sculpture, painting (e.g. Fig. 18.1), drawings, installations, photographs, sound, drums, music played with a variety of instruments, song and dance. The scientific researchers came with observations from multiple fields to facilitate new insights: biology, geology, meteorology, glaciology, botany, physical geography, oceanography, palaeontology and polar exploration. The project had a core group of twelve Nordic artists and researchers from Greenland, Iceland, Norway, Denmark and Faroe Islands, with me as the project manager as well as artist. Our work was shown at the four exhibition places. At each location, contributions from local actors were added, and we were working alongside a host of dedicated employees at the exhibition venues in Nuuk, Copenhagen, Reykjavik and Faroe Islands. Our project was intended to be a wake-up call, inspiring action on both individual and collective levels, resulting in a coming forth of the many, with the same question as the young student who asked: “What can we do”?

This idea of providing neutral scientific facts alongside art, with imaginative interpretations of the consequences of climate change, seemed to be a rather new and powerful combination to Nordic Culture Point and Nordic Culture Fund, who provided crucial funding support, and to the four exhibition venues that provided their space and invaluable helpful staff. A booklet *Red Snow—When the Climate Bleeds* (2015) was also printed.

**Fig. 18.1** “Red Snow—When the Climate Bleeds”. Painting by Bente Elisabeth Endresen, oil on canvas, 60 × 200 cm, copyright by the author



### 18.3 The Project's Choreography

The former President of Iceland, Vigdís Finnbogadóttir, opened the Project's exhibition in Reykjavik accompanied by performances from local choirs and musicians (Red Snow—When the Climate Bleeds, 2015). In her opening speech, the former president acknowledged accelerating climate change and the unprecedented rate at which the world's glaciers are melting. She continued:

It is more urgent than words can express, that we stop this man-made natural catastrophe that threatens the Earth through drastic climate change and threatens most of all that life which cannot thrive without having firm ice underfoot. With Greenlandic drumming we now try to rouse those who are still not awake to this, the greatest threat to mankind. Mixed in with the Greenlandic drumming we hear the voices of Nordic scientists who know better than anyone else the terrible effects of the glacial melting. The choir now singing of the 'Red Snow' also includes musicians and artists, showing what cannot be expressed in words. I especially welcome the collaboration between artists and scientists, lending their voices together to this choral suite about melting ice. I fully believe that this concerted effort of science and art will amplify the sound so that it may reach those who have been sleeping.

Similar openings were held at other locations. Figure 18.2 shows drumming activity at the opening of the Red Snow exhibition in the Faroe Islands.

As visitors entered the main exhibition, they were met by recordings of music inspired by the sound of waterfalls crashing onto rocks, calving glaciers and raven's screams. These provided a familiar soundscape from the environment we value so highly, as a backdrop to a scene of alarming sculptures of human figures, half-submerged in water. Some of these figures had, in panic, reached out for the nearest thing available, obviously useless in the situation. The shrinking of the Icelandic glaciers due to global warming over the next 50 years was illustrated on a large screen. Polar bears were portrayed wandering restlessly over lush green grass, unable to find food. There were large paintings of melting glaciers, red algae on snow and streams of water, eroding soil and new plants emerging; all illustrating the transformation we are witnessing in the arctic environment. In special workshops at the exhibition venues scientists explained their in-depth research into the most recent climate changes, including the effect of freezing water from melting glaciers upon the North Atlantic Current along the coast of southeast Greenland and on invasive species threatening Arctic flora. Videos, photographs, and posters presented scientific insights into these visible effects of climate change upon the arctic environment, as well as scientific data on the state of both glaciers, ice, and snow. As a part of the exhibition, a polar explorer expressed her fascination with the beauty of the Arctic, as she described in a poem the silence between falling snowflakes. After this sensory bombardment, workshop participants were asked to stop and reflect, then to write down their fears for climate change and their hopes for the future. Over their heads hovered giant dream catchers.

Visitors to the exhibition could also participate in both a lecture and an open discussion on the visible impact of climate change on the Arctic environment. The lecture was occasionally interrupted by traditional drum-dance and song from Greenland, performed by fellow participants from the project's workshop. Bringing music,



**Fig. 18.2** From the opening of project “Red Snow—When the Climate Bleeds” in Torshavn in the Faroe Islands. From the left, Vera Kondrateva, Sibiria, Bente Elisabeth Endresen, Denmark/Norway and Pauline Motzfeldt, Greenland. Two paintings by Bente Elisabeth Endresen from the Red Snow exhibition are visible in the background. © Bente Elisabeth Endresen

drums and dance into play added a flavour of ancient Arctic culture to the already intense atmosphere in the lecture hall.

#### **18.4 Effects of the Collaboration Between Art and Science in the “Red Snow” Project**

By bringing together two universes as divergent as art and science at all exhibition venues, we created a forum that enabled the two to mutually inspire one another and in so doing, reach out to a wider public. The most visible effect of the “Red Snow” project was the profound impact it had on the exhibition visitors, who displayed a willingness to take in new information and to change their perception of climate change. Previously, people in the Arctic have often reacted to the prospect of climate



**Fig. 18.3** Project “Red Snow—When the Climate Bleeds”. School concert in Argjahamni School in the Faroe Islands, conducted by Kristian Blak at piano. © Bente Elisabeth Endresen

change with a laugh and the comment: “It would be nice to have warmer summers up here in the north”. With our project we felt we had managed to achieve our aim of reaching out to a broad range of people, making a noticeable impression upon them and opening their eyes to the reality of climate change. We were especially touched to witness the impact the project had on the younger participants.

Exhibition visitors included art lovers, who responded with great interest to the presentation of research on climate change: information they were clearly not used to seeking out. Conversely, visitors who were primarily interested in the scientific approach, spontaneously expressed enthusiasm towards the rich experience they felt, by being presented with works of art they in many cases would not have sought out, had it not been for the project’s combination of art and science. All visitors were interested in the scientific facts of climate change, but our overall impression was that it was the younger participants who spontaneously became more actively involved in finding solutions to what could be done to counteract the crisis.

Students and school classes motivated by their enthusiastic and committed teachers had an immediate response (see Figs. 18.3 and 18.4). They became very preoccupied with the theme and immediately began thinking about what they could do. One of the school teachers in the Faroe Islands, Teitur,<sup>3</sup> told us:

“Our pupils are 7–12 years old. At first, I was in doubt. How could this exhibition possibly succeed in speaking to these young children? They do not even know what climate change is. But then we came upon a TV screen where the children saw pictures of how climate change has affected the landscape over the decades. Suddenly, it was as if a light bulb had been switched on in their heads and the message behind the art began to make sense. The

<sup>3</sup> <https://benteelisabeth.dk/climate-art/red-snow/> Video interview with Teitur.



**Fig. 18.4** Exhibition “Red Snow—When the Climate Bleeds” in Faroe Islands. School class visit. © Bente Elisabeth Endresen

children saw people panicking as the ice melted, standing with their bodies half covered in water. I was fascinated that this exhibition was actually able to talk to such young people about such serious matters.”

With joy, we observed the youngsters revisiting the exhibition over the next few days, eagerly showing their parents around.

After visiting the project “Red Snow” in Reykjavik, Professor Kristin Vala Ragnarsdottir from the University of Iceland, invited me as a guest lecturer on a course at the university, entitled Sustainable Futures. Under her inspiring leadership, the students worked eagerly to find new, sustainable solutions to some of the serious problems facing the world. My contribution was to inspire to find new ways to convey information, in collaboration between art and science. Many students were familiar with artistic activities. It was uplifting to see the creativity they showed in finding both interesting new sustainable solutions and ways of communicating their ideas. For example, one young woman, who was an amateur dancer, gave a lively demonstration of how a dancer could perform to newly composed music on a theme illustrating how to work more in harmony with the Earth.

One of the project’s guest speakers, on the Faroe Islands, was Lis Mortensen, a physical geographer at The Faroese Geological Survey (Jarðfeingi), who works with overcoming climate apathy. She is active in the new GeoSkúli project (e.g. O’Neill & Nicholson-Cole, 2009, Mortensen & Biskopstø Hansen, 2019) in the Faroes, where scientists work with young students, aiming to strengthen their understanding of the climate crisis and its consequences. Scientists highlight for the students how climate

change is affecting their own local environment. They combine this with outdoor activities aiming to open up the young students' eyes and all their senses. In this way, they give the students more tools to help them relate to ongoing environmental changes on a much broader scale, such as desertification, sea-level changes and wilder weather. Lis Mortensen stated:

The project “Red Snow” brought together art and science and showed how rewarding it is to combine a scientific subject like climate change with art. When we observe climate and environmental change it is important to open our eyes and all our senses. Art has a special and engaging way of doing just that. We intend to bring the open approach from “Red Snow” into helping students in an engaging way, to learn about nature and local environmental change and then giving them the opportunity to visit these sites with open senses and observe for themselves, how their local environment has changed through time.

## 18.5 Why and How to Establish a Fruitful Collaboration Between Science and Art?

*“Logic will get you from A to Z; imagination will get you everywhere” — Albert Einstein*

Artists and scientists explore and illustrate their impressions and insights through totally different channels. Scientists reach people initially through our brains with logical information, often with a clear aim. Artists, on the other hand, appeal to our emotions through interpretation of various themes, giving more space for intuition, inspiration, imagination and creativity, and not necessarily working towards a specific goal. In 2013, the Louisiana Museum of Modern Art<sup>4</sup> near Copenhagen, held an exhibition “ARKTIS” (2013), combining the work of artists and scientists in a mighty and multifaceted mosaic of impressions. Director Poul Erik Tøjner acknowledges the autonomy of artwork, but underlines that art can also play an active role in societal issues:

“Autonomy has nothing to do with irresponsibility towards the real world, or more or less autistic moments of sheer joy, or fear or other kinds of private fantasies. Autonomy in my ears has to do with defending or maintaining the specific character of art: its position, its abilities to deal with things in other ways than those of science, religion or journalism”. (Where do we go from here, 2010)

Geology Professor Minik Rosing, from the Geological Museum and Natural History Museum at the University of Copenhagen took an active part in “ARKTIS”. He stated:

I have always been interested in the relationship between art and science. Both activities are an attempt to understand the world we live in, and our own role in it. And to communicate this knowledge so as many people as possible benefit from it. In a wider sense, it helps a lot if research is something that can be retold instead of something that just involves numbers.<sup>5</sup>

<sup>4</sup> <https://louisiana.dk/en/>.

<sup>5</sup> <https://uniavisen.dk/en/minik-rosing-keeps-on-finding-new-stories-beyond-the-horizon/>.

Another scientist, who calls for collaboration between art and science, is Paul Wassmann, professor in environmental biology at the Institute of Arctic and Marine Biology, at UiT -The Arctic University of Norway. He comments in an email conversation with the author:

A sustainable future is not possible through a one-dimensional, single professional approach. To strengthen resilience and sustainable management, the world needs not only natural science, but also multidisciplinary. Although science appears to be the dominating force today, we need more to communicate, eye to eye, with other disciplines and the general public. Proceeding along roads that are already taken rarely results in augmented imagination and innovative inventions. At crossroads one can scrutinize space and choose between alternative routes”.

A pan-arctic research network, ARCTOS,<sup>6</sup> centred in Tromsø, Norway, works with sustainable, knowledge-based marine ecosystems and climate change in the Arctic Ocean. The network attempts to build bridges between senior and junior scientists, national and international research, and between both industry and culture and science. ARCTOS has created conditions for meetings at what it calls “cross-roads”, such as, for example, the multidisciplinary conference Arctic Frontiers<sup>7</sup> and the PolArt initiative, which each year gives 2–4 artists the opportunity of participating in an expedition to the Arctic Ocean, along with oceanographers and marine ecologists from UiT, UNIS,<sup>8</sup> the University Centre in Svalbard and/or the Norwegian Polar Institute.<sup>9</sup> In connection with the annual Arctic Frontiers Conference, artists are asked to exhibit the art that is inspired by their Arctic cruises. Some have also taken part in expeditions in favour of specific art projects, like the one providing the inspiration for the symphony “The sound of the Arctic”, by composer Lasse Thoresen.<sup>10</sup>

These examples show that there is currently a new awakening to the importance of art in raising awareness to climate change issues. It is gratifying that we as artists can make our contribution to this important work, both in small and in larger contexts.

## 18.6 How We Are Affected by Visual Art, Music and Dance

Music has a way of reaching deep into the human heart and opening up the senses. Music, singing, dance, art and creativity are basic to human life. Works of art speak to people’s senses, whilst music and singing create a feeling of togetherness, joy and happiness. Expressing oneself through song, dance and art seems to be a basic need for individuals and for the human community.

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<sup>6</sup> <https://arctos.uit.no/>.

<sup>7</sup> <https://www.arcticfrontiers.com/>.

<sup>8</sup> <https://www.unis.no/>.

<sup>9</sup> <https://www.npolar.no/en/>.

<sup>10</sup> <https://www.youtube.com/watch?v=4vdTZF44HrY>.

When jazz legend John Coltrane first heard Charlie Parker play the saxophone, the music hit him "right between the eyes", he once said (Gabrielsen, 2013). According to neuroscientists, Coltrane was exactly right. A study has shown that when we hear music that we like, even for the first time, a part of the brain's reward system is activated (Zatorre & Salimpoor, 2013). The region determines how much we value the song. A favourite song, whether a powerful rock anthem or a soulful acoustic ballad, evokes a deep emotional response.

Neuroscientist Valorie Salimpoor recalls once listening to Johannes Brahms's "Hungarian Dance No. 5" whilst out driving (Gabrielsen, 2013). The music moved her so profoundly that she had to pull over and stop the car. Intrigued by the experience, Salimpoor engaged in a study with Zatorre at McGill University's Montreal Neurological Institute in Canada to study how music affects the brain. They confirmed that dopamine, a reward neurotransmitter, is the source of such intense experiences, resulting in the "chills", associated with a favourite piece of music (Salimpoor et al., 2011). "They showed that listeners' dopamine levels in pleasure-centres surged during key passages of favourite music, but also just a moment *before*—as if the brain was anticipating the crescendo to come."

Brain researcher and musician Peter Vuust has had similar experiences. "*Music is an integral part of life's highly pleasurable activities and has the ability to stimulate intellect as well as emotions*" (Vuust et al., 2010). Researchers have not yet found a culture without music, which could suggest that music is essential to man. Historically, we have used music to create a sense of community. Music gives us a sense of togetherness, of not being alone in the world. If we tune in to a common energy, our wavelengths are harmonized during rhythm, dance and music. In periods of challenges, we have been brought closer together by playing music, dancing and singing together.

Music and community dance have proved to have a strong power in all societies. A good example is the traditional ballad dancing in the Faroe Islands, which for centuries has united the small nation so to say "in a ring" of song and storytelling. Travelling as a performing musician one experiences the value of the language of music, when meeting with audiences, organizers and other performers. There is often common ground for discussing and exchanging ideas. However, the strongest language for communication is music itself. – Musician Kristian Blak.<sup>11</sup>

In Denmark, when most social activities including choir singing, closed down due to the COVID-19 pandemic, we sang together. Danmarks Radio's (DRs) chief choir leader Philip Faber said: "At this time, we must stand together at a distance". He and DR found a musical solution for just this: They invented a concept of singing together from one's own home, school or workplace, every morning, with Philip Faber leading and accompanying the singing on the piano. This was broadcast directly via TV and radio, from the DR Concert Hall into the many homes and workplaces, where hundreds of thousands of Danes sang along: "at the same time, together and yet at a safe distance". To many, this resulted in a highly valued feeling of being part

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<sup>11</sup> Interview of musician Kristian Blak by the author. <https://www.kristianblak.com/>.

of a community, at a time when we were otherwise isolating ourselves to prevent infection. The community was at the centre and we were all a part of it.<sup>12</sup>

## 18.7 Conclusions

Art can be used as a means to inspire new ideas about how to establish a sustainable future for all. Through art, music, dance and creativity we can process impressions and express what cannot be said in words. Through creative play and expression one can find new ways of dealing with crises. Together, art and science can inspire visions and create images of possible future scenarios. When people can imagine a solution they can act on this vision. By immersing oneself in creative work, one opens the door to the subconscious which is often where truly innovative ideas emerge and through techniques of mindfulness and meditation, one can experience intuitive and inspirational new ideas, to work on.

In the Red Snow project, we saw younger participants reacting more spontaneously towards looking for solutions to what could be done to counteract climate change. One of the most impressive calls for climate action we have seen has come from millions of determined young people, all over the world. Inspired by Greta Thunberg, the well-known Swedish environmental activist, they have made their voices heard in a powerful way, by demonstrations in many of the world's major cities. Whilst climate scientists and others have been shouting in vain for decades, these committed young people have managed to get the world to put climate change on the international agenda. Most recently a film series has been made about Greta Thunberg, where she is partly seen in conversation with David Attenborough. The world-famous British documentarist has been filming the natural world for decades and in this way documented the changes that have been happening due to climate change. The world is finally waking up and hopefully the next COP in Glasgow in 2021 will see governments reiterating their commitment to a carbon-neutral world and agreeing upon policies that enable them to achieve their goals.

As is clearly seen in the examples above, there is also a huge number of adults of all ages, deeply concerned about the climate crisis and active in working for a regenerative civilization and thus for a better world. Integration is crucial, both between different professions, and between age groups. Only in working together can we hope to be successful in tackling the great challenges posed by the climate crisis and the acceleration of change we are witnessing. To rebuild the future we need teamwork. We must all ask, "What can we do – together – to contribute to sustainable development and a healthy planet"? As adults, with experiences in many relevant disciplines, we have a clear obligation to share our wisdom and knowledge and support the young people in their energetic and enthusiastic work, in every way, for a healthy planet.

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<sup>12</sup> Interview with Phillip Faber, in Danish. <https://drkoncerthuset.dk/dr-pigekoret/chefdirigent-philip-faber>.

Watching all the ideas emerging, and all the work being done to support sustainable living and pathways to regenerative civilizations, brings us hope for the future.

*“The best way to predict your future is to create it. Not from the known, but from the unknown.” —Dr. Joe Dispenza.<sup>13</sup>*

A nineteenth-century proverb goes:

*“We sow a thought and reap an act;  
we sow an act and reap a character;  
we sow a character and reap a destiny.”*

## References

- Arktis (2013) Louisiana Revy, 54. year no. 1, September. Louisiana Museum of Modern Art, in print.
- Gabrielsen, P. (2013). Why your brain loves that new song. *Science* April 11. <https://www.sciencemag.org/news/2013/04/why-your-brain-loves-new-song>
- Mortensen, L., & Biskopstø Hansen, B. (2019). Keys to nature conservation: geoheritage and geotourism in the Faroe Islands” Frændafundur, Faroe Islands University, in print.
- O’Neill, S., & Nicholson-Cole, S. (2009). “Fear won’t do it”: Promoting positive engagement with climate change through visual and iconic representations. *Science Communication*, 30(3), 355–379.
- Red Snow—When the Climate Bleeds. (2015). North Atlantic House, Copenhagen, in print.
- Salimpoor, V., Benovy, M., Larcher, K., Dagher, A., & Zatorre, R. (2011). Anatomically distinct dopamine release during anticipation and experience of peak emotion to music. *Nature Neuroscience*, 14(2), 257–262.
- Vuust, P., Morten, L., & Kringelbach, M. L. (2010). The pleasure of making sense of music. *Interdisciplinary Science Review*, 35(2), 168–185.
- Where do we go from here. (2010). Papers from the Louisiana seminar. Louisiana Museum of Modern Art.
- Zatorre, R. J., & Salimpoor, V. N. (2013). From perception to pleasure: Music and its neural substrates. *Proceeding of the National Academy of Sciences*, 110(2), 10430–10437.

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<sup>13</sup> <https://drjoedispenza.com/>.

# Chapter 19

## Collaborative Transformations: Circular Economy Strategies in Europe



Ladeja Godina Košir and Petra Kuenkel

**Abstract** This chapter looks at ways of strengthening transformations towards a Circular Economy in Europe. The current economic system is plundering the planet and endangering the quality of life of future generations. Extractive economies take resources, produce goods and drop waste, as if resource could never get depleted, and waste would not accumulate as environmental threat. Mindset shifts are underway, because resources are increasingly getting scarce, greenhouse gas emissions have reached a point which lets people begin to experience the volatility of the future, and connections between the climate crisis and the health crisis are apparent. Yet, there is a tendency to believe, circularity is mainly about technology. But a Circular Economy approach is more than recycling; it includes many aspects of actions that lead to an overall regenerative operating system at the core of economic activities. Practitioner pioneers require support from Governments, and without national strategies and roadmaps, pathways to regenerative future will be underutilized. This chapter looks at the need for collaborative approaches to transformative change. The most important strategies get highlighted, and the challenges elaborated. The chapter concludes with recommendations to governments and other relevant stakeholders on how to drive the transition towards Circular Economies.

**Keywords** Circular economy · Regenerative future · Transition · Extractive economies · European green deal · Transformation strategies · Value-based society · Green recovery

### 19.1 Introduction

The realization that our current economic system is plundering the planet and endangering the quality of life of future generations has by now reached many citizens in

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L. Godina Košir (✉)  
Circular Change, Gestrinova 1, 1000, Ljubljana, Slovenia  
e-mail: [ladeja@circularchange.com](mailto:ladeja@circularchange.com)

P. Kuenkel  
Collective Leadership Institute, Kurfürstenstr. 1, 14467, Potsdam, Germany

governments, businesses and civil society. The linear way of extractive economies that take resources, produce goods, use them and drop waste, seems to move towards its end. Not only because resources are increasingly getting scarce, while populations increase, but also because greenhouse gas emissions have reached a point which lets people begin to experience the volatility of the future. This has been aggravated by the experience of the COVID-19 pandemic which and the perceived relationship between health challenges and environmental destruction. Yet, with the current trajectory of economic action, the world's resources are further depleted, the population will grow further and the demand for products will subsequently increase, while resources will shrink (OECD, 2018). This clearly hints to the need for a fast development an entirely different way of operating in production and consumption cycles. This is the starting ground for a Circular Economy. As part of the European Green Deal (COM, 2019), a concerted strategy was launched by the European Commission that creates the basis for an economy of the future, which is expected to be climate-neutral and resource-efficient. The aim of the commission is to drive change towards a Circular Economy by supporting front-runners, but also drawing in more and more mainstream business. The result should not only be a climate-neutral Europe in 2050 or even 2045, but an immensely reduced consumption footprint within the planetary boundaries (Rockström et al., 2009). The strategy is expected to contribute to what is considered regenerative growth, as well as new job creation. For businesses, it is expected to include benefits such as reduced waste, increased material efficiency, or shifts from product consumption to service for product sharing (Korhonen et al., 2018).

The concept of a Circular Economy is not only promoted by Europe, but many national governments have already made a decision to transition towards a Circular Economy, or have even developed roadmaps, as, e.g. Finland, The Netherlands, Slovenia, UK and France. China already created a law for a transition to a Circular Economy in 2008 (CIRAIG, 2015). The concept of regenerative material flows has been around since long, at least since the beginning of the industrialized era (Desrochers, 2002). Nevertheless, the mindset of regeneration and circularity did not win against the extractive, waste-producing form of industrialization. The linear throughput flow model has been determining economic development, independent of its negative impacts on people and the environment. Yet, a Circular Economy approach is more than recycling: it includes many aspects of actions that lead to an overall regenerative operating system at the core of economic activities, such as product design, material and component reuse, recycling of materials, refurbishing, upgrading products, regenerative energy production or waste-derived energy, but also sustainability in product value chains or cradle-to-cradle approaches (Braungart et al., 2007; EMAF, 2013). It is increasingly clear that the practitioner pioneers that have developed circular technologies and processes require massive support from the political realm, such as national strategies, concrete roadmaps and implementation plans. An example hinting in the right direction is the Circular Economy Action

Plan as part of the European Green Deal<sup>1</sup> (COM, 2015, 2020). Also, in order for Circular Economy approaches to succeed, regulatory frameworks are required and metrics need to be identified to measure progress. One challenge in the transition towards a Circular Economy lies in the fact that mindset shifts towards regeneration and circularity in all economic activities are slow (Doz et al., 2017). In addition, societal structures, such as administrative procedures, the delineation of government departments, but also the way value chains are organized, contradict or even block the cross-cutting strategies that transitions require. This is, why new structures need to emerge that enable actors to work across societal sectors (private, public, civil society) and across product or service sector (Cramer, 2020). The role of stakeholder collaboration and networks is therefore of utmost important (Kuenkel et al., 2020).

The following interview captures these challenges and indicates pathways that ease transformative efforts towards a Circular Economy. Ladeja Godina Košir is a renowned expert on Circular Economy, has accompanied the development of several country roadmaps to a Circular Economy and has specific experience in the quality of stakeholder engagement that is needed to develop the ground for successful implementation of such roadmaps. As the chair of the coordination group of the European Circular Economy Stakeholder Platform (ECESP),<sup>2</sup> she has a thorough insight into the transformative efforts towards circularity across Europe.

## 19.2 A Practitioner View of Transformation Strategies Towards a Circular Economy

### **How do you see the take-up of circular economy approaches in Europe in the last 5 years?**

The general understanding about Circular Economy approaches is about the question, how can I assure to use resources differently, in a more effective and efficient way? This is what makes people think and gains their interest (CIRIAG, 2015). Most assume this is mainly about focusing on recycling or reusing materials or products, but there is much more in the concept of Circular Economy. In this context, I see a positive effect regarding commitment. But more underlying this general interest in the Circular Economy is a noticeable shift in values that is emerging. People realize that what we took for granted in the past, is not really granted. We cannot extend the excessive exploitation of resources into the future. For example, we can transform our business models in a way, to sell services instead of products. By offering lighting instead of selling light bulbs, we assure the same solution to the user, but change the perception of what is valued. In this particular case, the company is interested to

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<sup>1</sup> For more information see [https://ec.europa.eu/environment/strategy/circular-economy-action-plan\\_en](https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en); accessed 23rd June 2021.

<sup>2</sup> For more information see <https://circulareconomy.europa.eu/platform/> accessed 23rd June 2021.

produce light bulbs that last long, since they provide lighting service, not the product as such.

Solutions embedded in Circular Economy approaches are much more future-proof.

**If you look at the European Union and the commission, and also the political changes that are on the horizon with the European Green Deal: would you say there is a new narrative emerging that supports Circular Economy approaches?**

What is written into in the European Green Deal was absolutely supported by the Circular Economy community. In addition, designing a green recovery from the COVID-19 pandemic with all the funds that are now available gives us an opportunity for a green and circular transition pathway. However, this is so far only an opportunity, because we are not there yet. What we need now in Europe is really to understand how to allocate the recovery funds so that they are going to be invested into something that is sustainable, and circular, and not just spent for the projects that are not contributing to a thorough and evidenced green recovery.

The narrative of “build back better” is something that I find challenging. At this historical moment, we should not go back to the old way of operating in the economy. Systemic change is needed. Co-creation of new, value-based society and economy is what we shall aim for, fixing things in the old way is not the right direction. An innovative spirit and creativity are needed. A good example is the New Bauhaus Initiative<sup>3</sup> as it is innovative in content, but also in process. I would say that we now have a truly unique opportunity to rethink the system and set up solutions – in the economy, healthcare, research, education, and culture – on a fresh, green and sustainable foundation. As Einstein once said, we cannot solve our problems with the same thinking we used when we created them. This is why it is so important to include experience and knowledge on the one hand, and creativity and innovation on the other. Just as we cannot solve the COVID health crisis by vaccination alone, we cannot solve the climate crisis by simply “extinguishing the fires” that we have ignited by how we manage natural resources.

The green, circular direction in combination with the New European Bauhaus encourages collaboration, integration, creation, innovation – with the aim of establishing a systemic transformation and directing all available resources – natural, financial, human – to strengthening resilience and achieving climate neutrality. In the global context, Europe is a lighthouse on this path, and right now we have a historic opportunity to prove that we are serious about a green, sustainable transition and that through radical collaboration at both cross-sectoral and international levels we are able to make it happen in an inclusive way – leaving no one behind, even the most vulnerable.

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<sup>3</sup> For more information, see: [https://europa.eu/new-european-bauhaus/about/about-initiative\\_en](https://europa.eu/new-european-bauhaus/about/about-initiative_en), accessed: 5th June 2021.

**In your experience, what resonates with people when you talk about Circular Economy? Is there a difference between government actors and business people?**

Narratives are important. Concepts like the climate crisis, climate change or Circular Economy, if you put it on the agenda for the average person or even for business people, it is usually something that is detached from them. They will have trouble to identify with it. Hence, it is important how we introduce such concepts. I like to use it in the correlation with the quality of life and wellbeing, because that is something every person can identify with, no matter if the concept is Circular Economy or a green recovery. You need to create this connection: What does it have to do with me? What is in it for me? How will it affect me? The good news is that these concepts are much more in the media in recent years, some have become daily narratives. So, people realize the necessity for change. What worries me is the capability of bringing it into action. This exactly is the topic of transformation literacy – the capability to actually implement the change together. Solutions need to be doable, affordable and accessible. This also means that when we are talking about new circular practices, let us introduce them in a way that people can identify with, and decision-makers can see how they contribute to this transition. At the end of the day, it is about the lifestyle. About values that we nourish and decision we take on daily basis. In July 2021, Slovenia is taking over the presidency of EU Council and our Circular Change team has decided to publish a special publication, titled **CIRCULAR INSIDER<sup>4</sup>—A Speed Date with Circular Economy Frontrunners**. To show, how Circular Economy is embedded in different segments of daily life—from multinational companies to young entrepreneurs, from cities to educational programmes, from luxury brands to start-ups.

**Could it be that many people think Circular Economy approaches are mainly about technological innovation?**

Most often, this is the case, but it is a wrong understanding. For example, you need to look at network strategies and identify all the actors that are active in the different aspects of Circular Economy approaches as well as related actors. Moreover, you need to look at the structures in a society—what needs to shift and change? Can we implement a Circular Economy with exactly the societal and economic set-ups that we have at the moment? Or are there blockages that we actually need to overcome and look at different structures? Jacqueline Cramer (2020) has elaborated this very convincingly in her book about network governance, a crucially important aspect of transformations. She describes that we are used to governmental structures and their administrative functioning on the one hand, but on the other hand, we need to build networks that are bottom-up, connecting different actors, but also different sectors across public sector, private sector and civil society, even the arts. For transformations to happen, the question is how to find the orchestration between these different structures. It is not about fighting against each another, for example, business against government, but it is all about collaboration.

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<sup>4</sup> For more information, see: Link: <https://www.circularchange.com/news/2021/6/23/circular-insider-a-speed-date-with-circular-economy-frontrunners>.

When we are working on national Circular Economy strategies, such as national roadmaps, the first thing is that you identify the change-makers, those actors that are already working towards Circular Economy approaches. Often, they are not loud enough or recognized enough, or even overlooked. Sometimes they may not even notice that their activities belong to Circular Economy strategies. So, the first step is to recognize these change-makers, to identify them and then, secondly, to really engage them. This is important, because this is a novel approach that many actors, particularly from government, are not used to. This is not the way they used to work before or how these processes were organized. But in transformations to a Circular Economy, we need those change-makers to be active and to participate in the creation of strategies and roadmaps. There is a third aspect important, which I have realized from my experiences in Central and Eastern Europe. People are often not willing to express their interest, they think putting your interest upfront, is wrong or unethical. However, it is important that people put their interest on the table, otherwise, we cannot negotiate around what is our common goal and how to accomplish something together. Such transformation processes require so-called transition brokers, or backbone support. Mandated people need to facilitate and orchestrate the process. This is about creating a safe space, in which people are willing to express their interest and concerns. Such transformations are not revolutionary, and they are evolutionary.

There is something interesting now happening as a result of the pandemic. Many systems are in disruption: the educational system, the health system, political governance. Almost everything is under threat, nothing is as stable as it looked before. And at the same time, new forms of collaboration and cooperation are happening. What one can see is that the old structures are there, but something new is emerging. We should be wise enough to support this, to empower what is emerging, not by abolishing the old structures, but by finding a new way of coexistence. Then we can co-create together new systems that are more responsive to today's challenges and more resilient regarding the requirements of the future.

**Governments need to open up to bottom-up processes and what Cramer (2020) calls network governance, but how to you see the role of governments in also taking a more regulatory approach to push Circular Economy approaches?**

Governments and policy development certainly play an important role in the development and implementation of Circular Economy roadmaps. Yet, one challenge is that, often, such roadmaps require collaboration between different ministries, which is usually lacking, because ministries are organized in silos and sometimes fiercely defend their territories. For example, the ministry for finances is promoting one strategy, the ministry for infrastructure something else, and the ministry of agriculture has totally different priorities. Yet, for example, in sustainable and circular food production, all would have to pull the same strings to transform the system. I have experienced that in Slovenia where I was the only person not from government sitting on an inter-ministerial board during the process of developing the roadmap (Godina Košir et al., 2018). There is definitely not enough inter-ministerial collaboration to introduce different management measurements, be it taxation, incentives

or subsidies, which are so important to further a Circular Economy. Hence, different government departments need to be aligned in order to further economic transformation. This will only work with a systemic approach, we have to walk together, and see how one thing affects another. This understanding is still not present in the mindsets of most government actors.

But there are also good examples in Europe, such as Finland with the continued national Circular Economy roadmap (SITRA, 2016); or the Netherland with the examples described in Cramer's book; or France where there was the attempt made to reduce food waste. It was interesting that they introduced a law requiring restaurants to not throw away the food, but distributed it in a different way. It was a shock in the beginning, because the infrastructure had not been ready for that. People did not know what to do, but it was pushed by government, an solution emerged to the infrastructure challenges.

I think, what is important is to find a balance between top-down approaches from government that set a new frame, and bottom-up collaboration and network governance that either pushed for policies and orchestrates the actual implementation, supported by brokers or facilitators. Sometimes governments can push and then businesses will react, and vice versa. If businesses have the solutions, why wouldn't governments support those solutions? We see very often that despite the fact that there are no incentives or no benefits regarding, for example, taxations, companies are implementing circular solutions, because this is bringing them advantages on the market. It would be fair, if the governments supported this more proactively, and favour those companies that are on a transformative change route.

### **What was your experience in Slovenia creating the Circular Economy roadmap?**

It was a government-led initiative roadmap at the beginning. We established our Circular Change platform – a private non-profit organization – back in 2016, then very much inspired by the Netherlands. During their EU presidency in 2016, Circular Economy had been in the focus. At that time, we started in Slovenia the process of developing a national vision and strategy. I was very active and vocal at that time, and even got the nickname “Circular Economy on two legs”, because I was pushing the topic so much and insisted that core elements of that strategy needed to go in crucial documents. So, indeed, the approach got written in the strategy. I was invited into an advisory group established by our Prime Minister back then for a green transition. I introduced the good examples of Finland and the Netherlands. We finally won the tender for developing the national Circular Economy roadmap, which became a very elaborate document on the basis of through consultations.<sup>5</sup> Of course, we were hoping that Circular Economy action plans would follow. But the government changed and the priorities changed. Time was passing by. Today, after five years, I can say it is stagnation on the side of the government. Not much happened afterwards. This is the crucial point: unless either there is political support, or the circular strategies are already anchored in regulations and administrative procedures,

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<sup>5</sup> For more information, see <https://static1.squarespace.com/static/5b97bfa236099baf64b1a627/v/5f5f669663c71e3d42711d3a/1600087704493/bsf-Times-2020+f+27.pdf>.

the danger is high that even the best roadmaps get lost. The situation was different in Finland. When the new government came in, they continued supporting the Circular Economy roadmap. So, the question then really is, what kind of regulatory approaches or laws do national Circular Economy roadmaps need to feed in, so that they cannot be changed quickly by a new government. This means, the way such a transformative approach is anchored in structures and in regulations is crucially important.

**There is an ongoing discussion that we need to move away from GDP, and there are many suggestions for new sustainability indicators or wellbeing indicators. What do you think is the role of metrics to further Circular Economy approaches?**

We have had lengthy discussions around this topic for years now. For example, there is a still ongoing consultation process around metrics for a Circular Economy driven by the World Economic Forum<sup>6</sup> that we are part of. It is also supported by the Dutch government. This was initiated for exactly that reason: to develop metrics that tell us how to measure progress towards a Circular Economy. This also means looking at a common understanding of what kind of metrics we need, then exploring what already exists, seeing what can be aligned and how can it be used, so that they are comparable between countries and continents. There is also the famous Circularity Gap Report.<sup>7</sup> It highlights what is most urgent in the transition to Circular Economies in order to substantiate decisions in the right direction by governments and businesses in order to accelerate the change. They bring different stakeholders together and gather data on the state of circularity. This is built on the insight that access to data and knowledge is crucial to facilitate informed decisions. What the report also does, showing a way of developing country profiles so that people can see where the potential is for a circular transition – this encourages institutional actors and activists, to share the examples and push their agenda in their countries. This contributes to immense learning. What we are seeing is that, on the macro level, we are able to measure our material flow. Again, the example is The Netherlands, as they have introduced such methodology. It helps actors to see, where the country is best, what is coming in and what is getting out and what is reused and recycled. On the level of material flow this is still complicated, but relatively easy compared with the measuring of the many other aspects that are important in a Circular Economy. The issue is to really look at what we measure. If you are measuring something just to show how excellent you are, but not how this is contributing to the change, then these metrics are lacking one important dimension. For example, how do we measure when business models are changing, from production to services, how do we measure social aspects or the level and quality of jobs. Which jobs are more related to circularity, which are adjacent, but evenly important? I think there is still a lot of work to do and a lot to learn. Measuring how much primary material we use, is easy, but considering all the other components

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<sup>6</sup> For more information see: <https://pacecircular.org>, accessed 23rd June 2021.

<sup>7</sup> For more information see <https://www.circularity-gap.world>: Circular Gap report methodology: [https://assets.website-files.com/5e185aa4d27bcf348400ed82/5e4d0a24eb0887b1ddfa59b9\\_Measuring%20and%20Mapping%20Circularity%20-%20technical%20methodology%20document.pdf](https://assets.website-files.com/5e185aa4d27bcf348400ed82/5e4d0a24eb0887b1ddfa59b9_Measuring%20and%20Mapping%20Circularity%20-%20technical%20methodology%20document.pdf) accessed 23rd June 2021.

that are also relevant for a Circular Economy, is much more difficult. What we need is not in place yet. In addition, there is a lot of competition on indicators. We are still looking to productively work with the competition between indicator developers and try to align them or harmonize them.

**People often think, a Circular Economy is mainly about product and technological innovation, or artificial intelligence, less about social innovation. How do you see the issue of innovation for a Circular Economy?**

The first thing is to understand what innovation actually is, knowing the difference between being creative and inventing something that can be proved in the market. Because only this is innovation. There is this gap: money is spent for inventions, but then they don't really go to market. Hence, money is lost and potentials are missed. In my view, the whole ecosystem for innovation around Circular Economy approaches is not yet functioning very well. There are so many start-ups, and many of them close down within five years. It is important how innovation ecosystems are embedded in societal processes, and in the transformation towards different and new forms of economics. In addition, indeed, people are so much focused on technological innovation. I would say we don't need so many new technological solutions. We have a lot of technological and digital solutions already, it is more about making them known, making them accessible to more people and understanding how to use them or to develop them further. In order for Circular Economy approaches to take root, we need much more social innovation, because the new role of an economy of the future must benefit social systems. What is needed is a mindset shift on the purpose of economic activities. So, this soft part of innovating and creating is becoming more and more important. For example, in agriculture, there is a lot of technology available that helps farmers to monitor in detail how much fertilizer they need and what the humidity of the soil is. So much technology is already there. But the question is, do we have the capability to enable the farmer to see his or her role as a guardian of an entire ecosystem that includes so much more than the specific output of their fields? What is his or her role in the community? How are the different actors related and interact and how can they collaborate to create an agriculture that is regenerative in the sense that it creates co-benefits for entire ecosystems? We are focusing too much on technology and not enough on the society and the interconnectedness of actors. But in the end, and this is of crucial importance, for the transformation to a Circular Economy, the human capital is at least as important as technology.

### **19.3 Conclusion: Collaborative Systemic Change**

**What are recommendations that you would give to governments on how to advance the transformation to a Circular Economy?**

First, I would urge them that they really understand what a systemic approach is and how it could be furthered by the strong collaboration between different ministries.

Different line ministries need to work together, walk together into the same direction, and agree on a common agenda for a Circular Economy. Nobody should think, this is something that only the Ministry of Environment is responsible for. Hence, I would recommend to give priority to a Circular Economy approach on the national level, for example, by creating a guiding national roadmap. This topic must be high on the agenda: everybody, not only businesses, but also citizens need to understand what a Circular Economy is about. The society needs to reach an agreement that this is the way to go.

Second, I would recommend, based on a roadmap or a joint agenda, to agree on priorities. Because you cannot implement everything at the same time. So, for example, picking up three goals within an overall roadmap and making sure they get implemented and evaluated, is absolutely key. This will lead towards the first stage of the implementation of a Circular Economy. You achieve tangible results in a reasonable time span, and people can watch and experience the results. By doing this, you need to foster collaborations and networks on the ground as well as between government departments. The government cannot implement a Circular Economy alone, this requires collaboration between different stakeholders. My recommendation is to identify and use the potential that is already there, foster collaboration and start with those that are already interested and want to contribute to the change.

Third, I would strongly recommend to create a compelling narrative around a Circular Economy. How you communicate about it, what it means and how it will take the society into the future, is very important. If people think a Circular Economy is about sacrificing something, or about higher costs, or about suffering, they will not get inspired. Instead, the communication and narrative should be around wellbeing, the quality of life and how to preserve or even improve it. because in Europe, the quality of life is already very high. And getting across that a transformation to a Circular Economy needs everybody, every citizen, not only businesses. It is a joint story, bringing benefits to everybody.

## References

- Braungart, M., McDonough, W., & Bollinger, A. (2007). Cradle-to-cradle design: Creating healthy emissions—a strategy for eco-effective product and system design. *Journal of Clean Production*, 15(13), 1337–1348.
- CIRIAG (International Reference Centre for the Life Cycle for Products, Processes and Services). (2015). *Circular economy: A critical literature review of concepts*. Polytechnique Montréal, Canada.
- CIRAIG (International Reference Centre for the Life Cycle of Products, Processes and Services). (2015). *Circular Economy: A Critical Literature Review of Concepts*. Polytechnique Montréal, Canada.
- COM (European Commission). (2015). Closing the Loop - An EU Action Plan for the Circular Economy. Communication From the Commission to the European Parliament. The Council, the European Economic and Social Committee and the Committee of the Regions.
- COM (European Commission). (2019). 640 final. The European Green deal. Retrieved from: <https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vl4cnhyplort> 23rd June 2021

- COM (European Commission). (2020). A new Circular Economy Action Plan For a cleaner and more competitive Europe. Communication From the Commission to the European Parliament. The Council, the European Economic and Social Committee and the Committee of the Regions.
- Cramer, J. (2020). How network governance powers the Circular Economy. Ten guiding principles for building a Circular Economy, based on Dutch experiences. Publication of the Amsterdam Economic Board.
- Desrochers, P. (2002). Regional development and inter-industry recycling linkages: Some historical perspectives. *Entrepreneurship & Regional Development*, 14(2002), 49–65.
- Doz, Y., Hellström, E., Kosonen, M., Lähdemäki, J. & Wilson, K. (2017). Reflections on the “leadership under complexity” workshop. *SITRA working papers*. The Finnish Innovation Fund Sitra.
- Ellen MacArthur Foundation (EMAF). (2013). *Towards the circular economy*. London, UK. Ellen MacArthur Foundation
- Godina Košir, L., Korpar, N., Potočnik, J. et al. (2018). Roadmap Towards the Circular Economy in Slovenia. Ministry of the Environment and Spatial Planning of Slovenia: Ljubljana. Retrieved 23 June 2018 from <https://static1.squarespace.com/static/5b97bfa236099baf64b1a627/t/5beabb62f950b773950d1ce7/1542110257669/ROADMAP+TOWARDS+THE+CIRCULAR+ECO+NOMY+IN+SLOVENIA.pdf>
- Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular Economy: The Concept and its Limitations. *Ecological Economics*, 143(2018), 37–46.
- Kuenkel, P., Kuehn, E., Williamson, D., & Stucker, D. (2020). *Leading Transformative Change Collectively: A Practitioner Guide to Realizing the SDGs* (1st ed.). Routledge.
- OECD (Organization for Organisation for Economic Co-operation and Development). (2018). Global Material Resources Outlook to 2060. Economic Drivers and Environmental Consequences.
- Rockström, J., Steffen, W., Noone, K. Å., Persson, F. S., Chapin, III, Lambin, E. & Foley, J. (2009). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, 14(2), 32.
- SITRA. (2016). *Leading the cycle. Finnish road map to a circular economy 2016–2025*. The Finnish Innovation Fund, Sitra Studie 121. <https://media.sitra.fi/2017/02/28142644/Selvityksia121.pdf>.

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# Chapter 20

## Small Scale, Large Scale—Why Networks are the Cornerstone of Transformations



Elisabeth Kühn

**Abstract** This chapter takes a deep dive into the practice of transformative change. It suggests that transformation literacy needs to incorporate the understanding that achieving the vision of vital and regenerative systems requires actors to drive change that models the future systems aliveness. Only then can they become successful transformation systems. Practical experience gives evidence that the shift to transformative impact happens best in enlivening networks across systems, in what is called *transformation networks*. This chapter shows that a necessary systemic perspective on transformation network means they can and need to be strategically built. It introduces six *transformation network enablers* that support such strategic guidance in building networks, that were used in two practical examples of setting up transformation networks. The first example is on the local level and looks at a network of youth civil society for good governance in central Tunisia. The second example is on the other end of the spectrum: it examines a global network of professionals towards a new economic future.

**Keywords** Transformation networks · Female network · Network enablers · Collective stewardship · Tunisia · Youth CSO · Economic transformation · System aliveness

### 20.1 Introduction

An important question that transformation literacy asks is how to build on visions of systems that are regenerative and foster the care-taking for earth life-support systems. In order to be transformative, such large conglomerates of systems need to display systemic aliveness. It is only then that they become successful transformation systems. The characteristic of systemic aliveness then is indispensable when we explore transformative impact. Likewise, the question of how to attain such systemic aliveness in transformation systems also needs to be rooted in principles of systemic

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E. Kühn (✉)

Collective Leadership Institute gGmbH, Tizianstrasse 25, 14467 Potsdam, Germany

e-mail: [elizabeth.Kuehn@collectiveleadership.com](mailto:elizabeth.Kuehn@collectiveleadership.com)

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aliveness. The practical experience shows that the shift to transformative impact happens best in enlivening networks across systems, in what is called transformation networks. This experience means that first there is a need to conceptually define a transformation network and set it apart from other forms of networks. This will show that transformation networks can and need to be strategically built, and do not automatically happen out of systemic connections. Any guidance to such processes of strategically setting up transformation networks needs to be rooted in principles of system's aliveness and also needs to promote the three core approaches of transformation literacy: collective stewardship, visionary multiplicity and network leverage. This chapter starts with the role of networks in transformative action and delineates the elements of a transformation network. It then describes six *transformation network enablers* as guidance for the set-up of such networks and continues to illustrate how they were adapted and used in the two case examples, respectively the local and global transformation network.

## 20.2 The Role of Networks In Transformation Efforts

Neither the existence nor the concept of networks is a recent phenomenon. Historical research on strategic political alliances and learning communities put aside, social theory has long promoted the actor–network theory. It suggests that all humanity and everything that is created in social realms is a result of interactions and relationships, and that these interactions build a constantly shifting web of networks. Everything that we create is both a result of these networks and firmly embedded in it. There is no action, not even human existence, outside of these networks. Conversely, this also means that there is no dichotomy between factors that can be influenced by networks and factors outside to them (Latour, 2005). Whether by conviction of this argument, or by the insight that singular initiatives will no longer be sufficient: The last decades have seen a re-emergence of communities and networked action across the globe for climate action (Beck, 2013). The recognition that sustainability challenges need to be done in collaborative action across sectors and communities has first manifested itself in the rise of multi-stakeholder partnerships across the spectrum of sustainability challenges (Bäckstrand, 2006; Beisheim, 2011; Lozano, 2007; Pattberg & Widerberg, 2014). This insight is not least reflected in the Sustainable Development Goals Agenda, with the transversal nature and prominence given to the SDG No. 17 on 'Partnerships for the Goals'. The increasing popularity of multi-stakeholder partnerships however has not fully addressed the need for connectivity and collective action across boundaries. Isolation of initiatives and all its consequences—a lack of mutual learning and thus the famous reinvention of the wheel, or worse, repetition of approaches that did not work, a sense of isolated action against a global trend—continued to burden sustainability efforts. Competition of financing and donor institutions in the sector did not help (Udvari, 2014). Networks among sustainability initiatives, often multi-stakeholder initiatives or partnerships, have emerged to address that gap in recent years. Not surprisingly, this has been most

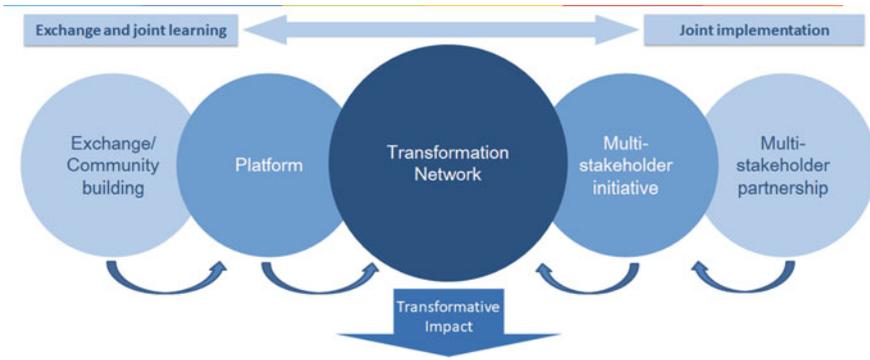
prominent in those efforts that, by nature, demand a combination of several distinct collaborative actions embedded in a larger streamlined action: for example, successes in sustainability standard setting for distinct value chains have often proven to be the result of networked action between collaborations along the different levels—local, national, regional and global. Interest in institutionalizing such successes is on the rise, and thus also the interest in governance maintaining such successful networked action (Ponte & Emmanuelle, 2013). The context of sustainability standard setting is a relatively easy context for network-building, as the interconnectedness of actors along the value chain is often given in the shared understanding of the context of all actors. Other contexts of sustainability efforts show that this recognition of interconnectedness is the key to network-building: Waddell shows that actors engaged in the renewable energy sector began to create new connections and collaborative action once they became aware that they are part of a larger system (Kuenkel, 2019; Waddell, 2016). The importance of not only the systemic perspective on initiatives as collaboration ecosystems, but of initiatives as being embedded in a larger system of relationships, is the unsurprising key to network-building in sustainability efforts.

When we talk about networks within the field of sustainability efforts, there are two main types of networks to distinguish: the first is a network of a like-minded community or *exchange network*. Their purpose is mostly to raise interests in, or awareness of, a particular issue in sustainability. It can also have the goal to solicit feedback or input of perspectives on the issue, be that by those concerned by it or by technical experts on it. Their form is therefore mostly consultative and focused on knowledge-building or coming to a shared understanding of context. Additional purposes of these networks are often to provide a space of mutual support to its members in a shared effort and often also to offer a shared value system. The second type is a *platform* or *forum*: its purpose can vary from facilitating the get-together of different actors for the exchange of experiences to the coordination of different sustainability efforts towards a shared goal. Members aspire to contribute together towards a joint goal in the sustainability effort. Consequently, they can take the function of developing advocacy strategies together or develop calls to action. Typical results of platforms are jointly developed statements or recommendations. Exchange networks often develop into platforms, as the shared understanding of context and consultative space of members often generates the eventual interest to advocate for action on its basis (Kuenkel et al., 2011). Both these types of networks share a purpose of exchange and joint learning among its members. Coming back to the more implementation-focused multi-stakeholder action for sustainability efforts, we also can differentiate between two main forms: *multi-stakeholder initiatives* bring together a variety of actors or stakeholders under a joint sustainability purpose. In contrast to a platform, the goal is pursued with agreed-on measurable results and within a certain time period set valid for all. It is often actively managed by a collaborative (or collaboratively defined) steering structure. In most cases, initiatives have a complex set-up with a variety of stakeholders with often different interests. In contrast to exchange networks and platforms however, they do not have the intent to grow and engage more actors to reach their goal. In the best case, their purpose is to

set up or revitalize a collaboration ecosystem of stakeholders around their sustainability issue at its heart. *Multi-stakeholder partnerships* again represent the most intense form of joint collaboration between stakeholders, with goal, measurable results and activities jointly developed and agreed upon (Biermann et al., 2007). In addition to steering structures, this often also demands implementation and technical support structures. Their purpose is to achieve specific results with complementary resources and a limited number of partners in a specific time frame. They become relevant when the challenges to be addressed need collaborative design on all levels, from goals to activities. This often also demands financial contributions by all stakeholders involved and thus brings with it the need for partnership agreements detailing shared project management, resource contributions, role clarity and monitoring and evaluation systems (Brouwer & Woodhill, 2015; van Tulder & Pfisterer, 2013). Both multi-stakeholder initiatives and multi-stakeholder partnerships are focused on joint implementation. They focus on setting up or revitalizing a collaboration ecosystem and are initiated on the conviction that collective impact is needed to effectively address the sustainability effort it focuses on (see Chap. 15, Fig. 15.1: Trajectories towards transformative systems change in the chapter introduction).

### 20.3 Towards Transformation Networks

The experience has shown that multi-stakeholder initiatives and partnerships are the cornerstone for achieving collective impact in sustainability efforts. They provide the frame to address issue-based sustainability efforts and the important regional and locally focused collective efforts to address sustainability challenges by and with those concerned by it. Exchange networks and platforms are often an important precursor to them: the shared understanding on a need for joint collaboration in an initiative or partnership is often the result of like-minded communities' awareness raising and joint learning, and recommendation delivered by platforms. They can also accompany or embed such initiatives in a larger context: the initiatives or partnerships often appear as members in exchange networks and platforms, with the express purpose of ensuring its connection to similar efforts. Such connections among multi-stakeholder initiatives and partnerships however are not sufficient to generate transformative impact. It also needs two further elements: first, there is *strategic action*, complementary activities developed jointly among the network members. The independent activities of its members on an issue remain as important as ever to provide the necessary contextualization of action (Loorbach, 2007). At the same time, transformative impact demands some coordinated effort that scales up the variety of context-based solutions: transformation needs the conscious activation and stewarding of systemic connections (Kuenkel, 2019). Second, transformation networks need *collective stewardship* for this networked action. The conceptualization as well as the implementation of networked action needs to be geared towards fostering aliveness in the transformation system. The fact that this cannot be done by one entity in the system, however resourceful, is given from the definition of system aliveness itself:



**Fig. 20.1** Transformation networks and other key forms of networks and collaboration (copyright by the Collective Leadership Institute)

it is ‘never a stable state, but consists of multiple connectivity processes in dynamic balance that allow for creative and agile responses to disturbances’ (see Kuenkel in Chapter 7, p. XX). The very challenge of operating among multi-stakeholder initiatives and partnerships that evolve, whose context continuously changes and thus whose challenges and opportunities for complementary and scaling-up action continuously develop, escapes the steering capacity of any organization (Kuenkel, 2019). What sets transformation networks apart from other types of networks is that they bring together multi-stakeholder initiatives, partnerships and existing platforms and communities in a transformation system that develops strategic networked action: they are *networks of multi-stakeholder collaboration ecosystems connected for deliberate and strategic action, stewarded collectively, towards a transformative goal, and anchored in a system’s understanding*. Figure 20.1 shows how different forms of networks can feed into transformation networks. The key question now is how transformation literacy can shift existing connections towards transformative impact.

### 20.4 Strategic Action to Build Thriving Transformation network: the Transformation Network Enablers

From that definition of a transformation network, it follows that effectiveness of a transformation network as well as efficiency in attaining the network’s transformative goal needs to be understood as aliveness in the transformation system. On this basis, transformation networks need to be built in a deliberate process to generate strategic action across its members that is geared towards aliveness. A key task of building



**Fig. 20.2** The Six network enablers related to the aliveness principles (copyright by the Collective Leadership Institute)

transformation networks is to pursue such a process of strategically building aliveness in the system, so that network members—be they initiatives, partnerships, platforms or exchange communities—start to contribute to the envisioned transformative impact.

Figure 20.2 shows six strategic *transformation network enablers* that are derived from principles generating aliveness in systems (see Chap. 7) and related to insights of stewarding approaches in transformation literacy (Kuenkel, 2019; Kuenkel et al., 2020). They can provide essential guidance in a process to build thriving transformation networks. Most importantly, they all have a specific contribution to promoting the three core approaches necessary in transformations: *collective stewardship* (the absence of centralized steering structures), *visionary multiplicity* (a diversity of envisioning and living the future) and *network leverage* (bridges between networks of networks and institutions).

### **20.4.1 Network Enabler #1: Purpose-building Narratives**

All transformation network members need to align around a common purpose and contribute to the network's impact strategy. The key question that needs to guide any strategic action here is: which future narratives can engage all network members? With the visions for regenerative civilizations and the way to realize them being so context-specific, this can be a challenging endeavour. It can be supported by clarity to all network members on ways they can contribute to the narrative and an accompanying impact strategy. It is also promoted by transparent and inclusive membership strategies to the network, so that the purpose is reflected in a shared understanding of who is needed and necessary to attain it. The composition of the network, be that of representatives of multi-stakeholder initiatives, partnerships, platforms or exchange communities, needs to reflect the network's purpose. All members also need to report and show regularly how they advance the purpose of the network in their various ways, and this reporting needs to be effectively communicated to all members to ensure transparency and accountability, and allow a collective sense of progress to emerge.

### **20.4.2 Network Enabler #2: Value Creation**

An often-neglected cornerstone of effectiveness of transformation networks is members that mutually acknowledge each other's experience and expertise in a conscious way. While much attention is given to shared value creation especially in networks that represent like-minded communities, transformation networks need the shared value creation that comes from an appreciative approach to complementary expertise and influence among its members. Differences in cultures and/ or other constraints are known and acknowledged, and there is sufficient communicative space for the expression of different interests. It is out of this appreciation, and balance of different interests that value creation across all members can emerge and be actively fostered, while acknowledging and guarding the space for the various and varied layers of differences across its members. Reconciliation emerges as the preferred way of dealing with conflicts, and mechanisms for complaints and disagreements that envision such reconciliation and the search for consensus can effectively be built.

The network enablers of purpose-building narratives and value creation combined support the emergence of *visionary multiplicity* in the network.

### **20.4.3 Network Enabler #3: Dynamic Structures**

Transformation networks need to support self-organization around common interests of its members to ensure ownership for change and high levels of engagement towards the transformative goal. The guiding question for strategic action here is to ask which cooperation structures promote transparent and effective change processes. This is supported by transparent decision-making processes that ideally follow consensus-building principles. Network members have the opportunity to engage in thematic exchanges and can work collaboratively in small groups to implement the network's purpose. Such engagement opportunities in the network can also help members to build and leverage their areas of influence. Dynamic structures allow for such collaborative and result-oriented spaces and actively connect members with each other for collective action across the network.

### **20.4.4 Network Enabler # 4: Dialogic Exchange**

Communication and exchange among network members seem self-evident in a transformation network. Yet to be effective for transformative impact, they need to serve the purpose of implementation and joint learning among the network members. Good communication and exchanges in this sense leverage diversity and create cohesion in the network. If dialogues are structured, it means they take place regularly, have high dialogic quality and bring out said diversity as well as emerging consensus. At the same time, they balance out their result orientation by always providing space for collective reflection. Both internal and external communication rules are agreed on and adhered to by all members. The network governance body represents the diversity of its members, the strategies amplify complementary contributions, and joint learning mechanisms include all members and are an integral part of said strategy.

The network enablers of dynamic structures and dialogic exchange combined support the emergence of *collective stewardship* in the network.

### **20.4.5 Network Enabler #5: Novel Pathways**

The knowledge of the network is strengthened through continuous expertise building and creative approaches. What needs to be asked here is how to create space and support for social, scientific and technological innovations that accelerate the transformative change envisioned by the network. This can be as simple as providing room for creative exchanges in meetings and workshops. But it also asks if there is room for testing and piloting new approaches, solutions or ideas to attain the network's goal. This creativity needs to be connected to state-of-the-art knowledge on content issues for its members; otherwise, the creativity would remain a mere exercise and

not become truly innovative. In order for the creativity and expertise building to be integrated into the network, its planning needs to be flexible enough and be regularly reviewed and adjusted, ideally by a separate network governance body.

#### **20.4.6 Network Enabler #6: Contextual Impact**

The relevance of the network's purpose and its impact strategy need to be embedded in larger transformations. This captures the need to extend the systemic perspective beyond the network's boundaries and see the layers of network-in-network connections. Guidance for this complex task comes if we ask which connections will increase impact. Context relevance is the first entry point here: knowledge on the broader context of the network is regularly updated, and trends and developments regarding the network's purpose are also regularly reviewed and integrated into its strategy. Support is both provided to the members, e.g. by a network's backbone support,<sup>1</sup> and also given by members to each other, so they can anchor the network's purpose in their respective field of work and advance it to the best of their abilities. This helps to foster aspirations by all members to contribute to the overall network purpose. Finally, the impact focus in this complex undertaking is ensured by regular review mechanisms focusing specifically on the impact progress.

The network enablers of novel pathways and contextual impact combined support the emergence of *network leverage*.

### **20.5 The Practice: Local and Global Transformation Networks**

Transformation networks, like other forms of networks, can develop and become active at different geographical levels. On a practical level, the *transformation network enablers* were recently used as strategic guidance in the active set-up of two transformation networks. The first is a local example, a youth civil society network in central Tunisia for good governance.<sup>2</sup> The second is a global version, a femxle-led<sup>3</sup>

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<sup>1</sup> Backbone support in this context means to have access to independent and funded personnel resources for continuous support in the network management process. Key functions are to catalyse collaboration on multiple issues across members, be a caretaker and facilitator for the network process, and support necessary capacity building across members. Cf. Kuenkel 2019.

<sup>2</sup> A video reporting the first year of the network can be found here: <https://youtu.be/M4jc1QpP-TY>.

<sup>3</sup> In response to a global trend, the term femxle/womxn is used throughout in this network to be inclusive and encompass all persons identifying as female/woman.

network<sup>4</sup> of professional change-makers towards a new economic architecture.<sup>5</sup> The strategic guidance of the *transformation network enablers* had the key function to ensure that both networks were set up to develop transformative potential and thus make a strategic shift to go beyond an exchange network or learning platform.

### **20.5.1 Transformation Network Example 1: Youth Civil Society in Tunisia for Good Governance**

The local network among youth civil society organizations in central Tunisia started in 2020 to respond to a complex problem of governance between administration and citizens and local sustainability challenges. Tunisia is at a precarious point of its sociopolitical development: while in 2013 70% of the population named democracy as the best form of government, in 2018 it was only 46% (Meddeb, 2018). Against this background, ‘political, economic and administrative ties of the old system as well as the still existing authoritarian practices and an “old” rhetoric in politics and society make it difficult to deepen fragile democracy’ (Gallien & Werenfels, 2019). Youth civil society organizations were set up after the revolution, many with the mission to advance awareness of sustainability challenges, and promote equally local sustainable solution to them. However, the role of civil society is usually limited to one-off statements on sustainability issues and unilateral advocacy (Klaas & Dirsus, 2018). The state structures must work in a collaborative manner with the young civil society in order to clearly counter the risk of political instability, but also to develop visions for local regenerative living and civilizations. Depending on the region, this can range from transformations in agriculture to urban infrastructure to local economic sufficiency. Such cooperation must relate to elements of local culture, identity and environmental protection in order to achieve their stabilizing effect. This situation is particularly striking in the central governorates of Kairouan, Sidi Bouzid, Siliana and Sousse (outside the city of Sousse). The network was set up with three youth civil society associations as key members, respectively from Sidi Bouzid, Siliana and Sousse. An experienced association from the Kairouan Governorate, We love Kairouan, took up the role as initiator and coordinator of the network.

The set-up for this network followed a proven process methodology for transformation processes, where four iterative phases of building engagement, formalization, implementation and sustaining impact are used a general process handrail (Kuenkel et al., 2020; Kuenkel, Frieg, & Gerlach, 2011). Within that process, the *transformation network enablers* were adapted to the particular context. Below is the situation summary for each enabler, and how they were adapted to and used as strategic guidance in the network’s process design.

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<sup>4</sup> More information on the network’s website here: <https://36x36.org>.

<sup>5</sup> The term ‘architecture’ is used as a reference to the design of an overall structure that allows for different manifestations. This honours the need for plural approaches to economics that all refer to overarching principles of wellbeing on a healthy planet.

*Purpose-building narratives:* Many youth civil society associations share missions that envisage local sustainable change, combined with the intention to safeguard as well as adapt local identity and culture to their generation, and provide a tangible perspective of a life-affirming future in their communities. At the same time, almost all associations had made the defining experience that their usual role of civil society advocacy in the collaborative initiatives was not sufficient to bring about initiatives with lasting change. The network process design had to acknowledge these differences for the choice of the focal points for the respective network associations within We love Kairouan: Affinities to or knowledge of local cultural identities were an important prerequisite. Review of membership of potential associations needed to reflect these shared missions and experiences. The co-development of their new role as a key purpose of the network needed to be embedded in the engagement phase of the network, to provide guidance to all members and remain adaptable to each association's unique mission and identity.

*Dynamic structures:* Though local exchange networks and connectivity among local or regional civil society associations are high, there is little or no connectivity across regions or governorates. The only supra-regional connections are with associations in the capital. Coordinated action for initiatives mostly happens with affiliated 'sister' associations and is based on specific sustainability topics such as conserving coastal areas. The network process design needed to provide spaces for collaborative action on the challenges shared by all associations, namely setting up and implementing local multi-stakeholder initiatives. Regular strategic planning and review sessions needed to be integrated to develop together action plans for common challenges, such as managing intricacies in local public administration culture and building stakeholder's engagement in the absence of external funding for the initiatives. The unique role of We love Kairouan as the network's coordinator and backbone support needed to be established through practice-based coaching sessions with each association, with each of them having an individual contact point at We love Kairouan.

*Novel pathways:* Local sustainability initiatives or challenges provided the most flexible environment to become creative with stakeholders in testing a new role, and process, for civil society associations with sustainability missions. We love Kairouan as the network coordinator had key expertise and experience to pass on with regard to facilitating and implementing such processes, and needed to support the local adaptation of it to three different regional contexts. The network process design reflected this in its approach to build the network's overall strategy and purpose on local associations and their initiatives. The expertise for multi-stakeholder collaboration, and the role as facilitators was anchored in the network's members with a combination of peer-coaching across the associations, process coaching for each individual association as well as joint learning and review sessions embedded in design principles for impact-oriented multi-stakeholder initiatives. Regular reviews within We love Kairouan ensured a process adaptation to joint needs emerging from the association's progress with their initiatives.

*Value creation:* While the network associations have similar missions and challenges in realizing them, local cultures as well as the constraints coming along with

them are an important difference among them. All associations are located, respectively, in three different governorates, all with their own history and local identity, most particularly regarding their role and self-understanding with regard to the countries' revolution and the new social, political and economic order in its wake. Consequently, each of the associations also had a different perspective and stance to the coordinator role envisaged for We love Kairouan, situated in yet another governorate, geographically connecting them all. The network process design had to acknowledge these differences for the choice of the focal points for the respective network associations within We love Kairouan: Affinities to or knowledge of local cultural identities were an important prerequisite in choosing the focal points. Conflicts needed to be dealt with within the core group of association representatives and We love Kairouan's focal points. Only if reconciliation and consensus-building could not be achieved in this constellation, a broader group of the network's backbone would engage in meetings with the respective association to broaden perspectives and engage in a deeper search for solutions to the conflicts.

*Dialogic exchange:* One of the key purposes of the network was the need to make visible the shared challenges and need for a different role of the associations in driving local sustainability, in order to build shared strategies and action on this basis. At the same time, this need for transparency across previously unconnected associations was a challenge in itself, as judgement by unknown peers on poor performance in the highly driven advocacy world inhibited such structured and transparent conversations. The network process design had to integrate the building of an appreciative learning culture devoid of negative judgement from the start. This was done in smaller spaces within each association with the backbone organization of We love Kairouan first. Only then could larger collective learning exchanges across all associations be held and develop their enlivening potential. Weekly exchanges, always following the same structure of sharing updates and reflection on progress between associations and their focal points, were key to establishing this culture. In the preparation of the joint learning exchanges among all associations, the ability to abstract the challenges from their local context and define the underlying systemic pattern was imperative to help associations see the profound similarities in their challenges, as well as their opportunities.

*Contextual impact:* Local sustainability is a mission practically translated and anchored in the network's member missions—such as promotion of sustainable agriculture, protection of cultural heritage or climate change mitigation. Broader knowledge on the concept of sustainability and how their efforts fit into a larger trend however are largely absent among the associations, as well as among their stakeholder system. Consequently, no support structure exists among associations or wider stakeholders engaged in local initiatives that have a similar vision. The network process design focused heavily on a support structure as an entry point for addressing this situation. Mutual support practices and culture were introduced and supported from the beginning; spaces for their review and adjustment were integrated into every network meeting. The key element however was the individual support to each association member via the backbone organization. This was the space where shared

understanding of the larger sustainability context could flourish first and then extend to the spaces of collective reflection and action among the network associations.

Within a year, and despite COVID-19 restrictions and public priorities focusing on public health, the network resulted in three fast-advancing local transformations in the three regions: in El Krib, local development plans based on ambitious environmental protection standards of the unique natural environment in that region have been formalized, with a resource fund of both private and public contributions for its implementation rapidly growing. In Regueb, farmers organized themselves to develop a local standard for organic agriculture and set up the first farmer-initiated cooperative to facilitate its integration in public agriculture policies as well as generating a local demand and market for it. A twin mindset shift among both farmers and local consumers that local environmental associations had tried to promote for years, with no significant gain, rapidly took hold within a year. In Hergla, a complete redesign of the urban planning based on sustainability principles, translated to the local culture and context, was developed between civil society associations, more than 100 citizens, and the local administration. The plans and engagement generated quickly drew the attention and support from the regional administration, resulted in formal collaboration structures between the associations and administration for its implementation, and generated the personal support of the city's mayor.

The experience from the network in Tunisia is a good example for collective stewardship as the practice of stewarding transformations for multiple issues within a certain circumscribed area. The challenges of good governance between administration and citizens and the local sustainability challenges vary greatly between communities in Sidi Bouzid, Sousse and Siliana. Yet, a transformation network across civil society associations in these locations could effectively leverage and catalyse the impact of each local multi-stakeholder initiative.

### ***20.5.2 Transformation Network Example 2: A Femxle-led Network Towards a New Economic Future***

The global example of a transformation network, the femxle-led network of professional change-makers towards a new economic architecture, emerged out of a much larger consciousness on the challenges ahead towards regenerative civilization. It was built on the recognition that the current most dominant economic framework is built on a narrative of growth by all means, resource depletion and ignorance towards social and environmental externalities. We have built economic institutions that actively encourage and reward the masculine side of people. This narrative also assumes that resources to generate economic activities are unrestricted. Planetary limits, the existence of carefully balanced geo-bio-physical life-support systems, are absent in this narrative (Rockström, et al., 2019).

This narrative did not simply emerge between theory and practice of economic activities, and it was deliberately promoted and inserted into all leading financial,

educational and economic institutions. The network was set up from the need to recreate a fundamentally new story about the economy as a human interaction system supporting people and the planetary life-support system, with womxn taking the lead. In addition, there are many proposals on new economic thinking emerging, which all deserve attention (such as Raworth, 2017; Trebeck & Williams, 2019 and publications by the Ellen MacArthur Foundation). But they are disconnected and have subsequently little chance to influence the current economic system. To address these needs, the 36x36 transformation network for wellbeing on a healthy planet was set up. Its goal is to unite at least 36 femxle professionals from around the globe to develop a new economic architecture and disseminate it globally in a manifesto.

As in Tunisia, the set-up used a general process methodology, within which the network enablers were adapted to the context and used as strategic guidance for the process design. Below is the relevant context for each enabler again and its use as process guidance in this context:

*Purpose-building narratives:* With the fragmented initiatives and exchange networks around a diversity of new economic approaches that already exists, an engaging and yet pluriverse narrative needed to be built that could engage potential network members from across a variety of communities of practice. It also needed to convey clearly its nature of action orientation vs the existing exchange networks and multi-stakeholder platforms in that area. The global ambition needed to be embedded in the network's member selection and provide clarity on the process of bringing that narrative into a living practice on a global level. To integrate this into the network process design, wellbeing on a healthy planet was chosen as the purpose of the network that could speak to the diversity of lived existences and experience of womxn all over the world. Membership selection was explicit in selection criteria around age, gender, professional expertise as well as vision for the economy of the future that could contribute to the overall narrative. The global aspiration was also built into membership selection via a quota for global regions according to their proportion of the global human population. The network's process roadmap is aligned around six guiding themes, derived from a system's perspective on economic approaches, and offering clarity for network members on expected contributions to each step. Process anchoring sessions to support member's transformative resilience, i.e. the ability of holding the ambiguity, complexity and uncertainty of the roadmap towards the narrative, are regularly held.

*Dynamic structures:* In order to promote collective stewardship, multiple layers of connectivity and collective action need to be knitted across the network members. Connecting the community of practices across sectors, regions, schools of thought and cultures is imperative to allow a diverse and yet structured cross-pollination of members for collective sense-making and consensus-building around concrete action, be that e.g., on recommendations on metrics to achieve the network's vision or identification of promising action initiatives on the ground that have scaling-up potential for the network's purpose. The network process design helped the network members come together in small action teams for thematic exchanges around the six guiding themes, for peer exchanges on professional expertise building around

new economic approaches, in a global scholarship organizing hub focused on decolonizing economics, in regional groups and a network strategy group. The process is regularly reviewed and adjusted to allow for the integration of emerging needs to promote connections of members across different boundaries (regions, expertise, sector, specialty, challenge, professional passions). Clarity on purpose and result expectation is co-developed and built into each action team.

*Novel pathways:* In order to ensure the network develops into its transformative nature, capacities for collective stewardship for system's transformation need to be built into the network-building process. At the same time, the network's impact orientation needs to provide for testing ideas and concrete, issue-based initiatives, reviving local or regional collaboration ecosystems around new economic practice. For the process design, this meant the network-building sessions are embedded into a competence-building track of strategizing transformative change that conveys competence on the level of system thinking, strategic process design for transformation processes and collective stewardship capacity. The network's process roadmap foresees several prototype practice projects developed by member teams for contextualizing and implementing the manifesto content. A high-level network advisory group made up of femxle experts and strategic forerunners in new economic thinking and practice is providing the expert input and support needed.

*Value creation:* The acknowledgement of difference and diversity in perspectives, approaches to change and value systems, to allow consensus-building around a manifesto for a new economy is crucial for the network's strategic delivery. With both a global claim and purpose, the network member needs to collectively support each other to provide space for the differences to emerge and at the same time make the connections possible and necessary for consensus around a manifesto for a new economic future. For the process design, this meant the layers of diverse connectivity built across the network members were also strategically chosen to bring out the differences and diversity, such as the regional teams and the sector and expertise mix within them. The term of 'architecture' (instead of, e.g., roadmap) was deliberately chosen, since it refers to the design of an overall structure that allows for different manifestations. This honours the need for plural approaches to economics that all refer to overarching principles of wellbeing on a healthy planet.

*Dialogic exchange:* In a network effort with an ambition of complex system transformation, the clarity of process regarding the purpose of internal exchanges is paramount for member engagement and contributions. Joint learning mechanisms and sessions need to have a clear connection to key points in the network's roadmap, and result delivery needs to be transparently connected to goals and impact the network visions. For its purpose, the network needed both learning and exchange spaces for the divergence to emerge, as well as planning and strategic sessions to build cohesion and action orientation. For the process design, the network's exchange sessions are clearly developed around cycles of divergence and reflection towards convergence and consensus-building. Exchanges around the six guiding themes are first built internally, with exploration/divergence and a following first consensus, e.g. regarding recommendations for further development of the theme in a public

format. All exchanges are anchored on a different conceptual level, from principles to strategic roadmaps to implementation pathways. A learning series provides a structured space to hold all emerging exploration and consensus around manifesto elements.

*Contextual impact:* A key challenge deriving from the membership criteria as well as from the network's ambitious purpose is the connection to communities of practice, key institutions, organizations and networks that hold the different layers of influence and power necessary to implement the network's manifesto on a large scale. In order to achieve its desired transformative effect, the network needs to be connected with—and be embedded in—existing strategic networks. For the network process design, this meant that a high-level advisory group with femxle experts is integrated into the network-building process. A key task for this group will be to identify together with the network members the kind of powerful structures, networks, institutions and organizations that are needed for the manifesto's impact, and for the continuous development and (re-)building of the new economic architecture at the heart of it.

Within its first 5 months, overall 48 high-profile global femxle professionals were selected for membership in the network, out of more than 100 expressions of interest. They span the globe from the Philippines to the US West Coast. A network vision, thematic action groups, regional representatives and strategic plans for the network in five global regions have been developed, and publications that explore, respectively, narratives and metrics for a new economic architecture have already been produced.

The global network for wellbeing on a healthy planet highlights the need for visionary multiplicity and network leverage in transformation efforts. Only if the new economic architecture the network strives for allows for a pluriversity of envisioning, conceptualizing and living the economic future will the network build momentum and engage those it needs for a transformative impact. Similarly, it needs to actively reach out and bring in the existing networks and the powerful institutional stakeholders in this field in order to achieve the necessary leverage.

## 20.6 Conclusion

Transformation networks are the cornerstone to drive transformative impact. A look at the practical experience with transformative impact shows that it emerges most strongly in networks of multi-stakeholder initiatives and networks-of-networks. The most important distinguishing characteristic of such transformation networks is their nature of bringing together existing learning networks, exchange networks and multi-stakeholder initiatives to strategically drive transformative action. This strategic action orientation of the network can purposefully be built if guidance is derived from principles generating aliveness in systems. The six network enablers introduced above fulfil those criteria and can thus function as important orientation in building transformation networks. They also importantly attend to the three core approaches of transformation literacy—collective stewardship, visionary multiplicity and network leverage. Two practical examples of building transformation networks

with the enablers were examined, one on a local and one on a global level. Both examples show that the enablers can be adapted to very different network levels and contexts, and provide strategic and practical guidance in the complex process of actively setting up a transformation network. A key insight from these experiences is that the process of setting up and driving transformation networks needs an iterative loop of attention to systemic patterns and process design. The network enablers can only develop their potential if regular attention is paid to systemic patterns to tailor and translate them to each context. A circle of observing, adapting and enacting is always needed to ensure vitality in the system that embeds the transformation network, so that it can continue to be transformative. An important research need that emerges from these experiences is the need to have a closer look at backbone organizations for such networks. In both the local and also the global examples, organizations<sup>6</sup> that initiated and facilitated the process of setting up the networks had a deciding role in the success of the effort. For such an influential role, a closer look is necessary on what characteristics and resources such organizations need to have, potentially at different phases in the process and certainly on the different possible levels, in order to successfully take up the role as initiator, driver and eventually backbone support for a transformation network.

## References

- Bäckstrand, K. (2006). Multi-stakeholder partnerships for sustainable development: Rethinking legitimacy, accountability and effectiveness. *European Environment*, 16(5), 290–306.
- Beck, U. B. (2013). Cosmopolitan communities of climate risk: conceptual and empirical suggestions for a new research agenda. *Global Networks*, 1–21.
- Beisheim, M. (2011). Innovative Governance durch Entwicklungspartnerschaften? Chancen und Grenzen am Beispiel transnationaler Wasserpartnerschaften. SWP-Studie Nr. 20/2011, Stiftung Wissenschaft und Politik, Berlin, pp 5–29
- Biermann, F., Man-san Chan, A., & Pattberg, P. (2007). Multi-stakeholder partnerships for sustainable development: does the promise hold? In P. Glasbergen, F. Biermann, & A. Mol (Eds), *Partnerships, governance and sustainable development: Reflections on theory and practice*. Edward Elgar.
- Brouwer, H., & Woodhill, J. (2015). *The MSP Guide: How to design and facilitate multi-stakeholder partnerships*. Centre for Development Innovation, University of Wageningen.
- Gallien, M., & Werenfels, I. (2019). Tunesiens Demokratisierung: Erhebliche Gegenbewegungen. Große Fortschritte, alte Seilschaften, unklare Perspektiven. SWP Aktuell, A 07.
- Klaas, B., & Dirsus, M. (2018). *Non-Governmental organizations, international organizations, and civil society in Tunisia*. NATO OPEN Publications.
- Kuenkel, P. (2019). *Stewarding sustainability transformations. An emerging theory and practice of SDG implementation*. Report to the Club of Rome. Cham, Switzerland: Springer.
- Kuenkel, P., Frieg, V., & Gerlach, S. (2011). *Working with stakeholder dialogues: Key concepts and competencies for achieving common goals*. A practical guide for change agents from public sector, private sector and civil society. Collective Leadership Institute.

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<sup>6</sup> Both networks were initiated and facilitated by the Collective Leadership Institute, in the local example in collaboration with the We love Kairouan Association, in the global example in collaboration with the Wellbeing Economy Alliance and the Schumacher Institute.

- Kuenkel, P., Kuehn, E., Williamson, D., & Stucker, D. (2020). *Leading transformative change collectively: A practitioner guide to realizing the SDGs* (1st ed.). Routledge.
- Latour, B. (2005). *Reassembling the Social: An Introduction to actor-network-theory*. Oxford University Press.
- Loorbach, D. (2007). Transition management. New mode of governance for sustainable development. Doctoral Dissertation. Rotterdam: Erasmus University.
- Lozano, R. (2007). Collaboration as a pathway for sustainability. *Sustainable Development*, 15(6), 370–381.
- Meddeb, Y. (2018). Support for democracy dwindles in Tunisia amid negative perceptions of economic conditions. Retrieved 10 Sept 2019 from [https://afrobarometer.org/sites/default/files/publications/Dispatches/ab\\_r7\\_dispatchno232\\_support\\_for\\_democracy\\_dwindles\\_in\\_tunisia\\_1.pdf](https://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r7_dispatchno232_support_for_democracy_dwindles_in_tunisia_1.pdf) : Afrobarometer Dispatch No. 232.
- Pattberg, P., & Widerberg, O. (2014). Transnational multi-stakeholder partnerships for sustainable development. Building blocks for success. IVM Report, R-14/31. Institute for Environmental Studies.
- Ponte, S., & Emmanuelle, C. (2013). Voluntary standards, expert knowledge and the governance of sustainability networks. *Global Networks*, 459–477.
- Raworth, K. (2017). *Doughnut economics: Seven ways to think like a 21st century economist*. Random House.
- Rockström, J. W., Steffen, K., Noone, Å., Persson, F. S., Chapin, I., Lambin, E., et al. (2019). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, 2.
- Trebeck, K., & Williams, J. (2019). *The Economics of Arrival: Ideas for a Grown-up Economy*. Bristol University Press.
- Udvari, B. (2014). Realignment in International Development cooperation: Role of emerging donors. *Society and Economy*, 36(3), 407–426.
- van Tulder, R., & Pfisterer, S. (2013). Creating partnership space: Exploring the right fir for sustainable development partnerships. In M. M. Seitanidi, & A. Crane (Eds), *Social partnerships and responsible business: A research handbook*. Routledge.
- Waddell, S. (2016). *Change for the audacious: A doers' guide to large systems change for a flourishing future*. Networking Action.

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# Chapter 21

## Collective Stewardship Towards Life Economies



**Petra Kuenkel**

**Abstract** This chapter explores how different actors, who drive an urgently needed economic systems change, can become part of a more coherent transformation system by focusing on a unifying future narrative: creating economies in service to life. The understanding of what gives life to systems is an overarching guiding force of the manifold transformative efforts that already exist. Based on an extensive literature review of new economic approaches, the chapter introduces a combination of guiding principles for new economies that would safeguard planetary and human integrity, while allowing for different interpretations and manifestations. It shows that for most principles, implementation strategies already exist. However, the so urgent systems transformations require combined efforts and an approach of collective stewardship by multiple actors, across societal sectors, cultures and institutions. The chapter elaborates how the adoption of a systems aliveness approach informs collective stewardship. The conscious choice of a constellation of strategic drivers, if applied together, increases the leverage of transformative efforts. The chapter concludes with deliberations on how to use the guiding principles and strategic drivers as an entry point for creating pathways towards regenerative civilizations, in which planetary life-support systems are as much valued as the dignity of people.

**Keywords** Life economy · Systems transformation · Planetary boundaries · Hothouse Earth · Economies in service to life · Systems aliveness · Transformation systems · Collective stewardship · Transformation literacy · Regeneration · Circularity

### 21.1 Introduction: A New Economic Perspective

The many symptoms of global sustainability challenges such as biodiversity loss, rising inequalities, or the climate crisis are today widely acknowledged as symptoms of humanly induced self-destructive economic behaviour. Not surprisingly, the

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P. Kuenkel (✉)  
Collective Leadership Institute, Kurfürstenstraße 1, 14467 Potsdam, Germany  
e-mail: [Petra.kuenkel@collectiveleadership.com](mailto:Petra.kuenkel@collectiveleadership.com)

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number of voices that call for a change not only in the political realm, but also in the global economic system is increasing. It is time to fundamentally shift the purpose of economic action towards delivering wellbeing on a healthy planet. There is a rising realization that the current system consumes both human and natural resources in a way that, despite slowly improving global living standards, it deteriorates the planetary life-support system and causes more and more inequalities (Mazzucato, 2021). All historic forms of running economies such as capitalism, communism, socialism, or colonialism have had advantages for some and major disadvantages for many others. All manifestations of economics so far had destructive elements, because the link between economic systems, human wellbeing, and ecological impact remained unquestioned, ignored, or at least insufficiently considered. Our dominating global perspective is an economic template that is falling short of addressing the climate crisis, ecosystem destruction, and, more recently, a fair approach to overcoming the COVID-19 global pandemic. Not only does it fail to provide solutions to challenges like the 17 Sustainable Development Goals, the increasing global inequality and social fragmentation, but it actively contributes to accelerating the dangerous status quo. The growth focus of the current economic framework at the expense of nature's integrity and social cohesion is based on centuries of natural and human resource exploitation, culminating in the broad global dissemination of the neoliberal narrative and subsequently the supporting institutions (Lovins et al., 2018). The overarching story of today's outdated economic framework is simple, but powerfully ingrained in all global systems: its narrative suggests that the sole goal of the economy and of businesses is to generate financial wealth; that the freedom of the individual (person or corporation) is the primary societal value; that government should be small, protecting individuals and their private property; and that markets need to be free and unrestricted and will self-organize for the benefit of all (ibid.). This narrative assumes that resources to generate economic activities are unrestricted. Planetary limits, the existence of carefully balanced geo-bio-physical life-support systems, are absent in this narrative. Evenly absent is the idea of commons that all people (and other living beings) need to have access to. Governments that guide or steer markets for the sake of the common good are seen as the problem; the doctrine of free markets with constant economic growth was enshrined as governments' main goal. The global COVID-19 pandemic made the flaws of the current system transparent and reframed at least the role of the public sector as a guardian of people's overall health. The pandemic raised additional questions, including how we as humans will live in greater harmony with nature in the near future. Hence, it is time to think about sustainable forms of economies that combine the positive elements of various approaches and are appropriate to the challenges of our time.

This chapter explores how different actors, who drive an urgently needed economic systems change, can become part of a more coherent transformation system by focusing on a unifying future narrative: creating economies in service to life. The understanding of what gives life to systems is an overarching guiding force of the manifold transformative efforts that already exist. Based on an extensive literature review of new economic approaches, the chapter introduces a combination of guiding principles for new economies that would safeguard planetary and human integrity,

while allowing for different interpretations and manifestations. It shows that for most principles, implementation strategies already exist. However, the so urgent systems transformations require combined efforts and an approach of collective stewardship by multiple actors, across societal sectors, cultures, and institutions. The chapter elaborates how the adoption of a systems aliveness approach informs collective stewardship. The conscious choice of a constellation of strategic drivers, if applied together, increase the leverage of transformative efforts. The chapter concludes with deliberations on how to use the guiding principles and strategic drivers as an entry point for creating pathways towards regenerative civilizations, in which planetary life-support systems are as much valued as the dignity of people.

## 21.2 Life Economies

The future needs a global economic architecture that focuses on the conditions for life on our planet and the vitality or aliveness of all living beings, including human beings. This means, first of all, that we must understand the basic principles of such architecture: economies must be life-serving. Individual and collective wellbeing must be thought of together, as must be the interplay between people and nature. The core task for the future, then, is to recognize the conditions for interwoven social, economic, and ecological patterns and to continually and collaboratively ensure that these patterns enhance the vitality of local and global systems (Kuenkel, 2019; Kuenkel & Waddock, 2019).

There are many attempts to define principles, properties, or criteria that should guide a new economic system: they intend to not only halt the current negative path dependencies, but redirect the goal of economic activities away from what is perceived as an outdated growth paradigm towards a contribution to *life*. Quite a few authors have entered this new territory in thinking. There are blueprints for approaches to new forms of economies that not only address the fundamental role of humans in the Anthropocene as responsible actors within the framework of planetary boundaries (Cornell, 2012; Rockström et al., 2009), but also make concrete proposals for their implementation. These include the Economy of Common Good (Felber, 2018), an Economy in Service to Life (Lovins et al., 2018), the Mindful Economy (Magnuson, 2007), the Sufficiency Economy (Bergsteiner & Dharmapiya, 2016), the Caring Economy (Folbre, 1995), the Wellbeing Economy (Fioramonti, 2017), the Feminist Economy (Jacobsen, 2020), the Circular Economy (Ellen MacArthur Foundation, 2013), the Doughnut Economy (Raworth, 2018), Economics of Arrival (Trebeck & Williams, 2019), Mission Economy (Mazzucato, 2021), among many others.

What runs through all of these different approaches for a new economy are themes that focus on social and ecological vitality: *first*, a future economy must include nature in its balance sheets, incorporate boundary values of economic activity more clearly, and include ecosystem services. *Second*, a new economy must aim at the fair distribution of resources, income, and prosperity, and *third*, it must be linked

to forms of political participation in such a way that economic development can be negotiated and shaped in terms of individual and collective vitality. However, it is important to recognize that as much as there is agreement about the necessity of a fundamental shift, the future may require a plurality in approaches. A new economic architecture needs to leave space for different implementation options, which all follow the principle of enabling and maintaining vital systems of life and which are all based on the basic idea that humankind and nature are inextricably linked. The term ‘life economy’ reflects most appropriately what the future can look like. Economies which are in service to *life* operate in accordance with the needs of the planetary life-support system, respectively the planetary boundaries. They would be guided by multiple frameworks that safeguard the commons and balance the wellbeing of individuals and the wellbeing of the collective. Hence, the understanding what gives *life* to systems is part of the foundation of a new economic architecture. The skills to implement it are either already available or can be learned. If—as many scientists and sages predict—we need to rise up to our capacity for a *collective stewardship* approach to stabilize the trajectories of our planet including our societies, we need to become more humble partners of life’s potential to renew and replenish. Strategic transformations need to change the grammar of how we observe reality. We need to practice a system’s view of life, when we define what is needed for a shift of our dominant economic and social paradigms.

### 21.3 Building Transformation Systems

Sustainability challenges are nested in the complex adaptive systems that constitute human socio-economic–ecological developments (Otto et al., 2020). A global pandemic, caused by an invisible virus, has taught us what it means to live in an interconnected world, in which the ability of one society to gain resilience is inextricably linked with the existence or lack of the same capacity in another society. This is more than a lesson in global health issue. It invites us to realize that understanding our world from a systemic perspective is central to conceptualizing transformative change. The need for a novel and integrated approach becomes even more apparent when we look at the patchwork of transformative efforts that are already happening in the world. The actors that have probably the most serious track record of caring for all forms of life on our planet are civil society organizations. Wikipedia lists more than 40,000 internationally operating social or environmental NGOs (and vastly more exist at national and local levels). Yet, their task is often to repair damages and alleviate unjust or ecologically threatening economic impact to keep the planet and our social systems from collapse. In addition, many regenerative communities have formed to steward bottom-up local economic changes on all continents. They live the future on a small scale, but have limited influence. Social movements gather increasing numbers of young and old people who take to the streets to alert politicians and corporations of the climate crisis and its links to the economic system. They are utterly underfinanced, but forceful and impactful in press and social media and have

an undeniable influence on mindset shifts. Science and academia have been oblivious to naming the multiple effects of the current economic system for a long time, but more and more publicly funded research is going into environmental and social issues including research on economic transition and transformations. This is good news with promising results, but the competition is fierce and many research institutions have become captives of the neoliberal narrative in content and operations. Public sector and multilateral institutions gradually show increasing commitments to climate goals (with still many exceptions), but only few dare questioning the economic system or even openly drive economic systems change.<sup>1</sup> Radical shifts can hardly be expected from governments, who want to be re-elected; hence, the regulatory improvement of guidance for economies is only slowly implemented with lots of fall backs and lack of courage. But even the private sector which is to be expected to thrive on the current under-regulated world market has awakened to the possibility that exploiting people, avoiding tax, and damaging planetary life-support systems may fire back sooner rather than later. Since the financial crisis in 2008, increasing efforts to define and live corporate responsibility have emerged from medium-scale enterprises to global corporations—without fundamental shifts in how businesses operate. Some do green washing, many have good intentions, and some start industry-wide collaborations or get into multi-stakeholder partnerships with civil society organizations or the public sector to address sustainability challenges.<sup>2</sup> But all are captive to the global economic dynamics and the finance system. Many corporations have realized the conundrum and added foundations to their portfolio which pursue similar goals as many civil society organizations. How this patchwork is knitted together is rarely attended to, because it is so overwhelmingly complex. Gradually, global networks have emerged which connect different societal and global actors within and outside institutions and act as interlinkage for economic system change (see also Chap. 20). Less than an ideological battle of the perfect future economic systems, these collaboratives of actors around the globe may not always agree on the pathways to take, but if they stay connected and in respect of each other, they can iteratively approximate systems that improve wellbeing on a healthy planet. The fixation on one particular solution, one future economic model, one prescribed set of metrics, or a circumscribed target is less important than the acknowledgement of various transformative approaches, laboratories, and temporary solutions that follow underlying principles of life-enhancing economic activities.

Collectively stewarding economic systems change means that many cross-institutional, cross-sector, and cross-national stakeholders in multiple interconnected systems and subsystems contribute to the puzzle in a much more conscious way. Figure 21.1 shows an exemplary overview of a transformation system of actors that all contribute to the broad goal of wellbeing of people on a healthy planet. While the pathways to implementation may differ, the broad direction is clear: creating

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<sup>1</sup> Positive Examples: Wellbeing Economy Government Alliance members: Scotland, Wales, Iceland, Finland and Scotland, while Canada and Costa Rica are at least supportive of the approach. Source: <https://wellbeingeconomy.org/wego>; accessed 14 June 2021.

<sup>2</sup> Example are global responsible value chain initiatives such as in: cocoa, textiles, or coffee.

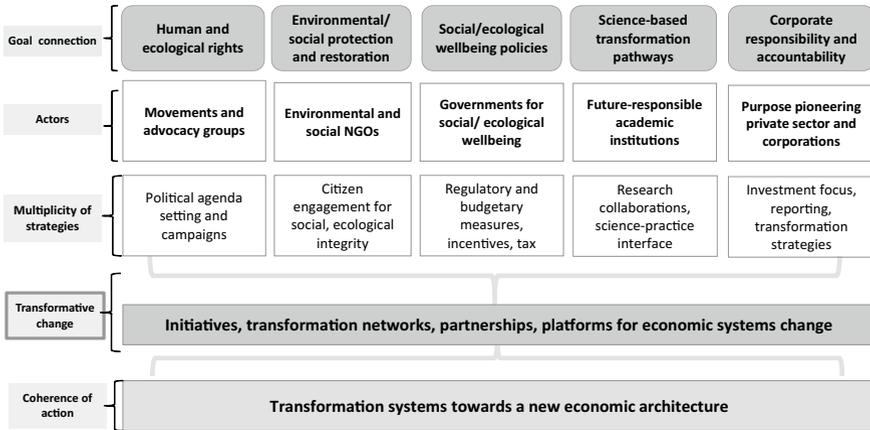


Fig. 21.1 Transformation system towards life economies (copyright by the author)

*life economies* will require a fundamental shift in the global operating system. The change will be *radical*, because only a new North Star for new economics will engender the necessary behavioural changes. At the same time, the change will be *incremental* in the sense that transformative actions and steady small adjustments will gradually modify how societies, including the global society, operate in economic activities (Göpel 2016). The systems thinker and architect Christopher Alexander (2005) captured this when he said:

There is no ‘revolutionary’ approach that has much hope. The present system cannot be destroyed and replaced: it is too widely present, and too deeply embedded, in too many institutions. And it is, besides, for all its faults, serving us too well, in too many areas of life, for us to want to destroy and replace it. [...] The practical means we seek must be gradual, incremental modes of change, which somehow manage to inject living sequences—and morphogenetic ones—into the present system of processes (p. 532). [...] We begin to envisage a world in which every process, rule, human interaction, purpose-filled act, and anything which touches the environment engages with the major task of creating coherent living form. This needs to be understood by everyone: administrators, inventors, actors, users, builders, children (p. 547).

## 21.4 Guiding Principles for Life Economies

Understanding what gives life to systems, learning what a coherent living form can be in a particular context, will become a guiding force for strategizing the economic systems change we so deeply need (Kuenkel, 2019; Kuenkel & Waddock, 2019). If *systems aliveness* is the capability of small and larger systems to gain resilience, and regenerate and maintain their vitality in mutual consistency with other systems, the economy as a major force of human ecological interaction must be guided by

the overarching goal of life enhancement. **The overall purpose of economies in service of life is to operate in accordance with the needs of planetary life-support systems. They serve the wellbeing of people and are guided by frameworks that balance the wellbeing of the individual and the collective.**

Economies are patterns of behaviour in a fractal nature and so are attempts to transform the economic system. They also are fractals of the envisaged future pattern of relational economic interaction (Fath et al., 2019). This constitutes a challenge: guiding principles for future economies need to be general enough to not prescribe certain solutions, yet comprehensible and concrete enough to help guide the fundamental shift necessary. The term *principle* is here understood as fundamental propositions that govern a system's behaviour. *Guiding principles* inform and inspire, but do not prescribe thought and action. They can have numerous applications, manifest in many different ways, and need to be translated into narratives and pathways.<sup>3</sup> As mentioned above, many authors have described aspects of how economies of the future need to function in order to safeguard ecological and human life-support systems. They suggest principles, properties, or criteria, while each focusing on different aspects that, together, could make up a whole.<sup>4</sup> Many of them can be related to the generic systems aliveness principles elaborated in Part 1 Chap. 7. The *guiding principles* for *life economies*, therefore, draw on the descriptions by the mentioned authors, correspond with generic life principles,<sup>5</sup> and are translated into a terminology that is accessible and understandable enough to guide action. In addition, the principles can be linked to pioneering practices already taking place, even though this may happen in niches of the mainstream economic system. This gives hope that the connected implementation of such principles will indeed shift the entire system rather sooner than later. Figure 21.2 shows the principles. Table 21.1 summarizes their features and gives examples of how they already manifest. The sections that follow explore the principles in more detail.

### 21.4.1 *Regeneration and Circularity*

The guiding principles of *regeneration and circularity* refer on the one hand to the ecological flow of resources and material. They need to be produced and consumed

<sup>3</sup> The understanding of the term 'principles' is partly inspired by The Oxford Dictionary <https://en.oxforddictionaries.com/definition/principle>.

<sup>4</sup> The list of literature reviewed include Fath et al. (2019), Parker and Ragnarsdottir (2021), Fullerton (2015), Raworth (2018): Wellbeing Economy Alliance: [www.wellbeingeconomyalliance.org](http://www.wellbeingeconomyalliance.org); Future Fit Foundation Guide (2019); Lovins et al. (2018); Mazzucato (2021), Jackson (2016), Jacobs (2002), Jørgensen et al. (2015), Leading4Wellbeing (2017).

<sup>5</sup> The guiding principles match with the systems' aliveness principles described in Chap.7 in the following way: *regeneration and circularity* belong to *generativity*; *localization and contextuality* belong to *containment*; *adaptability and innovation* belong to *novelty*; *transparency and accountability* belong to *consciousness*; *participation and distribution* belong to *interconnectedness*; *regulation and contribution* belong to *wholeness*.



Fig. 21.2 Guiding principles for life economies (copyright by the author)

so that either waste is turned into new products, the use of products has no waste, or consumed products are biodegradable. Nature, indeed, must be the guide for production and consumption in its regenerative capacity and circularity, but also in the limitation of usage, reuse, and maintenance. On the other hand, these guiding principles refer to social systems: they need to be constructed in a way that social services, care work, arts, and culture as well as services to the society are not only recognized as important, but valued as indispensable elements of regeneration and mutual support that enhances the vitality and resilience of societies. There is a clear trend in new economic approaches, for example, to adopt both regenerative and circular practices, such as city-based or national Circular Economy roadmaps (SITRA, 2016; MacArthur Foundation 2013), to develop policies towards strategic support to regenerative agriculture or agroecology; or to restore and expand biodiversity and natural habitats. Only few such approaches integrate the second element of societal care, for example, Feminist Economy (Jacobsen, 2020) and Caring Economy (Folbre, 1995) as fundamental. Arts and culture, today, are still seen as an add-on—the crucial link between their culturally diverse societal regenerative effect and the economy is seldom highlighted and often exploited for business purposes only.

**Table 21.1** Guiding principles, features and practices of life economies

Guiding principles	Selected existing practices
<p>1. Regeneration and circularity Production and consumption cycles are socially embedded and have net-zero negative impact or regenerate life-support systems</p>	<p>Regenerative or organic agriculture, agroecology, solidarity agriculture, valuation of ecosystem services, regenerative and renewable energy systems, circularity of materials and biodegradable products; cradle-to cradle approaches; zero-waste approaches, nature conservation and ecosystem restoration; soil management, forest protection and reforestation;rewilding; allocating land portions for nature and national parks; nature-based solutions; land and resources entrusted, not owned; regenerative investments; circular cities; national circular economy roadmaps, responsible value chains; social entrepreneurship; care work and service to society highly valued; reproductive activities valued</p>
<p>2. Localization and contextuality Economic activities are contextually adapted and strengthen regional cycles</p>	<p>Locally embedded economic cycles; regional bio-economies; community-based economic entities; shared ownership (cooperatives); locally governed commons; healthy balance between small, medium and large economic entities; globally connected values, locally implemented; economic activities organized in networks; from ownership of goods to sharing products; inclusion of weaker and marginalized communities and people</p>
<p>3. Adaptability and innovation Learning mechanisms foster life-enhancing technological and social innovation</p>	<p>Thriving markets with healthy competition; regenerative product innovation; guided technological innovation serving principles 1 and 5; economic and resource efficiency; quality standards; valued social innovation; social entrepreneurship; impact investing; business purpose oriented towards value for societies and ecosystems</p>
<p>4. Transparency and Accountability Reporting mechanisms and metrics create awareness of and track systems' vitality</p>	<p>Reporting standards; product traceability; transparent tax systems; progress measurements that reflect contribution to society and ecosystems; wellbeing indicators; nature as part of balance sheet; internalization of social and environmental costs; business accountability for environmental and social impact; digitalization in service of transparency of economic activities; broad access to information</p>

(continued)

**Table 21.1** (continued)

Guiding principles	Selected existing practices
5. Participation and distribution Governance and distributive measures guide wellbeing for all and ensure gender and social equity	Broad access to education and political participation; wealth distribution measures; distributive tax systems; public participation in economically relevant strategies; use of digitalization for participation and tracking of ecosystems and social system’s health; democratic control of economic development and strategies; participatory corporate governance models; social and racial equity as guide for economic activities; peer-to-peer learning mechanisms; affirmative action
6. Regulation and contribution Voluntary and obligatory agreements safeguard commons and contribute to the vitality of social and ecological life-support systems	Finance systems in service of society and nature; tax incentive systems that safeguard nature, commons, and social equity; regulations and laws that create level playing fields for business regarding human rights, workers’ rights and rights of nature; guiding regulations towards improvement of wellbeing; obligatory contribution of economic entities to societal wellbeing and progress; fiscal policies that incentivize regenerative investments; laws governing businesses that include new purpose; sustainable public procurements guidance; taxing resources rather than workers/people

### 21.4.2 *Localization and Contextuality*

The guiding principles of *localization and contextuality* refer to a number of aspects that are crucially important for *life economies*. Firstly, they speak to the need to acknowledge the potential that lies in the vitality of local or regional economic cycles (including what is still today framed as the informal sector), because they not only thrive on cultural diversity, but also connect people in a network of mutually beneficial relationships. *Life economies* need to be locally embedded and adjusted to local needs. While globalization did not only have negative effects and massively contributed to an understanding of the world as a whole, future economies may need to dismantle some of the deteriorating effects such as lack of transparency in global value chains with exploitative working conditions, high waste production, high energy usage for logistics, and resource depletion. If *regeneration and circularity* apply, *localization and contextuality* are the logical consequences. Humankind has always traded across the world and will do so in future, but economies in service of life will require showing the true costs of resources and logistics, and calculate the internalization of costs into products. The challenge is to find the balance between regional economic cycles, regional specialization, and global connections. This suggests that these principles require a serious investigation into the currently so dominant power agglomeration of large multinational companies. The question,

if monopolization in economies is per se detrimental, is not a new one, and there will be no easy answer. However, both in the financial and in the commodity sector, a life-enhancing future will presumably only work with clear checks and balances that prevent excessive power concentrations.

### ***21.4.3 Adaptability and Innovation***

The guiding principles of *adaptability and innovation* refer to human inventiveness in future economies, the search for excellence, and the creativity of finding new solutions to difficulties arising. But there is more to these principles: they reveal aspects of economies that have been crucial in the past, are important today, and will be essential for the future. It is almost as if an aspect of the free market doctrine which is certainly a partial cause for the current sustainability challenges, and is worth keeping and nurturing: the commitment to quality and the role of competition to achieve it. Despite the current ignorance of markets towards environmental and social impacts, the saying that the market rewards mastery is valid. People must be trained or manipulated to fall prey to abundant cheap and low-quality products, but they always recognize good quality; they are generally open to explore new products and new ways of doing things. This means that the definition of quality needs to include at least the first and the second set of principles. The question is what, in future economies, will guide market freedom and inventiveness: it is the North Star arising from the question ‘is what we invent life-enhancing’? But it is not only life-enhancing *innovation* and learning from nature for product cycles that counts. *Adaptability* as a principle refers back to the way economies embed individual, collective, societal, and global learning mechanisms, because these determine the capability to adjust pathways.

### ***21.4.4 Transparency and Accountability***

The operating principles of *transparency and accountability* underscore the mentioned learning mechanisms. Measuring progress towards life-enhancing economic action is crucially important, and without the responsibility by economic actors, be they private, public, collectively owned, or civil society actors, to reveal their impact on social and environment issues, economies in service of life will not manifest. But a radical shift towards life-enhancing economic action requires more than not doing harm or compliance with minimal legal standards. The future will link the license to operate not only for business, but all forms of enterprises (such as public and not-for-profit) to their net positive impact on people and nature. Whether this means reinvestment of a certain portion of profits into regenerative activities, the legally anchored accountability of enterprises to social or societal development, or a fundamental questioning of the negative path dependencies of the entire profit logic

(Hinton, 2021). Transparency and accountability, coupled with the other principles, is a route to awareness, learning, and measuring of progress. These principles have a wide array of possibilities for manifestation. The recent years have seen a proliferation of reporting mechanisms for companies,<sup>6</sup> environmental or social target setting and accountability procedures,<sup>7</sup> and demands for the traceability of goods.<sup>8</sup> The attempts to anchor these principles are well underway, but will only unfold their potential, if the other principles are also lived reality.

### 21.4.5 *Participation and Distribution*

The guiding principles of *participation and distribution* sound as if they belong to the political realm, not to economic activities as such. But this is an illusion. It is the framework for economic activities that counts; it guides action and informs behaviour. What history has shown manifold since industrialization is that unguided free markets do not solve social and environmental problems, they cause them (Mazzucato, 2021). They have historically contributed to advancing living conditions, if the state played a strong role in ensuring wealth distribution and redistributions. Particularly, the social market economies in, for example, Northern European countries gave evidence to the intrinsically linked connections between low rates of inequality, high democratic participation, environmental regulations, and redistributive tax systems (OECD 2013; O’Neill et al. 2018). However, these countries are experiencing rising inequality as a result of the introduction of neoliberal free market narratives. Strong states are indispensable for economies in service of life (Nair, 2018). Not necessarily only tax systems count, it is the good governance, the absence of corrupt economic activities, the support for small and medium-size enterprises or cooperatives, the advancement of community-owned enterprises, or technology guidance for regenerative and renewable production lines, or national strategies for circular economies, which set frameworks that are life-enhancing. However, *life economies* require even more engagement: they reach into forms of governance that ensure participation of communities and citizens in the development of those economic priorities that serve people and nature.

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<sup>6</sup> Most known is the Global Reporting Initiative. Accessed 3 June 2021: <https://www.globalreporting.org>.

<sup>7</sup> Examples are the ‘Science-based Target Network’, the ‘Capital’s Coalition’ accessed 3 June 2021: <https://capitalcoalition.org>; or the ‘Future-fit Foundation’ accessed 3 June 2021: <https://futurefitbusiness.org>.

<sup>8</sup> Examples are the FairTrade Standards or the Forest Stewardship Council, which most paper and packaging companies have already adopted with its traceability requirements.

### 21.4.6 Regulation and Contribution

The guiding principles of *regulation and contribution* refer to the above-mentioned role of strong and well-governed states that underpin the operating system of economies in service of life. The relationship between Anthropocenic activities, increasing population pressure, safeguarding the commons, and prosperity balanced between individual and collective wellbeing requires regulatory approaches. They do not substitute, but complement the development of value systems around economies in service of life, the self-organization of economic activities with a renewed purpose to enhance life, as well as new forms of governance. Indeed, the manifestation of the principles in conjunction with each other reduces the need for regulatory approaches. Constitutions, laws, standards, and regulations are less important, if norms and values are anchored and the narrative of life enhancement is intrinsically linked to economic activities. This is why the linked principle is *contribution*: the economic guiding function of strong and democratically legitimized states is to ensure that economies do what their purpose is—to contribute to a quality of life that spans across humankind and includes all species. The core question of ‘how do we contribute to life’ is a constant orientation and reorientation. Yet, the strong guiding function of regulations to safeguard life needs to be acknowledged: only rights of nature, ecocide laws, human rights, and workers’ rights create a level playing field for businesses in which all would compete under the same premises. Fiscal policies that incentivize regenerative investments simply guide sensible behaviour. Tax systems that safeguard nature and distribute wealth strengthen societal resilience. Public funding for innovative future research into learning from nature for technologies or financial support for the restoration of ecosystems enhances the quality of life for all.

## 21.5 Scenario: The Energy Sector in a Life Economy

Models that inform future scenarios show that the current global sustainability challenges are interlinked (Steffen et al., 2018). Halting the emerging ‘Hothouse Earth’ (ibid.) trajectories therefore requires evenly complex and interlinked strategies. Today and in future, the energy sector is an essential part of the functioning of societies. Only the recent years have awakened not only activists and NGOs, but many politicians as well as company owners or shareholders, to the immensity and the urgency of the challenges to reduce carbon emissions, if not capture carbon. The climate crisis calls for net-zero emissions in a relatively short period of time. Ignored for a long time, this now moves into the centre of attention of many political actors (IAE 2021, Gielen et al., 2019). However, the transformation of the global energy sector is mainly perceived as a technological challenge which a mix between state interventions and markets can solve. Yet, *what would it mean to apply the guiding principles of life economies for the energy sector?*

The guiding principles of *regeneration and circularity* seem to be self-evident in the transformation towards renewable energy sources. However, the entire production cycles need to be looked at regarding circularity of materials. The natural resources that are required for the current technological status are far from this goal; particularly in the mobility sector, the resource requirements, if they remain unchanged, will continue the trajectory of resource depletion, landscape degradation, and human rights violations (Lee & Clark, 2018). This means that *innovation and adaptability*, more specifically public and private funding support for innovative technology development for the circularity of materials and for the increase in energy efficiency, will become a cornerstone of success. The last 20 years have shown that without strong guiding policy interventions and decisive decisions, transformations in the energy sector fall short of their potential or have even slowed down (Nair, 2018). Hence, *regulations* in the sense of clear targets that go far beyond the Paris agreement are crucially important. But regulations include more than goals: they require the translation of targets into regulatory administrative procedures at all levels of society and for all societal sectors. This will meet resistance, from market actors, politicians who want to be re-elected, and citizens who need to change behaviour. Hence, only a strong awakened wish of all actors, individually and institutionally, to make their *contribution* to a renewable, carbon-neutral future would pave the way. Stories about future possibilities are inspiring drivers for transformative change, but net-zero pathways are not inspiring—neither for people who either have no or unstable access to energy nor for those privileged who feel entitled to have stable energy access and assume this will not change, no matter how they act. Technologically solving the climate crisis without addressing power concentrations and unequal access to energy worldwide will inevitably lead to additional challenges. Three sets of guiding principles would address this, if they became part of the foundation for the transformations.

*Firstly, transparency and accountability* would mean that the information about the need for transformations is more clearly disseminated. Moreover, progress and the contribution of all actors towards net-zero pathways would be openly reported against set targets, and choices to contribute would be transparently available to all—including citizens.

*Secondly*, support for net-zero pathways would open up, if goals included massive changes in the way energy is distributed. Hence, as guiding principles, only *participation and distribution* would engender true transformations that would provide energy access for all across the world in privileged as well as marginalized areas (which would massively reduce their marginalization). Again, these principles would only work in conjunction with *regeneration and circularity*—hence, if what should work for privileged areas should also work for today's marginalized areas, the *circularity* principle becomes even more important. Here, *life economies* would require leapfrogging technologies. The future calls for decentralized energy production, funding support for reshaping ownership of energy systems, and publicly subsidizing innovative technologies for renewables that do not exploit natural resources.

*Thirdly*, the transformation would inevitably require *regionalization and contextuality*. Without weakening the importance of global agreements and global technology exchange, energy access for all requires finding adjusted versions of a renewable

energy production mix that meets the criteria of all other guiding principles. In most countries, energy is a monopolized sector with publicly or privately owned companies that have a strong interest to perpetuate their existence, power, and profits. For example, the route to decentralization and access for all through community-owned energy systems is, despite the fact that they may enormously contribute to community resilience and political stability, riddled with fierce obstacles. Even in countries, where decentralized renewable energy production is supported by government policies or subsidies, they tend to get integrated into the existing power structures of large companies. Access to renewable energy for all is confronted with a multifaceted arrangement of structures that are hardly conducive for transformations. The conclusion is clear: creating a transformed energy sector with *all* guiding principles as guiding criteria would be exemplary for the new operating system of *life economies*.

Today, a true transformation of the energy sector is confronted with a multifaceted arrangement of structures that are hardly conducive for the wholeness of changes that need happening: yet, all elements of the mutually supportive guiding principles are already existing—in pioneering government regulations, community-owned energy plants and knowledge about circularity. How then to strategize transformations?

## 21.6 Stewarding Economic System Change

The guiding principles for economies in service of life show that attempts to establish such economies already exist, but need to be amplified and accelerated. Moreover, they need to be connected in intelligent ways and linked to the underlying new narrative of life enhancement. Whether climate change and the planetary emergency situations have taken us towards near collapse, or whether the patchwork of promising shifts will move us towards a positive tipping point of transformative change, cannot be answered at this point. What is undeniably clear is that power concentrations including economic power, without checks and balances, have a life-deteriorating effect and hence do not serve *life economies*. They undermine almost all of the above-mentioned principles. Refocusing economic narratives towards life enhancement suggests a fundamental reorientation towards addressing power imbalances. In addition, the potential for a different future may be growing right there at the edges of the current system, where the most marginalized people live. Truly focusing on *life* may reach actors of the global society for whom issues like climate change and planetary emergencies have no meaning, because they struggle with much more apparent problems.

The question arises, what accelerates the emerging shift towards developing *life economies*, and how could actors collaborate and strategize such transformative change, in different places in the world, locally as well as globally? How could the loosely connected actors become part of a larger transformation system? The essentially nonlinear, relational, and mutually supportive *system aliveness* principles that underpin the guiding principles of *life economies* need to also find their

way into the linear planning modalities required by today's institutions. Too few theories, approaches, tools, methodologies, and frameworks enable actors to look at the patterns of interaction between people, strategies, interventions, or metrics that underlie complex systemic challenges and to see how these patterns enhance the quality of aliveness in living systems (or diminish it) (Donges et al., 2017; Kuenkel, 2019). A fundamental insight from the leadership of change guides the way: successful change endeavours mirror the way the envisioned future should operate. In other words, every step in the *collective stewardship* of transformations is a laboratory for living the future. Hence, even though transforming the economic systems will be hard work, meet resistance, and inevitably face challenges and setbacks, the systems aliveness principles need to not only inform the way future economies are organized, but also give rise to strategy elements in economic systems change. This opens pathways to both radical and incremental transformations and bridges the gap between the old, more mechanistic, and linear thinking in current strategy development and the new nonlinear complex adaptive thinking that is emerging rapidly, on which the generic aliveness principles are built. In order to understand the relevance of a patterned approach to strategizing transformative change, it is important to look at drivers of transformations and how they can become pathways for systems change, if connected with each other. An analysis of research conversations with 50 interview partners internationally active in sustainability transformations across private sector, public sector, and civil society showed that what was seen as crucially important for systems change could be clustered around six strategic drivers of transformations and linked to the generic aliveness principles (Kuenkel, 2019). Connecting these drivers leads to complementary implementation of transformative efforts and to an increased impact that isolated activities would not have. Strategically used, these six drivers—*narratives, structures, innovation, metrics, governance, and regulations*—serve as patterned meta-structure to find the combination or rather constellation of strategic actions that move transformations forward. Behind these six drivers are six questions that guide strategic choices:

- **Narratives:** What is the story that underpins the transformative change?
- **Structures:** How do we organize collective stewardship of change?
- **Innovation:** How do we guide innovations towards regenerative futures?
- **Metrics:** How do we measure progress?
- **Governance:** How do we learn collectively and negotiate differences?
- **Regulations:** How do we safeguard social and ecological life-support systems?

These drivers inspire transformative change interventions around a certain issue, such as above example of energy transformation, or other issues such as transformation of food systems or biodiversity restoration; they can also inform strategic transformations in certain geographical areas across different issues. They serve as quality check and planning methodology for designing transformative change interventions. Most often, depending on the issue, one of the dimensions functions as an entry point for driving transformations. Figure 21.3 shows the strategic drivers in relation to the aliveness principles. This approach acknowledges current capacities and already existing pathways, while ensuring that strategic planning is not merely



**Fig. 21.3** Strategic drivers of transformations (copyright by the author)

reinforcing the known approaches of the status quo, but contributing to a deeper transformation of our socio-economic value systems, institutions, and structures. The six strategic drivers are described in more detail below and illustrated with the above example: the stewardship of the transformation of the energy sector.

### **21.6.1 Strategic Driver 1: Enlivening Narratives**

*Narratives* are stories that are told about how the world works and how people should act economically. They set norms and anchor values. It is clear that the deeply ingrained narratives of the neoliberal economic paradigm of individualism, competition, and the primacy of the market have caused distorted and unhealthy growth patterns. This accelerated the centuries-long emergence of sustainability challenges,

and it also endangers current transformative efforts, as long-standing global and local power structures and the structural path dependencies of our current economic system are severe barriers to change. But narratives are already beginning to change. There is the necessity to further strengthen new mental models, mindsets, and stories of how our planet works as an interconnected life-support system. Only narratives that reconcile the human presence with nature, the commons, and the dignity of all people will help create *life economies* (Akerlof & Shiller, 2010; Ostrom, 2009). This includes a new understanding of conditions for wellbeing, of the importance of social equity, and of the responsibility for future generations. Narratives need to offer future possibilities combining societal vitality with economic prospects. The key question for transformative change is how to embed them in systems, structures, and institutions at all levels and all sectors.

### ***21.6.2 Strategic Driver 2: Enabling Structures***

*Structures* influence both thinking and behaviour, and if they remain unchanged, reinforce the status quo. Political structures, institutional structures, and societal structures (including power structures) can prevent or enhance transformations. The role of *enabling structures* in transformations to *life economies* is therefore to amplify those human interaction systems (institutions, organizations, partnerships, procedures and networks, etc.) that are future-oriented in the sense of wellbeing on a healthy planet. These can, for example, manifest as redefined purposes and procedures within companies or organizations that are centred around life-enhancing action; it can be fundamentally changed ownership models of companies (worker owned and cooperatives) or creating an enabling environment for purpose-driven non-profit companies (Hinton, 2021; Kelly, 2012). But structures have manifold purposes in transformative change. The increasingly emerging global and local networks, despite their loose organizations, are incubators for new structures. Networks of actors across different sectors (societal sectors such as public sector, private sector, civil society) or industry sectors (such as all actors in a value chain, all companies in an industry sector, or different industries) model new economic approaches or at least ensure sustainable actions within the existing economic parameters. Moreover, meta-structures become increasingly important in transformative change: these can be stewarding entities as partnerships between different societal or global actors, or formalized bodies that complement existing structures in order to ensure certain aspects of transformations to *life economies*. Such entities can engender care for common resources such as citizen-owned renewable energy initiatives; collaborative management of water resources; or community-owned forests.

### ***21.6.3 Strategic Driver 3: Life-Enhancing Innovation***

Innovation is a key driver for shifting the economic system, particularly, as the focus on life opens up entirely new perspectives for technological and social innovations. For innovation to be conducive to the underlying purpose of life enhancement, strategic guidance is required. This is not about confining inventiveness, but setting the right parameters, and asking the question: how can technological, social, digital, and scientific innovation strengthen life-enhancing economic action? Moreover, when innovation turns into collective design and integrates collaboration and input from various stakeholders, it moves from isolated improvement or brilliant inventions into a service to humankind. As it was in the past, the role of public funding is crucially important (Mazzucato, 2021) here. It cannot prescribe inventions, but set the guiding frame through research support, incentives, and awards, and thus encourage private sector actors to do the same within their firms or industrial sectors. Offering innovation support is not about steering outcomes, but stewarding inventiveness towards a maximum degree of proactive creativity and self-organization while using a living systems perspective as a guardrail. Providing spaces for creative invention is as important as discovering emergent opportunities and nurturing emerging potential. Technical and social solutions that intend to strengthen *life economies* will inevitably turn into new challenges. This is why innovation needs to be contextualized, anchored in continual knowledge exchange, and integrate informal, indigenous, and traditional knowledge systems (Fazey et al., 2020).

### ***21.6.4 Strategic Driver 4: Empowering Metrics***

The current criteria for measuring progress do not reflect wellbeing on a healthy planet. At the heart of metrics is the question about what societies value (e.g. the growth paradigm), how much it gets valued (e.g. the balance between natural resources, societal care, and quarterly financial growth), and how human presence can live in harmony with nature. Metrics play a central role in creating awareness of future pathways, as well as the progress we make in reaching them, be that on a local or global level, because what gets measured gets improved. Metrics for future economies cannot escape the complexity of life: they need to integrate a variety of measurement approaches to change, as well as both quantitative and qualitative indicators in order to respond to the differences in what works for whom and for what purpose. This can range from policy development and national budget plans to business restructuration incentive, from cultural shifts in different fractals such as municipalities to global companies, from individual consumer behaviour to the culture of people and nature as ecosystem services. Metrics need to measure threats as well as progress towards wellbeing on a healthy planet (Costanza et al., 2014; Hezri & Dovers, 2006; Hoekstra, 2019; Rametsteiner et al., 2011). The transparency

they create encourages reporting and disclosure mechanism that complement pathways to economies in the service of life. It is important who measures what, how different metrics are balanced off against each other, and how these feed into the accountability of progress towards *life economies*. The key question to ask is how societal progress, economic results, and healthy ecological life-support systems can be measured in conjunction.

### ***21.6.5 Strategic Driver 5: Multi-level Governance***

The concept of governance is complementary to the role of governments. It refers to multiple ways of collectively stewarding societies, commons, or communities in collaboration with different stakeholders in order to solve problems that are of collective nature. The participation of various societal groups in policy development and decision-making is important for addressing complex societal or global challenges. For economics, the role of governance is rarely seen as relevant, except for recent approaches to the governance of global value chains (Gereffi et al., 2005) or multi-level governance of certain economic sectors (Mayntz, 2007) or regions (Loorbach et al., 2016). However, the role of multi-level (multi-issue and multi-stakeholder) governance in *life economies* would be to ensure inclusion, power distribution, acknowledgement of diversity, collective learning, and a continuous discourse on the purpose of economic action. Historically, governance mechanisms have always existed as a pathway to human wellbeing, as checks and balances for ruling powers, and as a way to arrive at solutions in a negotiated balance between the interests of the individual and the interests of the whole. In recent years, multiple networked forms of governance have emerged around attempts to better manage the global commons—from global networks and alliances to local communities. Governance mechanisms create linkages between multiple actors and multiple scales while integrating differences in perspective, expertise, power, and experiences. The key question to ask is how to co-construct participatory stewarding mechanisms that ensure the life-supporting impact of economic and social activities?

### ***21.6.6 Strategic Driver 6: Guiding Regulations***

Safeguarding the commons for human and planetary health is crucial for our future. The role of guiding regulations as well as resource allocations (e.g. wellbeing budgets, taxing resource usage, regenerative investments) is to safeguard life's integrity at all levels, for people and planet (Boin et al., 2021; Bollier & Helfrich, 2012; Mazzucato, 2021). The adverse impact of humankind on the bio- and geosphere needs to be limited and managed through binding laws and voluntary agreements which come with provisions for sanctions. Laws, regulations, tax incentives, and deliberate resource allocation for the redistribution of wealth are interventions that accelerate

behavioural change. Economic transformations require government decision to guide economic actions and create a level playing field for the private sector and citizens to act in a future-oriented way. But also, voluntary agreements play an important role, if they involve for example voluntary standards for private sector actors, such as agreed-upon value chain sustainability, sourcing principles, or ecologically friendly production. Advocacy organizations play an essential role in preparing the ground for regulatory frameworks. But both binding regulations and voluntary standards only create an effect, when they are anchored in political and institutional structures. This is evident in how international conventions such as the Paris Agreement or the biodiversity convention get translated into administrative procedures; how establishing ecocide as a crime against humanity could create a new level playing field for companies; or how redistributive policy strategies such as Universal Basic Income would change societal structures. In addition, *life economies* require a new definition of what global and societal commons are and how to safeguard and maintain them. Societal actors need to show their accountability to the vitality of systems that affect not only the individual, but all. This refers to global commons such as air quality or climate stability, but it can also refer to commons, which today are partly privatized, such as water or land. Even health, as the COVID-19 pandemic has shown, is not just an individual phenomenon, but a collective one. The question that will inevitably have both global and locally contextualized answers is which regulatory frameworks, voluntary standards, and guided resource allocations safeguard social and environmental life-support systems.

## 21.7 Scenario: Stewarding Transformations in the Energy Sector

The composition of strategic drivers for energy transformations must be different depending on the context, the existing technological advancement or lack thereof, and the infrastructure for energy systems. It will necessarily also be different depending on the role of the state, its strength to achieve radical transformative decisions, its degree of good governance, and the entrustment by citizens to take the lead in transforming the energy sector. Last but not least, it will depend on the capability of private sector actors to co-drive implementation together with public sector and on the capability and willingness of energy monopolies to dismantle or change their business model. But across all the different contexts, the six drivers are crucially important in their togetherness. While the role of strong states is indispensable in the transformation of the global energy sector and a political commitment to carbon-neutrality a prerequisite, none of the drivers can be neglected, even though the entry points may be different. In technological advanced countries with strong states, *guiding regulations* following carbon-neutrality goals will surely be the strategic entry points, but they need to be complemented by support for *life-enhancing innovation* and *enlivening*

*narratives* that inspire all societal actors to contribute. This only works for citizens, if there are changes in power structures on the horizon; hence, the support for community-owned, decentralized, and contextualized energy production as part of a strategy of *enabling structures* is a cornerstone of success. This inevitably includes *multi-level governance* of energy production systems, embedded in national policies. If this aspect is neglected, it will slow down the transition (Braunreiter et al., 2021). Any transformation strategy needs to be underpinned by developing *empowering metrics* that go beyond the overall goal of carbon-neutrality, but help all actors see in their own areas how they can track progress. In a technologically less advanced country or one with a weak state, the entry point will certainly be different. Supported decentralized self-organization of locally adapted energy production (*life-enhancing innovation*) combined with *enlivening narratives* of economic potential as a result of access to energy will more likely be the entry points.

## 21.8 Conclusions

The basic commonalities of new economic approaches are remarkable, even if differently described and illustrated with different principles. However, the protagonists hardly refer to each other and many concepts are disseminated in competition with each other. This raises the question of why the much-needed restructuring of a globally destructive economic system is not being pursued more jointly. It is important to recognize that individual actors alone are not capable of overcoming the complex challenges. Working together rather than in competition, even while respecting the diversity of individual approaches, would make the drivers for radical transformation towards a new economic architecture more effective. It is becoming apparent that a connection between future thinkers and practitioners, between climate activists and economists, requires an innovative form of *collective stewardship* in cross-institutional network that advance transformations in practice. The guiding principles for *life economies* which have been described above may not be entirely new and to a certain extent simply an advancement of many already existing transformative initiatives. However, this is the crucial aspect—the elements of the patchwork already exist, but they need to be knitted together in a new and more conscious way. The guiding principles require implementation *together*. The strategic drivers help actors to engender these principles—step by step, issue by issue, region by region. As mutually supportive aspects of an overall strategy, they inspire the design of exactly these collaborative strategies by different actors that need to work together more deliberately in a transformation system. They do not prescribe specific actions, but guide actors to adopt and connect measures and actions that, in the end, connect the many small steps towards establishing *life economies*. This increases the likelihood of real change happening. Fath et al. (2019) summarize both the challenges and the potential:

‘Human learning too is never done. Despite humanity’s adaptive talents, every pattern of civilization eventually reaches limits that force a choice: cling to old ways and decline or innovate and transform. Today’s most crucial innovation may well involve learning to live and flourish within the limits [64]’.

## References

- Akerlof, G. A., & Shiller, R. J. (2010). *Animal spirits: How human psychology drives the economy, and why it matters for global capitalism*. University Press.
- Alexander C. (2005). *The nature of order. An essay on the art of building and the nature of the universe*. Book III-A Vision of a Living World. The Center for Environmental Structure.
- Bergsteiner, H., & Dharmapiya, P. (2016) The sufficiency economy philosophy process. In G.C. Avery, & Bergsteiner H. (Eds.). *Sufficiency thinking. Thailand’s gift to an unsustainable world*. Allen and Unwin, Sydney, Australia.
- Boin, A., Fahy, L. A., & ‘T Hart, P. (Eds). (2021). *Guardians of public value. How public organisations become and remain institutions*. Palgrave Macmillan. Open access. <https://doi.org/10.1007/978-3-030-51701-4>
- Bollier, D., & Helfrich, S. (2012). *The wealth of the commons: A world beyond market and state*. Leveillers Press.
- Braunreiter, L., Beek, L., Hajer, M., & van Vuuren, D. (2021). Transformative pathways—Using integrated assessment models more effectively to open up plausible and desirable low-carbon futures. *Energy Research & Social Science*, 80, 2214–6296. ISSN 102220. <https://doi.org/10.1016/j.erss.2021.102220>
- Cornell, S. (2012). On the system properties of the planetary boundaries. *Ecology and Society*, 17(1), r2.
- Costanza, R., Kubiszewski, I., Giovannini, E., Lovins, H., McGlade, J., Pickett, K. E., & Wilkinson, R. (2014). Development: Time to leave GDP behind. *Nature*, 505(7483), 283–285. <https://doi.org/10.1038/505283a>
- Donges, J. F., Winkelmann, R., Lucht, W., Cornell, S. E., Dyke, J. G., Rockström, J., Heitzig, J., & Schellnhuber, H. J. (2017). Closing the loop: Reconnecting human dynamics to Earth System science. *The Anthropocene Review*, 4(2), 151–157.
- Ellen MacArthur Foundation. (2013). *Towards the Circular Economy*. Ellen Macarthur Foundation, Isle of White, UK.
- Fath, B. D., Fiscus, D. A., Goerner, S. J., Berea, A., & Ulanowicz, R. E. (2019). Measuring regenerative economics: The principles and measures undergirding systemic economic health. *Global Transitions 1*, 15–27
- Fazey, I., Schäpke, N., & Caniglia, G., et al. (2020) Transforming knowledge systems for life on Earth: Visions of future systems and how to get there. *Energy Research & Social Science*, 70, 101724
- Felber, C. (2018). *Gemeinwohl-Ökonomie*. Piper.
- Fioramonti, L. (2017) *Wellbeing economy: Success in a world without growth*. Palgrave Macmillan Publishers, Johannesburg.
- Folbre, N.(1995). Holding hands at midnight: The paradox of caring labor. *Feminist Economics* Taylor & Francis Journals, vol. 1(1), pages 73–92, 1995.
- Fullerton, J. (2015). *Regenerative capitalism: How universal principles and patterns will shape our new economy*. Greenwich, CT: Capital Institute. Posted at: <http://capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf>.
- Future Fit Foundation. (2019). Future-fit business benchmark. Methodology guide. Retrieved 4 June 2021 from <https://futurefitbusiness.org/benchmark-documents/>

- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104.
- Gielen, D., Boshell, F., Saygin, D., Bazilian, M. D., Wagner, N., & Gorini, R. (2019). The role of renewable energy in the global energy transformation. *Energy Strategy Reviews*, 24, 38–50.
- Göpel, M. (2016). *The great mindshift*. Springer International.
- Hezri, A. A., & Dovers, S. R. (2006). Sustainability indicators, policy and governance: Issues for ecological economics. *Ecological Economics*, 60(1), 86–99.
- Hinton, J. (2021). Five key dimensions of post-growth business: Putting the pieces together. *Futures* 131, 102761.
- Hoekstra, R. (2019). *Replacing GDP by 2030: Towards a common language for the well-being and sustainability community*. Cambridge University Press.
- International Energy Agency (IEA). (2021). Net Zero by 2050. A Roadmap for the Global Energy Sector. Retrieved 4 June 2021 from, <https://www.iea.org/reports/net-zero-by-2050>
- Jackson, T. (2016). Prosperity without growth. In: *Foundations for the economy of tomorrow*. Routledge.
- Jacobs, J. (2002). *The nature of economies*. Vintage.
- Jacobsen, J.P. (2020) Advanced Introduction to Feminist Economics. *Elgar Advanced Introductions series*, Hobart and William Smith Colleges, US.
- Jørgensen, S. E., Fath, B. D., Nielsen, S. N., Pulselli, F., Fiscus, D., & Bastianoni, S. (2015). *Flourishing within Limits to Growth: Following Nature's Way*. Earthscan Publisher.
- Kelly, M. (2012). *Owning Our Future: The Emerging Ownership Revolution*. Berrett-Koehler Publishers.
- Korten, D. C. (2015). *Change the story, change the future: A living economy for a living earth*. Oakland, California: Berrett-Koehler Publishers.
- Kuenkel, P. (2019). *Stewarding sustainability transformations: An emerging theory and practice of SDG implementation*. Springer.
- Kuenkel, P. & Waddock, S. (2019). Stewarding Aliveness in a Troubled Earth System. *Cadmus Journal*, Volume 4. Issue 1. October, 2019. Online available: <http://cadmusjournal.org/article/volume-4/issue-1/stewarding-aliveness-troubled-earth-system>
- Leading4Wellbeing. (2017). *Meadows memorandum: A new economic model for a finer future*. Retrieved from <http://leading4wellbeing.org/wp-content/uploads/2017/05/Meadows-Memorandum-with-Cover-V8.1.pdf>
- Lee, H. & Clark, A. (2018). *Charging the Future: Challenges and Opportunities for Electric Vehicle Adoption*. Harvard Kennedy School. Faculty Research Working Paper Series. RWP18–026
- Loorbach, D., Wittmayer, J. M., Shiroyama H., Fujino J., & Mizuguchi, S. (Eds). (2016). *Governance of Urban Sustainability Transitions. European and Asian Experiences* Springer.
- Lovins H. L., Wallis S., Wijkman A., & Fullerton J. (2018). *A Finer Future. Creating an Economy in Service to Life*. New Society Publishers, Gabriola Island, British Columbia, Canada.
- Magnuson J. (2007). *Mindful economics. How the U.S. economy works, why it matters, and how it could be different*. Seven Stories Press.
- Mazzucato, M. (2021). *Mission economy: A moonshot guide to changing capitalism*. Allen Lane.
- Mayntz, R. (2007). The architecture of multi-level governance of economic sectors. *Max-Planck-Institute discussion paper 7/13*, Cologne.
- Nair, C. (2018). *The Sustainable State: The Future of Government, Economy, and Society*. Berrett-Koehler.
- Organisation for Economic Co-operation and Development. (2013). *OECD guidelines on measuring subjective well-being*. OECD Publishing.
- O'Neill, D. W., Fanning, A. L., Lamb, W. F. et al. (2018) A good life for all within planetary boundaries. *Nature Sustainability*, 1(2), 88–95. ISSN 2398–9629. <https://doi.org/10.1038/s41893-018-0021-4>
- Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, 325, 419–422.

- Otto, I. M., Donges, J. M., Cremades, R., Bhowmik, A., Hewitt, R. J., Lucht, W., Rockström, J., Allerberger, F., McCaffrey, M., Doe, S. S. P., Lenferna, A., Morán, N., van Vuuren, D. P., & Schellnhuber, H. J. (2020). Social tipping dynamics for stabilizing Earth's climate by 2050. *Proceedings of the National Academy of Sciences*, 117(5), 2354–2365. <https://doi.org/10.1073/pnas.1900577117>
- Parker, J., & Ragnarsdottir, K. V. (2021). Criteria for an 'Economy in the Service of Life'. Draft working paper 36x36 transformation network.
- Rametsteiner, E., Püzl, H., Alkan-Olsson, J., & Frederiksen, P. (2011). Sustainability indicator development—science or political negotiation? *Ecological Indicators*, 11, 61–70.
- Raworth K. (2018). *Doughnut economics: Seven ways to think like a 21st-Century economist*. Random House Business Books, London, UK.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F., & Foley, J. A. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472–475.
- SITRA. (2016). *Leading the cycle Finnish road map to a circular economy 2016–2025*. The Finnish Innovation Fund, Sitra Studie 121. Retrieved from: <https://media.sitra.fi/2017/02/28142644/Selivityksia121.pdf>.
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., & Donges, J. F. et al. (2018). Trajectories of the earth system in the anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252–8259, <https://www.pnas.org/content/pnas/early/2018/08/07/1810141115.full.pdf>.
- Trebeck, K., & Williams, J. (2019). *The economics of arrival*. Policy Press, Bristol, UK.

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# Chapter 22

## Memories of Our Collective Future



**Ndidi Nnoli-Edozien**

**Abstract** This chapter explores the mindset humanity needs to develop in preparation for an emerging future, from an African perspective. The required human consciousness must be holistic and encompassing, bridging the gap between thought and action, linking the past to the present and the future, democratizing access to resources, eliminating waste and fostering regeneration. One opportunity in view is leveraging the power of emerging twenty-first-century technology, specifically blockchain-based decentralized financial (De-Fi) networks, because of their potential to build a global community where trust is once more a currency and where we can rely on humanity to do good for each other and for the planet. We need to design solutions and approaches that enable all persons, especially those marginalized in emerging economies, to find their voices and fulfil their aspirations. The author makes a strong case for combining past wisdom with contemporary know-how to create a new future that is more inclusive and equitable. Drawing on African traditional philosophy and practices, learning from Ubuntu and the Igbo people, she explores the balance between individual rights and communal values. The chapter also offers insights into the SevenPillars® framework that allows business interests, private and public, to thrive whilst safeguarding our natural ecosystem and upholding human dignity and equity.

**Keywords** Collective future · Emerging future · African perspective · Regeneration · Ubuntu · Blockchain · SevenPillars framework · 21st Century technology · Environment Social Governance (ESG)

### 22.1 Introduction

Our world is at a juncture, with some tough decisions before us and two clear directions emerging from a landscape of possibilities. On the one side, there is a broad, brightly lit, tarred road, packed with proverbial ‘fast cars’ whizzing by. This path

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N. Nnoli-Edozien (✉)  
Growing Businesses Foundation and Afrikairos GmbH, 160 Bamgbose Street, Lagos Island,  
Lagos, Nigeria  
e-mail: [Ndidi@afrikairos.com](mailto:Ndidi@afrikairos.com)

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offers us the road towards more ‘prosperous’ lifestyle ideals. A road leading to a convenient and modern highway, filled with the possibility of space travel and hovercrafts fuelled by non-fossil-fuels is enthralling, but I ask: how does the prevailing system of ‘more’ and ‘better’ impact the life and health of those living here on Earth, particularly for those who will not have access to such technologies for a long time coming, maybe never, that includes the rivers and trees that in some cultures are accorded legal personhood, with all attendant rights. That the first road will likely lead to negative fallouts might only be obvious to some; however, the sense of our being somewhat helplessly railroaded along, with limited means to change the prevailing system of fast growth, excessive consumption and waste at the expense of nature, is a perspective that is becoming more prevalent.

As an alternative, sourcing local ingredients for food and building roads from local, raw materials, and even re-purposed waste, can make such a difference when adopted by many, and when integrating human ‘progress’ and our planet’s protection become a way of life, a culture of thinking and doing. In advocating for more balance between people, planet and profit, it is, arguably, the smaller, day-to-day choices that will make a big difference. Looking down the other path, we see the surrounding flora and fauna flourish by the wayside of a cobbled road, underscoring hope and possibility for the inevitable restructuring that humanity has to make for society’s coexistence with nature. Looking down the other path, we see the surrounding flora and fauna flourish by the wayside of a cobbled road, underscoring hope and possibility for the inevitable restructuring that humanity has to make for society’s coexistence with nature. That said, idealizing the cobbled stone road, which might entail promoting earth architecture and the use of available local materials, might also sound counterintuitive and therefore never achieve popular acclaim.

So, here we are helplessly grappling with how to tackle the big issues of climate change, as we rise up to the challenge of fostering a just transition to a fossil-fuel-free planet, but the real conundrum we face today is that focusing on financial prosperity alone has created a hunger among billions of humans for lifestyles that we cannot sustain.

There is the need for collective accountability in creating a new future, and this is only possible if issues of economic access, equity, social justice, connection and belonging are addressed. Humanity needs to collaborate across race, gender, age, culture, polity, geographic location and inherent belief systems to protect and cohabit this planet. Africa has an important responsibility to positively contribute towards a change in the structure of how societies work.

## **22.2 The Transformative Potential of African Philosophies**

Clearly, human largesse has led the world down the more destructive path, and what is becoming clearer is that the world cannot continue in its current trajectory. The issue with wanting ‘more’ and ‘bette’ was first raised within my ecosystem and sphere of influence by the Club of Rome’s Limits to Growth Report published in the 1970s. This

report stated that the global ecosystem cannot support human demands beyond 2100 and urged for urgent interventions in five areas, namely population trends, sustainable agricultural production, natural resource management, industrialization and pollution (Meadows et al., 1972). In the 1990s, the Frankfurt-Hohenheim Guidelines—co-founded by my two PhD professors—were published as a corporate responsibility and ethical ratings framework, and deeply influenced sustainability studies, including my research on the topic (Oekom Research AG et al. 2003). There are even more such influencers today, and yet, in spite of our increasing awareness on many fronts, we remain far short of the practical solutions and collaborative actions needed to address the challenges at hand. Even though the severe consequences industrialization has had on the preservation of our natural ecosystem are hardly debated any longer, we are still caught by this conundrum.

In Africa, my home continent, which is widely acknowledged as the cradle of human ‘civilization’, it is particularly important to reconsider racing into future ideals, as prescribed by the norms and practices of other nations, which often do not align with the cultural, historical and societal complexities of African peoples. No continent or nation can afford to be a passive recipient and implementer of solutions birthed in other countries any longer. It does not work.

For many reasons, African nations have thus far borne the brunt of the disastrous impacts of the tarred road trajectory—from exploitative systems like colonialism, apartheid and neo-imperialism, irresponsible resource exploitation, attendant environmental degradation, desertification, loss of sustainable livelihoods, social injustice, economic depravity and the increasingly devastating effects of climate change. For our own survival, but also for that of the world, it is increasingly important that the dominant voices responsible for building the prevailing economic structures, which have proved unsustainable, are joined by voices that should long have had more of a say. We must ensure that the ancient wisdom and knowledge inherent in indigenous cultures and peoples are incorporated in upcoming global solutions, if only to create a more participatory approach to problem-solving, where everyone is accountable for co-creating a shared and common future (Everling, 2021). This is especially relevant for learning from cultures that have long depended on oral traditions to pass down wisdom and knowledge. What is not yet clear is how we will create this paradigm shift.

In searching for new solutions, this present generation seems more determined than ever to break away from the past, unfortunately creating a deeper wedge in an already fragmented global community. In my view, we must write more about, and also embrace more conscientiously, our responsibility to look backwards and learn from long-neglected indigenous know-how and cultural systems for what they could offer in terms of boldly advocating for a new collective future. Inclusion and diversity go beyond making a case for women and youth and promote the inclusion of marginalized cultural worldviews within policy-making. It is increasingly clear that there are benefits to reflecting upon centuries of cultural insights to recreate the future (Ike et al., 2001). Indeed, in Germany, my motherland, many miles from my fatherland, I discovered that balancing economic, environmental and social prosperity had long been contemplated by my Igbo ancestors, arguably one of the most

entrepreneurial cultures on the African continent. This is the ‘memory of our collective future’ which my research and subsequent years of work on the Seven Pillars methodology, which will be elaborated below, draws upon.

Among other requirements, the key elements of future natural resource management strategies need to become more circular, especially by emphasizing reuse, sharing, repairing, refurbishing, remanufacturing, relearning and recycling. This requires going beyond minimizing the use of natural capital to ensure outright elimination – not just mitigation – of waste, pollution and emissions *inter alia*. In this regard, we needed a paradigm shift that could transform hearts and minds, not just operations, processes and policies. As such, the traditional jurisprudence systems, as practised by the Igbo philosophy of ‘Omenala’<sup>1</sup> where human life and a healthy ecosystem existed in harmony, as well as kinship systems like ‘Umunne/a’<sup>2</sup>, offer an approach that can be reapplied to modern thinking, reasoning and solution-building to ensure equity, diversity and inclusion. In traditional Igbo culture, individual and communal welfare co-existed, and such cultural beliefs and systems will serve well, alongside many others, as a launchpad for restructuring the present approach to addressing our contemporary global issues (Edozien, 2007).

Stepping back in time, we can clearly see the inroads and leaps Africa has taken in the not-too-distant past to positively and collectively transform society and uplift humanity in an ecologically, economically *and* people-centred way. The first such recent revolution came with the telecommunications sector, when African nations successfully avoided the deployment of fixed line telephone systems infrastructure and went straight into mobile & wireless (broadband). In Nigeria, according to the Nigerian Communications Commission (NCC) this increased accessibility exponentially, from 400,000 landlines in four decades to 204 million mobile lines in less than two decades, including the base of the pyramid (Udubuwa, 2021). The second revolution we could refer to was in the banking and finance sector, where Africa leapfrogged the development of branch-banking into mobile [fintech], and is moving rapidly into 100% digital banking. The third revolution, going on quietly, is in the energy sector, where we have the opportunity to chart a path to renewable sources of energy that are not fossil-fuel-based. Like with telecommunications and fintech, Africa retains

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<sup>1</sup> ‘Omenala’ means ‘the law of the land’ and embodies the understanding of African communal values for the Igbo, which are very much aligned with the values of ‘Ubuntu.’ ‘Omenala’ offers an important principle and philosophy in understanding the interplay between community and individual; forces of nature and nurture; religion and business; the environment and humanity; and generally helps us better understand various factors and values that ensured sustainability and stakeholder participation among the traditional Igbo people. It continues to provide a valuable foundation for problem-solving today. In this context, ‘Omenala’ links the past, present and future in one continuum through the earth (Edozien, 2007).

<sup>2</sup> ‘Umunne’ and ‘Umunna’ literally means children [umu] of the same mother [nne] or the same father [nna], however in more generic terms refers to the kinship in communities and underscores the values of belonging and community, since the individual is only considered fully realized through his social relations. This involved the individual’s relationship with family, the wider community and nature (land, sky, forest, rivers, etc.). Much like with the Ubuntu philosophy, the principle of “I am because we are, and because we are therefore I am” applies (Edozien, 2007).

the option not to be powered by coal-fired power plants and has the opportunity to deploy geothermal, wind, solar and other more sustainable energy sources.

Now, Africa is at the brink of what could be termed its fourth revolution, as we improve the capacity of blockchain solutions to make smart contracts work. We have a new possibility to introduce and democratize the trust that enables financial intermediation, essentially introducing access to sustainable capital more equitably and supporting more sustainable livelihoods on the continent. This can ensure that rural communities have access to the resources they require to preserve their natural ecosystems and develop, with all the benefits that dignified living brings, self-sustaining and modern amenities. Blockchain-enabled technology could enable financial inclusion and personal fulfilment possibilities in entirely innovative ways and across every level of society, and indeed many such practical solutions are beginning to emerge.

It is not, therefore, so far-fetched to hope that Africa's role in inevitable world restructuring could be inspired by her wise, culturally rooted philosophies and best practices. The concept of 'Ubuntu' is one that has popularized the philosophy that promotes the importance of interdependence: 'I am because we are, and because we are, therefore I am', which is prevalent among the Igbo and so many African cultures (Edozien, 2007). The cultural rootedness of communal thinking in tandem with the pursuit of individual interest is embedded in cultural philosophies like 'Ubuntu'. So why not encourage equity and prosperity, inclusion and human dignity on the continent, and consequently for the world, through African philosophical thought and action? Why shouldn't we leverage alternative models in achieving digital and financial inclusion, economic security, personal fulfilment and social confidence, without as much ecological disruption? Surely, we can practice a more socially and economically just capitalism that considers natural capital and captures negative externalities as part of the cost of business?

I believe that we can facilitate a just transition by mining our deep cultural systems to extrapolate inclusive socio-economic policies, with better forms of production and resource extraction, more equitable distribution of resources, and responsible leadership that is more inclusive of the perspectives and needs of those people we seek to impact. While uplifting human dignity and sustaining the natural ecosystem might be at the core of many sustainability advocates, we need to be mindful, to choose the paths that lead towards creating a world in which people, culture, natural capital and responsible capitalism are better aligned. There will certainly be a need for a multiplicity of pathways to accommodate all stakeholders. The Seven Pillars Methodology supports businesses, which are key stakeholders and potential enablers of positive change, to develop a values-based approach to work that integrates cultural and ethical values, respecting individual and communal needs and interests.

### 22.2.1 The SevenPillars Methodology

The SevenPillars methodology is an adaptation of the Frankfurt-Hohenheim Guidelines, which has been acknowledged as the first criteriology for sustainable corporate ratings to be developed using scientific methods (Afrikairo, 2021). As an approach, the SevenPillars evolved further based on insights acquired from businesses at the base of the pyramid, through the work of the Growing Businesses Foundation in Nigeria. The SevenPillars concept was then successfully applied to Africa’s largest listed manufacturing business, with a market cap of \$9.1bn according to Forbes, supporting it to achieve award-winning results. Originally, the SevenPillars Methodology evolved out of research covering hundreds of businesses to test the traditional values and systems of business owners and managers vis a vis the society, environment and economy in a given community. The objective was to sustain financial performance, but not at the cost of community welfare, good governance, environmental impacts and other criteria included among prevailing Environment, Social and Governance (ESG) standards. At the heart of the SevenPillars® lies the cultural pillar, which requires any implementation, first and foremost, to be aligned with the best practices and ideals of prevailing norms, values and way of life.

The SevenPillars® fashioned its methodology, in part, from the African cultural system of the Igbo, building on the values and philosophies inherent in Igbo concepts of ‘Omenala’ and ‘Umunne/a’, which emphasize alignment of individual, community, nature, business interests. Figure 22.1 shows the seven pillars of this methodology.

- **The Cultural Sustainability Pillar** is at the core of the SevenPillars® model. It seeks to embody values, ethics and align sustainability thinking with doing at the heart of the organization. Celebrating the human person and their connection with the ecosystem is critical for this pillar, and this also means recognizing employees and institutionalizing local knowledge capital as a core asset of the business. This is achieved by creating a learning environment and collaborative platforms for employees to grow and achieve their fullest potential, embody core values of the

**Fig. 22.1** The SevenPillars® Methodology (Copyright by the author). The figure was designed as part of the SevenPillars® Handbook, to be published in 2022



business, adopt an inclusive approach to business including respect for cultural diversity and giving back to the society, within and beyond the workplace. This Pillar actively encourages and rewards engagement with the wider ecosystem and outside of core work responsibilities, which requires teamwork, learning and growth, volunteering, mentorship, inclusivity, respect, integrity, meritocracy and business ethics.

- **The Social Sustainability Pillar** recognizes the importance of strategic engagement with the host economy, specifically host communities, both as a corporate entity and through employee engagement, with a view to achieving social license to operate by enabling surrounding communities to grow and progress to their full potential in tandem with business profitability and growth. Businesses have an important role to play in bringing development, new business opportunities, skills, jobs, know-how, infrastructural development, resilience and prosperity through direct and indirect employment, skills transfer, local entrepreneurial development, job creation and prioritized patronage of local suppliers and contractors. Global best practices, which include appropriate technologies, educational, health and safety standards, are also extended beyond the workplace to the communities directly or indirectly through partnerships.
- **The Economic Sustainability Pillar** promotes inclusive, sustainable economic development of host countries and markets, strategically seeking - as a deliberate by-product of the business operations—to promote the economic growth, self-reliance, self-sufficiency and industrialization of the host economy. This pillar promotes an impact driven approach to business whereby long-term value is achieved by incorporating environmental and operational efficiency in the choice of production facilities, creating jobs and developing resilient local economies in strategic locations and key markets. Transparency and due diligence in the payment of taxes and fulfilling other statutory obligations also improves the economic robustness of the host country enhancing the economic prospects for business growth, mitigating country-level risk and promoting prosperity and local purchasing power. This pillar can also be developed as an important element of external reporting, especially with regard to the value and chain and supply chain of larger businesses.
- **The Environmental Sustainability Pillar** promotes the integration of sustainable environmental management practices into core business operations. This Pillar is critical to ensure a proactive approach in addressing the challenges and opportunities of environmental management, considering flora, fauna, water bodies and land as key stakeholders and ensuring business preparedness, early mitigation and mediation of risks such as climate change. Beyond taking account of and consciously minimizing negative externalities and risks, this pillar identifies and explores business opportunities and innovations that arise from consciously optimizing performance by managing energy efficiency, water usage, waste reduction, emissions, inter alia and seeks to embrace new technologies to reinvent business processes and ensure early adoption of circular and shared economy best practices for sustainable competitive advantage.

- **The Operational Sustainability Pillar** focuses on business process innovation and efficiencies by leveraging new technologies to achieve customer satisfaction and satisfy target markets through supply chain and value chain innovation. Beyond internal business process improvements to ensure customer satisfaction and operational efficiency, the pillar highlights collaboration with vendors, contractors and partners to deliver constantly improving value and service to customers and stakeholders through continuous product improvement, new business development, product innovation, with appropriate technologies and systems that constantly optimize cost efficiencies, whilst recording and actively minimizing negative externalities. This Pillar sits at the core of business operations to maintain and promote high operational standards that align with global best practices whether in occupational health and safety, to make the work environment and project sites safe for all stakeholders, or circular economy principles that incorporate new approaches to supply chain innovation whilst minimizing harm to the society, economy and environment.
- **The Financial Sustainability Pillar** seeks to achieve sustainable financial health by integrating financial and non-financial reporting, and curating a financially viable business model that delivers good and sustained returns to shareholders, whilst also creating value for stakeholders in the markets, economies and countries of operation. The integration and alignment of non-financial and financial outcomes and target-setting is central to this pillar, with the objective of creating sustained financial profitability for the business, whilst retaining social license to operate. This pillar needs to clearly articulate the balance sheet of every one of the seven pillars, and associated seven capitals, to creating linkages between them. This also results in accountability for negative externalities, ensuring mitigation against stranded assets and sustainability-related risks.
- **The Institutional Sustainability Pillar** is centred around the objective to build a world-class institution focusing on sustainability-related risk management, governance and compliance. This pillar embeds sustainability in governance best practices and underscores legal and regulatory compliance, accountability, transparency and business continuity as key business success levers. The focus on institutional sustainability also ensures that the vision, goals and objectives of the organisation are championed at the highest level of governance but also trickle down to the most subsidiary level of execution. This achieves solidarity across functions, and means that values and ethical norms of behaviour are adhered to; that best practices in sustainability, governance, risk management and compliance are truly operationalized and monitored across the business.

### 22.3 Closing the Sustainability Gap

In an article for the African Chapter of the Club of Rome, Preiser et al. (2020) buttress the fact that linking the past, present and future as a distinct element of sustainability is borrowed from the African value system. For instance, in the Igbo

traditional economy which revolves around family-owned businesses, it emerged that the rationale for economic decision-making often drew gravitas from 3 tiers of existence—the present living, the yet-unborn future and the past ancestors whose presence lives on through culture (Preister et al., 2020). This understanding is a cornerstone of the sustainability definition adopted by the SevenPillars approach, one that goes beyond considering the present and future generations to also incorporate the past inherent in cultural norms, values and the ethos of tradition. Additionally, there is often a disconnect between the ideals of individuals and the corporations in which they work, put more simply: a sustainability gap, which refers to the wide space that can exist between thought and action, strategy and execution.

The success in applying the SevenPillars® Methodology has mostly been attributed to its emphasis on bridging this sustainability gap, most importantly in linking thought to action, moving between ideals and their practical enactment, and also uniquely linking lessons of the past to the present and future. This thinking goes beyond just talking to lived practices, which we call culture or, in Igbo, ‘Omenala’. It shows that digging deep into past practices can promote solutions for the future. For instance, in the preparation of foods, such as moin-moin and ofada rice, some Nigerian catering businesses have returned to the practice of using organic packaging, thereby reducing plastic consumption by creatively and beautifully serving delicacies in banana leaves at important functions and events. Similarly, the use of natural earth and reuse of materials that might have become waste is now increasingly in use as building material or to create art.

There are several more practices upheld in the past which are a source of immense insight for the future. Take the notion of preserving certain parts of the forest as sacred by the Igbo, which, in the past, ensured that no human was to interfere with the space where nature was allowed to reign supreme. This allowed for balance and mutual respect between nature and the community. This regard for the earth is also seen in farming practices where farmlands were left fallow for years, the outcome of which was for the soil to recover and regain its spent fertility. The Igbo tradition built on the sanctity of flora and fauna in occurrence naturally and locally—with specific rules on the percentages of crop harvested that was to be replanted—all of which ensured a certain economic circularity embedded in the traditions, norms and culture of the people and the agronomy, sustained by the earth and the humans in the area.

In terms of social equity, traditional governance structures, like the ‘umuada’<sup>3</sup>, ‘umunne’ and ‘umunna’, ensured that all persons had representation and were guaranteed rights to a fair hearing. Traditional governing structures also maintained a balance between private interest, enterprise and the communal good, and land (a primary asset highly regarded as part of nature) was held in trust, not ever owned absolutely by any individual. This communal ownership style encouraged individual enterprise but also respected the long-term interests of the community. In communities where these traditional practices thrived, there was a strong corporate social responsibility where the most enterprising individuals collectively provided enough

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<sup>3</sup> The ‘umuada’ is another kinship classification within the traditional Igbo culture that promotes a sense of belonging (Edozien, 2007)

for all to survive. Thus, those who were in need ‘had a right to harvest leftovers from farmlands after the rightful “owner” had taken all they wanted’ (Preiser et al., 2020; Edozien, 2007). In implementing concepts like social equity within contemporary corporations, the Cultural Pillar of the SevenPillars Methodology focuses on the relevance of local cultures and existing practices and the importance of the past for navigating the present and future.

For businesses, the overall idea behind the SevenPillars® methodology, to put it another way, is that sustainability means leaning on the wisdom of all generations, to manage the present and safeguard the future. This means developing sustainability consciousness and, in more practical terms, managing Environment, Social and Governance (ESG) risk. It is our responsibility to ensure we have food, water and sustainable livelihoods for future generations. This means we must address the present conflict between people, planet and profit.

There is an urgent need for a switch from the linear to a more circular economy, similar to what used to be the norm in African traditional societies. Figure 22.2 shows the *sustainability gap* that transformative strategies need to bridge. We also need to shift from ticking boxes for reports to responsible and conscious decision-making in the realm of finance, production and consumption inter alia. For example, responsible finance for circular economy initiatives should not just tick the box stating their support of recycled waste streams but, in addition or instead, finance business strategies that eliminate and mitigate negative environmental impact and divert operations from the use of virgin materials, which could be replaced with recycled and reusable materials.

The *sustainability gap* is a problem that has arisen in the course of my work, most specifically during my tenure as an associate with the University of Edinburgh,

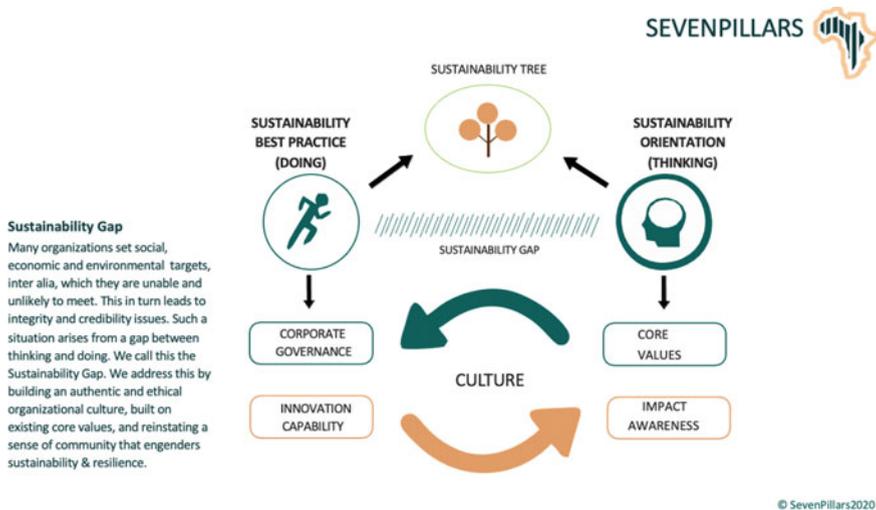


Fig. 22.2 The sustainability gap (copyright by the author)

working in collaboration with Professor Kenneth Amaeshi and as Chief Sustainability & Governance Officer for Africa's largest commercial enterprise. A large problem with the gap between thought and action is that, even when organizations become aware, and, in theory, acquiesce to the necessity of the Seven Pillars sustainability concept, they might still be unwilling to do the work of moving the theoretical to the practical or moving from thought to action. Many organizations set social, economic and environmental targets, inter alia, which they are unable and unlikely to meet, because it is what is demanded from external stakeholders rather than what the employees and company leaders set out to achieve. Without the proper follow-through, this leads to integrity and credibility issues.

The Seven Pillars® help to bridge the *sustainability gap*, and, in my experience, they work for large corporations, but also for small businesses. This has been evidenced in my work at Dangote and with the Growing Businesses Foundation (GBF) (Dangote Sustainability Report, 2018).<sup>4</sup> While at GBF, we invented the term 'Corporate Response-ability and Sustain-ability' in 2007 to emphasize that community-centred sustainable thinking in action should be core to business strategic thinking. This was also to re-emphasize that the holistic nature of 'African Cosmology' successfully applied to capitalism can produce positive outcomes for all, including businesses, without sacrificing the society, environment or the commons.

Based on my learnings from the work of the Growing Businesses Foundation over the past 21 years and the 30-year life span of the Frankfurt-Hohenheim Guidelines, which together support the foundations of the Seven Pillars®, and I believe businesses have perhaps the most important role to play in saving the planet and humanity, I believe it is possible to galvanize organizations into closing the *sustainability gap* and thus ensuring that businesses, micro, small, medium and large play their part in achieving global and local sustainability principles and outcomes. The Seven Pillars® Methodology is deliberately designed for businesses, as an impactful change management framework to underpin their transformative literacy process.

## 22.4 Conclusion: A Contribution to Transformative Literacy

The prevailing system of 'modern civilizations', analogous to the tarred road trajectory, is not sustainable; its gains have been achieved for the few to the detriment of the many, depleting earth's resources and jeopardizing the survival of future generations. Africa needs to step into her significant role in re-fashioning the operating systems of the world, not just for her own sake but for the global community at large. The required human consciousness, and inevitable change towards it, must be holistic and encompassing, bridging the gap between thought and action, linking the

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<sup>4</sup> GBF is a non-profit organization combating poverty by enabling enterprises amongst the poorest people in Nigeria. For more information, see <https://gbfng.org>, accessed on 30th June 2021

past to the present and the future, democratizing access, in moderation, to resources, eliminating waste and fostering regeneration.

This kind of all-encompassing worldview, where the sacred and the secular, the spiritual and the material intertwine seamlessly, is inherent across most African cultures and traditional systems. What African nations need to do, therefore, is to mine their cultural heritage and, with minor modifications, extrapolate them for both local and global transformation. The rethinking required for this holistic change has already begun, by emphasizing sustainability and circularity. The Seven Pillars® framework is one tool that has been successfully deployed in Africa's leading commercial enterprise and bridges the gap between corporations and the base of the pyramid, as manifested in the work of GBF, which now spans 21 years.

Throughout these years, I have witnessed leaders and institutional actors successfully embrace ideals inherent in African cultures; and I am confident that Africa, indeed the world, will benefit from incorporating more diverse perspectives in global policy-making. We are in a new era, wherein human activity is being incentivized to be conducted with more regard for nature and equity. However, the emerging future will only be transformative for humankind and our planet when individuals, community and business leaders around the world find the courage to combine our diverse collective memories of a sustainable future. I believe we have a great opportunity to leverage technology, draw upon our extensive and diverse knowledge base across the world's rich heritage of cultures and refashion our future.

## References

- Afrikairos. (2021). Sustainable Investment—The scientific foundation behind the ESG ratings. <https://afrikairos.com/sustainable-investment-the-scientific-foundation-behind-the-esg-ratings/>
- Dangote Sustainability Report. (2018). <https://www.dangote.com/sustainability/>
- Edozien, N. N. (2007). *The ownership and management structures in the economy: African traditional values applied to modern issues of sustainability and the corporate governance function*. CIDJAP Printing Press
- Everling, O. (2021). *Afrikairos nachhaltige Verbindungen*. Den Nutzen von Ratings erschließen. <http://www.everling.de/afrikairos-nachhaltige-verbindungen/> Retrieved 15 Apr 2021
- Ike, O. F., & Edozien, N. N. (2001). Africa in the Age of Globalization: The Challenges of Cultural Identity in an Independent World. L. A. Reisch (Author), *Ethical-Ecological Investment: Towards Global Sustainable Development*. Frankfurt am Main - London: IKO - Verlag für Interkulturelle Kommunikation (Holger Ehling Publishing).
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. (1972). *The Limits to growth: A report for the Club of Rome's project on the predicament of mankind Universe*.
- Oekom Research AG. & Project Group Ethical-ecological Rating Frankfurt-Hohenheim. (2003). *Ethical-ecological rating: The Frankfurt-Hohenheim Guidelines and their implementation via the Corporate Responsibility Rating*. Ökom Verlag.
- Preiser, R., Swilling, M., Edozien, N. N., & Ramphele, M. (2020). Towards new narratives of hope for fostering transformative African futures.
- Udubuwa, B. (2021). Financial Institutions Leveraging on 204 Million Subscriptions to Provide Financial Transactions. NCC Boss. *Financial Energy Review*. <https://financiaenergyreview.com/>

[2021/03/12/financial-institutions-leveraging-on-204-million-subscriptions-to-provide-financial-transactions-ncc-boss/](https://doi.org/10.21203/rs.3.rs-1234567/v1)

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