Author(s): Heikkinen, Hannu L. T.; Huttunen, Rauno; Mahon, Kathleen; Kemmis, Stephen

Title: Beyond an anthropocentric view of praxis : towards education for planetary well-being

Year: 2024

Version: Published version

Please cite the original version:

Heikkinen, H. L. T., Huttunen, R., Mahon, K., & Kemmis, S. (2024). Beyond an anthropocentric
view of praxis : towards education for planetary well-being. Environmental Education Research,
Early online. https://doi.org/10.1080/13504622.2024.2326460

Beyond an anthropocentric view of praxis: towards education for planetary well-being

Hannu L. T. Heikkinen, Rauno Huttunen, Kathleen Mahon & Stephen Kemmis

Published online: 17 Mar 2024.

Submit your article to this journal ☑

Article views: 389

View related articles ☑

View Crossmark data ☑

Routledge
Taylor & Francis Group

Beyond an anthropocentric view of praxis: towards education for planetary well-being

Hannu L. T. Heikkinen[a], Rauno Huttunen[b] (iD), Kathleen Mahon[c] (iD) and Stephen Kemmis[d] (iD)

[a]Finnish Institute for Educational Research, University of Jyväskylä, Jyväskylä, Finland; [b]University of Turku, Turku, Finland; [c]University of Queensland, Brisbane, Australia; [d]Charles Sturt University, Bathurst, Australia

ABSTRACT

A number of philosophical perspectives, such as deep ecology, posthumanism, and new materialisms, to name a few, have challenged the deep-rooted anthropocentric assumptions about human exceptionalism. Yet these non-anthropocentric perspectives must still find a place for human action; they require clear conceptualisations of human action and agency. It is generally acknowledged that human beings have a weighty moral responsibility for correcting the current global ecological crisis. For more than two millennia, theories of *praxis* supplied conceptualisations of action for the good of humankind. In this paper, we argue that the non-anthropocentric perspectives can be substantially extended and enhanced by a new theory of *transformative praxis* that breaks through the anthropocentric limit imposed by the notion of 'the good for humankind' to embrace collective human action for *planetary well-being*. We call this approach *a praxis orientation to environmental education*.

Introduction: our planet in the grip of nested crises

A number of philosophical perspectives have emerged in relatively recent times which challenge deep-rooted (largely Western) assumptions about humans and the 'non-human', 'other-than-human', or 'more-than-human' world. Perspectives such as deep ecology, posthumanism, and new materialism, to name a few, push against the anthropocentrism of the twentieth century,[1] with important messages for environmental science and education. They resist some of the dualisms that have dominated Western thinking about nature and remind us that *Homo sapiens* is just one species among many in the Earth's community of life.

Despite the important contributions of these movements to Western thought, however, they do not adequately signal the kind of actions humans need to take to play their part as a species in addressing the ecological crisis facing the planet. As is generally acknowledged from the school climate strikes inspired by Greta Thunberg to the reports of the United Nations International Panel on Climate Change, human beings have a moral responsibility for action to address the current crisis, and arguably this action needs to be in partnership with other (Earth) actors. For more than two millennia, theories of *praxis* have supplied conceptualizations of

action for the good of humankind. In this paper, we present a new theory of *transformative praxis* that breaks through individualistic preoccupations and the anthropocentric limit imposed by the notion of 'the good for humankind' to embrace collective human action for *planetary well-being*. This new conceptualization substantially extends and enhances current *beyond-anthropocentric* thinking.

Earth currently confronts a complex web of nested crises, including environmental crises (e.g. climate change, biodiversity loss, deforestation, pollution, resource depletion), economic crises (e.g. food insecurity, unemployment, poverty), social crises (e.g. inequality, discrimination, social-political polarization), and related cultural crises (e.g. the rise of reductionist technical rationality, neoliberalism, psycho-capitalism). Health crises can also be added to this list, including the zoonotic crossover of the SARS-Cov-2 virus from wild animals to humans, causing the COVID-19 pandemic, which had ramifying effects on humankind and exposed vulnerabilities in (e.g.) the global economy, healthcare systems, and social structures (Kaukko et al. 2021).

These crises collectively pose a threat to the well-being of humans, which is crucially dependent on the well-being of a complex network of other planetary systems, and to the overall health of the Earth's systems, including biodiversity, the interactions of species, and the functioning of organic and non-organic processes that support life. In other words, the crises grossly challenge *planetary well-being* (e.g. Elo et al. 2023), which Kortetmäki et al. (2021, 4) defined as

> a state in which the integrity of Earth system and ecosystem processes remains unimpaired to a degree that lineages can persist to the future as parts of ecosystems, and organisms (including humans) can realize their typical characteristics and capacities.

Planetary well-being in this sense extends the idea of *well-being* beyond humans and includes the geophysical planetary systems that sustain the well-being of humans and nature more broadly.[2] Yet, how to realize planetary well-being remains an important practical question.

A comprehensive review of the relevant literature by Marcinkowski and Reid (2019) showed that having relevant knowledge about climate change was insufficient to produce environmentally relevant behavior. It seems that changing people's minds is not sufficient to change their actions in relation to climate change. If the measure of wisdom is that it is expressed not in what people think, but what they *do*, then something more than schooling may be needed to develop *planetary praxis* – a form of action – that expresses that wisdom. Moreover, while people's individual actions are necessary, they are not sufficient to produce the transformations of collective human practice needed to address the nested crises the planet now confronts. Addressing the many different aspects of these nested crises requires collective wisdom and collective praxis.

Since antiquity, different notions of *praxis* have shaped different understandings of the nature of people's practical action to address the uncertain practical problems that history and circumstances present to human beings, individually and collectively. Those former views of praxis, however, suffer from the myopia of anthropocentrism: their concern is limited to 'the good for humankind'.[3] In this paper, we argue for a new conceptualization of praxis that not only extends former views to embrace collective *transformative* human action towards *planetary well-being*, but also challenges horizons of thought and intellectual traditions that have shaped current and recent thinking and action/inaction related to planetary wellbeing. To this end, we discuss some of these horizons before explicitly turning our attention to praxis. Horizons of experience are created as people experience pasts, presents, and futures during their lives (Husserl 1913/2012). Following Gadamer (1965/1975, 217), who extended Husserl's idea, we also note that:

> A horizon is not a rigid frontier, but something that moves with one and invites one to advance further. Thus horizon intentionality, which constitutes the unity and flow of experience, is paralleled by an equally comprehensive horizon intentionality on the objective side. For everything that is given as existent is given in terms of the world and hence brings the world horizon with it.

We observe that some particular 'horizons' of thought have placed limits on human thought, and ultimately human individual and collective action, in a way that has curtailed efforts to address the crises we have noted. Plumwood (2002), for example, identifies the nature/culture and nature/reason dualisms as ways environmental thought and action have been limited. In what follows, we highlight horizons rooted in technical rationality, psycho-capitalism, and anthropocentrism. Ironically, they also include thinking around sustainability and sustainable development.

Sustainability and sustainable development

The dominant contemporary perspectives for understanding these nested planetary crises are based on the contested notion of *sustainable development*. Sustainable development-related frameworks have been so globally influential in education that they may reasonably be described as a paradigm, delineating the set of concepts and beliefs that have prefigured public debate in recent decades. While sustainability-based approaches have achieved many promising results, they also have significant weaknesses. The concepts of sustainability and sustainable development have become ambiguous, having been interpreted, understood, and used in different ways by different scholars and policymakers (Aaltonen et al. 2023; Matero and Arffman 2023).

In particular, the concept of sustainable development has been differently interpreted in accordance with the perspectives of various economic interests. Initially, the World Commission on Environment and Development (1987) report *Our Common Future* ('the Brundtland Report') defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (para.27).

While the concept of sustainable development has evolved and has been debated since its original formulation, this basic definition continues to be widely recognized and used today. One of the main debates concerns the relationship between social, economic, and environmental sustainability (e.g. Mihelcic and Zimmerman 2017; Purvis, Mao, and Robinson 2019). One interpretation of the concept of sustainable development regards economic growth as a necessary condition for all sustainability. It sees the flourishing of the economy as a more fundamental value than social or ecological sustainability. That view turns the relationships between the sustainability dimensions upside down: actually, a sustainable economy requires a socially sustainable foundation, and a sustainable society requires ecological sustainability (e.g. Büscher and Fletcher 2019; Eckersley 1992). According to Matero and Arffman (2023), the concept of sustainable development has been largely adapted and aligned with global neoliberal discourses and forms of production and consumption. They argue (2023, 102–103) that the European Union (EU) and the Organization for Economic Cooperation and Development (OECD) have quite straightforwardly applied the concept of sustainable development for promoting the competitiveness of industry without compromising economic productivity.

It has, by now, become abundantly clear that the original definition of sustainable development is *anthropocentric* in nature: it prioritizes human beings over other species. In *Our Common Future* (World Commission on Environment and Development 1987), the expression 'future generations' refers to generations of human beings, not other species. It presupposes that a concern for human beings is at the heart of sustainable development and sustainability, and that the sustainability of the natural environment is important only to the extent that it serves human needs. This preserves an anthropocentric view in which humans are the dominant species on earth and have the right to use and exploit natural resources for their own benefit.

We challenge this anthropocentric view: instead, we argue, human beings should acknowledge and recognize that all living beings in fact participate in the life processes (and life and death struggles) of the ecosystems on which they depend, whether or not human beings ascribe them any 'rights' to do so. On this view, all living beings can be valued for their own sake, not

instrumentally in terms of the extent of their contribution to human well-being and flourishing, not just for the sake of promoting human well-being and flourishing. From this perspective, the value of life on planet Earth is greater than the life of just one species. The Brundtland Report concept of sustainable development represents a form of *human exceptionalism*: the assumption that humans are exceptional and can dominate, exploit, and use the rest of nature as an instrument to satisfy their own needs. The criticism of this form of human exceptionalism has come especially from deep ecology (e.g. Naess 2000) and posthuman perspectives (e.g. Ferrando 2013). We argue that a *world-centered* (Biesta 2022) or *planetary* (Kortetmäki et al. 2023) perspective might more fruitfully impel humans to actively repair the damage to Earth's community of life and geophysical planetary systems (e.g. global heating, weather patterns, ocean currents, ocean acidity) caused by humans themselves. Humans, particularly in Western communities, have had an outsized role in terms of harm to the well-being of the planet, and thus have a moral responsibility to find ways to act in partnership with the community of life on the planet to contribute to rehabilitating and sustaining planetary well-being (Nurmi 2023).

Some forms of contemporary practice theory (e.g. Shove and Spurling 2013) suggest a way to understand what it means to act in partnership with the community of life on the planet. Kemmis (2019), for example, suggests that it is *through their practices* that humans participate in the community of life and the physical processes of the Cosmos. It is *in the happeningness of their practices* that humans directly and indirectly encounter and interact with other species and the ecosystems that support them. This perspective does not place human beings on a plane that is separate from or 'above' the rest of nature; rather, it sees them within it, a species like any other. As we shall see, such an ecologically open view of practice turns out also to have implications for understanding praxis.

From instrumental rationality to psycho-capitalism

The rapidly worsening ecocrisis is the result of a number of ideological, political, and cultural developments that have emerged over several centuries, and come to the fore in the late 20th and early 21st centuries. These cultural tendencies have created horizons of tradition which have limited contemporary understandings of the crises the planet is now experiencing. This development can be summarized as the triumph of instrumental reason in Western thought, whereby questions of values and goals are sidelined and become technical in nature.

A number of philosophers and social theorists (e.g. Gadamer 1981; Heidegger 1977; Habermas 1972, 1984, 1987; Plumwood 2002) have described profound changes that took place in Western thought and life through the twentieth century including the rise of instrumental reason, also described as technical rationality or functionalist reason. Broadly, instrumental rationality refers to the ability to make decisions and take actions that are consistent with one's goals, values, and beliefs, in order to achieve desired outcomes that are known in advance. Technical rationality is a form of instrumental rationality oriented toward producing 'outcomes', often in the form of external objects or 'things'. As this technical way of thinking became more prominent in scientific, economic, and social thought in the twentieth century, it began to push into the background two other forms of reason known since Greek antiquity: practical reason and contemplative reason. Technical rationality, practical reason and contemplative reason correspond respectively to three different kinds of action proposed by Aristotle:

1. *technē*, evident in the making of (external) objects, and impelled by the disposition of *poiēsis*, the desire to make something;
2. *theoría*, or contemplation about things, impelled by the disposition of *epistemē*, the desire to understand things; and

3. *praxis*, evident in acting rightly for the good for each person and the good for human-kind impelled by the disposition of *phronēsis*, which is wisdom or prudence aimed at producing a state of affairs in the world (see Book 6 of the *Nicomachean Ethics*, Bartlett and Collins 2011).

Technical rationality is essential for 'getting things done' and solving various kinds of problems in life and work. But its means-ends reasoning can also displace the everyday practical reasoning people do when they deliberate about the best thing to do under the circumstances in which they find themselves. It can also displace the kind of open-ended contemplation about the nature of things that characterizes contemplative philosophical reasoning. Thus, relying on technical reasoning, people may convert a practical question about the best thing to do in a particular situation, or a contemplative question about the nature of things, into a technical question about how to get to predefined ends ('the solution') using already-available means. While technical rationality always has an important role in people's work and lives, it can some-times dislodge practical and contemplative reasoning when it focuses action too narrowly on achieving known ends and goals and satisfying immediate desires.

In the context of the crises now faced by Earth's community of life and the geophysical systems that support it, then, technical rationality has played and continues to play significant roles in relation to both the causes and the consequences of these crises. Scientific and tech-nical thought and action have created the vast repertoire of machines, technologies, operations, and measures that have impelled developments from the Industrial to the Digital Age that have been among the causes of the crises. And some scientific thought about how to deal with the consequences of the crises focuses narrowly on technological 'solutions' (e.g. technologies for carbon capture) which may defer action on the causes of the crises like urgently transitioning from the use of fossil fuels that fuel the greenhouse effect, with associated problems like warming of the oceans, more extreme weather conditions, and the like. In such ways, technical rationality can limit how humans think about the nested crises the planet confronts by limiting the horizon of what humans can do to technical ingenuity. As we shall argue, however, humans need to act not only technically to address known problems, but also practically and critically, and in partnership and in tune with other species, ecosystems, and geophysical systems to adequately address the ecological crisis.

By means of instrumental reason, humans learned to manipulate objects of nature. The aim was to free humans from the intertwined power of natural forces and superstition: for example, in the pre-modern world, natural disasters were interpreted in terms of the wrath of gods and spirits. The project of the Enlightenment was to free *man* from these mythical beliefs and to harness nature through the use of reason (Horkheimer and Adorno 2002).

The logic of control over nature was then applied to manipulating people and human com-munities. Thus, Western instrumental rationality laid the foundations for a techno-instrumental approach to societies, which was then manifested in the form of socio-technology. One way of understanding this is Habermas's (1987) theory of lifeworld and system, which describes the conditions of late modernity in terms of the tension between, on the one hand, lifeworld imperatives, in which people recognize each other person-to-person, as unique people like themselves, and, on the other, the imperatives of economic and administrative systems, with their emphases on system functions, rules, roles, and goals. He argues that, in late modernity, the imperatives of increasingly autonomous economic and administrative systems have come to colonize people's lifeworlds, disrupting the relationships of human recognition essential to people's coexistence in moral and political life. System colonization, the colonization of people's lifeworlds by the economy, is what Habermas calls monetarization.

The economy and monetarization colonize the human mind through a process Värri (2018) call *psycho-capitalism*. The notion of psycho-capitalism is based on the work of a Finnish Professor Emeritus Veli-Matti Värri who uses ideas from Karl Marx and post-Marxian philosophers, as well

as some psychoanalysts, especially Jacques-Marie-Émile Lacan. Psycho-capitalism can be defined as a social condition where people's feelings and aspirations for psychological well-being are exploited economically and commercially. People develop certain practices and behaviors related to consumption, which are learned through socialization. For example, a person might associate buying a new car with a sense of achievement or status or buying a certain brand of clothing with a sense of belonging to a particular social group. In such cases, psychological satisfaction is achieved by fulfilling desires through consumption. In Western culture, this mechanism is deliberately encouraged through marketing and advertising. As Gert Biesta astutely demonstrates, citing Paul Roberts (2014): 'contemporary capitalism […] is in the business of selling desires. […] The consumer market place has effectively moved inside the self' (Biesta 2022, 21). However, this kind of behavior is learnt even without explicit marketing efforts: seeking satisfaction through consumption is also reproduced simply through socialization (Värri 2018).

Commercial operators, in Western societies at least, especially take advantage of people's desire for recognition. We want to be recognized by others, so we buy products or services to show that we are worthy of admiration, envy, or recognition in general. In the social practices that constitute psycho-capitalism, psychological characteristics and their flexibility and adaptability are key factors in immaterial competition and production, on which the current innovation- and entrepreneurship-driven social and educational policy largely relies (Värri 2018). Practising psycho-capitalism reproduces the practices of psycho-capitalism into the future.

The desire for recognition is arguably central to human life and within Western cultures is important in the educational relationship for building a balanced self. However, under the logic of psycho-capitalism, recognition is always temporary, and individuals are constantly driven to seek self-improvement and new experiences. This creates a modern form of 'unhappy consciousness', where even successful individuals must constantly pursue substitutes for recognition, such as fashion, new skills, or experiences (Huttunen, Kakkori, and Värri 2021).

Psycho-capitalism is thus a key mechanism in the reproduction of the unsustainable human practices that undermine planetary well-being. Within the horizons of psycho-capitalism, people focus on consumption as an overarching aim, on physical sensation and materialism, and on the unbridled production of dizzying arrays of goods and services aimed at satisfying manufactured human desires (Berger 2008; Catargiu 2006). In these ways, psycho-capitalism plays into – and renews – the ancient positioning of humankind as the 'masters' of nature, as if nature were no more than a resource for human beings.

Accompanying these Western materialist and sensualist tendencies are two kinds of 'disenchantment': the disenchantment from nature that comes from an excessive focus in contemporary culture on material consumption, and the disenchantment from the sacred (noted by Schiller and Weber 1971; on the rise of secularism, see Taylor 2007) by the rise of science, modernity, and bureaucracy. To the extent that these tendencies have captured the minds and lives of contemporary people, we might say that a large swathe of humanity has become more self-absorbed, as if human beings could be detached from nature and the ecosystems that sustain them, along with the crucial geophysical systems and the Cosmos necessary for life on the planet.

An interim conclusion

This very brief survey of the ecological crisis, the shortcomings of earlier anthropocentric perspectives on sustainability and sustainable development, and the kinds of cultural myopia that have accompanied the rise of technical rationality and psycho-capitalism, are parts of a larger picture of changes in Western worldviews. Thanks to the unfolding critique of many of these trends and tendencies (e.g. Plumwood 2002), there is a widening awareness of the horizons that narrow our grasp of the nested crises that the world now confronts. The critique has

revealed 'what is missing' (as Habermas 2010, described the religious foundations of morality that have become obscured in a post-secular age) not only in relation to the sacred, but also in relation to the non-human, the beyond-the-human, and the geophysical systems of the Cosmos that support the community of life on Earth.

To simplify, we might say that we can distinguish four long, overlapping, and contested stages in Western worldviews in a kind of progress from

1. a pre-Enlightenment perspective, from Greek antiquity to medieval times, in which humans had a largely exploitative relationship with nature;
2. an Enlightenment perspective,[4] nourished by views of reason rooted in Greek and Roman antiquity, that flowered into Enlightenment humanism, which focused on the good for humankind, though largely ignoring non-human species and the yet-undiscovered eco-systems and geophysical systems on which human existence depends;
3. posthuman perspectives which extend the horizons of scientific and intellectual traditions beyond anthropocentrism; and
4. emerging perspectives which aim to reintegrate the human with the beyond-the-human in ways that can inform not only ecological perspectives but also *practices* of care for the community of life and the geophysical systems on planet Earth.

For the last of these, the traditions of praxis philosophy need to be revived, renewed, and extended into a new kind of praxis philosophy.

This widening perspective has implications for our views. After briefly reviewing the historical background and current interpretations of the concept of praxis, we begin to construct a view of praxis that emphasizes human agency and moral responsibility towards the biosphere in relation to the crises we confront.

Praxis

From Greek antiquity, the Aristotelian notion of praxis emphasized 'right action': doing what seems best both in the interests of individual people and for the good of humankind (MacIntyre 1983). Praxis is what we do after deliberating carefully about what we think it might be best to do in a particular situation in which we find ourselves: whether to walk the dog, or whether to go to war. We weigh the circumstances, consider what we think it might be best and wisest to do under the circumstances, and then we act. That acting is praxis.

The need for wisdom arises when we confront certain kinds of problems; when we must make a choice, or a decision, about what to do. English curriculum theorist Bill Reid (1978) called them 'uncertain practical questions'. Following the account of practical reasoning given by Gauthier (1963), Reid outlines seven features of these questions:

> First of all, they are questions that have to be answered – even if the answer is to decide to do nothing. In this, they differ from academic, or theoretic questions which do not demand an answer at any particular time, or indeed any answer at all. Second, the grounds on which decisions should be made are uncertain. Nothing can tell us infallibly whose interests should be consulted, what evidence should be taken into account, or what kinds of arguments should be given precedence. Third, in answering practical questions, we always have to take into account some existing state of affairs. We are never in a position to make a completely fresh start, free from the legacy of past history and present arrangements. Fourth, and following from this, each question is in some ways unique, belonging to a specific time and context, the particulars of which we can never exhaustively describe. Fifth, our question will certainly compel us to adjudicate between competing goals and values. We may choose a solution that maximises our satisfaction across a range of goals, but some will suffer at the expense of others. Sixth, we can never predict the outcome of the particular solution we choose, still less know what the outcome would have been had we made a different choice. Finally, the grounds on which we decide to answer a practical question in a particular

way are not grounds that point to the desirability of the action chosen as an act in itself, but grounds that lead us to suppose that the action will result in some desirable state of affairs (p. 42).

On this view, then, praxis is a form of action taken in the light of practical deliberation about uncertain practical questions and aimed at bringing about some desirable state of affairs.

This (neo-)Aristotelian view of praxis is not the only one, however. After recalling the Aristotelian view, philosopher Richard Bernstein (1971) explored several different perspectives on praxis and action. He credits Karl Marx (e.g. 1845) with developing 'a thorough, systematic, and comprehensive *theory of praxis*' (p. xi; italics in original) which can be identified in some neo-Aristotelian privileging of *action* above *theory*, but also went beyond the philosophical idealism of G.W.F. Hegel (1807/1967) to *materialize* praxis both in human bodies ('human sensuous activity') and in history (e.g. in the *Eighteenth Brumaire of Louis Bonaparte*, 1852). In Bernstein's view, this Marxian perspective began to play an important role in the further development of thought about human action in the years between the First and Second World Wars, 'in four philosophic movements: Marxism, existentialism, pragmatism, and analytic philosophy' (Bernstein 1971, 1). Bernstein's *Praxis and Action* (1971) explores and explicates similarities and 'hopelessly unbridgeable cleavages' (p. 1) between these movements, which, he argues, are all grasping towards perspectives on, and understandings of, human agency.

Here, we have space only to acknowledge Bernstein's commanding grasp of philosophies of praxis and action, and, in terms of our purposes in this article, his significant contributions in elaborating Marxian and post-Marxian conceptions of praxis. Our focus is narrower; namely, to reach beyond the anthropocentric view that praxis aims towards the good for humankind. To simplify, we might speak of the following four 'stages' in the historical development of the notion of praxis (adapting Kemmis 2023, 15–19).

1. Praxis, in Greek antiquity, referred to a notion of virtuous individual action for the good. Praxis as it was understood in Greek antiquity (e.g. by Aristotle; Bartlett and Collins 2011) as practical action oriented toward the good. It is guided, according to Aristotle, by the disposition *phronēsis* – the disposition to act wisely and prudently. This view of praxis extended into Roman antiquity and into the medieval period (e.g. in the *Confessions* of Augustine [Hammond 2014, 2016] and the scholastic education of the medieval monasteries [Le Goff 2011]). On this understanding, praxis also realizes (makes real) *virtue* in the one who acts and aims for the good in the social world.

2. In Marx, praxis encompasses a cluster of ideas including:

   a. Praxis as 'human sensuous activity' – what today we might call 'embodied human activity' (from the first of Marx's [1845] Theses on Feuerbach). On this view, praxis is what people actually do in the world, rather than the abstraction, 'action', that appears (as Marx 1845, put it) in the thoughts of 'philosophers in their armchairs'.

   b. Praxis as 'the coincidence of the changing of circumstances and of human activity or self-changing', from the third of the Theses on Feuerbach (Marx 1845).

   c. Praxis as 'history-making action'. In the Eighteenth Brumaire of Louis Bonaparte, (Marx 1852), Marx wrote:

   [People] make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living.

   On this view, to cease reproducing the world as it has been requires transforming not only our circumstances but also ourselves. In this spirit, Mahon et al. (2020, 27) say:

in praxis, actors are aware of the historical situatedness of what they are doing. They are conscious of their actions in the present being shaped by history (e.g. past actions/events and consequences of past actions/events), and of how they are shaping unfolding action … that is, how their actions are 'making' history … which links to the … Marxian notion of praxis.

3. A neo-Aristotelian view of praxis (cf. Kemmis and Smith 2008, 4; MacIntyre 1983) as 'action that is morally committed, and oriented and informed by the traditions of the field'. It is oriented towards 'the good for humankind', of which MacIntyre (1983, 204) writes:

    The good life for man [sic] is the life spent in seeking the good life for man, and the virtues necessary for the seeking are those which will enable us to understand what more and what else the good life for man is.

4. An ecologically open practice theory perspective which understands that human practices are the way in which humans participate in the community of life and the physical processes of the Cosmos opens the way to a view of praxis as *transformative* (Stetsenko 2019, 2; cf. Mahon et al. 2020), as 'simultaneous self- and world-realization', in which 'reality is reconceived as that which is constantly being transformed and realized (literally made real) by people themselves'. In our view, this notion of world-realization finds a place in praxis for the non-human, the beyond-the-human, and geophysical systems of Earth and the Cosmos.

In the spirit of MacIntyre's (1983, 204) dictum about seeking 'what more and what else' the good life for humankind might consist in, one might say that the good for humankind also depends on the good of the non-human, the beyond-the-human, and the geophysical systems of the Earth and the Cosmos – that is, planetary well-being. Stetsenko's (2019) transformative worldview echoes this call: it speaks of 'simultaneous self- and world-realization', opening the path to transformation for planetary well-being. If so, we may say that this simplified, four-step history of praxis has led us from largely anthropocentric perspectives on praxis to a perspective that encompasses planetary well-being.

Towards a planetary perspective on praxis

We propose a view of praxis that encompasses an *ecological* view in which *Homo sapiens* is just one species among many participating in the community of life on Earth which nevertheless, as part of this community, has a moral responsibility to care for biodiversity, the continuation of lineages, and for Earth's geophysical systems. This does not imply that humans can fully comprehend or anticipate the needs of the planet or Earthly beings, even humans, and thus what the good for humankind and the planet consists in, at any given time. Rather, it implies a positioning of humans within nature, with a profound respect for and attention to the needs of other Earthly beings and entities, not 'above nature' as 'masters' exploiting nature to satisfy human needs (cf. Plumwood 2002). This view, it seems to us, is more akin to many Indigenous perspectives (e.g. Jessen et al. 2022), which place humans firmly within nature, and, in the unfolding of life over time, in partnership with other living (e.g. other species of animals and plants) and non-living systems (e.g. rivers, mountains, and, in Australia, a nation's 'Country'). On this a view, caring for Country (see Weir, Stacey, and Youngetob 2011) is not just a relationship with an 'external' natural world; it is also essential self-care for Indigenous people and their communities who regard the health and well-being of human beings as indissolubly tied to the health and well-being of the C[5].

The kind of praxis we are proposing recognizes that, *through their practices*, people and the natural world they inhabit are indivisibly connected in action (or interaction) in time and space such that humans always change both the world and themselves (Stetsenko 2019) as they act/interact, for better or worse. They are also connected in flesh. Following Merleau-Ponty, Huttunen, Kakkori, and Värri (2021, 492) argue that the relationship of humans to the non-human and the beyond-the-human can be understood in terms of *flesh* – humans as 'fleshly beings' who are 'part of nature'. We are not so-called transcendental egos as Immanuel Kant claims, and when he demands we follow the categorical imperative because we have access to the transcendental realms of moral ends (Huttunen, Kakkori, and Värri 2021, 492). Thus, Huttunen et al. argue:

> We think, like the philosopher Merleau-Ponty, that flesh connects us to each other and to nature. However, we are not just flesh, to which evolution applies its own mechanisms. Socio-cultural education enables us to become rational and willing beings. We can will things to be different and if we have both courage and practical wisdom, we can act on our will. We have the possibility to will the ecological categorical imperative. Because of our embodiment, we have good reasons to will this.

Huttunen, Kakkori, and Värri (2021, 492; see also Huttunen and Kakkori 2022, 636 and Nurmi 2023, 6; Magrini 2019, 141) thus offer a postmetaphysical, carnal, and deep ecological formulation of the categorical imperative:

> We should act so that we use nature, including nature within ourselves (our bodies) and outer nature (the natural physical nature and its non-human inhabitants), always at the same time as ends and never merely as means.

This, and any kind of collective effort to address the ecological crisis, calls for more than morally committed human action 'oriented and informed by the traditions of the field' (the neo-Aristotelian view of praxis). It demands being informed also by what nature (both our own and other-than-human nature) tells us (e.g. diminishing frog calls signaling a dying river; bird migration marking seasonal change), which implies firstly an openness to the possibility that the planet is (at least for the moment) alive and can speak (see Wooltorton, Collard, and Horwitz 2017, 58), and implies, secondly, active attunement and deep listening (Wooltorton, Collard, and Horwitz 2017, 64) in, to, (and, where possible, beyond) the landscapes we each inhabit, (surely a starting point for planetary wisdom).

Conclusion: planetary well-being, planetary wisdom, and planetary praxis

The central question for praxis is *What is to be done*? All humans face the vast uncertain practical problem of how to respond to the complex web of nested crises confronting planet Earth and collectively posing a threat to the overall health of the Earth's systems, whether or not we are aware of the current world situation or conceptualize the situation in this way. This includes the diversity and interactions of species, and the functioning of organic and non-organic processes that support life.

The moral responsibility of human beings to act 'for the good' must be guided by conceptions of the good that encompass the non-human, the beyond-the-human, and the geophysical systems on which the community of life depends. The concept of planetary well-being thus broadens the sphere of moral considerability from humans to non-human entities. The moral value of nonhuman entities is not derived from their importance to humans, although we do not deny the importance of the human species on the planet. In the planetary well-being framework, both human and nonhuman well-being are morally worthy for their own sake (Kortetmäki et al. 2023).

This wider perspective of the good evokes a notion of praxis as transformative – simultaneously transforming people and the world in partnership with the planet as a whole towards a state of planetary well-being. On this view, the well-being of humans is crucially dependent on

the wellbeing of a network of other planetary systems which are considered as morally considerable entities for humans. Those entities also require the interventions of humans to rehabilitate – to the extent that this is possible – the damage some human societies have caused to planetary systems, including biodiversity in the community of life and the geophysical systems that support life on the planet. Human beings need wisdom to guide them about how best to act under historically changing conditions, in the form of *planetary wisdom* that can enable and promote *planetary well-being*. Not only do humans need to develop planetary *wisdom*, they also need to develop substantially enhanced *practical and critical capacities for transformative praxis for planetary well-being,* and this includes a capacity to recognize the limitations of human ability to comprehend our environment and what is 'good' for all species and the planet. Environmental education and education for sustainability have frequently been conceived as ways to develop these capacities, but we believe that new ways of understanding them are needed in the light of the kinds of emerging perspectives we have discussed in this article, including:

1. emerging perspectives which aim to reintegrate the human with the beyond-the-human in ways that can inform not only *perspectives* but also *practices* of care for the community of life and the geophysical systems on planet Earth;
2. perspectives on *planetary wisdom* that can enable and promote planetary well-being; and
3. a new theory of transformative praxis that breaks through the anthropocentric horizon imposed by the notion of 'the good for humankind' to embrace collective human action for planetary well-being informed by active attunement and sensitive responses to the world we live in and live with. In this article, we have reviewed changing horizons of thought and traditions regarding sustainability; technical rationality and psycho-capitalism; and praxis. These have allowed us to present the case for a new, transformative conceptualization of praxis for planetary well-being. It also helps to reframe the relationship between human beings and nature, which may encourage a new sense of humility for humans. This is in the spirit of the suggestion from Aaltonen et al. (2023, 255) about education, namely, that

> … the transition from classical humanism to a posthumanist and planetary perspective does not mean that humans should not be the central focus of education. Humankind must reclaim its name as *Homo sapiens*, the wise human. Accordingly, our further developed basic theorem of education for planetary well-being is the following: Responsibility for planetary well-being is the new measure of humanity. It is worth pointing out that this theorem does not undermine human dignity, rather the opposite. By following this principle, human beings could paradoxically demonstrate their greatness by admitting their smallness in front of nature, or rather within nature.

We believe that the new conceptualization of praxis, *a praxis orientation to environmental education*, which allows educators to see beyond existing horizons that limit contemporary conceptualizations of socialization and education and possibilities for relating with the rest of the planet in healthy, life-giving ways. In a future article, we will explore implications of this new view of praxis for environmental education and education for sustainability, in the form of education for planetary well-being as critical pedagogical praxis. This, we shall argue, is a collective task for educators and for many others across a variety of professions and occupations: a *program* for twenty-first century education, not a school or university 'subject', and certainly not a task for environmental educators alone.

Notes

1. See Plumwood's (2002) critique of deep ecology (especially Chapter 7).

2. We (authors) agree with this conceptualization, although we find the essentialist notion of organisms re-alizing "typical characteristics and capacities" somewhat problematic.
3. We acknowledge a degree of irony here that the philosophical tradition from which notions of praxis emerged (i.e. ancient Greek philosophy) is associated with a reason-nature dualism. Plumwood (2002) shows that the reason-nature dualism, later gave rise to a human/nature and other related problematic dualisms (e.g. culture/nature; mind/body).
4. There are two relevant phases of enlightenment thinking: the first is the philosophical and the second is the (later) natural scientific enlightenment. Philosophical enlightenment was nourished by views of ratio-nality rooted in Greek and Roman antiquity. Its essence is humanism, which focused on the good for humankind, though largely ignoring non-human species and the yet-undiscovered ecosystems and geo-physical systems on which human existence depends. Its counterpart, natural scientific enlightenment wanted to free humans from the mercy of the forces of nature. This natural science-technological enlight-enment made it possible to exploit nature on a scale that was previously not possible. Thus, enlightenment humanism put man in the center of the universe and enlightenment natural science conceived nature only as a resource for man.
5. For one Indigenous researcher's view about some urgent tasks for Australians in caring for Country, see Williamson (2022).

Acknowledgements

Disclosure statement

Funding

ORCID

Rauno Huttunen (iD) http://orcid.org/0000-0002-9346-6680
Kathleen Mahon (iD) http://orcid.org/0000-0002-8945-2235
Stephen Kemmis (iD) http://orcid.org/0000-0003-2252-8511

References

Aaltonen, V., M. Hiljanen, H. Layne, A. Lehtonen, M. Löyttyniemi, N. Mykrä, A. Virtanen, and H. Heikkinen. 2023. "Education for Planetary Well-Being." In *Interdisciplinary Perspectives on Planetary Well-Being*, edited by Elo, M., Hytönen, J., Karkulehto, S., Kortetmäki, T., Kotiaho, J., Puurtinen, M. and Salo, M, 246–258. Milton Park: Routledge.
Bartlett, R. C., and S. D. Collins. 2011. *Aristotle's Nicomachean Ethics: A New Translation*. Chicago: University of Chicago Press.
Berger, A. A. 2008. *Manufacturing Desire: Media, Popular Culture, and Everyday Life*. Milton Park: Routledge.
Bernstein, R. J. 1971. *Praxis and Action: Contemporary Philosophies of Human Activity*. Milton Park: University of Pennsylvania Press.
Biesta, G. 2022. *World-Centred Education: A View for the Present*. Milton Park: Routledge.
Büscher, B., and R. Fletcher. 2019. "Towards Convivial Conservation." *Conservation and Society* 17 (3): 283–296. https://doi.org/10.4103/cs.
Catargiu, C.-C. 2006. "The Manufacturing of Desire in Consumer Culture." *Cultural and Literary Studies* 2 (2): 96–108.
Eckersley, R. 1992. *Environmentalism and Political Theory: Toward an Ecocentric Approach*. Milton Park: State University of New York Press.

Elo, M., Hytönen, J., Karkulehto, S., Kortetmäki, T., Kotiaho, J., Puurtinen, M. and Salo, M, eds. 2023. *Interdisciplinary Perspectives on Planetary Well-Being*. Milton Park: Routledge.

Ferrando, F. 2013. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations." *Existenz* 2 (8): 26–32. https://ultimadecada.uchile.cl/index.php/ETK/issue/download/5834/360#page=153.

Gadamer, H. G. 1981. *Reason in the Age of Science*. Translated by F.G. Lawrence. London: MIT Press.

Gadamer, H.-G. 1965/1975. *Truth and Method*. 2nd ed., Translated by J. Weinsheimer. Cambridge, MA: Sheed & Ward.

Gauthier, D. P. 1963. *Practical Reasoning: The Structure and Foundations of Moral Arguments and Their Exemplification in Discourse*. Oxford: Oxford University Press.

Habermas, J. 1972. *Knowledge and Human Interests*. Translated by J. Viertel. Boston: Beacon.

Habermas, J. 1984. *Theory of Communicative Action, Volume I: Reason and the Rationalization of Society*. Translated by T. McCarthy. Boston: Beacon.

Habermas, J. 1987. *Theory of Communicative Action, Volume II: Lifeworld and System: A Critique of Functionalist Reason*. Translated by T. McCarthy. Boston: Beacon.

Habermas, J. 2010. "An Awareness of What is Missing." In *An Awareness of What Is Missing: Faith and Reason in a Post-Secular Age*. Edited by J. Schmidt, J. Habermas, and M. Reder. Translated by C.P. Cronin, 15–13. Cambridge: Polity.

Hammond, C. 2014. *Augustine: Confessions Vol. I Books 1–8*. Cambridge, MA: Harvard University Press (Loeb Classical Library).

Hammond, C. 2016. *Augustine: Confessions Vol. II Books 9–13*. Cambridge, MA: Harvard University Press (Loeb Classical Library).

Hegel, G. W. F. 1807/1967. *The Phenomenology of Mind*. Translated by J.B. Baillie; G. Lichtheim, Intro. New York City: Harper & Row.

Heidegger, M. 1977. *The Question Concerning Technology and Other Essays*. Translated by W. Lovitt, Intro. & Trans.; Originally published in German in 1954 by J.H. Röll Verlag. New York City: Garland.

Horkheimer, M., and T. Adorno. 2002. *Dialectic of Enlightenment – Philosophical Fragments*. Redwood: Stanford University Press.

Husserl, E. 1913/2012. *Ideas: General Introduction to Pure Phenomenology*, 1st ed. Translated by W.R. Boyce Gibson. Milton Park: Routledge.

Huttunen, R., and L. Kakkori. 2022. "Heidegger's Critique of Technology and the Educational Ecological Imperative." *Educational Philosophy and Theory* 54 (5): 630–642. https://doi.org/10.1080/00131857.2021.1903436.

Huttunen, R., L. Kakkori, and V.-M. Värri. 2021. "Ekokatastrofi Ja Kasvatuksen Uusi Imperatiivi [Eco-Catastrophe and the New Imperative for Education]." *Kasvatus: The Finnish Journal of Education* 52 (5): 484–496.

Jessen, T. D., N. C. Ban, N. X. Claxton, and C. T. Darimont. 2022. "Contributions of Indigenous Knowledge to Ecological and Evolutionary Understanding." *Frontiers in Ecology and the Environment* 20 (2): 93–101. https://doi.org/10.1002/fee.2435.

Kaukko, M., S. Kemmis, H. Heikkinen, T. Kiilakoski, and N. Haswell. 2021. "Learning to Survive Amidst Two Crises: Can the Coronavirus Pandemic Help Us Change Our Practices to Prepare for the Impending Eco-Crisis?" *Environmental Education Research* 27 (11): 1559–1573. https://doi.org/10.1080/13504622.2021.1962809.

Kemmis, S. 2019. *A Practice Sensibility: An Invitation to the Theory of Practice Architectures*. Rotterdam: Springer.

Kemmis, S. 2023. "Facing the World: Pedagogical Praxis through a Post-Pandemic Prism." *Journal of Praxis in Higher Education* 5 (1): 7–27. https://journals.hb.se/jphe/article/view/334. https://doi.org/10.47989/kpdc334.

Kemmis, S., and T. J. Smith. 2008. "Praxis and Praxis Development. Chapter 1." In *Enabling Praxis: Challenges for Education*, edited by S. Kemmis and T.J. Smith, 3–13. Rotterdam: Sense.

Kortetmäki, T., M. Puurtinen, M. Salo, R. Aro, S. Baumeister, R. Duflot, M. Elo, et al. 2021. "Planetary Well-Being." *Humanities and Social Sciences Communications* 8: 258. https://www.nature.com/articles/s41599-021-00899-3.

Kortetmäki, T., M. Puurtinen, M. Salo, G. Cortés-Capano, S. Karkulehto, and J. S. Kotiaho. 2023. "Planetary Well-Being: Ontology and Ethics." In *Interdisciplinary Perspectives on Planetary Well-Being*, edited by Elo, M., Hytönen, J., Karkulehto, S., Kortetmäki, T., Kotiaho, J., Puurtinen, M. and Salo, M., 26–41. Milton Park: Routledge.

Le Goff, J. 2011. *Medieval Civilisation*, 400–1500. Translated by J. Barrow, Eco, U. Intro. London: The Folio Society.

MacIntyre, A. 1983. *After Virtue: A Study in Moral Theory*, 2nd ed. London: Duckworth.

Magrini, J. 2019. *Ethical Responses to Nature's Call: Reticent Imperatives*. Milton Park: Routledge.

Mahon, K., H. Heikkinen, R. Huttunen, T. Boyle, and E. Sjølie. 2020. "What is Educational Praxis? In *Pedagogy, Education, and Praxis in Critical Times*, edited by K. Mahon, C. Edwards-Groves, S. Francisco, M. Kaukko, S. Kemmis, and K. Petrie, 15–38. Rotterdam: Springer.

Marcinkowski, T., and A. Reid. 2019. "Reviews of Research on the Attitude–Behavior Relationship and Their Implications for Future Environmental Education Research." *Environmental Education Research* 25 (4): 459–471. https://doi.org/10.1080/13504622.2019.1634237.

Marx, K. 1845. Theses on Feuerbach. https://www.marxists.org/archive/marx/works/1845/theses/theses.htm

Marx, K. 1852. The Eighteenth Brumaire of Louis Bonaparte. https://www.marxists.org/archive/marx/works/1852/18th-brumaire/

Matero, R.-M, and A. Arffman. 2023. "An Economic Tail Wagging an Ecological Dog? Wellbeing and Sustainable Development from the Perspective of Entangled History." In *Interdisciplinary Perspectives on Planetary Well-Being*, edited by Elo, M., Hytönen, J., Karkulehto, S., Kortetmäki, T., Kotiaho, J., Puurtinen, M., and Salo, M., 99–112. Milton Park: Routledge.

Mihelcic, J. R., and J. B. Zimmerman. 2017. *Environmental Engineering: Fundamentals, Sustainability, Design*. Hoboken, NJ: John Wiley & Sons.

Naess, A. 2000. "Deep Ecology and Education: A Conversation with Arne Naess." *Canadian Journal of Environmental Education* 5: 42–68.

Nurmi, S. 2023. *Relational Agency and Environmental Ethics: A Journey Beyond Humanism as We Know It*. Milton Park: Rowman & Littlefield.

Plumwood, V. 2002. *Feminism and the Mastery of Nature*. (eBook edition). Milton Park: Routledge

Purvis, B., Y. Mao, and D. Robinson. 2019. "Three Pillars of Sustainability: In Search of Conceptual Origins." *Sustainability Science* 14 (3): 681–695. https://doi.org/10.1007/s11625-018-0627-5.

Reid, W. A. 1978. *Thinking about the Curriculum: The Nature and Treatment of Curriculum Problems*. Milton Park: Routledge & Kegan Paul.

Roberts, P. 2014. *The Impulse Society: What's Wrong with Getting What We Want?* London: Bloomsbury.

Shove, E., and N. Spurling. 2013. *Sustainable Practices: Social Theory and Climate Change*. Milton Park: Routledge.

Stetsenko, A. 2019. "Radical-Transformative Agency: Continuities and Contrasts with Relational Agency and Implications for Education." *Frontiers in Education* 4 (148): 1–13. https://doi.org/10.3389/feduc.2019.00148.

Taylor, C. 2007. *A Secular Age*. Cambridge, MA: The Belknap Press of Harvard University Press.

Värri, V. M. 2018. *Kasvatus Ekokriisin Aikakaudella [Education in the Era of Ecocrisis]*. Tampere: Vastapaino.

Weber, M. 1971. *The Sociology of Religion*. Translated by E. Fischoff. Boston: Beacon.

Weir, J. K., C. Stacey, and K. Youngetob. 2011. *The Benefits of Caring for Country: Literature Review*. Canberra: Australian Institute for Aboriginal and Torres Strait Islander Studies (AIATSIS).

Williamson, B. 2022. "Caring for Country means tackling the climate crisis with indigenous leadership: Three things the new government must do." The Conversation. https://theconversation.com/caring-for-country-means-tackling-the-climate-crisis-with-indigenous-leadership-3-things-the-new-government-must-do-183987

Wooltorton, S., L. Collard, and P. Horwitz. 2017. The land still speaks: Ni, Katitj! PAN: Philosophy Activism Nature, No. 13: 57–67. 4.

World Commission on Environment and Development. 1987. Report of the World Commission on Environment and Development: Our Common Future. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf