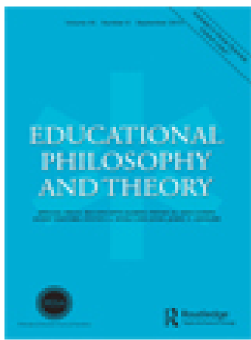

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From "education for sustainable development" to "education for the end of the world as we know it"

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ABSTRACT

In this article, we address the limitations of sustainable development as an orienting educational horizon of hope and change, given that mainstream development presumes the possibility of perpetual growth and consumption on a finite planet. Facing these limitations requires us to consider the inherently violent and unsustainable nature of our modern-colonial modes of existence. Thus, we propose a shift from "education for sustainable development" to "education for the end of the world as we know it." We contend that the predicament we face is not primarily rooted in ignorance and thus solvable with more knowledge, nor primarily rooted in immorality and thus solvable with more normative values; rather, it is rooted in denials that stem from harmful desires for and investments in the continuity of the securities and satisfactions promised by modernity-coloniality. Faced with these denials, we emphasize a collective need to "grow up" so that we might "show up" differently to do the work that is needed as we face unprecedented global challenges.

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In the call for papers for this special issue, the editors solicited papers 'that address the "impossible" position of ESD [education for sustainable development] in "the Capitalocene" at an urgent juncture in history.' In this article, we take up the editors' suggestion that education for sustainable development might indeed be 'impossible'. However, rather than emphasize the impossibility of education, we emphasize the impossibility of sustainable development itself, and ask what kind of education could enable us to grapple with this impossibility, and its implications. We locate our analysis at the interface of concerns related to the historical, systemic, and ongoing violence of modernity-coloniality (Andreotti et al., 2018; Stein, 2019b; Stein et al., 2020), and concerns related to its inherent unsustainability. Our work is mostly located in the field of comparative and international education, while also bridging scholarship in other fields, such as philosophy of education, when the thematic focus aligns with our research interests (e.g. Andreotti, 2016; Stein, 2019a). Inspired by questions and analyses emerging from decolonial, Indigenous, and Black studies, but most importantly, by our pedagogical collaborations with artists and with Indigenous communities in Canada and Latin America, this work gestures towards a practice of education 'otherwise' (Crawley, 2016).

Our collaborations with artists and with Indigenous communities are centered around psycho-affective and embodied practices. The Indigenous pedagogies that inspire our work start from a recognition of pervasive human irresponsibility stemming from the immaturity and fragility of

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modern-colonial modes of existence (Ahenakew, 2019). They invite those socialized in this mode of existence[1] not to turn their backs to the responsibilities of being entangled (Silva, 2016) within what they see as a wider living social-ecological metabolism that is the planet (Stein et al., 2020). Drawing on insights and scholarship emerging from these collaborations, we propose an educational practice 'otherwise' that prioritizes three grounding orientations that are relevant for this article: (1) facing the full spectrum of humanity (Todd, 2015) and being taught by 'human wrongs' (Spivak, 2004); (2) recognizing the geo-political dynamics of ecologies of knowledges (Santos, 2007), as well as the limits of human knowing (Mika, 2017; Sheridan & Longboat, 2006); and (3) mobilizing relational accountability (Ahmed, 2012; Shotwell, 2016; Whyte, 2019) by decluttering the unconscious, and decentering and disarming harmful egological desires (Biesta, 2019). Given space restrictions, we will focus on the latter in this paper.

Enabling the possibility of this form of education requires an analytical practice that does not fit into traditional forms of critique and prescription. Because this analytical practice starts from the assumptions that: (1) climate change and related crises are not problems with discrete solutions, but rather an ongoing predicament that requires our continued attention; and (2) this predicament is not primarily rooted in ignorance or immorality, and thus it cannot be addressed with more knowledge or more normative values. In our analysis, this predicament is instead rooted in foreclosures (Spivak, 1999) – or socially sanctioned disavowals – and thus it requires a different articulation and educational response. We describe this predicament through a number of denials and associated fantasies that stem from desires for (Spivak, 2004) and investments in (Kapoor, 2014) the continuity of inherently harmful and unsustainable (modern-colonial) habits of being (Ahenakew, 2019; Donald, 2019; Shotwell, 2016). In this article, we both name these denials, and consider some of the educational difficulties of interrupting them and inviting people to sense, imagine and relate otherwise. Thus, instead of asking how we can reorient education to support sustainable development, we ask what kind of education could prepare people to face the impossibility of sustaining our contemporary modern-colonial habits of being, which are underwritten by racial, colonial, and ecological violence. In other words, rather than reimagine 'education for sustainable development' we consider how we might imagine 'education for the end of the world as we know it'.

We begin the article by offering a brief overview of critiques of mainstream responses to climate change that point to the limits of sustainable development as an orienting horizon of social change. Following this, we review some decolonial and Indigenous analytical practices that inform our diagnosis that the current global system is inherently violent and unsustainable. We then expand upon our educational response, which centers on interrupting not only the denial of the unsustainability of this system but also the denial of systemic colonial violence and of our entanglement within a wider socio-ecological metabolism (Stein et al., 2020).

The article issues an invitation for maturity and responsibility that is resonant with Biesta's (2019) invitation to 'grow up' as disinvestment from modes of being that either consume or withdraw from the world. Rather than prescribe what this process might look like, however, we offer two pedagogical frameworks that may support the interruption of harmful recurring patterns and that invite a visceral sense of responsibility 'before will' (Spivak, 2004). Through learning to grow up, we might also learn to 'show up' differently to do the collective work that is needed in the face of numerous overlapping global challenges.

The limits of the 'sustainable development' paradigm

More than 50 articles addressing pedagogical and philosophical questions about ESD and environmental education have been published by *Educational Philosophy and Theory* (EPAT) since 2010. Three recent texts that examine both the purpose of education and the 'how' of changing attitudes and behaviours are relevant for the arguments we put forward. Misiaszek (2020) uses

popular education and a reinvented Freirean pedagogy to make the case for problematizing interpretations of development and sustainability in the context of 'post-truthism'. Misiaszek argues that mainstream definitions of development are mobilized to '(1) ignore or falsely justify socio-environmental violence; (2) increase polarization between "us" and "them" that justifies socio-environmental violence upon "them"; and (3) ignore or falsify the laws of nature'. (p. 748) This argument aligns with an important moral critique put forward by Kopnina (2016, 2020) who problematizes the fact that economic growth is promoted as a panacea for addressing inequalities and unsustainability challenges. Kopnina argues that the SDGs will likely only lead to more unsustainability and the exacerbation of environmental destruction, social tensions, and climate change. In response to an EPAT editorial written by Peters (2018) entitled 'The Armageddon Club: Education for the future of humanity', Wals (2020) draws attention to a hidden curriculum of unsustainability permeating mainstream education and proposes a critical relational pedagogy of hope as a direction for schools.

Although we find many resonances in Misiaszek's, Kopnina's and Wal's critiques, our proposition for a way forward is not grounded on the notions of hope, empowerment and liberation that the authors espouse. Our ontological critique of modernity-coloniality proposes the interruption of modes of existence that are grounded on human exceptionalism, exaltation, and entitlements, rather than an expansion of those. However, instead of debating how ESD should be articulated and practiced, this paper adds to the problematization of sustainable development, proposes a possible decolonial critique based on the contributions of Indigenous, Black, and racialized thinkers, and considers the educational implications that follow.

The dominant paradigm of response to climate change continues to be centered on the need to balance continued economic growth with respect for planetary boundaries (Kopnina, 2016, 2020). Hickel (2019) describes economic growth and ecological sustainability as the 'two sides' of the SDGs, which are presumed to be reconcilable based on the dubious promise of increased efficiency and other technological innovations that are presumed to enable a decoupling of economic growth from 'environmental degradation'. Even ambitious proposals like the Green New Deal are premised on this assumption. The more absurd results of this balancing act were made evident when the Canadian government approved a contentious oil pipeline expansion just one day after declaring a national climate emergency. As Baskin (2019) notes, 'Sustainable development may be understood as marking a break with earlier purely growth-centric approaches to development. But it is more plausible to see continuities, to understand sustainable development as an effort to "green" the existing growth paradigm rather than replace it' (p. 161). In other words, '"business-as-usual" but greener' (p. 165).

Hove (2004) critiques sustainable development on three points: '(1) sustainable development is a Western construct, perpetuating the ideological underpinnings of former approaches, 92) it focuses its efforts on the unsustainable expansion of economic growth, and (3) its broad nature creates dangerous opportunities for actors to reinterpret and mould the approach the way they see fit' (p. 53). While Hove's critique captures many of the most significant general concerns about sustainable development, in this paper we specifically emphasize a critique and proposed response to the impossibility of sustainable development that is rooted in a decolonial analysis of modern-colonial modes of existence, which we review next.

A decolonial analysis of climate change

When trying to understand why so many people have been slow to demand action on climate change, some have suggested that it is a product of the fact that the dramatically different climate described in some of the worst-case climate scenarios is simply unimaginable for most people, and thus, feels far away, abstract, and potentially less urgent. This perspective, however, is rooted in a particular experience and theorizing of the world that tends to come from a

position of relative advantage. In brief, the wealthiest among humanity have generally been the most buffered from climate change – and even when they have faced it, they have had the resources to extend that buffering somewhat. This is no mere coincidence of geography, but rather the result of the systemic extraction, exploitation, and expropriation of what have come to be known as 'natural resources', as well as human labour. It was precisely through these processes that high-income countries in the Global North amassed the wealth and resources that enabled unprecedented economic growth in the past several hundred years. This is another way of diagnosing the roots of Western "development". In other words, racial and colonial violence (genocide) and environmental degradation (ecocide) are the ongoing underlying costs of mainstream development.

As Foster et al. (2019) note, this 'leaves [Global South] nation-states with outsized ecological costs while, in consumption terms, the benefits of the natural resources go mainly to the rich countries under conditions dominated by unequal ecological exchange' (n.p.). These ecological costs are many layered, as not only is there the immediate degradation that results from instituting and reproducing extractive material and economic infrastructures, but also the long-term impact of climate change resulting in shrinking (and less nutritious) agricultural yields, declining biodiversity, toxic air and water quality, increasingly unliveable temperatures, rising sea levels as well as the rising occurrence of extreme weather events, all of which disproportionately affect those living in the Global South with the greatest intensity and the fewest buffers. Ecological destruction is not limited to the Global South, however, as Indigenous, Black, and other marginalized communities in the Global North have also been targets of the paired projects of ecocide and genocide (such as in the US, Canada, and Australia). As Simpson (2019) notes, 'Indigenous peoples have witnessed continual ecosystem and species collapse since the early days of colonial occupation' (np). Thus, she suggests, 'We should be thinking of climate change as part of a much longer series of ecological catastrophes caused by colonialism and accumulation-based society'. Not only have those populations that were subject to European colonialism, enslavement, and forms of indirect rule been experiencing the effects of "climate change" since the 15th century, but those same populations are generally the most vulnerable to new and intensifying climate crises (Gomez-Barris, 2019).

These critiques, among others from Black, Indigenous, Global South, post-colonial and other anti-colonial practices, inform our conclusions about the impossibility of sustainable development, as well as our proposed response. As noted in the introduction, a starting point of our response is the analysis that the biggest barrier to difficult conversations about climate change – including conversations about the impossibility of sustainable development – is not ignorance. Rather, it is enduring investments in modern-colonial modes of existence. This mode of existence is constituted through colonial violences that naturalize human exceptionalism and the separation of humans from a larger ecological metabolism, and thereby rationalize the perpetual racialized and gendered exploitation and expropriation of labor, and extraction of other-than-human beings (often conceptualized as "natural resources"). As Davis and Todd (2017) note, colonialism is, at its core, premised on 'a severing of relations between humans and the soil, between plants and animals, between minerals and our bones' (p. 770). We view this severing and its resulting (illusion of) separation as the foundation of modern existence, which we summarize using the metaphor of "the house modernity built" (Andreotti et al., 2018; Stein et al., 2017).

Coloniality is the disavowed constitutive underside of this 'house', and therefore, the true cost of the promises that the house offers its inhabitants. Thus, despite the myth that the house was self-made by the particular ingenuity of its architects, it was largely built on the stolen lands and broken backs of those whom it now excludes, or relegates to its basement floor, and at the cost of the flourishing of other-than-human beings. The relationship between the modern promises offered by the house and the colonial processes that subsidize them are summarized in Table 1

Table 1. Modern promises and the colonial processes that subsidize them.

Element of the house	Modern promise	Colonial process
Foundation of separation	Unrestricted and unaccountable autonomy (for certain people); relationality and responsibility are optional/ individual choices	Refusal of relationships and responsibilities to each other and to the well-being of the social-ecological metabolism; racialized and gendered hierarchies of existence
Roof of global capitalism	Unending economic growth and wealth accumulation	Expropriation and exploitation of humans and other than-human-beings
Wall of the nation-state	Security and order through property; social cohesion through national identity	Sanctioned state violence (e.g. policing, border securitization, global militarism)
Wall of universal knowledge	Certainty, predictability, and meaning through a single path forward through knowledge	Denigrating other knowledge systems and mobilizing knowledge to rationalize violence, authority, and control
Stairs of social hierarchy	Status and socio-economic mobility as rewards for hard work and 'natural ability'	Ascribing differential and conditional value to the lives and work of humans and other-than-human beings

(see also Stein, 2019b). This is also the first pedagogical framework that we introduce in this article as part of our approach to an 'education for the end of the world as we know it'.

As Whyte (2018) notes, for many Indigenous peoples, 'It is not a given that today's social-ecological systems are ones that are important to conserve. For the state of these systems today is already, for some, an Indigenous dystopia' (p. 299). The question that then emerges is: what are we seeking to 'sustain' with the sustainable development paradigm, and why? Broadly speaking, this paradigm both presumes and aspires not only to the conservation but also the expansion of the house modernity built, that is, a global system premised on: an economic system organized by capitalism, a political system organized by nation-states, a knowledge system organized by universal and totalizing reason, and a relational system organized by utility-maximizing and social-mobility aspiring individuals. The sustainable development paradigm does not consider the externalized costs that make the continuity and expansion of this system not only violent and harmful, but likely impossible, given the biophysical limits of the planet.

If, as Davis and Todd (2017) argue, the root cause of climate change 'is the severing of relations through the brutality of colonialism coupled with an imperial, universal logic' (p. 776), then only once we intellectually face and viscerally feel this difficult knowledge will we be able to 'address not only the immediate problems associated with massive reliance upon fossil fuel and the nuclear industry, but the deeper questions of the need to acknowledge our embedded and embodied relations with our other-than-human kin and the land itself' (p. 776). Further, if we fail to do the slow and difficult work of disinvesting from a modern habit of being, and remaking these violent relations, then our efforts to address climate change may reproduce the same harmful colonial patterns that caused climate change in the first place (Whyte, 2018, 2019).

Whyte (2019) therefore points to the need to attend not only to ecological tipping points, but also relational tipping points. He suggests that there are at least two possible scenarios for responding to climate change. The first involves 'sweeping global action to lower greenhouse emissions', led by those with the most global power, but in ways that fail to respect 'the relational qualities of consent, trust, accountability, and reciprocity' (p. 2). This scenario may avert an ecological tipping point, but will cause further injustices to Indigenous and other vulnerabilized peoples through things like displacement and land dispossession, as well as further violence toward other-than-human beings. The second scenario prioritizes the work of establishing or restoring good relations – that is, addressing the relational tipping point that was 'crossed long ago through systems of colonialism, capitalism, and industrialization'. Repairing relationships

takes time, however, which could result in us passing an ecological tipping point, but would prepare us for 'urgent, justice-oriented coordination' going forward (p. 3).

Facing the depth of the problem (interrupting our denials)

What becomes clear when we apply decolonial critiques to the issue of sustainable development is that modern promises – including the promise of mainstream forms of development – can only be fulfilled within a colonial system that is premised on the dominance of a particular subset of humanity at the expense of the well-being of all other humans, and the wider ecology of the planet. Furthermore, because we are all entangled as part of the same social-ecological metabolism, it is not possible to buffer oneself from the sum effects of climate change; ultimately, it is and will affect us all, albeit in highly uneven ways. However, because the illusion of separation is so powerful, it seems reasonable for those of us who live inside of the house to frame ourselves not only as outside of the threat of experiencing catastrophic climate change (because we believe we can protect ourselves from its harshest dimensions, as we have thus far), but also outside of responsibility for climate change itself (because we do not see how modern existence is fueled by the very processes that cause climate change). As we have suggested, we understand this illusion largely as a problem of denial rooted in desires for the continuity (sustainability) of this modern-colonial habit of being and its associated institutions. In particular, with our research collective, Gesturing Towards Decolonial Futures, we identify three primary orienting denials, including the denial of:

1. *Systemic colonial violence* that underwrites the maintenance of the dominant system, which is premised on racialized and gendered extraction, exploitation, and expropriation. This denial leads to the belief that violence is either external to or exceptional within the system, or otherwise occasionally justified in the service of a larger purpose (e.g. progress, development);
2. *Ecological unsustainability* of the dominant system, which is premised on unending growth and consumption that ignores planetary limits. This denial leads to either outright refusal that climate change is real, or the search for solutions to climate change that can be found within the existing system (e.g. green consumerism, carbon trading, green jobs, technological innovation, environmental protection legislation);
3. *Condition of entanglement*, which is premised on framing relationality as a willed choice rather than a fact of our collective existence on a shared planet. This denial leads to either outright refusal of entanglement and assertion of individualism and unrestricted autonomy, or else framing relationships either through utilitarian (utility-maximizing), or self-congratulatory (e.g. enactments of moral responsibility) means.

There is a fourth denial that supports the first three, which is a *denial of the extent and depth of the problems* we face. This denial reproduces the illusion that with a few simple quick fixes, we can go on living as we are, and even exporting this way of life elsewhere.

We have written elsewhere about different responses to climate change, identifying rationalist, reactionary, revolutionary, and rehabilitative responses (Suŝa et al., 2021). Recent school strikes also illustrate different levels of depth of engagement with issues of violence and unsustainability. In the October 2019 climate march in Vancouver, for example, youth held signs with messages that illustrate this diversity, including 'The Green New Deal supports us all!', 'Compost the rich', 'Stop shaming individuals for not being perfect environmentalists', 'Science matters', 'Give me hope for my future', and 'Indigenous sovereignty is climate action'. The school strikes have also been portrayed in the mainstream media as a hopeful youth-led movement that can motivate the greening of the house. However, they can also be seen as problematic in terms of

the current demographics of youth protestors that have the attention of the media, as well as the historical weight of the absence of youth who could be marching if it weren't for the racialized and colonial violence inflicted by the house. In a special issue of *Art Journal* entitled 'Indigenous artists against the Anthropocene', Horton (2017) makes a similar point, albeit in a different context. She uses the example of the art piece 'Where are the generations' by Key WalkingStick – a copper disc carved with a lament for unborn Indigenous children – to draw attention to how 'the contemporary world order continues to be the reign of colonial elites over a disenfranchised earth' (p. 49). The articles in the special issue also point to the fact that Indigenous people have been 'striking' for years, without being able to mobilize the same level of media support or sentiment of hope as current youth protestors.

Thus, while it may be that growing recognition of the severity of the climate crisis offers unprecedented opportunities to address the violent colonial relations at its roots, it is by no means the case that this will necessarily lead to deepened concern about colonial violence or a transformation of enduring colonial relations. This is a double-edged opportunity, as the other possibility is that people will protect even more fiercely the securities that have been promised by the house modernity built – no matter the cost. In the next section, we describe our educational response to this predicament, which emphasizes the need to break narcissistic mirrors, re-activate numbed senses and re-generate exiled dispositions and practices. This is an education for facing the 'end of the world as we know it', which requires that we 'grow up' and 'show up' differently.

Education for the end of the world as we know it

Silva (2014) writes that decolonization requires nothing less than 'the end of the world as we know it', by which she means not the end of the world *as such*, but rather the end of the specific modern-colonial world and associated habit of being. It is this world that ended, or tried to end, so many other worlds, and that forecloses possibilities for alternative worlds to emerge or regenerate. To some, then, the imperative is to bring about this end so that these other worlds can thrive. Yet the contemporary moment suggests that the end is coming whether we like it or not; the question is not if, but when. From this perspective, the educational task is not, how do we make 'the house modernity built' more sustainable, nor even how do we prepare people living inside the house for the moment when it fails to live up to the promises it has made for those inside its walls, which indeed is already happening. Rather, it is, how do we prepare people for the moment when the house can no longer provide even the basic resources necessary to sustain human life? And how do we ensure that, as the house is collapsing, it does not bury underneath it those on whose lands and backs the house was violently constructed in the first place?

This educational work addresses those who are engaged in 'low intensity' (also low risk, low stakes) struggles; we include ourselves in this category. 'Low intensity' struggles contrast with 'high intensity' (also high risk and high stakes) struggles, in which people are fighting for their lives as a result of the very system that many of us in low intensity struggles are fighting to maintain. Most people in low intensity struggles have had their sensibilities forged by privilege or aspirations for privilege. As is the case with an airplane, those flying the highest (or moving up) have the furthest to fall when the system crashes. Those living outside of the house may therefore be better prepared to face its end, and may even welcome it; however, they are also the most vulnerable to backlash from those inside the house, and the aftershocks of the house's fall. In turn, those living inside the house have the most to lose (at least in terms of what is valued from inside the house), which also means that they might inflict the most harm if they remain attached to the promises of the house and are willing to kill others or die themselves in a bid to get those promises back. Thus, the fall of the house may open up many previously unimaginable possibilities, but it also presents many risks, particularly if those of us socialized

inside of the house (in low intensity struggle) do not learn quickly from the mistakes that created the house in the first place, and disinvest from its promises. We might end up just wanting to build another house, because we are still invested in the securities the last one offered us. If we want to learn to live together differently, then we will also need to learn to 'grow up' so that we can face unprecedented global challenges without falling apart – or perhaps, so that we can fall apart in a generative way that opens up new possibilities for collective existence.

Narratives that infantilize Black, Indigenous and racialized peoples have been part and parcel of the nearly 600 yearlong construction of the house of modernity. Key Western philosophers, such as Kant, Hegel, and Dewey, have participated actively in the reproduction of narratives that endorsed and/or justified slavery and colonialism (Fallace, 2010; Silva, 2014). Modernity is still widely perceived (within the house of modernity itself) to be a civilizational move away from a form of immaturity associated with savagery and racial inadequacy. However, many Indigenous and other non-Western cultures associate immaturity with the elevation of individualism and the negation of responsibility, which are characteristic of modernity itself. We understand that this immaturity of modernity also creates in modern subjects an inability to hold space for complexity, uncertainty, complicity, failures and difficulties without becoming overwhelmed, irritated, or immobilized. This is a logical consequence of existential investments in certainty, security, linear progress, and control through universalizing and totalizing modes of knowledge production.

Therefore, for those socialized within the house of modernity, especially those in low intensity struggle, we stress the necessity to 'grow up'. Our argument resonates with Biesta's (2019) notion of growing up, which contrasts 'growing up' with 'infantilization', and emphasizes that this is not about one's literal age, but rather about how we encounter and engage the world. Although some cultures, especially cultures that elevate youth, may find the call to grow up patronizing or ageist, we believe it is a generative notion because it prioritizes a call for relational accountability that is onto-metaphysically pertinent to many Indigenous modes of existence that relate to the land and other-than-human kin as older and wiser relations and that see healthy and compassionate eldership as the primary goal of education (Ahenakew, 2017; Mitchell, 2018; Richardson, 2007). Our call to maturity also resonates with Biesta's assertion that grown-up-ness is rooted in a deep acknowledgement that 'the world is not just a construction of our mind or our desires, but actually has an existence and hence an integrity of its own' (p. 57).

Here we emphasize that the world Biesta refers to is not the particular (modern/colonial) 'world' to which we refer in our idea of "education for the end of the world as we know it'. We instead interpret it as signifying the collective, living social-ecological metabolism of the planet, of which we are all a part. This metabolism exceeds any human worldings that we can imagine or construct (Barcan, 2020; Ermine, 1995; Mika, 2012). We add to Biesta's notion of *growing up* an emphasis on *showing up*, that is accepting responsibility – which we see not so much as an active choice, but rather a recognition of a responsibility that is already there, before will, which derives from the fact of our entanglement with everyone and everything. We review both notions below.

Growing up

Biesta contrasts a grown-up approach to being in and with the world to engagements with the world premised on imposing one's will and desires upon the world (which risks 'world destruction'), or conversely, withdrawing entirely from the world because we find it too complex and difficult (which risks self-destruction). Through a grown-up way of being, we can face the world in all of its complexity, plurality, and indeterminacy, and see and sense ourselves as part of it, without projecting our desires onto the world or treating it as an extension of the individual self. Through growing up we might develop the stamina, as well as the intellectual, affective, and

relational dispositions, to live outside of a system that we have been socialized to desire, but which has always been destructive, and which is no longer sustainable. Like the mycelium that works as an underground network to feed the mushrooms that pop up above ground, only once we have reactivated and recalibrated these affective and relational dispositions can we reimagine healthier possibilities for economic, political, and ecological organization (Andreotti et al., 2018).

In many ways, those of us who have grown up in the house have been infantilized by it – being highly dependent on its harmful and unsustainable infrastructures for our daily survival, as well as oriented by the harmful desires that it mobilizes within us. The educational task, therefore, is not only to relay information about the history of the house, and how we arrived at this moment in which the house may crumble (i.e. intervening at the level of the intellect), but also to interrupt the enduring investments in the satisfactions provided by the desires that the house itself mobilizes (i.e. intervening at the level of affect). If we stopped at naming the problems of the house, this might lead people to respond in ways that reproduce more of the same. For instance, seeking quick and simple solutions so that we can move forward (fulfilling the modern/colonial desires for progress and certainty, thereby ignoring complexity, uncertainty, and difference), and/or seeking return to the sense of innocence and benevolence that the house offered (fulfilling the modern/colonial the desires to look good, feel good and be seen as doing good by others, thereby ignoring our structural complicity in harm and capacity for destruction).

Thus, beyond diagnosing how we arrived at the present, an education that prepares us to grow up would also need to interrupt harmful desires. Indeed, Biesta (2019) suggests, 'the main principle of education aimed at making a grown-up existence in and with the world possible is that of interruption' (p. 59). We could, of course, just wait for the house to collapse, which would be a grand interruption, and perhaps teach us a great deal. But we can also consider it the task of education to interrupt these desires now, so that they might be rearranged in ways that could 'support and sustain a grown-up way of being in and with the world' (p. 58). While the interruption of desires itself may be perceived as disruptive of perceived entitlements, it is not for us as educators to say how these desires might ultimately be arranged – this part must be uncoercive, as Spivak (2004) suggests. Thus, there is no guarantee efforts at interruption will actually lead to something different, and it may be that only once the house actually collapses will we really be able to desire and imagine otherwise (Crawley, 2016), and thus, be in and with the world differently.

After all, as Biesta (2019) notes 'we live in an environment that is precisely not interested in interrupting and limiting our desires, but rather is focused on the multiplication of our desires, so that we will desire more and therefore will buy more and more' (p. 59). This environment (and the affective and intellectual patterns it supports) is very difficult to challenge, because it offers satisfaction through its neurochemical feedback loops. In this environment, few people willingly chose to critically interrogate, let alone disinvest from, the desires whose fulfilment offers so much (short-lived) pleasure. Because of this, education for growing up must also include opportunities for 'suspension', that is 'opportunities for establishing relationships with our desires, make them visible, perceivable, so that we can work on them' (p. 60). In other words, this education should prepare us to hold space for our internal complexities, paradoxes and complicities while remaining aware the limits of our ability to be transparent to ourselves.

For instance, this may look like inviting people to observe their own (often conflicting and incoherent) intellectual *and* affective responses to a critical reading of 'the house modernity built' that points to its inherent violence and unsustainability. It is often only when our securities and presumed entitlements are challenged that we can see from our responses where we really are *affectively*, which in turn enables us to understand what work still needs to be done to prepare ourselves to face 'the end of the world as we know it' in a generative way. These responses are not individual or inevitable, but emerge out of our conditioning and positioning within a particular set of socio-historical contexts and socially conditioned affective and relational dynamics. They also have real impacts on others present in a given space. The idea is therefore neither to

shame nor sanction those responses, but rather to have people face and feel the weight of the responsibility for past, present and future harms, as well as the implications of the anxieties and insecurities that are triggered in challenging moments, so that we might learn to respond differently.

Education for growing up is distinct from trends to make education more 'flexible, personalised, and completely tailored to the needs of the individual child or student' (Biesta, 2019, p. 60). While an approach that centers the student may be understood as a critical response to approaches that centered the teacher, we suggest a third option: one that centers the earth itself (in Biesta's terms, the world; in ours, the planetary socio-ecological metabolism). This educational approach creates opportunities for students to 'encounter the experience of resistance and work with it … [or] work through it' (Biesta, 2019, p. 60). Yet this kind of education is disruptive to the sense of self, meaning, security, certainty, futurity, and even reality that has been cultivated for those living within the house modernity built – and thus, it is not something that can be forced upon them. It can only be an invitation, and those who take up the invitation need to be accountable for their own receptivity to being taught. This decision not to turn one's back to responsibility is perhaps the first step in growing up, so that we might show up differently to the difficult work that needs to be done as we face the decline of a harmful system.

Showing up

If growing up emphasizes the disposition to see and sense oneself as entangled with and responsible to a wider world/metabolism, then showing up is about how that sense of responsibility manifests. Accepting responsibility means 'doing our homework' and coming to the work with a deep commitment to interrupting denials, to digging deeper towards the root causes of our contemporary challenges and to relating 'wider' by activating the ethical imperative before will that Spivak talks about. Part of this process is recognizing how our lives and livelihoods have been subsidized by invisibilized exploitation and expropriation that do not stop just because of our recognition that they exist. Another part of the process is sitting with our affective investments in this system, working through insecurities, projections, fragilities, harmful entitlements and aspirations and desires for certainty, innocence, authority, exceptionalism, and validation. Doing this kind of homework can prepare people to show up ready to do the work that is at the intersection of what is actually needed and what they can do, rather than what they *want* to do.

This means that showing up is not a gesture of heroic protagonism made in search of recognition or praise for being virtuous, but rather is rooted in a sense of humility and service that often only emerges when our modern-colonial habits of being are starting to become unsettled or even undone. Further, if we show up to accept responsibility based on a sense of guilt, or even a moral conviction about what is just, then showing up is still a choice we can always chose to make, or not, depending on what is convenient or what feels good (Morris, 2017). Similarly, if showing up is motivated by a desire to sustain or reclaim a position of innocence, then it signals a failure to grapple with our structural complicity and indicates that we are not yet prepared to center the well-being of the social-ecological metabolism rather than our individual self-interests. Activating responsibility *before will* means that it cannot be a calculation about moral authority, political righteousness, or virtuous innocence. Thus, alongside intellectual and affective dispositions, we also need to develop our atrophied relational dispositions: the dispositions that enable us to feel entangled with the pain, the brokenness and the ugliness of humanity as well the beauty and the joy of the undefinable world.

In order to sense responsibility before will, we need to feel this entanglement, not only intellectually but also viscerally, and not only with 'pleasant' things like birds, trees, flowers, and whales, but also with violence, guns, destruction and suffering. This requires people to un-numb

to the collective pain inflicted by the illusion of separation, and to emphasize the integrity, tensions, complexities, and joys of *the process* of restoring and maintaining relationships that have been violated through the colonial workings of the house, rather than *the outcome*. We note that for a lot of people, there is an aversion towards sensing or re-membering the visceral feeling of entanglement that emerges from a desire to maintain their perceived unrestricted autonomy, and their moral or political purity (Shotwell, 2016), in order not to be contaminated by the violence and toxicity of the presumably 'external' world. However, the feeling of visceral entanglement can also remind us that the world that we want to immunize ourselves against is already within us. The promise of separation, and thus, of purity, has always been an illusion.

We use the metaphor of 'radars' to describe the sensitivities that those in in low intensity struggle may need to develop in order to interrupt and redirect common patterns that tend to emerge when we try to encounter and engage the world/the collective metabolism differently, but remain (understandably) rooted in modern-colonial modes of existence (Gesturing Towards Decolonial Futures, n.d). Below we describe a few of these radars, which were developed from our experience working with educators seeking ecological alternatives to mainstream schooling and/or seeking to collaborate with Indigenous communities. It is also our second pedagogical framework for preparing people within the house modernity built to face the end of the world as we know it:

- **The band aid radar**, for identifying the search for simplistic and often harmful solutions, the refusal to address complicity in harm, the desire to make or be a key part of the solution, and the naïve/colonial hope for the reformability of existing systems and thus for the continuity of those systems. To develop this radar requires discerning how these "band aids" offer false comfort, appease unpleasant feelings, and are premised on colonial hope for guaranteed outcomes and futurities premised on the persistence of social and ecological violence;
- **The fragility radar**, for attending to when sensitivities are activated as a means to deflect responsibility. To develop this radar requires noticing how the refusal of unconditional affirmation generates aggression against those who exercise this refusal, and noticing how the lack of stamina for difficult conversations (especially about complicity) tends to lead people to defend themselves and emphasize their good intentions, refocusing collective time and attention back to themselves with stories that prove their innocence;
- **Layering radar,** for discerning between existential and political accountabilities. To develop this radar requires recognizing that in one layer of reality we are all interconnected and entangled with each other, and at many other layers, we are accountable to the many structural violences and separations that are required for us to continue to be who we are and to have the opportunities, comforts, choices, and securities that we have.

Conclusion

In this paper, we have pointed to the limits of education for sustainable development, and suggested the need to develop forms of education that can prepare us to face the end of the world as we know it. To conclude, we want to briefly consider the implications of the third and final dimension of education for growing up that is described by Biesta (2019), in addition to interruption and suspension: sustenance. Sustenance is required so that we can 'endure the difficulty of existing in and with the world' (p. 60). But sustenance, at least in the way we understand it here, does not mean support that is necessarily (or at all) comforting, and even less so dependency-based. If the task of education for the end of the world as we know it is above all about 'growing up', then support here means helping us re-member our connection with the larger metabolism that invariably physically, and otherwise, sustains all of us. This re-membering can

help us locate to our intrinsic worth not in personal achievements and external validation, but in the sheer sense of being a part of the larger metabolic body, which has a much longer temporality than the physical bodies we inhabit.

Given our socialization as presumably autonomous, separate, and self-transparent (modern-colonial) subjects, our attachments and investments in this kind of self-image and self-understanding will most likely sabotage our attempts at re-membering the entangled dimension of our existence. For this and other reasons, the reactivation of the visceral sensation of entanglement – if we even come close to it – may be experienced, at least initially, as a nauseating and disturbing experience. Firstly, because the metabolism with which we are entangled is itself sick, realizing and re-sensing/re-embodying some of that collective (and individual) toxicity can be overwhelming. Secondly, because, re-membering and re-sensing ourselves as part of a wider metabolism will (profoundly) unsettle our sense of self, direction, meaning, and knowing. In other words, pedagogy for the end of the world as we know it also entails the disintegration of the (modern-colonial) sense of self and self-image, and the end of way a particular way of knowing and being in the world. If this self-perception can be undone, and if we can be taught to sense and embody being differently – with all the nausea, fear, and disgust that this may entail – then, perhaps we may be able to tap into the immense joy that comes from (at least fleetingly) forgetting who and what we think we are, and instead sensing the gift of not only being what we imagine ourselves to be. And to be reminded that, at the end of the day, even that does not make us special.

Note

1. We use 'modes of existence' to refer to different onto-metaphysical orientations, distinct from its use by scholars like Latour (2012).

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