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62. Leadership for biodiversity: a radical management innovation

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Outline of the topic

To address the global decline of biodiversity, transformative – i.e. paradigm-breaking – change to reform global economic systems is needed. This calls for innovation in governance, business and consumption practices. The prevailing paradigm of economic growth and overconsumption, disconnected from nature, accelerating biodiversity loss, needs overhauling. In an ecologically sustainable future, biodiversity-protective actions have been mainstreamed in private, corporate and governance realms, resulting in the thriving of all species. Yet, transformative change does not occur by itself. In order to be enacted, it calls for leadership. This entry develops a conceptualisation of biodiversity-respectful leadership.

Responding to calls for actor-based perspectives on innovation, the developed leadership framework can be considered a radical management innovation. As compared to innovation management, which focuses on means of management that enable various kinds of innovations, a management innovation is an innovation type that introduces new management practices, processes or structures that further organisational goals. This entry extends the traditional definition of a management innovation from an organisational realm toward also including planetary and societal realms. The developed leadership framework can be considered a radical management innovation given that it supports the transformative, i.e. disruptive, change toward biodiversity-respectful governance, business and consumption practices. Furthering actors' top-down and bottom-up leadership, this leadership framework seeks to inspire biodiversity-respectful initiatives and, thereby, emergent, novel and creative micro-, macro- and meso-level innovations toward ecologically sustainable futures.

Conceptual overview and discussion

The biodiversity crisis

The intertwined combination of human-induced biodiversity loss and climate change not only represents an ecological disaster but, at heart, an existential crisis, a crisis of humanity. As one symptom of the biodiversity crisis, up to a million species risk extinction within the next decades.

Biodiversity refers to the variability of life in all its manifestations. It can be studied at several overlapping levels. Genetic diversity refers to the biological variation that occurs within species. Species diversity, in turn, refers to the richness and variability of organisms examined at the level of species. At the third level, there is ecological diversity, i.e. the variability of the communities formed by different species living in the same area and the ecosystems they form together with the non-living nature.

The pervasive human-driven decline of biodiversity is caused by direct drivers, such as massive changes in land and sea use, unsustainable direct exploitation of species, climate change, pollution and invasive alien species, as well as indirect drivers, such as overconsumption, a rising global population and the asymmetric distribution of wealth. Put bluntly, humanity's current lifestyle, relying on continuous economic growth, increasing corporate profitability and overconsumption, is destroying the natural ecosystems on which the wellbeing and mutual survival of all species depend. The COVID-19 pandemic offered a taste of the future if immediate action to remediate the situation is not taken.

Important international reports on the decline of biodiversity and its critical implications for the future of humanity have recently been published. For example, in 2019, a thorough global assessment of biodiversity and ecosystem services was published by IPBES (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), reviewing over 15,000 scientific publications on the state, causes and implications of biodiversity decline and the actions needed to change course. In 2021, the IPBES pandemics report evaluated the links between pandemic risk and reduced biodiversity since the COVID-19 pandemic began. Also in 2021, the mutually supportive goals halting biodiversity decline and climate change were emphasised by the joint report of the IPCC (Intergovernmental Panel on Climate

Change) and IPBES. The Dasgupta review, in turn, outlined the central role of the prevailing economic system in causing biodiversity decline. Finally, the many values of nature and their determination were discussed in the 2022 IPBES value report.

Combined, these reports, together with other recently published large reports on biodiversity, call for transformative change to halt biodiversity loss in the short-to-medium term, shifting toward nature-positive approaches in the long term. While such paradigm-breaking change requires innovation in governance, business and consumption, prior literature has placed scant attention on these actors, i.e. governments, companies and consumers. Notwithstanding, there is insufficient action toward the required transformative change. Put differently, there is a dearth of leadership toward addressing the biodiversity crisis. In seeking answers to this conundrum, the following section reviews prior leadership theory.

A crisis of leadership theory

Traditional leadership theory seems poorly fit for addressing the biodiversity crisis. To begin with, traditional leadership theorising focuses on organisations as closed systems, thereby not addressing questions beyond the organisational realm, be it stakeholders, societal demands or environmental questions, including climate or biodiversity crises. Moreover, traditional leadership theorising has focused on business as usual, thereby assuming profit maximisation for shareholders as the primary responsibility of business leaders. This assumption becomes amenable to critique at a time when business activity drives biodiversity decline. Solutions to address the biodiversity crisis need to adopt views of leadership that consider alternatives to the traditional business model of profit maximisation. In addition, traditional leadership theorising assumes leadership to be enacted by individuals in managerial and/or decision-making roles/positions (i.e. business executives and societal decision-makers). Thus, the focus has been on individuals in managerial positions, their attributes, and their relationship with their followers, i.e. why they have become leaders and how they exercise their leadership. To conclude, traditional leadership theories appear as part of the problem causing the biodiversity crisis.

Notwithstanding, recent leadership theorising offers promising insights to address the biodiversity crisis. In light of corporate scandals at the end of the 1990s, value-based leadership theories emerged, including authentic, servant, ethical and transformational leadership. While their roots and theoretical origins date from the 20th century to the ancient Greek philosophers, these theories gained popularity at the turn of the 21st century. In parallel, alongside the rise of corporate responsibility and influenced by stakeholder theory, responsible leadership theory emerged. Similarly, with the rising significance of sustainable development and the United Nations' (UN) Sustainable Development Goals (SDGs), sustainable/sustainability leadership theories gained ground. In contrast to research on responsible leadership largely focusing on business, the sustainable leadership literature is multidisciplinary, including education and health, bearing some connection to business. Responsible and sustainable leadership theories draw from authentic, servant, ethical and transformational leadership theory. Further, both call for multi-level theorising on leadership to include individual, organisational and societal levels of analysis. Even though these levels of analysis can be conceptually separated, in practice, they are intertwined. Despite these calls, critical reviews of these literatures posit the dearth of research actually adopting multi-level perspectives.

Taking a critical stance, neither biodiversity nor the biodiversity crisis have been addressed in leadership research. In a broader perspective, leadership research is scantily connected with natural sciences. Notwithstanding, leadership theories lack an in-depth appreciation of the natural environment. For one, classic leadership theorising does not address the natural environment, as it is solely focused on the profit maximisation motive of business. For another, the natural environment is implicit in responsible leadership theory, while mentioned in sustainable leadership theory via contemporary crises such as climate change. Third, the concepts of environmental leadership, green transformational leadership and ecocentric leadership offer rays of hope, though not detailed in their appreciation of the concept of the environment. Environmental leadership emphasises the need for environmental values cutting across all organisational functions. In green transformational leadership,

transformational behaviour is based on environmentally friendly business operations, i.e. the manager's ability to influence individuals and mobilise organisations to achieve long-term environmental goals, while guided by environmental values. Ecocentric leadership, in turn, argues for nature to be placed at the centre of decision-making. Nevertheless, a leadership framework addressing the biodiversity crisis is needed.

Application: biodiversity-respectful leadership

The problem appears two-sided. While calling for transformative change, biodiversity research does not focus on actors, nor their leadership. At the same time, leadership research does not address biodiversity, and is, in part, indirectly causing biodiversity decline. In sum, there is need for a leadership framework addressing the biodiversity crisis.

In this section, a biodiversity-respectful leadership framework is developed. Responding to the lacunas in biodiversity and leadership research, the framework offers an integrative, interdisciplinary perspective on leadership to address the biodiversity crisis. As such, it is a radical management innovation geared toward engaging actors to enact the transformative, paradigm-breaking change required to address biodiversity loss.

Planetary level

The first defining principle of biodiversity-respectful leadership is recognition and respect for all forms of life, be it bacteria, plants, animals or our own species. This, in essence, represents a philosophical shift in assumptions, norms and values. First, it represents a departure from prior human-centric leadership theorising. Further, it departs from prevailing business and management theories, which consider nature as a free resource. In a historical perspective, Western civilisation's disconnect from nature can be found at the roots of this misalignment. There is a need to shift from the prevailing dualistic ontology – separating humans from nature – toward a relational ontology – where humans are considered a part of nature.

The biodiversity-respectful leadership framework builds on environmental philosophy and environmental ethics in its theorising on nature and the subjectively shaped and

historically evolving relationship between humans and nature. Further, it is inspired by ecological realism and a multi-species perspective to sustainability, which consider that the wellbeing of all species needs to be respected.

Going forward, humans need to reconsider and realign their relationship with nature and its species. There is a need to shift from an extractive relationship built on a sense of superiority toward nature to one where humans respect other species. This calls for radical innovation as regards assumptions, values, norms and practices in the relationship between humans and nature.

Societal level

The second defining principle of biodiversity-respectful leadership is a focus on economic and societal systems respecting all forms of life. This departs from the prevailing human-centric paradigm, focused on economic growth.

There is a need for economic and societal models taking nature's and all species' wellbeing as a starting point, while respecting Earth system boundaries. This calls for radical innovation. Examples of such innovative economic models include doughnut capitalism, conscious capitalism, capitalism 2.0, degrowth and regenerative society. On a positive note, global targets toward reversing biodiversity loss and nature-positivity were set for 2030 and 2050 in the European Union's Biodiversity Strategy for 2030 and at the 15th Conference of Parties to the UN Convention on Biological Diversity in Montreal (2022), to be followed up by national target-setting. This exemplifies visionary leadership.

Organisational level

Companies are critical actors as regards halting biodiversity decline, due to their largely harmful impact on the natural environment. Therefore, the third defining principle of biodiversity-respectful leadership is a focus on business models respecting all forms of life. This departs from the prevailing human-centric business paradigm, focused on profit-maximisation. Going forward, there is need for business models taking nature's and all species' wellbeing as a starting point, while respecting Earth system boundaries. This calls for systemic approaches, understanding how biodiversity conservation affects

strategy, business models and supply chains. Further, there is need to scale these solutions globally, across sectors. Examples of such innovative business models include sustainability 3.0, circular economy and regenerative business.

Developing such business models calls for radical innovation and leadership. There are promising signs, as early movers are leading the way. For example, studying Finnish primary food producers, we observe that producers respecting biodiversity understand the connection between their business and biodiversity. They have adopted an active approach toward biodiversity protection, building on a moral and ethical desire to protect nature. Comparing companies' approaches, in our work, we have further identified maturity categories detailing how biodiversity is addressed by Finnish food sector companies. The few forerunning companies actively address biodiversity loss: their business model revolves around biodiversity protection.

Overall, though, a bleak picture of companies' actual deeds toward preserving biodiversity emerges from studies across countries. Biodiversity protection and restoration is rarely incorporated into companies' operations, environmental management and corporate social responsibility strategies and programmes. While there exist some initiatives for respecting biodiversity, efficient conceptual tools for understanding the relationship between business decision-making and biodiversity decline remain amiss. Reporting on biodiversity in companies' annual reports remains scarce, generic and unsystematic. At best, companies engage in symbolic activities toward biodiversity protection.

A problem lies in the difficulty of grasping what biodiversity entails. This leads to the difficulty of perfectly measuring and reporting on biodiversity. Consequently, the management of biodiversity becomes difficult, nigh impossible, based on measurement- and reporting-centred approaches. Going forward, a shift in business toward appreciating biodiversity as valuable in itself is needed. This represents a radical attention-based innovation vis-à-vis the prevailing approaches relying on measuring and reporting. To be enacted, there is a need for management innovation to develop systemic approaches toward biodiversity-respectful business.

Similarly, a lack of understanding of biodiversity hampers managers' efforts to address it. Instead of a focus on biodiversity via numbers and metrics, there is need to educate decision-makers toward a philosophical perspective on biodiversity, the root causes of biodiversity loss and the systemic nature of the required transformative change. Biodiversity essentially refers to a respect for life, which, in itself, warrants lifelong reflection.

Individual level

The fourth defining principle of biodiversity-respectful leadership is that it can be enacted by anyone. This departs from traditional leadership theorising, which views leadership as amenable only to individuals in formal positions of power. Biodiversity-respectful leadership builds on responsible and sustainable leadership theories, which consider, instead, that leadership can be enacted by anyone.

For one, such leadership can be enacted top-down by individuals in formal positions of power and decision-making in public, private or non-governmental organisations, i.e. politicians, civil servants or managers. Research on company response and biodiversity governance shows such elements of leadership to be gradually emerging. For another, such leadership can be enacted by an individual lacking a formal power position, be it in consumer-citizen or professional roles, i.e. anyone. This is termed bottom-up leadership. While research has studied consumers' attitudes and behaviours toward biodiversity protection, it remains silent as regards the role of employees.

In summary, a conceptualisation of biodiversity-respectful leadership as enacted top-down by formal leaders and bottom-up by informal leaders operating in private and professional roles appreciates its hybrid nature. Even though an individual bears a formal professional leader role, one nevertheless remains in an informal consumer-citizen role in private. Biodiversity-respectful leadership is therefore a call for everyone, whether in formal or informal power positions professionally, to take a stance toward protecting biodiversity, while also developing such leadership in one's private roles. This calls for radical innovation in the realms of personal growth and sustainability agency.

Critical summary

The bulk of leadership theorising sustains the prevailing economic system relying on economic growth and profit-maximisation. Such norms deserve critique in an era of global biodiversity loss, largely owing to the detrimental impact of economic and business activity on biodiversity.

Biodiversity-respectful leadership offers a radical actor-based management innovation toward enacting the transformative change required to tackle the biodiversity crisis. To this end, the framework calls for radical innovation with respect to: (1) realigning humans' relationship with nature, (2) developing economic systems and business models respecting Earth's boundaries and (3) appreciating life as a foundation of thriving planetary ecosystems.

Such innovation does not occur by itself; it is done by actors. This entry is a call for the reader's agency in developing such innovations and one's biodiversity-respectful leadership in professional and private realms. All players, from the United Nations to governments, local authorities, companies and non-governmental organisations, as well as individual consumer citizens, across the globe need to take leadership toward tackling the biodiversity crisis. This is the personal growth opportunity of the 21st century. The planet is calling. Do you hear its call?

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the Corporate Responsibility Research Conference in Cambridge 2023. For more information, see www.biodiful.fi.

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