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Pandemic Education

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Pandemic education refers not only to how we educate ourselves and others about the pandemic, but also – and more importantly – to how the pandemic educates us. And how does it do so? Firstly, it educates us by being a threat that we cannot ignore. Whereas we think that we can ignore the threat of climate change, we cannot ignore the pandemic because it strikes at our very bodies, thereby making its invisible threat very real. It warns us: *You are not immune.* Secondly, it educates us by being something that threatens all of us – as the origin of the term in the Greek *pandemos*, 'pertaining to all people; public, common,' suggests. While we are enculturated to see ourselves as individual agents, the pandemic demands that we act collectively to nurture what we have in common. It warns us: *You are not alone.* Thirdly, it educates us by being a threat to human life as we think of it. It brings home to us how we are hosts, for example, to viruses, including those that come from other species, but, more than that, how we are not only human but also more-than-human. Our 'we' extends into what we like to call 'nature' or 'matter,' and into the past and future. It warns us: *You are not who you think you are.* So if how we teachers educate has changed a lot as a result of the pandemic – for example, we have had to learn by ourselves how to teach online and just-in-time – the education that the pandemic offers us has the potential to change us immeasurably.

To put it in the terms of the question that the articles in these two special issues on pandemic education address: how can educators explore and enact a philosophy of education that speaks to the care, critique and collective responsibility demanded by the Covid-19 pandemic? Education in the time of COVID-19 signals not only the human significance of themes like collective responsibility in self-

isolation and social distancing, or the ethic of the other in the sacrifice of health workers or others in essential services, both of which exhibit care in an age of care-less capitalism, but also the ecological significance of trans-species viruses like COVID-19 that mark the 'intrusion of Gaia' into the Anthropocene (Stengers, 2017). Such education demands that we address how people across the globe are responding to the pandemic by central planning and panic-buying; scientific research and conspiracy theories; self-care and care for others, human and more-than-human; fear, anxiety, hope and love; binge-watching and baking. But, more importantly, we editors would add, it enjoins us to attend to *virality* in all its ambiguity (Sampson, 2012).

Virality

The concept of virality, or bioinformational interconnectivity (Peters, Jandrić, & McLaren, 2020), alerts us to an alternate history of modernity (Peters, 2020a).

1. Evolutionary biology and the social history of viruses

1.1. In evolutionary biology, there is a strong hypothesis that viruses may have been free-living organisms that as parasites were the precursors of life. They exist in trillions of variants, and, unlike all other biological organisms, while some have RNA genomes, others have DNA genomes. Some have single-stranded and others, double-stranded genomes; they can only self-replicate within a host cell; and none contain ribosomes so they cannot make proteins. Among the three main theories of where they came from and whether they are alive, one recent account holds that viruses either predate bacteria, archaea or eukaryotes, or coevolved with host cells (Koonin & Martin, 2005). However, while they can evolve rapidly because of their short generation times and large populations, viruses cannot reproduce by themselves (*Nature*, 2020).

1.2. The social history of viruses and its impact on the human species began during our early evolution, and viral epidemics have been recorded as early as Neolithic times, when human beings began to lead sedentary lives in relatively densely settled agricultural communities with domesticated plants and animals some 12,000 years ago. Smallpox and measles are among the very earliest viruses that affected human beings. Influenza pandemics have been recorded as early as 1580 when Spanish colonial conquests began in South America decimating the indigenous peoples, and the 1918 influenza epidemic killed an estimated 50 million people worldwide. It was not until the 1930s, with the invention of the electron microscope, that the science of virology emerged and widespread vaccination against viruses developed.

2. Philosophy & literature of viruses, and an ethics of care

2.1. There is a literature and philosophy of viruses, and the plague, epidemic and pandemic. Albert Camus' *The Plague* is a classic existential philosophical novel that proposes that, in a world without meaning, the plague provides a moral opportunity for people to find themselves in the struggle of sacrifice for the greater good: 'What's true of all the evils in the world is true of plague as well. It helps men [sic] to rise above themselves' (Camus, 1948/1991, p. 113).

2.2. The philosophy of pandemic is truly a philosophy for all peoples. It reflects not only on the human significance of pestilence and plague, or the rise of modern viruses like COVID-19 that demonstrate the transition across species, but also on the compact of individual and community. Despite the fact that it addresses self-isolation and the problem of the 'free rider' and other breaches of community, it takes in self-interest and collective responsibility, the sacrifice of first-contact health workers, the ethics of care for the other.

3. 'Viral modernity' and post-truth

3.1. *Post-Truth, Fake News* (Peters et al., 2018) provided an examination of the 'post-truth' era in relation to the concept of 'viral modernity.' The concept has since been extended in two main ways: first, by reference to epidemics, infodemics and the bioinformational paradigm, arguing that 'viral modernity is a concept based upon the nature of viruses, the ancient and critical role they play in evolution and culture, and the basic application to understanding the role of information and forms of bioinformation in the social world' (Peters, Jandrić, & McLaren, 2020); second, through the development of 'A Theory of Post-Truth,' a concept of semiotic systems inspired by Bateson's (1972/2000) remark that 'There is an ecology of bad ideas, just as there is an ecology of weeds, and it is characteristic of the system that basic error propagates itself' (p. 492). The concept of viral modernity draws a parallel between viral biology and information science – the 'bioinformational' paradigm – that brings together two of the most powerful forces that drive cultural evolution today. A prime intellectual task of this paradigm is to understand the 'epistemology of conspiracy' because 'viral politics' has become 'government by conspiracy' (Peters, 2020b).

3.2. Viral forms of information – lies, misinformation, rumours, propaganda and conspiracies – do not meet the criteria of 'justified true belief' and they typically use fear and panic for political ends in ways that are highly damaging to the health of the public sphere. 'Viral politics' depends on viral media, where 'truth' is no longer a concern. The idea of truth is replaced by the strength of subjective conviction, of conspiracy that coincides with existing prejudices and is easily manipulated through digital networks and AI.

4. Bioinformational interconnectivity

4.1. One thing that COVID-19 pandemic brings home is just how connected we are at the microbiological level: how we can pass on bits of our biome, bacteria and viruses through sneezing, coughing and touch. (COVID-19 can remain on hard surfaces to be transferred between individuals for 72 hours or longer.) This connection is an expression of our biological interconnectivity, which plays out culturally, socially and politically in a digital and postdigital superstructure of connectivity. And, while the 'nets' are the dominant cultural form, the electronic media that predate the internet have provided us with a global interconnectivity – with lots of holes, darknets, and subterranean activity – that expresses itself in global markets and communication. But this global interconnectivity does not mean that we are becoming one. Interconnectivity means that a small change in starting conditions can lead to wildly different outcomes.

4.2. The interconnectivity implicit in pandemic education implies
- educational openness (Open Education, Open Science)
- moral interdependence and the concept of 'humanity'
- spiritual interconnectedness.

It also opens education to the algorithms and automation of intelligent systems of digital technologies that ape microbiology, and thus demands that education reckon with the cybernetic ethics that views the evolution of ethical systems in terms of the informational feedback that certain human actions generate (Bromberg, 1999)

Pandemic education

In the spirit of this bioinformational interactivity, *Pandemic Education* raises a range of questions about viral modernity:

Politics
- Which political system works best at quarantine and social isolation in the pandemic: American individualism or Chinese collectivism; democracy or one-party state; free-market or welfare state?
- What complexities of the compact between self-interest and community interest does the pandemic reveal? For example, what are the problems of the 'free-riders' of our community, or those who do not follow the newly established norm of self-isolation, in a pandemic?

Ecology
- How should human beings act towards existences that threaten theirs?
- What is the relation between viral pandemics and sustainability?

Science
- Can the freedom of information, including scientific communication and open science, outrun viral self-replication?

- How have governments interacted with science in the pandemic, in particular, to suppress information or disinformation?

Information

- What bioinformational cross-border flows that postdate the nation-state are signalled by the pandemic?
- To what extent can financialisation and finance capitalism, whether state-led or market-led, be seen as part of the bioinformational paradigm?
- To what extent have viral fake news, social media and conspiracy theory generated global damage in the public sphere and to what extent is this an aspect of contemporary biopolitics?
- In the innovation race to invent a COVID-19 vaccine, where do the major advances come from and what organisations are well placed to benefit from them economically and otherwise?

Economics

- What are the scale and stakes of the coming World Depression in the wake of the pandemic?
- How will mass unemployment of 15-20% affect education?
- What is the significance of the pandemic for the sustainability of mass consumerism?

Pandemic education is also an opportunity to raise questions about what happens after the pandemic. It ought not to be imagined that things could return to 'normal.' Unless the COVID-19 chain of transmission is broken, it may well become endemic like influenza. All industries that are based on global movement such as travel, tourism and international education will suffer in the short term, though local and national industries, especially those that source their materials locally, will enjoy a certain success, even if short-lived. Those societies that are digitally-based and -integrated will be more sustainable economically and educationally. The bioinformational interconnectivity that defines viral modernity must be recognised if humanity is to be ready for the next pandemic. It behoves human beings to remember the lessons of the pandemic: we are not immune; we are not alone; and we are not who we think we are.

REFERENCES

Bateson, G. (2000). *Steps to an ecology of mind: Collected essays in anthropology, psychiatry, evolution, and epistemology*. Chicago, IL: University of Chicago Press.

Bromberg, S. (1999). *The evolution of ethics: An introduction to cybernetic ethics* (rev. ed.). Berkeley, CA: Dianic Publications.

Camus, A. (1991). *The plague* (S. Gilbert, Trans.). New York, NY: Vintage. (Original published in 1948)

Koonin, E. V., & Martin, W. (2005). On the origin of genomes and cells within inorganic compartments. *Trends in Genetics, 21*(12), 647-654. https://doi.org/10.1016/j.tig.2005.09.006

Nature. (2020). Viral evolution. https://www.nature.com/subjects/viral-evolution

Peters, M. A. (2020a). Pandemic education in viral modernity. *PESA Agora*. https://pesaagora.com/columns/pandemic-education-in-viral-modernity/

Peters, M. A. (2020b). On the epistemology of conspiracy. *Educational Philosophy & Theory*. https://doi.org/10.1080/00131857.2020.1741331

Peters, M. A., Jandrić, P., & McLaren, P. (2020). Viral modernity? Epidemics, infodemics, and the 'bioinformational' paradigm. *Educational Philosophy & Theory*. https://doi.org/10.1080/00131857.2020.1744226

Peters, M. A., Rider, S., Hyvönen, M., & Besley, T. (Eds.). (2018). *Post-truth, fake news: Viral modernity & higher education*. Cham: Springer.

Sampson, T. D. (2012). *Virality: Contagion theory in the age of networks*. Minneapolis, MN: University of Minnesota Press.

Stengers, I. (2017). Autonomy and the intrusion of Gaia. *South Atlantic Quarterly, 116*(2), 381-400. https://doi.org/10.1215/00382876-3829467