



## Philosophy of education in a new key: Who remembers Greta Thunberg? Education and environment after the coronavirus

Petar Jandrić , Jimmy Jaldemark , Zoe Hurley , Brendan Bartram , Adam Matthews , Michael Jopling , Julia Mañero , Alison MacKenzie , Jones Irwin , Ninette Rothmüller , Benjamin Green , Shane J. Ralston , Olli Pyyhtinen , Sarah Hayes , Jake Wright , Michael A. Peters & Marek Tesar

To cite this article: Petar Jandrić , Jimmy Jaldemark , Zoe Hurley , Brendan Bartram , Adam Matthews , Michael Jopling , Julia Mañero , Alison MacKenzie , Jones Irwin , Ninette Rothmüller , Benjamin Green , Shane J. Ralston , Olli Pyyhtinen , Sarah Hayes , Jake Wright , Michael A. Peters & Marek Tesar (2020): Philosophy of education in a new key: Who remembers Greta Thunberg? Education and environment after the coronavirus, Educational Philosophy and Theory, DOI: [10.1080/00131857.2020.1811678](https://doi.org/10.1080/00131857.2020.1811678)

To link to this article: <https://doi.org/10.1080/00131857.2020.1811678>



Published online: 15 Sep 2020.



Submit your article to this journal [↗](#)















View related articles [↗](#)



View Crossmark data [↗](#)



# Philosophy of education in a new key: Who remembers Greta Thunberg? Education and environment after the coronavirus

Petar Jandrić<sup>a,b</sup> , Jimmy Jaldemark<sup>c</sup> , Zoe Hurley<sup>d</sup> , Brendan Bartram<sup>e</sup> , Adam Matthews<sup>f</sup> , Michael Jopling<sup>e</sup> , Julia Mañero<sup>g</sup>, Alison MacKenzie<sup>h</sup>, Jones Irwin<sup>i</sup>, Ninette Rothmüller<sup>j</sup> , Benjamin Green<sup>k</sup> , Shane J. Ralston<sup>l</sup>, Olli Pyyhtinen<sup>m</sup> , Sarah Hayes<sup>a</sup> , Jake Wright<sup>n</sup> , Michael A. Peters<sup>k</sup> and Marek Tesar<sup>o</sup> 

<sup>a</sup>Faculty of Education, Health, and Wellbeing, University of Wolverhampton, Wolverhampton, UK; <sup>b</sup>Department of Informatics and Computing, Zagreb University of Applied Sciences, Zagreb, Croatia; <sup>c</sup>Department of Education, Mid Sweden University, Sundsvall, Sweden; <sup>d</sup>College of Communication and Media Sciences, Zayed University, Dubai, United Arab Emirates; <sup>e</sup>Institute of Education, University of Wolverhampton, Wolverhampton, UK; <sup>f</sup>School of Education, University of Birmingham, Birmingham, UK; <sup>g</sup>Department of Art Education, University of Sevilla, Sevilla, Spain; <sup>h</sup>School of Social Sciences, Education and Social Work, Queen's University, Belfast, UK; <sup>i</sup>School of Human Development, Institute of Education, Dublin City University, Dublin, Republic of Ireland; <sup>j</sup>Sociology, Graduate Center at the City University of New York (CUNY), USA; <sup>k</sup>Faculty of Education, Beijing Normal University, Beijing, China; <sup>l</sup>Wright College, Woolf University, Valletta Malta; <sup>m</sup>New Social Research, Tampere University, Tampere, Finland; <sup>n</sup>Center for Learning Innovation, University of Minnesota Rochester, Rochester, MN, USA; <sup>o</sup>Faculty of Education and Social Work, University of Auckland, Auckland, New Zealand

## ABSTRACT

This paper explores relationships between environment and education after the Covid-19 pandemic through the lens of philosophy of education in a new key developed by Michael Peters and the Philosophy of Education Society of Australasia (PESA). The paper is collectively written by 15 authors who responded to the question: Who remembers Greta Thunberg? Their answers are classified into four main themes and corresponding sections. The first section, 'As we bake the earth, let's try and bake it from scratch', gathers wider philosophical considerations about the intersection between environment, education, and the pandemic. The second section, 'Bump in the road or a catalyst for structural change?', looks more closely into issues pertaining to education. The third section, 'If you choose to fail us, we will never forgive you', focuses to Greta Thunberg's messages and their responses. The last section, 'Towards a new (educational) normal', explores future scenarios and develops recommendations for critical emancipatory action. The concluding part brings these insights together, showing that resulting synergy between the answers offers much more than the sum of articles' parts. With its ethos of collectivity, interconnectedness, and solidarity, philosophy of education in a new key is a crucial tool for development of post-pandemic (philosophy of) education.

## ARTICLE HISTORY

Received 12 August 2020  
Accepted 12 August 2020

## KEYWORDS

Philosophy of education; new key; environment; Covid-19; coronavirus; pandemic; new normal; postdigital

## Introduction<sup>1</sup> (Petar Jandrić)

In late 2019, then 16-year old Swedish child Greta Thunberg has drawn the whole world into a heated debate about environmental consequences of capitalism. Following her viral *j'accuse* talks, epic sailing trip over the Atlantic, numerous interviews, and strong social media campaign, Thunberg has achieved what generations of climate scientists failed to achieve – she brought the question of the environment into almost every home. While Thunberg was at the peak of her popularity, the world has experienced the largest pandemic of our lifetimes. Unsurprisingly, people in all fields, and academic researchers in particular, have turned our attention to the pandemic. In late February, I wrote an urgent editorial for *Postdigital Science and Education*<sup>2</sup> and asked fellow academics to join these efforts, “get out of our comfort zones, and explore all imaginable aspects of this large social experiment that the Covid-19 pandemic has lain down in front of us” (Jandrić, 2020, p. 237).

As we started to explore various aspects of the pandemic, it has become crystal clear that Covid-19 cannot be thought of in isolation from wider environmental concerns. We are now witnessing fierce discussions about where the virus might have arrived from, and the general agreement seems to be that Covid-19 was transferred to humans from pangolins, bats, or another form of wildlife – just like many other coronaviruses before it (O’Sullivan, 2020). A considerable number of authors connect the emergence of Covid-19, and other diseases before it such as SARS and MERS, to industrial food production and consumption of wildlife (Jordan & Dickerson, 2020; Wang et al., 2020). Some animals are suspect of spreading of the virus, others serve as test subjects for medicines and vaccines (Gorman, 2020), and those farmed for food are deemed ‘essential’ as meat-packing facilities remain open at all cost (UFCW, 2020). CO2 emissions during lockdowns are significantly reduced, and the Internet is flooded by (often fake) images and videos of wildlife ‘reclaiming’ cities and factories (Lewis, 2020). And this is just a tip of the iceberg of other environmental causes and consequences of the global Covid-19 pandemic, analyses of which are now quickly popping up in academic and non-academic circles.

During the pandemic, people working in various fields have refocused their work to the immediate threat of, and to the ‘war’ against, Covid-19 (Wagener, 2020). Now that the pandemic has slowly become ‘normalized’ in our reality (despite various levels of contagion across countries, continents, and climate zones), it is the time to shift our attention from immediate struggle against the pandemic to its long-term relationships with the environment, and to educational implications of this relationship (Amoo-Adare, 2020; Fuller, 2020; Mañero, 2020; Peters, Arndt, et al., 2020; Sturm, 2020). Developed at the peak of the first wave of the Covid-19 pandemic, yet based on many years of working together, philosophy of education in a new key developed by Michael Peters and the Philosophy of Education Society of Australasia (PESA) executive provides important theoretical underpinnings for understanding these relationships. Their work is based on understanding of these relationships through the concept of interconnectivity

that emerged out of cybernetics, biology, ecology, and network theory. It points to the notion of non-linear dynamics that follows from the idea that all parts of a system interact with and rely on one another and that a system is difficult or sometimes impossible to analyze through its individual parts considered alone. Scientifically, the concept is closely linked to the observer effect and the butterfly effect where a small change in starting conditions can lead to vastly different outcomes. (Peters, Arndt, et al., 2020)

Interconnectivity cannot be pondered upon individually, so Michael Peters’ invitation to write this article represents a deep(er) epistemic principle (co-)developed in his other works such as *Knowledge Socialism. The Rise of Peer Production: Collegiality, Collaboration, and Collective Intelligence* (Peters et al., 2021). It is through intellectual interconnectivity between many strands of inquiry, and through human interconnectivity between 15 authors of this collectively written article, underpinned but not limited to Peters’ philosophy of education in a new key, that we examine messy and unpredictable, yet hugely important, intersections between education and

environment after the advent of the coronavirus. More detail about methods and principles behind this endeavour can be found in previous works of the Editors Collective<sup>3</sup> and its many publications (see Jandrić et al., 2017, 2019; Peters et al., 2016).

## As we bake the earth, let's try and bake it from scratch

### *Educational philosophy for a Brave New World (Jimmy Jaldemark)*

Inspired by the classic Huxley's novel *Brave New World* (1932), Murray et al. (2000) wrote that "dying swans twisted wings, beauty [are] not needed here" as an observation of the state of the world around the shift of the millennium. I interpret this line and the song titled 'Brave New World' as a warning of a narcissist and dualistic interpretation of humankind's impact on the world. Further, dualistic separations between humans and the world could lead to the alienation of humans' responsibility for how their actions and activities impact the surrounding environment. In the postdigital society of the 2020s (Jandrić et al., 2018), the song still delivers a warning to humankind while the swan – as a symbol of beauty and purity – could enlighten us of the need for a brave new world built on a balance between human actions and the surrounding environment. The application of this balance in educational philosophy embraces epistemological and ontological perspectives built on a dynamic and holistic worldview embracing the inseparable relationship between human actions and the environment.

Educational scholars such as Dewey and Bentley (1949/1960) discuss such worldview in terms of being transactional with the emphasis of human actions as being a complex holistic phenomenon "composed of inseparable aspects that simultaneously and conjointly define the whole" (Altman & Rogoff, 1991, p. 24). The work of Bakhtin (1953/1986) and Vygotsky (1934/1987) emphasizes that human actions also are intertwined in cultural, historical and social processes linked to the society. These prominent scholars have in common that their worldviews reject any separations between the mind, the body and the surrounding environment. From this follows that human action in terms of learning, teaching, or participating in education should focus on being inseparable from the surrounding environment.

The activity of education should focus on processes that link human actions to former, current and future states of the society. Such worldviews emphasize education as driver of change at individual and societal levels. To be able to apply such a dynamic and holistic perspective of the relationship between humankind and the environment, conceptualisations of education need to include concepts that embrace such complex worldview. Therefore, concepts applied in education should reject the separation of human actions and the environment. In other words, they should have a complex intersectional character that denies dualistic worldviews by linking various aspects to each other.

In earlier work, I have applied such conceptualisation by discussing human action as a boundless phenomenon (e.g., Jaldemark, 2010, 2012) or hybrid (e.g., Jaldemark, 2020; Jaldemark & Öhman, 2020). This work has rejected dualistic concepts such as interaction and learning environment. Following the footsteps of Dewey and Bentley (1949/1960), these concepts link to dualistic interactional worldviews that separate human actions from the surrounding environment. The application of these concepts in education includes dividing the environment into several separated environments – e.g. biological, geographical, learning, online, offline, and social – instead of applying a holistic worldview that emphasises human actions as a complex phenomenon embracing links to several aspects of the environment (Jaldemark, 2010, 2012). In short, by conceptualising education as a complex holistic phenomenon – embracing human actions and activities as inseparable from the surrounding environment – we might find a fruitful approach to save the dying swan, restore the beauty, and revitalise the role of education in a postdigital society.

### ***Learning to breathe (Zoe Hurley)***

Covid-19 has turned the world upside-down and politicians' serial broadcasts about the pandemic have been illogical yet distracting. Like the coronavirus, the spread of fake-news, and conspiracy theories are rapidly contagious. Capitalism responds to the crisis shrewdly and Amazon, for example, is expanding into telemedicine as 'Alexa' listens to coughs and answers questions about the pandemic (Dumaine, 2020). During lockdown cleaner air, nature and other species began to flourish but, for subjects of hyper-inequalities, there is no respite from bad information. The last words of murdered George Floyd, "I can't breathe", is the slogan of the Covid-19 generation in the grip of 'viral modernity' (Peters, Jandrić et al., 2020). This concept refers to viral information as *pharmakon* (Derrida, 1981), offering cures while prescribing toxic remedies. This *malinformation* turn is the signature of the postdigital condition, involving the merging of off-line/online phenomena (Jandrić et al., 2018).

Greta Thunberg's pleas to conserve the planet are yet to be addressed adequately by governments and big business lacking vested interests in sustainability, despite corporate environmentalism or greenwashing. Thunberg reasons that the only way to avoid climate catastrophe is to abandon today's political and economic systems and reach for science (Rowlatt, 2020). But, for all the followers Thunberg attracts, there are climate sceptics that she irritates. For some, Greta is a symbol of white privilege, posing an ampersand problem in obscuring racial and class inequalities within the climate crisis (Spelman, 1990). Furthermore, the environmental emergency, despite the temporary 'anthropause,' is at a scale that cannot be resolved by individuals. Part of the problem is that the field of science itself has been infected through the 'infodemic,' or spread of emotive and rancid discourse (Peters, McLaren, & Jandrić, 2020; Peters, Jandrić, & McLaren, 2020).

The White Queen, in 'Through the Looking-Glass,' informs Alice, that "[t]he rule is, jam to-morrow and jam yesterday - but never jam to-day" (Carroll, 1871, p. 53). This is on par with Donald Trump's illogic about testing and vaccines. Thunberg wisely urges us to learn to care for the planet now through science. Yet, we must also consider that the scientific issues, being given oxygen, stem from techno-politics' algorithms of debate (Jandrić, 2017). Science tells us only part of the story and we should be wary of arts and humanities being pushed to the brink of extinction. Their loss will be detrimental to broader learning about ecosystems. We need critical capacity to interpret data, diagnose symptoms of malinformation and theorise how climate crisis and other political matters are enmeshed within discursive warfare.

Empirical, exploratory and expressive education, for thinking about the pandemic's interrelationship with the environment and climate of malinformation, need not be at cross-roads. Effective interdisciplinary education isn't only delivery of more information, since we have so much, even too much. Setting education in a new key could harmonise interdisciplinary epistemologies, collective thinking and open science (Peters, Arndt, et al., 2020). Philosophy of education can contest techno-solutionism and develop methodologies for filtering conceptual spam. It could also breathe life, albeit human, artificial or other, into transdisciplinary environmental and ethical learning.

### ***'Next please ...' – issues, media and education (Brendan Bartram)***

As we are all acutely aware, the Covid-19 pandemic has dominated our lives in recent months. Although its effects have been differently experienced, it has affected us all personally, professionally, economically and psychologically in ways that are too numerous and diverse to discuss here. It has preoccupied us so much in fact that it has eclipsed many issues – including environmental concerns – while at the same time shining a harsh light on certain others, perhaps most disturbingly classed and ethnic inequalities and domestic violence. The relentless media focus on the virus was of course only to be expected – we live in highly mediated societies dominated by 24-hour TV news channels competing for coverage, and social media platforms that

perpetuate and publicise the endless reporting of individuals' views and experiences. We are all familiar with the 'themed' ebb and flow involved here – whatever constitutes the 'current' public media fixation is echoed and amplified in social media, and sometimes vice versa.

In this sense, Greta Thunberg provides an interesting example. Her high-profile media interventions generated fresh and growing interest in long-standing environmental concerns; by inserting herself at the centre of the story, whether through social media spats with President Trump or televised talks at the UN, she successfully mediated and reinvigorated a global focus on environmental matters. As the Covid-19 pandemic illustrates, however, the media will always jump on to the next story; so suddenly, the environment seems a little like yesterday's news – except perhaps where it connects with new angles on the consequences of the Coronavirus. And several months into the outbreak, there are already burgeoning signs of Corona fatigue, as media attention gradually shifts to new issues – the global spread of Black Lives Matter; ensuing debates on the statues of historical figures; and writing in the UK in June 2020 - following an 'Islamist' attack which resulted in the deaths of three gay men (Milton, 2020) - renewed concerns about terrorism and attitudes towards the LGBT community.

This is nothing new of course – the media always move on. My fear, however, is that our educational priorities appear to be increasingly linked to whatever happens to be the current topic of media interest. I completely understand calls to keep important issues at the heart of education. While I also recognise that topical matters invite educational consideration, I have concerns about the ways in which public expectations manipulated by media fixations can dictate a conveyor belt of educational responses to issues. This is not to trivialise the importance of any of these issues – they are all of huge significance. But there will always be a new story, and while we as educators need to be responsive to contemporary concerns, we also need to be responsible, and find balanced ways of embedding a sustained – and indeed sustainable - focus on varied matters of shared perennial significance within our curricula.

### **Bump in the road or a catalyst for structural change? (Adam Matthews)**

A critical question for education and society is whether the pandemic is a temporary bump in the road with a temporary fix or whether the Covid-19 pandemic will be the catalyst for structural change. Pre-pandemic, a discourse dominated of technology being able to "fix" education with the latest Silicon Valley innovation in the "smarter university" (Williamson, 2018). The thrust of technology and its promise was amplified in March 2020 and rather than disrupting education, technology became palliative (Selwyn et al., 2020). Palliative care is something which has characterised many activities in education. The symptoms were treated rather than the structural cause. Resilience, grit and mindfulness, just some of the sticking plasters and pain killers that have got us through. "Mindfulness lets us escape our challenges briefly: Meditate on your cognitive or bodily challenges or avoid them altogether by going to Stand-up Paddle-board yoga class." (Jackson in Peters, Arndt, et al., 2020, p. 4).

The environment in its broadest sense is an ecology of humans, nature and culture which if we remove or at least open up the divisions of modernity (Latour, 1993), can move us towards a co-existing environment with the human embedded as part of and not battling for control over the environment. Posthumanism is an opportunity for affirmative politics, combining critique with creativity for alternative visions (Braidotti, 2013). Treating the symptoms in siloed disciplinary echo chambers is not enough. There has been a recent resurgence of the idea of interdisciplinary education (Chye, 2020; Staufenberg, 2019)<sup>4</sup>. This idea rings true with Peters, Rizvi, et al. (2020) and the idea of harmonic cadence, interconnectedness in collective intentionality in the project of philosophy of education in a new key.

Interdisciplinary education as an abstract concept looks to investigate the world, including the human, the cultural and natural environment and is a structural change which holds

promise. The theory holds strong, but the practice is complex. This practice is highlighted by Fuller (Fuller & Jandrić, 2019, p. 200), with refreshing pragmatism “there’s more stuff than can be reasonably read”, specialisation is common and current structures mean we cannot know if our question has already been answered. Multi/inter/trans disciplinary have been studied and theorised to offer us theoretical starting points (Choi & Pak, 2006).

In a pre-Covid world there was the science wars of the 1990s, postmodern criticisms of ‘flat earthers’, an historic divide between teaching and research activity within the university, a neoliberal iron cage of measurement and quantification of siloed disciplines, specialist publishing and funding, social media echo chambers and institutional structures and competition. These are the practical structural boundaries which need to be overcome to achieve a true collective and harmony of the human in, and part of the environment. To truly move beyond the palliative to the transformational, we may rethink the idea of a university. This is not a new question and one in which Newman answered in 1852. For Newman (1852), the very word, ‘university’ comes from the word universal and universal knowledge beyond organisational structures should be the aim of the university.

### ***Rupture and conjuncture: education and the climate crisis (Michael Jopling)***

In his preface to the 35<sup>th</sup> anniversary edition of *Policing the Crisis* (Hall et al., 2013, p. xv), Stuart Hall emphasises the importance of “conjuncture”, a term derived from Gramsci and Althusser which “refers to a period when the antagonisms and contradictions, which are always at work in society, begin to ‘fuse’ into a ruptural unity”. The two conjunctures the book identifies in a British context are the creation of the social democratic welfare state in 1945 and its decline from the late 1960s. The crisis prompted by Covid-19, which can be regarded as both a symptom and a precursor of environmental catastrophe, may represent another rupture. If that is the case, the implications for education will be considerable.

How could we rethink schools in the light of the lockdown experience is the final open question in an opportunistic online survey of 147 school leaders (so far) in the North East of England we are currently undertaking to explore their responses to stress and particularly the Covid-19 lockdown. Here I want to highlight only three issues which are particularly relevant to climate emergency. The first issue is **reduction**: “I think we need to slow everything down and stop cramming our curriculum and give more time to us as a community and our wellbeing” (primary headteacher). In England at least, education policy has long been obsessed with scaling up, optimisation, maximisation, and achieving excellence. Shifting our focus to the local, reducing the pace of life and prioritising wellbeing over achievement are ways in which we might begin to contain our needs and live with, rather than in opposition to, the natural world.

The second issue is **trust**, as another primary headteacher identified: “Professional trust is a huge issue. I do not think testing represents the ‘whole’ child and for some it hugely affects their mental health and wellbeing”. This again shows how Covid-19 has necessarily elevated the importance of wellbeing and indicates how governments had no choice but to trust that schools would look after the most vulnerable children and young people competently. It should be difficult (if not impossible) to reverse this. Trust operates in opposition to the antagonising post-truth epistemologies (Peters et al., 2018) that have been exposed by the existential threats of Covid-19 and climate crisis.

Most predictably, but no less importantly, the final issue is **learning**, highlighted by a third primary headteacher: “Focus on building capacity for a love of learning. Those who love learning have clearly been more proactive with home learning than those who aren’t”. Developing an independent love for learning is part of developing learners’ self-sufficiency, which stands in opposition to instrumentalist conceptualisations of learning as a preparation for economic productivity. It is important to note that just as climate activism is led by the young, these issues were all highlighted by primary school headteachers. Reculturing their schools (Miller, 1998) will

be crucial if the Covid-19 and climate ruptures are to lead to a conjuncture driven more by the humanisation and collectivity central to 'philosophy of education in a new key' (Peters, Arndt, et al., 2020) than the divisions of populism and nationalism.

### ***Educational lessons from global emergencies: towards non-human superiority*** ***(Julia Mañero)***

Even in the half light  
We can see that something's gotta give  
[...]  
When we watched the markets crash  
The promises we made were torn  
(Arcade Fire, 2010)

Since the inception and dissemination of Covid-19 outside Chinese borders, the media agenda has been limited to Covid-related news. The drama spread, concern for basic necessities escalated, and grocery stores and businesses witnessed an unprecedented shortage of supplies. Meanwhile, people were still drowning in the Mediterranean, Turks and Syrians were still fighting, civilian populations were still dying, and the environment continued to suffer the consequences of an aggressive economic system.

Analysing educational practices and policies requires a review with respect to the situations experienced. The coronavirus –as well as the environmental crisis– are both derived from a productive system lacking in ethics, morals and a sense of the common good. What do we need to achieve in order to reflect on possible sustainable alternatives that are respectful of and in solidarity with the environment and others?

The coronavirus crisis has also enabled a series of ideological viruses that some philosophers such as Slavoj Žižek (2020) believe can open windows to alternative ways of thinking, updating society towards solidarity and global cooperation. For this it is necessary to recognize viral modernity in which we are immersed (Peters, Jandrić et al., 2020). In this way, we claim that there are biological viruses but also digital viruses and even attest that capital forms a viral entity (Žižek, 2020).

The pandemic comes to resemble a natural response, due to the mistreatment and deregulated neoliberal actions on the planet for the sake of human benefit (Harvey, 2020) or as Han (2020) states, the pandemic is the result of a globalization and liberalization that allows the flow of material and immaterial capital without precedent. In this way the fragility of the current ideological system is manifested. It is becoming evident that scientific progress is not directly proportional to human and moral progress: without ethical progress there is no real progress (Markus, 2020).

It is paradoxical to refer to a hypothetical 'progress' when the concept goes hand in hand with economic productivity. Health cuts, austerity policies and corruption, in which research for the prevention of possible diseases has no place because it is not profitable in economic terms. As a result, a simple and exemplary manifestation of neoliberal ideology is being addressed: maximizing profits to the detriment of collective welfare (Polychroniou, 2020). The pandemic has resulted in a mishmash in which natural, economic and cultural processes are totally intertwined and interrelated (Žižek, 2020) resulting in a non-human superiority.

The global disasters that we are suffering – in terms of education – have not only generated new issues but have also highlighted in a striking way those inconsistencies that we have been reproducing in recent years. An educational system that was – and still is to a great extent – under market control, bets on productivity and adaptation to the system. There is a need to reclaim in the classroom the time for reflection, pause, criticism, to avoid productivity and instrumentalization as the main objective of the educational system.



Education is politics and has a primary function to transform the world or to reproduce it (Escaño, 2018). If we bet on the first, and if we advocate for an active, participatory and democratic citizenship, we need a committed postdigital critical pedagogy that encourages both creativity and imaginative thinking. One aim of such pedagogy is to destroy the social assumption of human superiority and the binary thinking of human/non-human (Peters, Rizvi, et al., 2020).

The market and its invisible *laissez-faire* logic has collapsed, revealing its limits and foreseeing some of the effects and collateral damage on nature and humanity. Hopefully, humanity won't need another global disaster to realize that human beings are such a small piece in the universe.

### ***Do animals have complex mental lives? (Alison MacKenzie)***

Do animals have complex mental lives? Sceptics would immediately dismiss this as a nonsense question: animals (except, perhaps, great apes) lack intelligence, cannot engage in conceptual thought, and are not, therefore, morally significant entities about whom we should show concern. Animals, especially those we eat or trophy hunt, are regarded as resources for our sustenance and enjoyment, as mere means, as practically inanimate – unless we favour them, in which case, dogs, cats and parrots will probably lead flourishing lives.

The cognition of animals may not be sophisticated, lacking, as they do, the experience to draw on critical reasoning to reflect on the events taking place such as habitat destruction or being tied to the bars of a cramped cage. But this does not mean they passively accept the reality before them. Seligman's (1975) work on animal helplessness in laboratories, fear and depression rests on a theory of contingency (lack of control in the environment), which Seligman interprets as the way the animal 'represents' the world to itself' and behaviour. We cannot understand, he argues, animal behaviour unless we grant that they have cognitive representations of that world: the animal's helplessness is learned behaviour and depression is a result of the creature's realisation that it has no control over the pain stimulus.

Mary Midgley (1995 [1979]) asks what we mean by conceptual thought. While the upper reaches of conceptual thought belong to the human species, and no gorilla thinks of relativity theory (and neither do many humans, she quips), what are the lower limits of conceptual thought? Dolphins, elephants and apes can make up games or invent new tricks on the spot. Midgley (1995 [1979]) cites the example of Jane Goodall's chimp, Washoe, who regards himself as an "honorary person" but, using cards, classifies other chimps as "black bugs". Does this imply conceptual understanding of the difference between species and self-hood? The evidence points strongly towards the affirmative. What these examples from the animal world show is that intentionality, rich mental phenomena, need not be the sole preserve of the human animal.

Beliefs about the environment affect our choices and behaviours. If we cannot or are unable to accept that systematically damaging the environment or harming animals is seriously morally wrong, we will continue with the damage. There is ample evidence of our growing global problems, growing health impacts, and trauma to animals – but we resist, cocooning ourselves in wilful or blissful ignorance. We are more likely to respond if we nurture ethically inspired beliefs that harming the environment is a serious moral wrong and that animals do feel and do feel despair, fear, helplessness and depression. Brutal, careless and indifferent treatment, and lack of respect for non-human species, will cost us dearly, as Covid-19 has surely revealed.

How do we get humans to restrain themselves? To learn to respect, to treat with awe and wonder, the environment in which they live? This is no easy task since we rarely have direct control over systemic beliefs that have been nourished since early childhood. We can't simply rely on schools: curricula is overcrowded and teachers are tasked with so much already. To change beliefs, we need evidence that is relentlessly factual and truthful, and fearlessly presented;

governments must treat seriously the evidence and act positively; industry must become advocates for the environment; at all levels apathy and scepticism must be challenged; and we must cultivate appropriate degrees of scepticism and suspicion about challenges against environmental protection. And we must consider - animal rights.

### **If you choose to fail us, we will never forgive you<sup>5</sup>**

#### ***Can philosophy of education (and the university) change for the better by listening to Greta and youth voice? (Jones Irwin)***

Those of us who work in the contemporary university are acutely aware of its manifest deficiencies as a place which supposedly values progressive thought and a connect to positive social change. While we can recognise many great colleagues and many great policies in principle, the possibility of progressive change is all too often stultified by poor leadership, nepotism, lack of vision and a disconnect from social and political transformative forces. Similarly, the discipline of the philosophy of education whilst having resituated itself especially in the 1990s (under the influence of Critical Theory particularly) as more focused on the socio-political dimensions of schooling, nonetheless often keeps an abstract distance from contemporary social movements for change. In this context, I warmly welcome the project of 'Philosophy of Education in a New Key' (Peters, Arndt, et al., 2020) as a project of collective intentionality and collective solidarity. It allows the possibility for more organic thought and praxis amongst philosophers and in the wider university as a way of bridging the aforementioned democratic deficit of much third level pedagogy.

If we need an inspiring paradigm for such an endeavour, we need look no further than Greta Thunberg. As Jandrić (2020) has argued, Greta's iconoclastic critical interventions have demonstrated to us that the crisis of Covid-19 from an educational perspective can only be addressed through a focus on environmental change and sustainability. Greta's own speeches on this issue, collected together under the title *No One Is Too Small to Make A Difference* (Thunberg, 2019b) call attention starkly again and again to our responsibility and guilt in allowing our planet to be nearly destroyed on front of our very eyes whilst we stay silent and do nothing.

I was lucky and privileged for five years (2015–2019) to work as Project Officer with new state primary schools in Ireland which were seeking to develop pluralist school environments and curricula in the context of an overarching Christian faith school system (NCCA, 2018). There I encountered and worked with Muslim, Hindu, Pagan, Atheist and Agnostic (as well as Christian) parents and children. This experience taught me the alienation which many people feel in our current education system as well as a tendency to patronising such people amongst our educational establishment. Greta's calls for change have met with similar resentment and critique amongst conservative adults. But the experience also taught me that with commitment, openness and collective action, real and progressive change in our educational institutions and practices remains wholly possible. Erich Fromm (2001) used to warn us of the 'fear of freedom'. Let us overcome any fears we may still have in terms of the possibility of genuine revolution in our education and political contexts. Greta has reminded us that the time is urgently now. She has also shown us the real difference which courage and straight-talking honest critique can have. What excuse do you have for staying quiet and complicit any longer?

### ***This is not a lullaby<sup>6</sup> (Ninette Rothmüller)***

"The climate crisis is also a crisis of culture, and thus of the imagination."  
(Ghosh, 2016, p. 9)

It's mid-June 2020 when Davide Panizza tucks a giant under one of the largest night-night blankets. It is "100,000 square meters" big (Agence France-Presse, 2020). Fighting for its life and

looking rather frail the giant has lost one third of its magnitude. Blankets and lullabies won't help. I bet that the giant will die during my seven-year-old daughter's lifetime. Frankly, most of us won't miss him. In the summer he hibernates tucked in tightly. During the remaining three seasons humans cover the giant's skin with signatures of their pleasure; putting pressure upon it, squeezing its flesh. He is combed — stroke after stroke, like paint brush strokes — leaving streaks, as sharp as cuts, on the surface of its body. The giant's name is Presena. Presena is an Italian glacier. It wasn't the late Christo's idea to cover it.

### ***Bake it from scratch***

It's mid-April 2020 and Rosina Phillippe's pail is full; as are the canals. I have a feeling we are not in Italy anymore, a voice in my head whispers. Accurate: this is Grand Bayou and the canals in question had been dug by oil and gas companies. What's in Phillippe's pail? "The history of cohabitation, the history of the knowledge of place, of belonging." (Phillippe in Yeoman, 2020) At Grand Bayou the table is set to dine. Phillippe, an elder of the Atakapa-Ishak/Chawasha Tribe, shares "We're like place markers on the table [...] waiting for everybody else to come and dine." (Phillippe in Yeoman, 2020) The Atakapa-Ishak/Chawasha Tribe has neither state nor federal recognition. With tribal sovereignty not being protected fighting "land loss and natural disaster" is challenged by the lack of resources and protection (Smith, 2020). Like other tribes Phillippe's community faces climate forced displacement.

On June 20 The Guardian quotes Greta Thunberg: "The climate and ecological crisis cannot be solved within today's political and economic systems." (Thunberg in Murray, 2020) As we bake it (the earth that is) we need to bake it from scratch. Politics have to be homemade (as in, challenged from within the private sphere) from within communities.

### ***Get it moving***

It's just over mid-life in my life. Am I having a crisis? Yes! Humans have overconsumed life. "Humanity is in a state of debt." (UNESCO, 2019: 7) Every parent on this planet will bequeath that debt to their children. In fact, the question is "whether there will be future generations" (Jonas, 2016). Still singing lullabies? Nothing humans do is (climate) neutral; not even singing lullabies. Referencing refugee philosopher Hans Jonas (in Pawlikowski, 2016) wrote: "Ethics must become part of the fabric of the future as well as of the present." If so, why do we not "think what we are doing"? (Arendt, 1998, p. 5) During the Covid-19 pandemic what do we dream of? Skiing, going for a drive, gardening on land as if no blood was shed on it and no-one had been displaced from it, serving salmon for dinner<sup>7</sup> and after a day of fun, tucking our little ones in, singing a lullaby, as if there indeed was a tomorrow? What tomorrow? You tell me. The pandemic is a chance to refocus. I advocate following Arendt's request — wherever and whoever you are. It's everyone's turn. Let's change climate politics from scratch; every body! It will need everyone's doing and everyone's imagination. Imagining with each other; not against.

### ***Lest we forget: psychological trauma, collective irrationality and political activism during the age of Covid-19 (Benjamin Green)***

For years, scholars have labelled climate change as the single gravest threat to the continued survival of the human race. In fact, 97% of actively publishing climate scientists agree that recent climate-warming trends are attributable to human activities (Hoffman, 2015; NASA, 2020). Why is it then that no amount of expert scientific coverage has been able to balkanize a lasting critical (see: revolutionary) mass of global support for climate-based socio-political reforms? George Marshall (2015) suggests that this collective pathology of wilful disregard, even in the face of

repeated climate-born disasters, stems from the fact that climate change represents a somewhat distant and abstract threat, one which fails to mobilize our common psychology of risk – a psychology which signals our instincts to protect our family and tribe.

This sentiment has been echoed by Dr. Aaron Bernstein, director of the C-Change program at Harvard's Center for Climate, Health and the Global Environment. Bernstein states that while pandemics such as Covid-19 represent a scary and immediate threat to ourselves, our families and our way of life, "hitting all the go buttons" that signal our psychology of risk, climate change – as an impersonal and distant "armageddon in slow motion" – does not (Harvard, 2020). While this notion may account somewhat for society's conveniently sporadic amnesia towards an impending climate change apocalypse, it doesn't quite tell the whole story. Specifically, this notion doesn't account for why voting blocs in the US' most vulnerable (to increasingly prevalent volatile weather emergencies) regions continue to vote against potential climate champions (Marshall, 2015). Moreover, within the US, this disregard cannot simply be chalked up to partisanship, as both the 2016 election and 2018 midterm election exit polls show that neither Democrat nor Republican voters ranked climate change among their top electoral concerns (Dolsak & Prakash, 2020).

In order to understand why climate change elicits this wilful disregard from many within contemporary society, we must first understand how and why a rising global Covid-19 body count failed to signal an appropriately universal psychology of risk within the US. As a point of fact, within the US, public perception is overwhelmingly shaped by and highly contingent upon an authoritative 'elite' political narrative. Specifically, in early February, at the height of Trump's downplaying of the threat of Covid-19, public opinion echoed this official narrative, with only 23% of polled voters labelling Covid-19 as a "severe threat" to public health, with this number surging to 62% in mid-march when Trump gave an oval office address declaring Covid-19 a national health emergency (Yokley, 2020). This highlights the fact that, despite overwhelming evidence from the global health community, which clearly labelled Covid-19 as a grave threat to personal health and safety, many in the US still displayed a wilful disregard to a pandemic that should have triggered a collective psychology of risk.

In assessing this phenomenon, psychologist Bryant Welch (2008/2018) proffers the notion that the capacity for rational thought within increasingly atomized modern societies has been weakened by decades of psychological trauma. Moreover, this trauma continues to be readily exploited by both the news media – in their despondent coverage of war, terrorism, economic decline, racial discord, pandemics, immigration etc., and political ideologues – who greedily prey on the collective vulnerabilities of an anxious, fearful and confused populace. Feeding on the collective irrationality exhibited within the fractured realities and weakened decision-making capacity of societies suffering from deep psychological trauma, politicians are keen to provide simplistic (fanciful) narratives which salve the wounded psyche of a voting public in desperate need of clarity and certainty (Welch, 2008/2018).

In light of this, scholars must seek to address climate change in a way that elicits a de-atomizing sense of hopeful collective intentionality, action and responsibility (Gallotti & Huebner, 2017; Peters, Arndt, et al., 2020), Zaibert, 2003; rather than signalling a pathological retreat into siloed partisan apathy and collective socio-political escapism. Finally, although global society has begun to normalize a future with Covid-19, it is imperative that the public begins to understand that threats to the environment, climate change and pandemics like Covid-19, while intimately connected, are both personal and actionable (Harvard, 2020). Thus, as we reclaim our rightful tradition of collective revolutionary social activism (as evinced by the diverse and overwhelmingly peaceful global protests against systemic racism) (Ankel, 2020), scholars must orient future climate change scholarship towards this resurgence in political activism by fomenting within our current global risk society a hopeful *ethos of community* in support of the greater global good (Green, 2020).

### ***Covid-19 and the myth of nature's revenge (Shane J. Ralston)***

If ideas help us evolve through so-called memotypic (as opposed to phenotypic or genotypic) variance, then Greta Thunberg has truly assisted the evolution of the human species. She gave voice to the idea of generational environmental betrayal, or that future generations would never forgive the current adult generation for ignoring a climatic emergency: “[T]he young people are starting to understand your [contemporary world leaders’] betrayal. The eyes of all future generations are upon you. And if you choose to fail us, I say: We will never forgive you.” (Thunberg, 2019a)

Thunberg taught us to fear the threat of disappointed future generations. Whether generational environmental betrayal is true or mythical, the objective is nevertheless the same: to provoke (or inspire) monumental behavioural and policy change for the sake of averting an imminent environmental catastrophe. As the Covid-19 pandemic descended upon us, our collective imagination was consumed by the idea of a combined environmental apocalypse/health crisis. Again, whether it was true or mythical, the point of invoking the idea was to catalyse change on a grand scale. Some environmentalists warned that Mother Earth was exacting retribution on the human species, for polluting her air, her soil and her oceans. To punish us, she brought plague and death to all corners of the globe. The time was ripe for “nature’s revenge” (Valliantos, 2020).

By tying the threat of environmental catastrophe to a global health emergency, environmentalists wielded a truly pragmatic environmental rhetoric. They had harnessed the myth of nature’s revenge. Anthropomorphizing flora/fauna, ecosystems and the biosphere as vengeful forces punishing humanity might not be truthful, but it is especially effective. The mythical narrative communicates the urgency of imminent environmental apocalypse. It incites fear, recruiting the emotion as a driver to change humans’ unsustainable behavior. Covid-19 and the myth of nature’s revenge changed behaviour on a massive scale. People drove their carbon-emitting vehicles less. Some hoarded, but many, as a result of shortages, became more discerning consumers. The air quality improved. Global CO<sub>2</sub> emissions dropped.

In my book *Pragmatic Environmentalism: Towards a Rhetoric of Eco-Justice* (Ralston, 2013), I introduced the notion of the inadvertent environmentalist, the individual who acts in environmentally responsible ways, without the intention to do so, only because economic factors push and pull her to act thusly, given otherwise selfish motivations. Behavioural economists (e.g., Ostrom, 2010) are well aware that incentives and constraints can be intelligently designed for this purpose. What behavioural economists might not be as aware of is the power of myths, as well as the fears they incite, to incentivize environmentally responsible action (as well as inaction). If we have learned anything from the intersection between the ideas of generational environmental betrayal and nature’s revenge, it is that myth-making is an effective way to catalyse mass behavioural change, and we might just evolve as a species because of it.

## **Towards a new (educational) normal**

### ***Covid-19 as educator (Olli Pyyhtinen)***

In *The Natural Contract*, philosopher Michel Serres (1995) suggests that most of our narratives, philosophy, history, and social science have remained blind to nature. They have only cared for the actions, communication, and conflicts of human beings and for the spectacle called ‘culture’. Yet, to grasp the genesis, multiple spatiotemporal scales, and effects of Covid-19 necessitates that we see it within a larger *Umwelt* of living organisms and understand the world in which we live as both a human and a non-human world. Through Covid-19 pandemic the non-human or more-than-human world of, for example, animals, meat, viruses and their genomes, airborne

transmission, infections, and diseases reminds us of its presence and participates in shaping and transforming our lives and relations with fellow humans.

While researchers from various fields – epidemiologists, virologists, mathematicians, health scientists, statisticians, and sociologists, you name it – are working hard to learn as much and as fast about Covid-19 as possible to halt the pandemic, could there also be something to learn *from* it? Could the pandemic teach us something about ourselves and about the possibilities and potentials of life? In other words, what if we treated Covid-19 as an educator?

Of course, at present it is still too early to know about the many possible teachings of the pandemic. These will be revealed to us in time, provided that we are open and willing to learn. If not, we fail to change our prevalent ecological destructive practices. Here I present – in a preliminary manner – two possible teachings of Covid-19 with regard to the environment.

First, Covid-19 may give us a sense of the vast range of our relational world. Networked space has become our environment (Serres, 1994, p. 203). Covid-19 is a *relational hazard* that has to do with relations. It cannot be explained by reference to individual subjects and their goals and actions. In spite of their possibly good intentions, like personal empathy, individuals may unknowingly infect a great number of others and spread the disease. Besides Covid-19, SARS-CoV-2 itself is relational through and through: in addition to originating in relations and spreading through relations, the virus has hit and infected not only our bodies but also our networks, forcing us to impose such protective measures over human relations as quarantines, lockdowns, and spatial distancing (see also Pyyhtinen, 2020).

Second, Covid-19 pandemic can tell us how the balance of humanity and nature has been shaken during the past century. Instead of being ‘there’, as Heidegger suggested with his notion of *Dasein*, we, as a world-subject, are rather out-of-there, deterritorialized from the ‘there’ of our existence; humanity has become a global physical variable in the physical system of the planet Earth (Serres, 1995). While we have become the masters of the world, harnessing and exploiting natural phenomena, our own mastery escapes our mastery (Serres & Latour, 1995, p. 171). The main question thus no longer is how to control nature but how to control our own actions that seem to escape our control. The Covid-19 pandemic is an example of how we are nowadays subjected to and depend on the world that is of our creation. What we produce returns to us in the form of new givens – pandemics, natural disasters, pollution, waste – conditioning and threatening our health, relationships, institutions, and mode of life.

### ***Resisting an ‘isolated’ McCovid-19 response (Sarah Hayes)***

When a group of companies responded to the Covid-19 requirement for self-isolation by producing socially-distancing logos, this was swiftly criticised for trivialising a crisis (Valinsky, 2020). Yet such global marketing is hardly surprising given that predictability is a key principle of McDonaldisation theory, alongside efficiency, calculability, control and the irrationality of rationality (Ritzer et al., 2018). Perhaps as we entered lockdown, amid traffic ceasing, businesses closing and wildlife returning, we imagined this ‘pause’ was also ‘distancing’ us from these forms of neo-liberal rationality? Sadly not.

Instead these commercial logos provide firstly, a reification of ‘social distancing’, by visually depicting this new ‘condition’ to collectively adapt to, for public health. Secondly, the logos ascribe a set of capitalist values, reinforcing a generalisation that infers that social distancing is experienced by everyone in a similar, predictable way. Such static representations do not reveal varied national lockdown timelines, grief, loss, economic hardships, or the role of personal ‘postdigital positionality’ (Hayes, 2020) in managing isolation. Social distancing has, for some, involved home-based work, for others a loss of work, for some a break from travel, for others more desperate forms of travel (Roy, 2020).

Even before Covid-19, environmental efforts were being hampered by oversimplifications, such as ill-defined terms like globalisation being applied as if this were a single condition of the world. Whilst globalisation may be good for some citizens and bad for others, the rational treatment of the term as evenly experienced across the world conceals a ‘discussion’ that is never had (O’Byrne, 2016, p. 41). It closes down debate on the interplay between global and local disadvantage, silencing diverse regional voices (Hayes et al., 2020).

Yet Covid-19 has visibly surfaced starkly uneven suffering globally and locally. A simple return to the ‘normality’ of neoliberal capitalism is now being questioned, given perceived opportunities for a collective reimagining of our world (Roy, 2020). However, this will require multilevel, multi-cultural, cross-sector debate and actions that acknowledge that all human activity and the natural environment are interwoven.

Despite self-interested attempts to reify social distancing, the pandemic has caused governments and individuals to address the catastrophe in unprecedented ways, including supporting business and industry, and public and private infrastructure (Vince, 2020). This has openly revealed the intimate relations between economic, political and cultural forces that McDonaldised activities generally conceal. Therefore, resisting an ‘isolated’ McCovid-19 response, that rationally sits apart from environmental activism is needed. As lockdown eases for some, a return to thoughtless consumption could be just days away. Yet it took only days to notice the cleaner air and urban wildlife that accompanies a less carbon-intensive lifestyle. It is necessary therefore to ‘navigate the twin storms of Covid-19 and climate’ and to ‘know that the climate crisis will not wait for a more convenient time’ (Vince, 2020).

Yet we may need to do even more things concurrently for this to be sustainable. Rather than distancing logoi, that reinforce neoliberal individualism, a new collective vision across sectors and nations is needed, where contextual lessons from the global south are valued alongside those from the global north. If there is one thing this pandemic has taught us it is that rational, generalised interpretations need to be consigned to the past. A McCovid-19 response will no longer cut it.

### ***First, do what works (Jake Wright)***

What are the educational implications for the interplay between the climate crisis and the Covid-19 pandemic? There are many ways to interpret such a call. One would be as a call for new visions or new pedagogies, transforming what education is or could be in the face of unprecedented global challenges that seem to compound weekly. I wish to caution against this interpretation as an initial, admittedly tempting, step.

To see why, I consider Gallo de Moraes et al. (2020) argument that our response to an unprecedented medical crisis should be a recommitment to basic, fundamentally sound care. This argument, I believe, is instructive for how we as educators ought to respond to the *crises du jour*.

Physicians treating Covid-19 face a choice. They can either employ proven, efficacious treatments, or they can “adopt and create novel approaches and therapies” (Gallo de Moraes et al., 2020). While the latter is tempting, Gallo de Moraes and colleagues argue such strategies would be a mistake *precisely* because physicians find themselves in crisis. For example, they note that a potentially fatal complication of Covid-19 is acute respiratory distress syndrome (ARDS), which can be successfully treated by shifting patients to a prone position. However, ARDS patients are unlikely to be treated thusly, despite such positioning being proven and cost-effective. To ignore such basic, fundamental, and efficacious treatment in favour of an exciting but untested protocol is, they argue, simply wrong. As they note, “the stakes have never been higher,” but “now is not the time to forsake our established methods” (Gallo de Moraes et al., 2020). To adhere to the physician’s oath of *primum non nocere* (i.e., first do no harm), one must first do what works.

Like the physician struggling to respond to a ward of Covid-19 patients, we as educators can be torn between a recommitment to the tried-and-true and the search for novelty in an effort to

overcome the crises of the moment. And like the physician, abandoning the tried-and-true to seek novelty for novelty's sake would be a mistake.

As educators, we have access to a host of practices that not only demonstrably allow students to confront crisis, but motivate them to do so.<sup>8</sup> Like the physician rolling a patient into a prone position, saying that our first response to the challenges of climate and pandemic should be more group work, intensive writing, and learning communities is not sexy, but that's not the point. The point is that such practices have been shown to work, and there is little reason to think that our current moment is so unprecedented that they will not work now. Further, like prone positioning for ARDS, such pedagogical strategies are distressingly under-utilized despite their proven efficacy. Before we seek a shiny new strategy, surely we ought to at least fully implement what has been shown to work! It may be that we will need to completely re-envision education to meet our current challenges, but coming to that realization will first require showing that what has worked before cannot work now. Like physicians, our stakes have never been higher as crises compound on themselves. The task before us is not to reinvent who we are or what we do; it is to do what works and do it well.

## Conclusion (Petar Jandrić)

Fifteen responses to the question *Who remembers Greta Thunberg?* provide a rich tapestry of themes, opinions, and (sometime opposing) conclusions. Focusing to concordances between individual responses, we can identify a strong accent to the problem's complexity, interconnectivity, interdisciplinarity, individual and collective responsibility, our postdigital existence, and the need to reinvent our sense of community. As it often happens with collective articles, however, this tapestry of responses gives more than the sum of its parts, and this is where things become really interesting ( Jandrić et al., 2019; see also Jandrić & Hayes, 2020; Jandrić et al., 2020 ). Apart from academic matters, the paper screams with feelings of confusion, individual powerlessness, the urge to change, and dreams of a better world. These feelings are just as important as our philosophical conclusions, because they allow us to act upon our theories. It is at the intersections of these two powerful human forces, reason and emotion, that we can now identify spaces for collective emancipatory praxis.

Philosophy of education in a new key is a fresh approach to "a fundamental ecological, political and moral principle: constitutional law must promote the welfare of all reflected in the 'general will'" (Peters, Arndt, et al., 2020). Collectivity built into philosophy of education in a new key reaches much deeper than this gathering of 15 human authors and sees animals, bacteria, viruses, and other visible and non-visible living and semi-living entities as deeply interconnected, together with our (non-living?) technologies (Fuller & Jandrić, 2019; Peters, Rizvi, et al., 2020). "Our physical microbiological contact is an expression of our biological interconnectivity which also has cultural, social and political dimensions that are played out through the means of a technological superstructure that takes many digital and postdigital forms." (Peters, Rizvi, et al., 2020). In our age of viral modernity (Peters, Jandrić et al., 2020), philosophy of education in a new key (Peters, Arndt, et al. 2020) allows active collective engagement with complexities and intricacies of our interconnected reality. (Post)-pandemic education has an urgent duty to secure that these messages are understood and applied widely.

## Philosophy of education in a new key: who remembers Greta Thunberg? Education and environment after the coronavirus

### *Michael A Peters (Open Review)*

It is a delight for me to review this collective writing project organized by Petar Jandrić, with whom I have worked closely over the last few years and who has a prodigious work rate and a



commitment to the idea of the collective as a means for advancing and harnessing knowledge in an era dominated by the significance of the environment of the Earth that provides the major epistemological metaphors of our times in the twin concepts of ecologies and interconnectivities. While we are friends and colleagues we don't always agree and there is room for criticism on both sides although on this occasion I am both impressed with the compression of complex thinking and its knowledge ecology, as well the strength of individual contributions. Why shouldn't a collective paper be orchestrated to provide not just a set of discussion points but a comprehensive survey of expert opinion in contrast to a single authored academic paper? The collective paper aimed at the question of post-pandemic philosophy of education introduces a new key which is urgent and real, and the theme is nicely framed in a series of four sections that takes inspiration from the teenage activist Greta Thunberg who has inspired so many. The fifteen contributors most of whom have been introduced to Educational Philosophy and Theory for the first time have put forward their philosophical positions in the way that overlaps, strengthens and mirrors holistic organic thinking. The effects are a chorus of voices that examine common themes from a variety of related perspectivism without being reduced to a simple epistemological perspectivism. (It is more like a piece of interconnected DNA with its spiral repetitions). I don't have the space here to comment on individual contributions because there are so many but I do want to mention another feature which is the way authors draw on their own sources of inspiration and influence –Huxley, Bakhtin, Derrida, Braidotti, Hall, Žižek, Midgley, Thunberg, Fromm, Phillippe, Arendt, Ostrom, Serres, Marshall, Gallo de Moraes to mention a few of the names. The result, as Jandrić explains in his conclusion is like a 'rich tapestry' and sometimes an unexpected turn that nevertheless operates like a length of twine where individual strands are strengthened and illuminated or thrown into sharp relief, by being part of a general theme where there is some measure of agreement on what counts for us now and what must be done. In particular, I am also impressed by how seemingly easy it was for this group of authors to act in unison, to style their own distinctive contributions in line with the acceptance of a common theme and an understanding of the larger project of philosophy in a new key.

## **After the environment and education**

### ***Marek Tesar (Open Review)***

Collective writing has become an important form to express the thinking of a group of scholars who do not have to agree with respect to ideology but rather are linked by their thinking about similar concerns. The form is clever as it enables an argument to be contained and presented in a small number of words; something that is not an easy task for any philosopher of education and potentially the challenge that shapes the argument. The project Philosophy in a New Key has been taken up in 2020, in the time of pandemic, and created an environment within which scholars around the world have engaged with the ideas of Covid-19 and new normality through different lenses, a diverse prism (see Tesar, 2020). The contribution and engagement with this topic has thus far included various theoretical and geographical lenses (see for instance Kato, 2020; Jackson, 2020; Papastephanou, 2020; Hung, 2020; Waghid, 2020). In this paper, Jandrić et al have taken into account a tremendous collective power and energy to look at issues surrounding the intersection and interface of the environment and education. The year 2020 indeed started as a year where we were considering climate change as something pressing, the grand challenge and primary the narrative of 2020 and beyond. However, instead (albeit this paper challenges this), Covid-19, the virus, has entered our everyday and mundane lives, and also has entered scholarship. Therefore, seeing Jandrić et al. representing thinking about the environment is powerful work, embodied through asking the question 'Who remembers Greta Thunberg?', and writing about education and environment after Covid-19. The notion of 'after', which may seem problematic to mention, is well articulated and interrogated in this collective writing.

Ralston offers us one of one of the most powerful statements and lessons from this collection “Thunberg taught us to fear the threat of disappointed future generations”. Jandrić and colleagues have used four main themes for their collective writing to structurally organise (but not segregate) ideas around wider philosophical concerns, education, environment and activism, and futures studies. Together, this creates perhaps the most vivid and strong encounter of the examination of our current conditions and the possibilities that we are encountering in philosophical enquiry. This is a very lucid and structured inquiry where we consider not only ‘what’ and ‘how’, but also ‘what if’, in a way that is not only powerful and liberational, but also revolutionary, as a call for action. What action, one may ask. There is that implicit question in the question ‘Who remembers Greta Thunberg?’. There are complexities, there are ambivalences, but there is also axiology. There is an urge, power and roar to the argument. It is political, it is ecological and it is philosophical. And as Jandrić himself argues: “It is at the intersections of these two powerful human forces, reason and emotion, that we can now identify spaces for collective emancipatory praxis”.









## Notes

1. The question Who remembers Greta Thunberg? came out of a discussion between Petar Jandrić and Peter McLaren while we revised the article ‘Critical intellectuals in postdigital times’ for *Policy Futures in Education* (Jandrić and McLaren forthcoming 2020). The article was in its final stages of publication and we managed to squeeze in only a few sentences on the topic. Following Michael Peters’ invitation to develop a collective article exploring an aspect of philosophy of education in a new key (Peters, Arndt, et al., 2020), I decided to pursue this important question further by tapping into collective wisdom.
2. See <https://www.springer.com/journal/42438>.
3. See <https://editorscollective.org.nz/>.
4. Steve Fuller responds to the call for an interdisciplinary future on Twitter <https://twitter.com/ProfSteveFuller/status/1277153737702768642>
5. This title paraphrases a sentence from Greta Thunberg’s viral speech at the 2019 UN Climate Action summit in New York (Thunberg, 2019a).
6. Ninette Rothmüller is grateful to Marco Piana, Simone Gugliotta and Giovanna Bellesia from the Department of Italian Studies at Smith College for their advice on the origins of the name *Presena* and to Amy Larson Rhodes from the Department of Geosciences, also at Smith College, for her advice on the formation of Italian glaciers. Ninette extends her gratitude to Petar Jandrić for inviting her contribution and to Gregory Brown for copy editing it.
7. Please consult Miller Cantzler and Huynh (2016) for an analysis of the intersectional injustices established between e.g. racial inequality, tribal and human rights, human agency, institutional colonialization and overfishing, and environmental injustice.
8. As a clear example of such practices, consider Kuh’s (2008) work on High Impact Practices. As Kuh notes, such practices, like community-based learning, collaborative projects, learning communities, and common intellectual experiences, have repeatedly been shown to positively impact student success (Kinzie et al., 2008).

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## ORCID

Petar Jandrić  <http://orcid.org/0000-0002-6464-4142>  
 Jimmy Jaldemark  <http://orcid.org/0000-0001-7140-8407>  
 Zoe Hurley  <http://orcid.org/0000-0002-9870-8677>  
 Brendan Bartram  <http://orcid.org/0000-0001-8281-3002>  
 Adam Matthews  <http://orcid.org/0000-0003-4013-0232>  
 Michael Jopling  <http://orcid.org/0000-0002-2720-5650>  
 Ninette Rothmüller  <http://orcid.org/0000-0003-2857-1107>  
 Benjamin Green  <http://orcid.org/0000-0001-7810-908X>

Olli Pyyhtinen  <http://orcid.org/0000-0001-8522-2515>  
 Sarah Hayes  <http://orcid.org/0000-0001-8633-0155>  
 Jake Wright  <http://orcid.org/0000-0003-1299-6725>  
 Marek Tesar  <http://orcid.org/0000-0001-7771-2880>

## References

- Agence France-Presse. (2020). Italian team covers glacier with giant white sheets to slow melting. *The Guardian*, June 20. Retrieved June 21, from <https://www.theguardian.com/environment/2020/jun/21/italian-team-covers-glacier-with-giant-white-sheets-to-slow-melting>.
- Altman, I., & Rogoff, B. (1991). World views in psychology: Trait, interactional, organismic and transactional perspectives. In D. Stokols & I. Altman (Eds.), *Handbook of environmental psychology* (Vol. 1, pp. 7–40). Krieger.
- Amoo-Adare, E. (2020). The art of (un)thinking: When hyper productivity says 'Enough!', is a feast. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00162-z>
- Ankel, S. (2020). 20 days that shook America: Since the death of George Floyd, the Black Lives Matter movement has already changed the country. *Business Insider*, June 14. Retrieved June 21, 2020, from <https://www.businessinsider.com/13-concrete-changes-sparked-by-george-floyd-protests-so-far-2020-6>.
- Arendt, H. (1998). *The human condition*. The University of Chicago Press.
- Bakhtin, M. M. (1953/1986). The problem of speech genres. In C. Emerson & M. Holquist (Eds.), *Speech genres & other late essays* (pp. 60–102). University of Texas Press.
- Braidotti, R. (2013). *The posthuman*. Polity Press.
- Carroll, L. (1871). *Through the looking-glass, and what Alice found there*. Macmillan.
- Choi, B. C. K., & Pak, A. W. P. (2006). Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clinical and Investigative Medicine*, 29(6), 14.
- Chye, T. E. (2020). It's time to rebuild the university on a foundation of interdisciplinarity. *Times Higher Education*, June 28. Retrieved June 21, 2020, from <https://www.timeshighereducation.com/blog/its-time-rebuild-university-foundation-interdisciplinarity>.
- Derrida, J. (1981). *Dissemination* (B. Johnson, Trans.). University of Chicago.
- Dewey, J., & Bentley, A. F. (1949/1960). *Knowing and the known*. Beacon.
- Dolsak, N., & Prakash, A. (2020). Americans say they're worried about climate change – so why don't they vote that way? *The Conversation*, February 12. Retrieved June 26, 2020, from <https://theconversation.com/americans-say-theyre-worried-about-climate-change-so-why-dont-they-vote-that-way-110874>.
- Dumaine, B. (2020). Amazon was built for the pandemic—and will likely emerge from it stronger than ever. *Fortune*, May 18. Retrieved 24 June 2020, from <https://fortune.com/2020/05/18/amazon-business-jeff-bezos-amzn-sales-revenue-coronavirus-pandemic/>.
- Escaño, C. (2018). Pedagogía (crítica) en tiempos del neoliberalismo. In R. Aparici, C. Escaño, & D. García-Marín (Eds.), *La otra educación. Pedagogías críticas para el siglo XXI* (pp. 125–141). Universidad Nacional de Educación a Distancia.
- Fire, A. (2010). Half Life II. (No celebration) [Song]. On *The Suburbs*. Merge Records.
- Fromm, E. (2001). *The fear of freedom*. Routledge.
- Fuller, S. (2020). A post-truth proactionary look at the pandemic. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00124-5>.
- Fuller, S., & Jandrić, P. (2019). The postdigital human: Making the history of the future. *Postdigital Science and Education*, 1(1), 190–217. <https://doi.org/10.1007/s42438-018-0003-x>
- Gallo de Moraes, A., Carroll, C. L., Schmidt, G. A., & Pendleton, K. M. (2020). All that glitters isn't gold: Critical care in the time of COVID-19. *Chest*. <https://doi.org/10.1016/j.chest.2020.04.071>
- Gallotti, M., & Huebner, B. (2017). Collective intentionality and socially extended minds. *Philosophical Psychology*, 30(3), 251–268. <https://doi.org/10.1080/09515089.2017.1295629>
- Ghosh, A. (2016). *The great derangement: Climate change and the unthinkable*. University of Chicago Press.
- Gorman, J. (2020). These lab animals will help fight coronavirus. *The New York Times*, 14 March. Retrieved 24 June 2020, from <https://www.nytimes.com/2020/03/14/science/animals-coronavirus-vaccine.html>.
- Green, B. (2020). In pursuit of an 'ethos of community': Postdigital education in the age of Covid-19. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00123-6>.
- Hall, S., Critcher, C., Jefferson, T., Clarke, J., & Roberts, B. (2013). *Policing the crisis: Mugging, the state and law and order*. Red Globe Press.
- Han, B. C. (2020). La emergencia viral y el mundo de mañana. *El País*, March 22. Retrieved 24 June 2020, from <https://elpais.com/ideas/2020-03-21/la-emergencia-viral-y-el-mundo-de-manana-byung-chul-han-el-filosofo-surcoreano-que-piensa-desde-berlin.html>.

- Harvard, T. H. C. (2020). *Coronavirus and climate change*. May 19. Retrieved June 26, 2020, from <https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/>
- Harvey, D. (2020). Política anticapitalista en tiempos de COVID-19. In P. Amadeo (Ed.), *Sopa de Wuhan* (pp. 79–97). ASPO (Aislamiento Social Preventivo y Obligatorio).
- Hayes, S. (2020). *Postdigital positionality: developing powerful narratives for learning, teaching, research and policy in higher education*. Brill.
- Hayes, S., Jopling, M., Hayes, D., Westwood, A., Tuckett, A., & Barnett, R. (2020). Raising regional academic voices (alongside data) in Higher Education (HE) debate. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00131-6>.
- Hoffman, A. J. (2015). A climate of mind. *Stanford Social Innovation Review*. Retrieved June 26, 2020, from [https://ssir.org/books/reviews/entry/a\\_climate\\_of\\_mind](https://ssir.org/books/reviews/entry/a_climate_of_mind).
- Hung, R. (2020). Philosophy of education in a new key: East Asia. *Educational Philosophy and Theory*. Doi: <https://doi.org/10.1080/00131857.2020.1772028>.
- Huxley, A. (1932/1998). *Brave new world*. Vintage.
- Jackson, L. (2020). Philosophy of education in a new key: Snapshot 2020, USA and Canada. *Educational Philosophy and Theory*.
- Jaldemark, J. (2012). Theories of participation in online learning communities: An intersectional understanding. *International Journal of Web Based Communities*, 8(3), 375–388. <https://doi.org/10.1504/IJWBC.2012.048058>
- Jaldemark, J. (2020). Formal and informal paths of lifelong learning: Hybrid distance educational settings for the digital era. In M. Cleveland-Innes & D. R. Garrison (Eds.), *An introduction to distance education: Understanding teaching and learning in a new era* (2nd ed., pp. 25–42). Routledge.
- Jaldemark, J. (2010). *Participation in a boundless activity: Computer-mediated communication in Swedish higher education*. [Doctoral dissertation]. Umeå University, Umeå.
- Jaldemark, J., & Öhman, P. (2020). *Developing a hybrid and networked educational approach to lifelong learning for organisations and employees* [Paper presentation]. Paper Presented at the 12th International Conference on Networked Learning, Kolding, Denmark.
- Jandrić, P. (2017). *Learning in the age of digital reason*. Sense.
- Jandrić, P. (2020). Postdigital research in the time of Covid-19. *Postdigital Science and Education*, 2(2), 233–238. <https://doi.org/10.1007/s42438-020-00113-8>
- Jandrić, P., Devine, N., Jackson, L., Peters, M., Lăzăroiu, G., Mihaila, R., Locke, K., Heraud, R., Gibbons, A., Grierson, E., Forster, D., White, J., Stewart, G., Tesar, M., Arndt, S., & Brighthouse, S. (2017). Collective writing: An inquiry into praxis. *Knowledge Cultures*, 5(1), 85–109. <https://doi.org/10.22381/KC5120177>.
- Jandrić, P., & Hayes, S. (2020). Writing the history of the present. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00168-7>
- Jandrić, P., Hayes, D., Truelove, I., Levinson, P., Mayo, P., Ryberg, T., Monzó, L. D., Allen, Q., Stewart, P. A., Carr, P. R., Jackson, L., Bridges, S., Escaño, C., Grauslund, D., Mañero, J., Lukoko, H. O., Bryant, P., Fuentes Martinez, A., Gibbons, A., ... Hayes, S. (2020). Teaching in the age of Covid-19. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00169-6>
- Jandrić, P., Knox, J., Besley, T., Ryberg, T., Suoranta, J., & Hayes, S. (2018). Postdigital science and education. *Educational Philosophy and Theory*, 50(10), 893–899. <https://doi.org/10.1080/00131857.2018.1454000>
- Jandrić, P., & McLaren, P. (2020). Critical intellectuals in postdigital times. *Policy Futures in Education*.
- Jandrić, P., Ryberg, T., Knox, J., Lacković, N., Hayes, S., Suoranta, J., Smith, M., Stekete, A., Peters, M. A., McLaren, P., Ford, D. R., Asher, G., McGregor, C., Stewart, G., Williamson, B., & Gibbons, A. (2019). Postdigital dialogue. *Postdigital Science and Education*, 1(1), 163–189. <https://doi.org/10.1007/s42438-018-0011-x>
- Jordan, M., & Dickerson, C. (2020). Poultry worker's death highlights spread of coronavirus in meat plants. *The New York Times*, April 9. Retrieved June 26, 2020, from <https://www.nytimes.com/2020/04/09/us/coronavirus-chicken-meat-processing-plants-immigrants.html?searchResultPosition=5>.
- Kato, M. (2020). Philosophy of education in a new key: Voices from Japan. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1802819>
- Kinzie, J., Gonyea, R., Shoup, R., & Kuh, G. D. (2008). Promoting persistence and success of underrepresented students: Lessons for teaching and learning. *New Directions for Teaching and Learning*, 115, 21–38.
- Kuh, G. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Association of American Colleges and Universities. Retrieved June 26, 2020, from <https://provost.tufts.edu/celt/files/High-Impact-Ed-Practices1.pdf>.
- Latour, B. (1993). *We have never been modern*. Harvard University Press.
- Lewis, T. (2020). Cities gone wild. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00120-9>.
- Mañero, J. (2020). Postdigital brave new world and its educational implications. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00129-0>.
- Markus, G. (2020). El virus, el sistema letal y algunas pistas para después de la pandemia. In P. Amadeo (Ed.), *Sopa de Wuhan* (pp. 129–135). ASPO (Aislamiento Social Preventivo y Obligatorio).
- Marshall, G. (2015). *Don't even think about it: Why our brains are wired to ignore climate change*. Bloomsbury.

- Midgley, M. (1995/1979). *Beast and man*. Routledge.
- Miller Cantzler, J., & Huynh, M. (2016). Native American environmental justice as decolonization. *American Behavioral Scientist*, 60(2), 203–223. <https://doi.org/10.1177/0002764215607578>
- Miller, L. (1998). Redefining teachers, reculturing schools: Connections, commitment and challenges. In A. Hargreaves, D. Hopkins, M. Fullan, & A. Lieberman (Eds.), *International handbook of educational change* (pp. 529–543). Kluwer.
- Milton, J. (2020). Reading terror attack victims were beautiful and proud members of the LGBT+ community. *Pink News*, June 22. Retrieved June 26, 2020, from [www.PinkNews.co.uk](http://www.PinkNews.co.uk).
- Murray, D., Harris, S., & Dickinson, B. (2000). *Brave new world [Recorded by Iron Maiden]*. EMI Records.
- Murray, J. (2020). Tipping point: Greta Thunberg hails Black Lives Matter protests. *The Guardian*, June 20. Retrieved 25 June 2020, from <https://www.theguardian.com/environment/2020/jun/20/tipping-point-greta-thunberg-hails-black-lives-matter-protests>.
- NASA. (2020). *Scientific consensus: Earth's climate is warming*. January 21. Retrieved June 26, 2020, from <https://climate.nasa.gov/scientific-consensus/>
- NCCA. (2018). *Goodness me, goodness you! A values and multi-belief curriculum for community national schools*. Dublin.
- Newman, J. H. (1852). *The idea of a university*. Longmans, Green, & Co.
- O'Byrne, D. J. (2016). *Human rights in a globalizing world*. Macmillan International Higher Education.
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, 20(4), 550–557. <https://doi.org/10.1016/j.gloenvcha.2010.07.004>
- O'Sullivan, V. (2020). Non-human animal trauma during the pandemic. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00143-2>.
- Papastephanou, M. (2020). Philosophy of education in a new key: Education for justice now. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1793539>
- Pawlikowski, J. T. (2016). Take and read: The imperative of human responsibility. *National Catholic Reporter*, May 9. Retrieved June 26, 2020, from <https://www.ncronline.org/blogs/ncr-today/take-and-read-imperative-human-responsibility>.
- Peters, M. A., Arndt, S., Tesar, M., Jackson, L., Hung, R., Mika, C., Ozolins, J. T., Teschers, C., Orchard, J., Buchanan, R., Madjar, A., Novak, R., Besley, T., Sturm, S., Roberts, P., & Gibbons, A. (2020). Philosophy of education in a new key: A collective project of the PESA executive. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1759194>.
- Peters, M. A., Besley, T., Jandrić, P., & Zhu, X. (2021). *Knowledge socialism. The rise of peer production: Collegiality, collaboration, and collective intelligence*. Springer.
- Peters, M. A., Jandrić, P., Irwin, R., Locke, K., Devine, N., Heraud, R., Gibbons, A., Besley, T., White, J., Forster, D., Jackson, L., Grierson, E., Mika, C., Stewart, G., Tesar, M., Brighouse, S., Arndt, S., Lazariou, G., Mihalía, R., ... Roberts, P. (2016). Toward a philosophy of academic publishing. *Educational Philosophy and Theory*, 48(14), 1401–1425. <https://doi.org/10.1080/00131857.2016.1240987>
- Peters, M., Jandrić, P., & McLaren, P. (2020). Viral modernity? Epidemics, infodemics, and the 'bioinformational' paradigm. *Educational Philosophy and Theory*, 1–23. <https://doi.org/10.1080/00131857.2020.1744226>
- Peters, M. A., McLaren, P., & Jandrić, P. (2020). A viral theory of post-truth. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1750090>.
- Peters, M. A., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., Hwang, Y., Zipin, L., Brennan, M., Robertson, S., Quay, J., Malbon, J., Taglietti, D., Barnett, R., Chengbing, W., McLaren, P., Apple, R., Papastephanou, M., Burbules, N., ... Misiaszek, L. (2020). Reimagining the new pedagogical possibilities for universities post-Covid-19. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1777655>.
- Peters, M. A., Tesar, M., & Jackson, L. (2018). After postmodernism in educational theory? A collective writing experiment and thought survey. *Educational Philosophy and Theory*, 50(14), 1299–1307. <https://doi.org/10.1080/00131857.2018.1457868>
- Polychroniou, C. J. (2020). Chomsky: Ventilator shortage exposes the cruelty of neoliberal capitalism. *Truthout*, April 1. Retrieved June 26, 2020, from <https://truthout.org/articles/chomsky-ventilator-shortage-exposes-the-cruelty-of-neoliberal-capitalism/>.
- Pyyhtinen, O. (2020). Interview in symposium: Social world and pandemic. *Blog da Biblioteca Virtual do Pensamento Social*. Retrieved June 26, 2020, from [https://blogbvps.files.wordpress.com/2020/05/olli-pyyhtinen\\_nova-versc3a3o.pdf](https://blogbvps.files.wordpress.com/2020/05/olli-pyyhtinen_nova-versc3a3o.pdf).
- Ralston, S. (2013). *Pragmatic environmentalism: Towards a rhetoric of eco-justice*. Troubador.
- Ritzer, G., Jandrić, P., & Hayes, S. (2018). The velvet cage of educational con(pro)sumption. *Open Review of Educational Research*, 5(1), 113–129. <https://doi.org/10.1080/23265507.2018.1546124>
- Rowlatt, J. (2020). Greta: Climate change 'as urgent' as Coronavirus. *BBC News*, June 20. Retrieved 25 June 2020, from <https://www.bbc.com/news/science-environment-53100800>
- Roy, A. (2020). The pandemic is a portal. *Financial Times*, 4 April. Retrieved 25 June 2020, from <https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development and death*. W.H. Freeman and Company.

- Selwyn, N., Macgilchrist, F., & Williamson, B. (2020). Digital education after COVID-19. *Teclash*, 1. Retrieved 25 June 2020, from <http://der.monash.edu.au/lnm/wp-content/uploads/2020/06/TECHLASH-01-COVID-education.pdf>.
- Serres, M. (1994). *Atlas*. Juliard.
- Serres, M. (1995). *The natural contract* (E. MacArthur & W. Paulson, Trans.). University of Michigan Press.
- Serres, M., & Latour, B. (1995). *Conversations on science, culture, and time* (R. Lapidus, Trans.). University of Michigan Press.
- Smith, A. V. (2020). Tribal nations demand response to climate relocation. Five Indigenous communities have asked the U.N. to investigate the United States' failure to live up to legal obligations. *High Country News*, April 1. Retrieved 25 June 2020, from <https://www.hcn.org/issues/52.4/indigenous-affairs-justice-tribal-nations-demand-response-to-climate-relocation>.
- Spelman, E. (1990). *Inessential woman: Problems of exclusion in feminist thought*. Beacon Press.
- Staufenberg, J. (2019). You've set up a successful school. What next? Start a university, of course. *The Guardian*, June 18. Retrieved 25 June 2020, from <http://www.theguardian.com/education/2019/jun/18/set-up-a-successful-school-start-a-university-ed-fidoe>.
- Sturm, S. (2020). To compose with Gaia: Living sympoetically. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00151-2>.
- Tesar, M. (2020). Towards a post-Covid-19 'new normality?': Physical and social distancing, the move to online and higher education. *Policy Futures in Education*, 18(5), 556–559. <https://doi.org/10.1177/1478210320935671>
- Thunberg, G. (2019b). *No one is too small to make a difference*. Penguin.
- Thunberg, G. (2019a). If world leaders choose to fail us, my generation will never forgive them. *The Guardian*, September 23. Retrieved 25 June 2020, from <https://www.theguardian.com/commentisfree/2019/sep/23/world-leaders-generation-climate-breakdown-greta-thunberg>.
- UFCW (United Food and Commercial Workers International Union). (2020, 28 April). *Trump order to keep meatpacking plants open must include immediate action to strengthen coronavirus testing and safety measures*. Retrieved 25 June 2020, from <http://www.ufcw.org/2020/04/28/order/>.
- UNESCO. (2019). The ethical challenges of climate change. The philosophical and ethical issues of climate change. *The UNESCO Courier*, 3, 7–9.
- Valinsky, J. (2020). McDonald's and other brands are making 'social distancing' logos. *CNN*, March 26. Retrieved 25 June 2020, from <https://edition.cnn.com/2020/03/26/business/social-distancing-brand-logos-coronavirus/index.html>.
- Valliantos, E. (2020). Nature's revenge: Climate change and COVID-19. *CounterPunch*, March 20. Retrieved 25 June 2020, from <https://www.counterpunch.org/2020/03/20/natures-revenge-climate-change-and-covid-19/>.
- Vince, G. (2020). After the Covid-19 crisis, will we get a greener world? *The Guardian*, May 17. Retrieved 25 June 2020, from <https://www.theguardian.com/environment/2020/may/17/after-the-covid-19-crisis-will-we-get-a-greener-world>.
- Vygotsky, L. S. (1934/1987). Thinking and speech. In R. W. Rieber & A. S. Carton (Eds.), *The collected works of L.S. Vygotsky* (N. Minick, Trans., Vol. 1, Problems of general psychology, pp. 39–285). Plenum.
- Wagener, A. (2020). Crushed by the wheels of industry: War, heroes, and domestic recolonization in the time of covid-19. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-020-00140-5>.
- Waghid, Y. (2020). Philosophy of education in a new key: Cultivating a living philosophy of education to overcome coloniality and violence in African universities. *Educational Philosophy and Theory*. <https://doi.org/10.1080/00131857.2020.1793714>
- Wang, H., Shao, J., Luo, X., Chuai, Z., Xu, S., Geng, M., & Gao, Z. (2020). Wildlife consumption ban is insufficient. *Science (New York, N.Y.)*, 367(6485), 1435. <https://doi.org/10.1126/science.abb6463>
- Welch, B. (2008/2018). *State of confusion: Political manipulation and the assault on the American mind*. Macmillan/Bryant Welch.
- Williamson, B. (2018). The hidden architecture of higher education: Building a big data infrastructure for the 'smarter university'. *International Journal of Educational Technology in Higher Education*, 15(1), 12. <https://doi.org/10.1186/s41239-018-0094-1>
- Yeoman, B. (2020). As sea level rise threatens their ancestral village, a Louisiana tribe fights to stay put. *The Natural Resources Defense Council*, April 13, 2020. Retrieved June 26, 2020, from <https://www.nrdc.org/onearth/sea-level-rise-threatens-their-ancestral-village-louisiana-tribe-fights-stay-put>.
- Yokley, E. (2020). Voters listened when trump downplayed the COVID-19 threat. But will they blame him for the fallout? *Morning Consult*, May 07. Retrieved June 26, 2020, from <https://morningconsult.com/2020/05/07/voters-trump-downplay-coronavirus-fallout-polling/>.
- Zaibert, L. (2003). Collective intentions and collective intentionality. *American Journal of Economics and Sociology*, 62(1), 209–232. <https://doi.org/10.1111/1536-7150.t01-1-00008>
- Žižek, S. (2020). *Pandemic!: COVID-19 shakes the world*. Polity.