

The Necessity of an Immanent Pedagogy of In|difference in the Shadow of the Anthropocene

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Abstract

Life can be theorised actively (liveliness) or passively, or as entangled. What does this mean for pedagogy within the Anthropocene? This essay speculatively develops the concept immanent pedagogy of *in|difference* to explore such a question. This involves an engagement with various expressions of new materialisms, presenting a case as to how the passivity of an *indifferent life* needs to be recognised to mitigate the excessive claims of life from personalist modernist instrumentalism to neo-Darwinian accounts.

Keywords

Deleuze; Guattari; passive vitalism; active vitalism; difference; indifference; immanence; in|difference

In this brief essay, my intention is to outline the necessity of what I call an *immanent pedagogy of in|difference*. The polysemous word will be explained in what follows. It is assumed that the institution of public and higher education as currently entrenched in both the West and East is an ideological state apparatus (Althusser, 2014) that supports and abets the governmentality (Foucault, 1997) of each and every country. The literature on the concerns and critique of global educational governance, such as the power and influence of neoliberal universities in the West, promoting “micro-entrepreneurs of the self” (Hall, 2016, p. 26), are not taken up here. The literature on this worry spans decades and is constantly growing. Rather than tackle it all, my attempt in this essay is rather modest: to explore the possible force of a pedagogical imaginary that may burrow its way into the social ecology to disturb the global planetary condition of post-cybernetic societies of control and clairvoyance (Neyrat, 2017) where neofascist intensifications of political control, surveillance, and populist manipulation via biopolitics require the creation of new collective assemblages of desire. Regardless how rudimentary in their conceptualisation and fictioning (Burrows & O’Sullivan, 2019) such lines of flight may prove to be—and however tenuous their deterritorialising powers of the established molar relations are—there is an urgent necessity to forward ideas that may make a difference in the shadow of the Anthropocene. The pedagogical imaginary sketched out here draws on an already crowded field of Deleuzoguattarian experimentations with the hopes of offering perhaps new clarifications of the pedagogical and transformative force of Deleuze and Guattari’s thought. As a speculative essay, it moreover argues for the pedagogical importance of in|different materialism, the impersonal immanence of a *life* (Deleuze, 2001).

I would like to begin by expanding on the polysemous meaning of an immanent pedagogy of in|difference by articulating the two terms: difference and indifference along Deleuzoguattarian lines by first drawing out two broad generalisations that are extrapolated from the current raft of theories that are grappling with the era of the Anthropocene and the growing loss of democracy. Education, as it now stands, is headed off planet rather than into and with the Earth due to its ubiquitous privileging of anthropocentrism and the spectre of a world-for-us-alone. As an abstract machine, education remains in the hands of the state; either in the grips of various

neoliberal capitalist forms or, as in China's case, a particular brand of communist-capitalism (or is it capitalist-communism?). An entire rash of philosophies and non-philosophies (Laruelle, 2013) have emerged to grapple with the precarity of climate change, the current euphemism for the Anthropocene. There are, for example, the claims of the new materialisms in their various expressions: Object Orientated Ontology (OOO), onticology, vital (or vibrant) materialism, negative materialism, performative materialism (Gamble, Hanan & Nail, 2019), speculative realisms that question Kantian correlationalism (Meillassoux, 2009), quantum diffraction theories promulgated and spearheaded by a cluster of feminists who follow Barad (2007) and Haraway (2003), post-qualitative methodologies, concepts being claimed as methodologies (Taylor & Hughes, 2016), panpsychism (Shaviro, 2014), and, as in my own case (Jagodzinski, 2016), various assemblage theories inspired and extrapolated from the crowded field of Deleuze & Guattari studies (for example Buchanan, 2020; DeLanda, 2016). Each of these directions has its supporters as well as its own set of worries and criticisms: from the concerns that some lack ethical development by treating humans as one object amongst many within a flat ontology, to worries over the way others question the modification of Bohr's Copenhagen quantum position by offering an entirely different quantum position based on Bohm, the holographic mind, and quantum Bayesianism or Qbism (von Baeyer, 2016).

When it comes to education, each of the above directions has received varying degrees of attention, leaving a crowded house from which each educator must cherry-pick between different interpretations and protocols for experimentation. However, the necessity for such intellectual and pedagogical experimentation across the new materialist spectrum is essential for facing the Anthropocene problematic and humanity's skewed relationality with more-than-human materiality and agency.

Difference

Several generalities can be made concerning this spate of contemporary theorising that helps to set up the proposal for an immanent pedagogy of in|difference. First is the overwhelming proliferating academic discussions regarding the nuances and claims between affect-feelings-emotions. Such discussions point to the tensions and

relationships between the inside and the outside that are enfolded or entangled in some way. When these specific relations are described, analysed, and judged, they result in topological figural contortions that continuously vary depending on the situation or phenomena that has been delineated. The pre-individual realm of the outside of percepts and affects as sensations that are processed at the subliminal neuronal level—that have been called “vitality affects” (Stern, 1985, p. 156) or “Representations of Interactions that have been Generalized (RIGs)” (Bucci, 1997, p. 95)—are, when it comes to an infant, “amodal multisensory perceptions” (Massumi, 2017, p. 192) that are at once synaesthetic. This generalised synaesthesia of the infant’s body eventually becomes differentiated into various neuronal senses depending on the culture and language that the infant finds itself in. Vision, colour, and sound, generally, become separate modalities. Emotions and feeling, in this view, are psychological interiorised states or expressions that result from the brain processing vitality affects (RIGs) that relate a body to its *Umwelt*. The body intuits and processes its *Umwelt* first before it reacts to it, what is usually perceived as “attention affects” (Keetels & Vroomen, 2011, p. 152) as there is a neuronal delay between senses. The point to be made here is that this is a claim of neuro-normativity. However, there is a wide variation of just how the senses are processed below the level of consciousness. A small percentage of any given population will have neuro-atypical synesthetic abilities that enable them to, for example, hear or taste colours numbers or letters, and so on.

The first general claim for an immanent pedagogy to be made, given this neurological evidence, is to forward the primacy of *aisthesis* (versus the more recognisable aesthetics or esthetics), as in Charles Sanders Peirce’s (1960) *firstness*;¹ only then does the Baradian (2007) ethico-onto-epistemological triad follow, which is so often politicised within posthumanist studies. Why is that so? Desire within assemblages emerges from the “allure” (Harman, 2005, p. 143) between heterogenous entities in the way that entities touch each other, both physically and at a distance. The vast array of relations between heterogeneous things can be characterised by an extraordinary

¹ Peirce (1960) develops a triadic semiosis via a paradoxical triangle of firstness, secondness, and thirdness. Firstness in his complex system is “an instance of that kind of consciousness which involves no analysis, comparison or any process whatsoever... it has its own quality which consists of nothing else” (p. 152). Firstness refers to sensations (qualia) free of subjectivity, will, and thought.

array of *aesthetic* encounters where *physical* sensations are exchanged: an array that then results in beauty through to sublimity (Kant, 1951); everyday commodity aesthetics characterised as zany, interesting, cute (Ngai, 2012); abject relational reactions (Kristeva, 1982); and fetishistic attractions (as per Freudian psychoanalysis or Marxist critique). There is a seemingly infinite variation of intensities that the firstness of aesthetic desire enables, and that a techno-aesthetics (Simondon, 2017)—or, rather, as I suggest, a *techno-aesthetics*—needs to consider, which will be discussed further under the question of ethics and technology. Aesthetic traits² are primordial in the exchange of intensities of relationship of attraction and rejection among entities they enable. Affect is more accurately understood as aisthesis, whereas aesthetics already calls on the internalisation of feelings and emotions, which are then identified as beautiful, sublime, cute, zany and so on.

In this sense, ethics is but a particular form of aesthetic relations. The often-cited Spinozian-Deleuzian mantras—*what can a body do? / a body's ability to affect or be affected*—simply recognise the transferences that take place between entities. As these mantras would have it, there is a basic psychoanalytic insight of introjection and projection whereby the resulting transformation of these entities takes place through this inter-intra-action. Much has been made of the claim that “relata do not precede their relations” (Barad, 2007, p. 334), which forwards the body’s internal relations, raising, once more the internal/external paradox. This, however, is not an either-or proposition but a logic of both-and. Supporters of OOO maintain that objects are “withdrawn” (Harman, 2011, p. 54) and paradoxically have an inner depth, an individuality, autonomy, and essence that is paradoxically not an essence in the sense of a stead-fast identity. This seems like a facile insight as any attempt at a speculation as to the true nature of things—their primary being—ends up as a fiction given that the limits of knowledge are reached at quantum levels. The *uncanny* (Ramey, 2016), the *strange* (Morton, 2013), *alien* (Bogost, 2012), and the *weird* (Harman, 2011) simply point to the aesthetic materiality of things whose compositions of percepts and affects are “diagrams” in Deleuze and Guattari’s terms that “construct a real yet to come”

² To clarify why the term aisthesis is being used throughout this essay: Aisthesis refers to physical sensory perception (firstness in Peirce’s system), whereas aesthetics, in distinction, refers to art and, more importantly, designer commodity capitalism.

(1987, p. 141-142). These are maps of physical sensations, matter, and force, rather than representational forms.

A pedagogy that accounts for the “weirdness of reality” (Oral, 2015, p. 460), or a pedagogy of “enweirding” (Taylor, 2016, p. 210) that diffracts OOO via other more ethico-politically accountable forms of new materialism—or a pedagogy that recognises the uncanny from a schizoanalytic Deleuzian position (Ramey, 2016)—is one that privileges aesthetics. These pedagogies are expressions that, from the perspective of an immanent pedagogy of in|difference, may lead to a possible “redistribution of the senses” (Rancière, 2004, p. 12). This is to say that such pedagogies are instances that reorder desire itself as it inheres in entities that circulate within assemblages, thereby transforming and changing individual or collective ecologies and, in turn, altering their relation to the environmental ecology. The question of techno-aesthetics, however, is generally missing from these pedagogical considerations as is the sort of onto-ethics needed for the Anthropocene problematic that disturbs the desire of established assemblages. Recognising how our species has been modified historically through exo-Darwinian means (Serres, 2001) presents the challenge as to what new materialist directions should be supported through a renewed and rewilded pedagogy appropriate and accountable to the Anthropocene. That is to say, a wild pedagogy needs to carefully consider what more-than-human assemblages should be composed, developed, put into action as well as ethically, ontologically, epistemologically, and politically considered. Bluntly put, there is a multiplicity of naturecultures (Haraway, 2003; Merchant, 2016, p. 8): *natura naturans* (nature’s creative forces) intra-acting with *natura naturata* (the created world, which involves AI) that a wild pedagogy needs to take into account if it wishes to productively traverse and balance individual, collective, and more-than-human environmental registers and desires.

The articulation of difference in-itself (pure difference), is of course one of the key achievements of Deleuzian philosophy. It raises a number of tensions in relation to the configured and composed assemblages that I am projecting for constructing an immanent in/different—yet thoroughly wild—pedagogy. The first, to be discussed more thoroughly below is the *zoē-bios* tension: namely, the intra-relations between

free uncontrollable life-energy (*zoē*) and the way it is harnessed and captured as *bios* (which is both ethically and politically charged). This tension will frame my understanding of in|difference. To briefly frame my argument already: difference in-itself is a capacity, not measured or compared to an entity's prior identity, or measured against a norm, or contrasted to some Other. Hence, difference is not a negation of sameness, but more a question of singularity; to recognise disparate entities that are dissimilar and divergent. The emergence of a new singular assemblage characterised by inhuman-human-nonhuman entities would require a *technological interface* between the human and nonhuman via the mediation of the inhuman (AI technologies) pervaded by an aesthetico-ethics; the emphasis being on the relationality of touch that shapes the ethical intra-relationships that emerge within this composed ecological assemblage. In this view, intra-relationality does not begin with ontology per se, but rather starts from an ontology as shaped by an attraction, repulsion or another aesthetic affect of transferences.

What I have in mind are assemblages in which the techno-aesthetics of AI technologies would act as interfaces that enable *communicative exchanges* between the genus homo and other species which will allow humans some semblance of insight into the *Umwelts* (von Uexküll, 1930) of non-human lifeforms. Such speculative AI assemblages would—by their very interspecies interpretive function—be panpsychic and able to navigate degrees of *encephalisation* to determine what insights and degrees of interspecies communication and information exchange are possible. I have more clearly articulated this idea elsewhere (see Jagodzinski, 2019a), where I call on artists such as Natalie Jeremijenko who have developed a speculatively wild aesthetics for such technologies. I make a speculative distinction between two possible forms of inhuman AI in this regard: technologies of *Macht* (power) and technologies of *Lassen* (letting go) (Ziarek, 2004), which render the economies of force quite differently. *Macht*-focused technologies are hierarchical and manipulative in their production of force at the material (bio) level, which is to say representative of the currently existing neoliberal vision of AI as an instrument of manipulation, instrumentalization, and control. Technologies of *Lassen*, by contrast, embody a thoroughly wild speculative vision of technology that queers the dominion of societies of control. Such technologies would redistribute the senses, enabling assemblages of

meaning-making and perception wherein differences are rendered imperceptible and identity markers are side-lined to make room for alterity to become unveiled.

Needless to say, such technologies of *Lassen* would require a variety of ethical stances to go into the exchange: besides empathy and sympathy—understood here as an exchange of feelings (Deleuze & Parnet, 2007) already preconditioned by aisthesis, I propose 4 Cs—compassion, conviviality, co-operation, and connection as aesthetic-ethic exchanges. The question here is how emphatic connections between human and nonhumans can be mutually sustained through exchanges of love and joy in which the aesthetic-affect acts as the ontic register of relations of power (and not just as a register of mere feelings of joy, sadness, sympathy, empathy) as well as become a measure of *potentia* (Hardt, 1993). Such relations do not merely inhere to speculative panpsychic technologies of *Lassen* but play out in the all-too-human world in which aesthetic-affect constitutes the forces of push and pull between individual and collective desires. Such forces are already inscribed in the political relations between *potentia* and *potestas* (be it in fascism or democracy) and played out institutionally across various institutions via conflict and collaboration. The potential development of real-world nomadic *Lassen* technologies of *potentia* via technologies of biomimesis and biomimicry already exists. In a small number of cases, such technologies manage to partially escape the controlling economising clutches of neoliberal capitalism. As far a biomimesis goes, there is already an inherent, albeit flawed, more-than-human exchange that involves humans becoming sensitive to the design of nature and letting go of anthropocentric conceits to some extent. Little more can be said here, given this article's limits of space and scope, except to draw attention to reprehensible exploitation of non-human life by the bioengineering industry through *Macht* technologies. Yet, these issues are not so easily resolved. How would technologies of *Lassen* deal with threats to human life posed by biological others—like the SARS-CoV-2 virus, for instance? As has been pointed out elsewhere in this volume (see Trento), there is a paradox between hospitality and hostility—between unconditional and conditional acceptance of the stranger, the unknown, and the risks that are at play. I am reminded of the film *Life* (2017), where extra-terrestrial life (anthropomorphically referred to as 'Calvin') turns out not to be the cuddly toy that the *Lassen*-infused exobiologists believed it to be.

The above issues also apply to design and design education where there is a recognition of the necessary shift from object to *objectile*; a morphogenetic process where the design object becomes an open-ended, relational, intelligent event that shifts the user-subject's relationship to it (see Marenko, 2015). There is a discernible movement from object to event in design and design education—where “the material-force couple replaces the matter-form couple” (Deleuze, 2007, p. 106)—in keeping with nascent *Lassen*-inspired AI technologies. The trajectory here is that designing AI with more sensitised and nuanced intelligence will necessitate combining silicon and carbon within new post-silicon microchip technologies (Kwinter, 2007). The proposed design for a neuromorphic chip (Simonite, 2013), for instance, offers an anorganic mode of expression that moves beyond the current technodigital objectscape. Here again, however, the tensions between *Macht* and *Lassen* technologies will be at play—as explored in an array of sci-fi narratives (see, for instance, Stengers, 2018). STEM to STEAM pedagogical proposals (Knochel, 2018) that incorporate some of this line of thinking, propose to insert not just A(rt) or A(esthetics) into wild science-education but to dwell, pedagogically, on A(istheis)—to pedagogically cull the ethico-political force of the emergent assemblage, and to dwell on what this means for design pedagogy.

Indifference

The second generalisation that cuts into all the above competing philosophical directions—and the pedagogies that harness them in various ways—is that they are *all* limited by the impossibility of ever claiming a naïve realism; by this I mean from ever completely epistemologically and rationally understanding the world-for-itself, as a human-independent reality that performs itself. The neoliberal fantasy of perfected algorithmic AI—a circular production-consumption process that totally eliminates all waste—is a dream that can never be realised. Control is never perfect, excess always escapes. By in|difference I am referring to the world-for-itself—the mechanosphere—that is fundamentally indifferent to our desires and which continues to flourish in our absence and despite our depredations (as in Chernobyl's exclusion zone where various plants and animals have adapted to radiation levels that would sicken and kill humans). That said, the mechanosphere—although it functions autonomously—reacts

to and forms assemblages with humans. Here nuances of indifference emerge as with Lucretius' swerve wherein there are numerous thresholds at work; that is, minor inflections which break from complex systems. It is these breaks that constitute the possibility for new modes of relations. In this sense the between of difference and indifference is where such inflections of excess are found. It is where imperception emerges as identity is disturbed and desire undergoes a transversal change. This is to say that a metaphysical realm cannot be eliminated as that which escapes any system remains unknowable.

Speculation about the unknowable is foremost an aesthetic phenomenon (as maintained above), as well as being fictional. There is no complete unification theory (or theory of everything) that could include all events at the quantum level. The Max Planck scale of physical cosmology, for instance, presents the limit case where the standard Copenhagen model of quantum field theory and general relativity theory do not apply to quantum effects where gravity dominates. Furthermore, computer algorithmic calculations are also limited by an omega constant (Chaitin, 2006), yet another affirmation of Gödel's incompleteness theorem. Nor are standard philosophies subject to the limitation of their philosophical decisions—all philosophy is concept creation (Deleuze and Guattari, 1994). To push this even further is to maintain a democracy of thinking (Laruelle, 2013) that allows in all forms of occult thinking and mysticism. With this possibility, the question of the unknowable is not only queered, but it can also—if pushed far enough—become dark, eerie, and perhaps even outright horrific.

There can thus be no fundamental grasp of materiality per se that is specifically new; not least since there is, as yet, no understanding of what materiality implies at the quantum level; from this vantage, we might just as well be using the term "new idealism" (see Grosz, 2017, p. 13) when talking about new materialism. With such designations, the left glove may be inverted into the right glove, and the invisibility of the transition cannot be fully grasped as it describes a becoming-process, an excluded middle of an aesthetic-affective encounter. In brief, some of the relational ontologies of new materialisms continue to display a lingering proclivity towards discursive, cultural, or linguistic approaches—for instance, the agential realist use of diffraction

(see Barad, 2007) as a form of narration or storytelling whereby the researcher's memory stories are turned into artistic forms of research creation. This becomes especially obvious as discursivity is part of agential realism wherein deconstructive strategies are harnessed resulting in the fictive modelling of what is now asserted as research. Such lingering proclivities avoid the thorny difficulties of addressing the concept of the ideal as it intersects with the material—such as, for instance, the speculative existence of morphic fields of resonance (Sheldrake, 1995) where the virtual memory of nature impacts its material forms in various ghostly ways or the speculative metaphysical blueprints of life. Cells as well are said to be sensing and sentient, evolutionary in their memory transmittance (Shapiro, 2009). Not all imaginings are reducible to the material: this seems to be the paradox of idealist materialism or vice-versa (materialist idealism), as in the glove analogy above. We have groundless ground, groundlessness, and an *Ungrund* (Deleuze, 1994, pp. 224-229), the Real (Lacan, 1977), a *life* (Deleuze, 2001), and a long list of metaphysical ways to recognise the void of chaos. For Deleuze, the (Kantian) *noumenal* is immanence as Ideas. Ideas, for Deleuze, are wild and supra-sensible, revealing forces and intensities that lie behind sensations that draw us into nonhuman and inhuman becomings (Smith, 2003). This wildness reveals the direction that a wild pedagogy that aims to teach about the material-ideal needs to undertake.

From this broad claim, the notion of in|difference emerges, not in its negative form as in its meaning in relation to representation (in|difference as a form of non-caring), but as a dark precursor (Deleuze, 1994), which is another way of grasping the importance of a in|different vitalism that acts as a quasi-cause (Colebrook, 2010; Deleuze, 1994) to actualisation versus a more active vital materialism that focuses on creative agency. In|difference addresses a world-without-us, or rather, indifferent to us, which calls us to face life's other—namely, death—which is not its opposite, but its shadow. In|different vitalism looks at differential relations of forces, which may actualise in the form of bounded organisms, their living norms and meanings, but are never exhausted by these elements (Colebrook, 2010, p. 115). Death as an acknowledged end is an *extended temporality* we already inhabit, rather than an end to be prevented. "Terminality" becomes a horizon, a "lifelong" (Ensor, 2016, p. 54) shared condition characterised by a potential for relations of ongoing responsibility and accountability

towards the harmed, the ill, the perishing, and the dead (environments, ecosystems, organisms). While forces allow for the emergence of bodies, the extension of these forces often results in the destruction of bordered organisms. This is to say that an indifferently vitalism recognises that processes of living and dying, growth and decay are complexly interwoven and entangled. For Deleuze (1994), there is an impersonal side of death, as being indifferent in the context of the kind of vector pedagogy might take. The termination of an organic life leads to new life, or creative evolution, a negantropic condition as creativity reinvents itself. The necessity (or demand) for non-toxic assemblages is called on (Stiegler, 2018). Inorganic life is germinal life for Deleuze, whereas organic life is somatic and personal. Inorganic life is related to the death instinct, which is no longer negative; rather it is precisely what staves off the entropy via negentropic creation.

In new materialist inquiry overall, the life/death binary is problematised as non/life, the inter-intra relations between the inorganic and organic (Radomska, 2016). This is but another articulation of indifference. The carbon chauvinism of what life is becomes questionable when it comes to viruses, prions, and inorganic protocells that can be synthetically manufactured. The SARS-CoV-2 virus is indifferent to its host, as is the case with deadly infectious bacteria (see Hird, 2010). We can anthropomorphise (or not) bacteria and viruses in various ways, but this is beside the point. Viruses are not ethically responsible to their hosts: death is life for them. Indifference presents us with the spectre of a posthumous life (Weinstein & Colebrook, 2017), that is, a questioning and an ending of life in its humanist vitalist forms. Such a position seems to be at odds with the Bergsonian *élan vital* promoted by Jane Bennett (2010) and in Barad's (2007) case, where the stress is on agential activism. For Barad, "distinct agencies do not precede, *but* rather emerge through, their interaction" (p. 33, added emphasis), as agential intra-active matter. Her emphasis is on the inseparability of entities. Inorganic passive vitalism that is indifferently is not considered in her framework. Rather, the "animate-inanimate distinction" (2007, p. 419, n. 27) is overcome, drawing her closer, as in Bennett's position, to a Bergsonian vitalism.

In the case of *élan vital*, it is materiality's active role, rather than its indifference as impersonal life that is being forwarded by these theorists. Deleuze's (1994, p. 213)

in|different vitalism, by contrast, describes “a force that is but does not act” per se. This constitutes a break from Bergson—with a Nietzschean twist—whereby an organism is seen to increase its openness to the fluxes of the outside or increases its power of disinterest to the outside. The first is an active becoming while the second is a reactive becoming. Deleuze and Guattari’s (1987) conception of a body without organs addresses this inorganic germinal life as flows of energy from the outside. It raises the way the in|different external flux of matter passes (is enfolded) into the body, and how this flow may be mediated historically via technologies (of *Lassen* or *Macht*). This flow can result in two types of deaths: a reactive death by diminution, or a death by vanishing—a body folded in upon itself that shrinks more and more until it is annihilated. This reactive power towards death is by way of narcosis and exhaustion, an ever-increasing in|difference to the world as if enclosed in a social monadological bubble (Meillassoux, 2007). Deleuze refers to this reactive becoming as stupidity or *bêtise* (see Deleuze, 1994, p. 150). Creative death is the ever widening up to the external flux (outside) until the body dissipates, dissolves, an infinite madness as there is an effacement of any selection of images from the outside, a saturation of existence that is overwhelming. It may be viewed as the very inverse of the social monadological bubble of communication: only chaos comes at you. In/different vitalism complicates existence, requiring the mediation of various technologies (whether as linguistic, artistic, philosophical, or pharmacological constructs)—in other words, “a little order to protect us from chaos” (Deleuze & Guattari, 1994, p. 201). Philosophy, art, and science are the three disciplines that Deleuze and Guattari (1994) promote to stave off chaos, with the caveat that these philosophers require from us to trouble, queer, and wild these disciplines in various transversal and schizoanalytic ways. I have explored the pedagogical implications of this, especially in relation to art (see jagodzinski, 2016). I further maintain that the cosmic artisan exemplifies the necessary sensibilities to intuit the flows of matter when composing cosmic artwork (see jagodzinski, 2019b).

Such a position is not reflected in versions of new materialism that presents materiality as an “active participant in the world’s becoming” (Barad, 2007, p. 136) or “a substance in its intra-active becoming—not a thing but a doing, a congealing of agency” (2003, p. 828) as mentioned above. With such claims, new materialism seems

to lean more toward (post)humanist forms of vitalism as in Rosi Braidotti's (2013) defence of maintaining a critical (post)humanist subjectivity, and articulated more fully by Francesca Ferrando (2019), rather than on the more problematic Deleuzian position of inorganic becoming. Arguments for a materialist activism that are accompanied by spectres of instrumentalism (that range between *Lassen* and *Macht*) and human intervention now need to grapple with the inorganic vitalism of nature that does not 'care' (e.g., the COVID-19 pandemic). At any rate, the question of vitalism remains ambiguous, at least in relation to the indifference that is being explored, especially as difference summons an encounter or event that disrupts what appears as a continuity.

Such events are characterised by *pure* or *Aiôn* time—"non-chronological time, Cronos and not Chronos ... the powerful non-organic Life which grips the world" (Deleuze, 1989, p. 81), Such time is contingent, deep, and enduring. Matter for Deleuze (1989) is temporal and chaotically instantaneous; it consists of instances in which actions appear. These are *not* events, but the continuous stream of lived life. Consciousness as appearance *is* matter as actions occur. Matter is composed of instantaneous actions, acting, and reacting instantly with each other; there is no gap nor delay, nor hesitation in this process of mattering. Such pure actuality is not what is alive, rather it is the splitting of time, that constantly breaks apart into past and future (Deleuze, 1994). Life is identical to the splitting of time (past, present, future); that is, the affirmations (as temporal fusions) that take the place of similar instances via *contemplation*—the retention of instances that resemble each other and that anticipate similar instances that will occur in the future. In this way, gaps are created between past and present action as matter is fused across time in a living present, creating a gap between past and the future. This is time as *organic habituated life* that is lived, which is joined together in a smooth succession of moments that are all similar. For dimensions of time to be split apart (time out of joint), non-organic life intervenes as an event or encounter. This non-organic life is indifferent; that which comes from the outside, forcing an interruption or a hesitation in organic existence. The absorption of actions from the outside of an organism gives life itself a present in which the past is retained. But this absorption can also lead to stress and fatigue, an overwhelming flood of non-organic life leading to a delirium, a breakdown, or a

breakthrough. The interventions of inorganic life from the outside presents a situation where the organism can no longer fuse the various elements outside of itself: a resultant trauma leading to the extremes of the two deaths mentioned earlier. Disruption and difference are introduced to the past time of the organism through such encounters.

Deleuze's Nietzschean and psycho-analytical leanings emphasise inevitable and sombre facts of life as entropy, dissipation, the death drive, dying, illness, war, wounds, and exhaustion. Interruption and collapse are disruptions of organic life. Inorganic life, intruding on organic life in this way (whether as revengeful AI, earthquakes, viral pandemics, or tsunamis) represent the intrusion of Gaia; a force thoroughly in|different to humans (Stengers, 2015). Life on planet Earth only emerges contingently and locally from geophysical forces; it is not independent from the strata that compose it. Neither nature, life nor the planet can be saved as such. The deep time of the Earth, which in|difference addresses, recognises that an internal rupturing force of Gaia makes human extinction a real possibility. There is no unified harmonious whole of Nature in which social processes could be inscribed; rather there are only intermeshing assemblages wherein collective thought might intervene—a necessary intervention which, given the scope of the Anthropocene, will require overcoming the matrix of "Integrated World Capitalism" (Guattari, 1984, p. 283). In|difference in no way cancels or refutes the overall ethical-political grasp that Deleuze and Guattari see as essential for recognising harm, vulnerability, and suffering which are entwined with life and death.

In|difference, in the end, is univocal (Deleuze and Guattari, 1987). All beings are simply matter/information/informed motion. All subjects—as things or entities—are also forces in their capacity to modify and be modified by their environments to the degree of their capacity to feel and/or think, affect, or be affected. As Deleuze and Guattari have it, a myriad of "micro-brains" can be seen everywhere, as the inorganic life of things: "Not every organism has a brain, and not all life is organic, but everywhere there are forces that constitute micro-brains, or an inorganic life of things" (1994, p. 213). Semiosis, as an intermediary codification, is an exchange of informed motion between interior and exterior. "Unnatural alliances" or "interkingdoms" are assimilations and material expressions of these exchanges of codes; a "double capture" takes place in

all becomings (Deleuze & Parnet, 2007, p. 2). The relation between world and an entity in its *Umwelt* becomes an exchange—a translation back into the interpretative technological or biophysical capacities available to that entity (organism). This double capture and exchange happen constantly in Nature—a world in|different to us—through a “thick hybridity” (Lulka, 2009, p. 385). This would follow Spinoza’s conception of the composite individual—a being modified to think through what our species relational assemblages could encompass (from death-threatening viruses like SARS-CoV-2, to gut microbiota, or from poisonous insects and snakes to our closest kin like the chimpanzees or bonobos).

In|difference here is not topographical but topological. Topographical assemblages are formed with specific nonhumans as singular alliances (like domestic animals), or via the extension of humanist subjectivity as animal rights (citizenship). In|difference in its topological forms presents us, however, with the problem of “unholy alliances” (Deleuze & Guattari, 1987, p. 293) between distant or contiguous points where the border proximity is in|different to both contiguity and distance. How do we live with something contiguous such as the SARS-CoV-2 virus, cancer, malarial mosquitoes, or any other deadly life or non-life that threatens? This complicates matters and mattering, aesthetically, ethically, ontologically, and politically.

Dissatisfaction

How does the Earth think? How can we parse its in|different cosmology or its inorganic life? These are some of the challenging questions that face education in the Anthropocene. How can we read the semiotic exchanges between entities (from the quantum levels up to the inorganic and organic levels)? How is communication between various assemblages (human, inhuman, nonhuman) scrambled through anthropogenic labour? And how can we invent and design new technologies that enable a more insightful grasp of the changes that will force populations to move in unprecedented numbers as sea levels rise? Such issues are at the heart of the problematic for an immanent and wild pedagogy of in|difference. Geologic (rather than biologic) life raises the question of how the Earth system has created an encephalised species. How do we trace the elements of deep time that reside within

our consciousness and generate larval subjectivity within the neuro-chemical mazes of the reptilian or paleomammalian brains enfolded within us? And how will future technologies that access the neocortex, stimulate these more ancient nonhuman layers of consciousness and what ethical conundrums will they raise?

This essay has been an attempt to present some openings and wild questions for the problematic presented to education by the Anthropocene. Yet there is a felt dissatisfaction at the end of this writing. Perhaps what I am feeling is a certain helplessness. There are, after all, no sure conclusive directions for a wild pedagogy that faces the Anthropocene head-on. The COVID-19 crisis, for example, has shown that necropolitics (Mbembe, 2019) is firmly entrenched. And as the inevitable vaccines are doled out, the technological prowess of cognitive capitalism will no doubt be further entrenched. Meanwhile, responses by even the finest of theoreticians to the COVID-19 crisis have seemed to echo the usual humanist sentiments of hope and perseverance, pushing back against the fatigue, fear, and despair brought on by an encounter with in|difference. Nevertheless, the all-too-human nature of things as they are today—the waning of democracies, the increasing of fascism, escalating violent skirmishes, the looming anthropogenetic climate crisis, etc.—simply underlines the dire need for a wild pedagogy that is able to challenge the abstract machines of capitalism and face-up to in|difference. An immanent and wild pedagogy, as I have argued, will need to take stock of contingency, uncertainty, and unknowability for on the horizon of the future lies the real possibility of human extinction. Education today, after all, faces not only the Anthropocene, but a flux of reactive forces and conceptual persona in the form of necropolitical authorities (such as priests, autocrats, and *Macht* technologies). As stated, all of this bolsters rather than diminishes the necessity of a wild pedagogical response, while leaving open the question of whether or not such a response is possible given the forces ranged against it.

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