

Editorial

PhEmaterialism: Response-able Research & Pedagogy

stARTing out

As we (the four guest editors) worked toward assembling the editorial introduction to this Special Issue, we exchanged many emails, texts, Facebook prompts, Skype calls, and, when possible, met in coffee shops to work through our thinking. During one video call, we contemplated the fraught issue of how to introduce ourselves into the editorial, discussing various modes such as autobiography, figurations, poems, and artwork (see Figure 1).



Figure 1. T(og)ethering (PhArt by Emma Renold, 2019).

We heatedly debated how to write collaboratively as a complex exercise in cutting-together-apart (Barad, 2003). We struggled with sharing and negotiating boundaries—questioning the meaning of introducing ourselves, to what end, and what would be response-able. Throughout this editing journey we have stayed with all of the “trouble” presented by our mixing and mingling with one another and working out our relationships to each of the papers in this Special Issue, as we show, tell, and share in what follows.

PhEmaterialist Reconfigurings

The 21st century educational landscape is fraught with complexities and contradictions. In the western world, school populations are rapidly diversifying even as rising ethno-nationalist movements demand the supremacy of White, English-speaking, heteropatriarchy. As poverty and climate change accelerates, students are coming to school from increasingly traumatic material conditions ravaged by environmental degradation. Many stakeholders in education (including educational leaders, psychologists, and educational researchers) continue to maintain status quo norms, practices, discourses and understandings that preserve traditional ways of thinking. In the USA, for instance, teachers are being prepared to teach in ways that give lip service to the value of diversity and socioculturally-informed pedagogy, but preserve the epistemological and ontological assumptions of rational humanism and human supremacy underlying the neoliberal or “corporate” education movement (Martin & Strom, 2015). Internationally, as schools are becoming more technologically mediated and social-environmental conditions shift rapidly in ways that tie systems to corporate market imperatives (Ball, 2014), our thinking, educational practices, and research methodologies have remained lodged in archaic humanist logics—which, for example, construct students individual, rational actors who should be better educated in order to “achieve” in the status quo system (Snaza et al., 2014). Put simply, our very thinking in education is outdated, and thus is woefully inadequate for the task of grappling with current realities in schools and other institutions of learning.

To understand, enquire into, and generate action worthy of the complexity of our times requires a fundamental shift in our thinking and research practice. This shift disrupts the foundational logic on which dominant thinking in education (and indeed, all Western society) is based—humanism and anthropocentrism (Braidotti, 2013; Murriss, 2016; Snaza et al, 2014). Instead, we argue that we need to put theories/concepts to work in education and educational research which can better account for the multiple, entangled, ever-shifting, difference-rich nature of processes of teaching, learning, schooling, and activism. For this work, we also draw on a rich feminist legacy attentive to unequal power relations (e.g., Ahmed, 1998; Anzaldúa, 1999; hooks, 1994; Spivak, 1978), and our critical approach to rethinking Vitruvian “man” is especially informed by posthuman/new materialist feminist thinkings and thinkers, including Rosi Braidotti, Donna Haraway, and Karen Barad.

This Special Issue offers PhEmaterialisms as a way to explore the world as vital and complex, while simultaneously being response-able to the multiple ethical imperatives of late-stage capitalism. We argue that PhEmaterialist thinking and practices can help us grapple with growing educational complexities, enabling strategies to resist and create alternatives to the patterns of injustice occurring across the world, from burgeoning ethno-nationalist and neo-fascist political movements, to rising global poverty levels, to massive population displacements, to environmental degradation, to toxic internet movements grounded in misogyny, homophobia, transphobia, and xenophobia (Strom & Martin, 2017a).

PhEmaterialisms is an international working group that was formalised at our inaugural conference event, hosted at the UCL Institute of Education and Middlesex University in London in June 2015.

The conference, “Feminist Posthuman and New Materialism Research Methodologies in Education: Capturing Affect,” brought together 40 international educators, researchers, students, artists, and activists seeking to create generative ways of researching, teaching, and collaborating. This group is maintained, sustained and connected by a shared commitment to putting posthuman theories to work with the aim of addressing urgent injustices and operates through informal networks on Facebook, Twitter and Instagram (Link: [Phematerialism](#)).



Figure 2. PhEMaterialism I, London (photo credit, Red Ruby Scarlet, 2015).

Originally conceived as a Twitter handle and a hashtag for our 2015 inaugural event, PhEmaterialism combines feminist posthumanism (Braidotti, 2013; Haraway, 2008/2016; Åsberg & Braidotti, 2018) and the new materialisms (Barad 2007; Alaimo and Hekman 2018; Bennett, 2010; Stewart, 2017; Van der Tuin, 2016). Its abbreviation foregrounds the entanglement of educational scholars interested in working with feminist new materialist and posthuman ideas and pedagogical practices. Grounded in a genealogy of poststructural, postcolonial, postqualitative, intersectional feminist, and queer work in education, PhEmaterialisms is a theoretical assemblage itself: the “Ph” refers to posthuman thinking and doing; its phonic, “phem,” refers to multiple feminisms; its “E” refers to education in the broadest sense; and “materialisms” comes from neo/new materialist thought (Renold, 2018; Ringrose et al., 2018; Osgood & Robinson., 2019; Niccolini and Ringrose, 2019, forthcoming; Facebook Page; Twitter, Events). The ‘ph’ is pronounced ‘f’ so that sound and letter formation bring posthuman and feminism together in one expression.

PhEmaterialist work decenters the humanist “man of reason” (Lloyd, 1980, Haraway, 1998) with complete individualised agency, and instead, sees the central referent of reality as connected assemblages composed of heterogeneous human and nonhuman, material and discursive elements with multiplicitous agentic capacities (Braidotti, 2013; Deleuze & Guattari, 1987; Bennett, 2010; Osgood & Robinson, 2019; Strom, 2015; Ringrose, et al., 2018). For instance, during the first conference in 2015, we created a process of communal “gifting” (see Manning & Massumi, 2014) where participants were invited to share concepts, images, ideas, or objects that mattered to them (see the full programme [here](#)). This process enabled connections to be forged and nurtured throughout the two-day conference and across small-group presentations and workshops. This sharing included formats for dancing, meditation, arts-based practices which worked with projection and film, and online engagement. The group tried to entangle theory and action in a form of pedagogical praxis that went beyond the usual binaries of theory/method and disciplinary silos (e.g., philosophy vs. science) to work across all developmental stages of academia.

At this event, PhEmaterialisms formed an affective assemblage, cut through with relational forces that increase or diminish the capacity to act, thereby redefining what agency is and how it works (Bennett, 2010; Jackson, 2017) ([PhEmaterialism I Philm](#)). Likewise, we tapped into the praxis of scholarship, showing how all pedagogical processes are affective and considering how these affective forces can be engaged to move education toward new forms of politicized public pedagogies, socialisation and consciousness (Hickey-Moody, 2013; Hickey-Moody et al., 2016; Ringrose, 2018). For instance, Anna Hickey-Moody delivered a dance workshop designed to help us think-feel how bodily forces flow in relation to music, intensities and group processes affect (see Figure 3 below). We then worked in outside spaces (it was summer!) in pairs to enact new formations of bodily expression that connected directly to our research concerns with colleagues.



Figure 3. Dancing with Deleuze by Hickey-Moody (PhArt by Red Ruby Scarlet, 2015).

Indeed, PhEmaterialism is characterized by all forms of innovative intra-actions with socially-engaged, arts-informed, experimental methodologies that push us far outside our comfort zones. The aim is to find new modes of creating participatory, action-oriented research that attends to the more-than-human materiality of force relations (Osgood et al., forthcoming), but is also explicit in attending to social justice and impacting the community through genuine engagement and in ways that translate often inaccessible theorising (Ringrose 2016; Hickey-Moody 2018; Renold, 2018; Strom, 2018). These approaches demand diverse posthuman research methodologies (Taylor & Hughes, 2016) and posthuman pedagogies that cut across the many milieus of education and which prioritize ethical intra-action in our respective zones of practice. This involves cultivating experimental and creative practices to help students engage with ontologically-different ideas and processes (Osgood & Andersen, 2019; Strom & Lupinacci, 2019; Taylor & Bayley, 2019; Niccolini et al, 2018; Renold & Iverson, 2019). Such work promotes understandings of the world as nonlinear, multiple, complex, and shifting, where difference and diversity is not deficit or punitive, but is a creative force. Particularly in the context of corporate academia, which fosters competitive isolation, PhEmaterialism is about joining up critique and creativity to enable new realities and worldings (Braidotti, 2013; Haraway, 2016, Stengers, 2018).

PhEmaterialism emphasises a processual onto-epistemology of becoming (Braidotti, 2006), which draws methodological questions and practices away from *what is this?* to *how does this work?* and *what does this do?* (Deleuze & Guattari, 1987) and asks, in an activist sense, *what do we do with what it does?* (Osgood & Scarlet, 2015). Ethically, PhEmaterialisms calls upon research methods to become response-able (Barad, 2007) by recognising the ethico-onto-epistemological relationality in all research processes, a practice that has been extremely important in this area of research (e.g.,

Lenz Taguchi, 2010). In pursuing response-ability, PhEmaterialist practices invite a radical revisiting of researcher neutrality and objectivity as illusions designed to conceal complex human and more-than-human power relations (Haraway, 2018). In these ways, PhEmaterialist entanglements show how politics, activism, affect, and art are all critical components of educational research. These multiple strategies support and advance experimental PhEmaterialist “doings” that enliven and reconfigure what counts as research “engagement,” “communication,” and “impact” (Renold and Ringrose, 2019; Coleman, Page and Palmer 2019).

Importantly, we acknowledge that we are situated within a highly competitive field of knowledge production, what Braidotti calls “cognitive capitalism” (2019a). Because citation practices are extremely important within this context, we have made attempts to capture strands from educational scholars from all stages of their careers working in this field, rather than simply rely on “masters” and “key concepts” models of phallic dissemination, field-defining, and territorialisation. In particular, the Special Issue takes special care to include a range of work from scholars from across multiple career ranks and experience. Taken together, the papers in this Special Issue showcase PhEmaterialist practices at work in pedagogy and research possibilities for “more than” normative research and teaching. Each case offers sparks of creative, affective and ethico-political doings of posthuman feminist educational research and teaching in all its formations and proliferations.

Locating Our PhEmaterialisms

In this section, we (the editors of this Special Issue) offer “auto-theoretical” positionings that sketch out our diverse pathways into PhEmaterialism. Mapping these pathways is important in demonstrating some of the many entry-points into the larger field of posthuman materialist research. The posthuman or new materialist turn involves what Braidotti (2019b, p. 8) has termed a “convergence phenomenon” of posthuman philosophy (which critiques humanist man as the central referent for reality) and post-anthropocentric thought (which critiques human supremacy) (Braidotti & Hjalvalova, 2018). This convergence has produced a trans-disciplinary (Taylor and Hughes, forthcoming) proliferation of posthuman and new materialist research across diverse fields such as science and technology studies (e.g., Barad, 2007; Haraway, 1989/2016; Alaimo 2010); the posthumanities (e.g., Åsberg & Braidotti, 2018; Braidotti & Fuller, 2019; Stengers and Bononno, 2010/2011); animal studies (e.g., Bull, Holmberg, & Asberg, 2017; Nocella, et al., 2019), queer studies (e.g., Chen 2012; Harris and Holman-Jones 2018; Puar 2018), new media studies (e.g., Parikka, 2012; White, 2009); environmental studies (e.g., Bentley, et al, 2017; Opperman & Iovino, 2016) and affect studies (e.g., Berlant and Stewart 2019; Gregg & Seigworth, 2010). These see expression in feminist educational fields of inquiry such as childhood and youth studies (e.g., Taylor and Ivinson, 2013; MacLure, 2015; Ringrose, Warfield and Zarabadi 2018; Osgood and Robinson, 2018); literacies (e.g., Kuby & Rowsell, 2017; Kuby, Spector, & Thiel, 2018); teacher education (e.g. Strom & Martin, 2017b; Strom, Abrams, & Mills, forthcoming); higher education pedagogies (e.g., Taylor and Bayley 2019; Ulmer, Kuby, & Christ, 2019) and education research methodologies (e.g., Coleman and Ringrose, 2013; Taylor and Hughes, 2016; Niccolini and Ringrose, 2019, forthcoming). This special issue is most concerned with how these moves are reshaping educational research practices, and will document how contributors draw upon “interdisciplinary hubs” (Braidotti & Hjalvalova, 2018, p. 5) to experiment and create hybrid formations drawing on diverse histories, theoretical underpinnings, and empirical foci.

In situating ourselves, we create post-autobiographical assemblages enacting and practicing a politics of location (Rich, 1987; Haraway, 2004; Tuck & McKenzie 2015) to illustrate some of our “intra-actions” within our fields of inquiry (Barad, 2007). We argue these relational locational

positionings are an ethical imperative of PhEmaterialism, and do not constitute a banal listing of our identity categories, but a complex cartography of becomings (Guattari, 1995). One of the fundamental shifts of posthuman thinking is away from claims of universal and transcendent knowledge/practice and toward situated perspectivism (Haraway, 1988; Braidotti, 2013). Haraway (2016) makes the profound argument that without knowing where we are and what we can do, we will be unable to “stay with the trouble”—that is, we would be unable to confront the complex challenges we face in our research and teaching as we encounter increasing levels of disparity, inequity, and devastation in the world. Without accounting for the embodied, embedded nature of knowledge-production activities—like the construction of this Special Issue—we reproduce the “god trick” (Haraway, 1997) of speaking from everywhere and nowhere. This supposedly disembodied voice has historically claimed to be neutral and objective, but in reality, has represented the meaning-making of White cis-hetero elite men, and has been used to justify the subordination and erasure of those with alternate onto-epistemologies. Politically locating ourselves is a way to be response-able to disrupting these oppressive historic and current knowledge practices.

As four White women academics writing from positions in the Global North (Katie lives in the Bay Area of San Francisco, Jessica and Jayne are located in the greater London area, and Emma lives near Cardiff, Wales), our geo-political locations and the relations of privilege and power those entail have shaped our research interests, the problems we are drawn to disrupting, and the bodies of knowledge with which we have engaged that became our theoretical genealogies and turned us toward particular entry points into feminist posthuman materialisms. One of the reasons politically locating ourselves as we introduce this Special Issue is important to us is to own critiques about posthumanisms and new materialisms, particularly from indigenous scholars, who rightfully point out that there’s nothing particularly “new” about the new materialisms—indigenous scholars have been engaging in knowledge production practices emphasizing more-than-human relational ontologies for millennia (e.g., Todd, 2016). We do not want to present PhEmaterialisms as *the way*, as a grand narrative that merely replaces one orthodoxy with another. Instead, we aim to be transparent about our own positions and influences, including acknowledging the importance of place in our theoretical journeys (Tuck & McKenzie, 2014), and recognizing that PhEmaterialism is just *one way* into more complex, “more than” ways of thinking. At the same time, we have to “stay with the trouble” (Haraway, 2016) of grappling with the reality that because of its mostly Anglo/Continental philosophical ancestry—and the Whiteness of its current scholarship—this *one way* is in no way neutral, but has the power to colonize in the modern day academy.

Therefore, aiming to map our own political locations vis a vis feminist posthumanism, the four of us took the same prompt—“*How do we come to PhEmaterialisms?*”—and agreed to generate a contribution that expressed the ways that we enter into this theoretical conversation. Each of us plugged this prompt into our own situated assemblages, which produced four very different pieces. When we exchanged our contributions and realized that each was a unique production of knowledge, we worried how they would “fit” together to form a coherent narrative for this section. As we talked it through, however, we recognized that these were so different *because* they were produced from the singular mixture of each of our lives—from our politics of location (Rich, 1984), situated knowledges (Haraway, 1997) and the ordinary affects (Stewart, 2008) that contribute to the world-making practices that we engage with daily. These pieces are the products of speaking from where we are, specific actualizations of spacetimemattering (Barad, 2007).

For example, Katie often engages in autoethnographic/self-study work that examines subjectivity as an assemblage that is co-produced by human-nonhuman-material-discursive-affective elements, which shaped her approach to mapping out her theoretical journey. Emma responded to the prompt by building upon the PhEmaterialist praxis she experiments with in her monthly meetings of the

Future Matters Collective in south Wales.¹ She gifts what she calls a “fugal-figuration” created with an affirmative cut into the “more-than” (Manning 2012) of her pARTicipatory research-activisms with young people to re-imagine and re-assemble the rules on sexuality education. When Jessica sat down at her desk to write about her theoretical influences, she was inspired by the current moment of youth climate protest, and what she sees as a PhEmaterial “phiguration” of Greta Thunberg poured out. In the meantime, Jayne was drawn to revisiting the question “what counts as valid knowledge?” (Lather, 1993) and the profound impact this has had in her research within the field of early childhood studies. Taking “validity as voluptuous” (Ibid) has opened up ways of generating politically motivated knowledge in different mediums, such as through photographic art-work, or PhArt (Osgood & Scarlet, 2015), through which she locates herself.

We see our contributions as entangled threads, braids or plaits. This plaiting spirit of PhEmaterialism is captured in Figure 4 (which was taken by Sid Mohandas at the second Phematerialism conference, posted on Facebook, and re-sourced by Jayne for the purposes of this editorial). The image captures coffee, sticky notes, a conference programme and a “*plait for progress,*” a plait containing experiences and messages pressing for gender equity created in a session led by Hanna Retallack and Tabitha Millett at the conference. First conceived through a feminist conference with school children, the original plait was brought along to Phematerialism 2018 and delegates added new plaits, creating more and more entangled becomings, connections, and webs.



Figure 4. PhEmaterialism II, London (photo credit, Sid Mohandas, 2018).

¹ The “Future Matters Collective” are artists, academics and practitioners based in and around Cardiff (Wales, UK), and bring together the disciplines of Architecture, Fine Arts, Childhood Studies, Dance, Human Geography, Law, Music, Philosophy, Physiotherapy, Psychology and Sociology to explore new ways of enabling creative future-making (see @future_matters). Over the last few years, some of the collective have worked together to share through arts-performances and events different elements from our pARTicipatory projects with young people in the south Wales valleys, through sound, photography, poetry, fiction, movement and film.

An Auto-theoretical Assemblage (Katie)

I am a production of growing up in a White, working-class family in Montgomery, Alabama, U.S., where the intersection of place, race, gender, religion, and poverty shaped my worldview. The contradictions of growing up among reminders of the triumphs of the Civil Rights Movement—my junior high school was blocks from the Dexter Avenue Baptist Church, where Martin Luther King, Jr. served as pastor—and the casual, explicit oppressions that still characterized daily life in Alabama generated a passion for social justice. By the time I was a teenager, the ultra-conservatism and everyday racism, misogyny, and homophobia drove me out of the state. I moved to Southern California, where I attended college and later taught History and English mainly to high-poverty immigrant Spanish-speaking students near the Mexico-U.S. border. I eventually returned to graduate studies, focused on the problematics of teaching in urban schools serving large numbers of high-poverty students of color and multilingual learners. I also became interested in the feminist qualitative methodology of self-study of teaching practices, whereby a teacher-researcher engages in systematic inquiry into their own pedagogies, and which disrupts multiple boundaries of “traditional” research, such as researcher/researched and personal knowledge/theory/empirical data.

By my second year in doctoral studies, I had narrowed my focus to first-year teaching in urban settings. However, I was frustrated by the linear, reductionist approaches that most available research took to what I knew firsthand was extremely complex phenomena. Searching for a way to study beginning-teaching from a perspective better able to account for the many moving parts of classroom teaching, I first explored complexity theories (e.g., Davis & Sumara, 2006), but chafed at the positivist language and lack of attention to critical issues like power relations. While attending a session on feminist methodology at the American Educational Research Association’s annual conference, concepts the presenters (Patti Lather and Elizabeth St. Pierre) were thinking with—assemblages and lines of flight—piqued my interest, and I subsequently dug into Deleuze and Guattari’s (1987) collaborative work on rhizomatics. Their multiplistic, mobile process ontology was exactly what I needed to think about and study teaching, not as an individual and autonomous activity, but rather as something collaboratively produced by an assemblage of teacher-students-context-pedagogy-content-policy-*plus*. It also helped me think about my own teaching in higher education settings and plan decentered, participatory pedagogies to prepare educators to be critical and complex thinkers.

However, rhizomatics did not provide a well-developed notion of posthuman subjectivity and its relation to knowledge-production, which I needed for both my work in teaching and self-study—and because I am always acutely aware of the potential of posthuman thinking to become too abstract, which can then take on characteristics of hegemonic thinking that transcends situated reality. I forayed into Rosi Braidotti’s (1994/2013/2019a) work on critical posthumanism and nomadic subjectivity, supplementing with Haraway’s (1988/2004) work on situated knowledges. The notion of the self as decentered, yet connected and accountable, while always outward-looking (Braidotti, 2018), has helped me to push my teacher education, as well as my self-study and autoethnographic, work from a humanist perspective to a posthuman, post-anthropocentric realm while keeping it political.

Ruler-skirt Risings (Emma)

Each month, the members of the [Future Matters Collective](#) task each other to intra-act with a concept (e.g., anticipation, responsibility, latency, waiting, commitment) and gift a response in either person or digitised form before each meeting. My process over the last six months has been to work affectively with each conceptual provocation by co-creating word-image-sound-movement

figurations, or what I'm beginning to theorise as "fugal-figurations". A fugue is a composition of multiple voices built upon a subject which unfolds and recurs in improvised form. Each variation often contains a melismatic component, where an idea can run away with itself.

"Medusa Rising" is the fugal figuration made and shared specifically for this



Figure 5. Skirting Medusa (Renold, 2019).

Phematerialist post-autobiographical "locations" section. The "subject" is the original ruler-skirt activism and the "variation", a series of Ruler-Skirt-Risings (see Renold, 2018, Libby, et al. 2019, Renold, 2019) created with a run-a-way methodology (see Renold, this issue, and Ivins & Renold, 2019). It is a multi-modal expansion of my previously published "Ruler-Skirt-Rising" three stanza poem (Renold, 2019).

I was drawn to work further with this piece, not only because the “ruler-skirt” was my original gift at the first PhEmaterialist conference, but also because it was my first attempt at developing what was originally a performative piece with members of the [Future Matters Collective at our 2016 Cwrdd](#)². The process enabled me to cross the painful threshold of a crippling writing block. I was struggling to put into prose the speculative pragmatic praxis of becoming crafty with how I was working with young people, teachers, artists, academics, civil servants and politicians to inform and transform the emergence of a new relationships and sexuality education curriculum in Wales. The original fugal figuration enabled the paper to take shape, form and flow. It is the snaky shape and form, and the embodied emotional scars and scorings of working in the field of gender, sexuality and education for over 20 years, that has sparked this next variation.

Medusa has been my “companion species” (Haraway 2007) for two decades—my young adult queer crush (tattooed onto my back and shoulder, Figure 5) simultaneously speaks to the multiplicity of sex, gender and sexuality becomings and the PhEmaterialist phantasy that each phallic feeler will harden, crack, and fracture the many mutations of the neo-patriarchal gaze and its normo-pathology-ridden rules that violently capture and contain those becomings. Inspired by Haraway’s “tentacular thinking” and the “profound makeover” she gives to Medusa and “the many unfinished worldings of her antecedents, affiliates, and descendants” (Haraway 2016, p.10), I worked with the poem’s original snaky shape and the potential queer legacy in Aristotle’s “Lesbian Rule” of how change and transformation might be practiced (i.e., be flexible in making and measuring how the irregular curves of equity and justice come to matter). By re-organ-ising and inserting hyperlinks to activist risings made and found (e.g. in the form of a policy document, an event, a film, a book, a protest), each snaky stanza operates as a potential political enunciator, offering new modalities of ethical-accountability. Each line, a Medusa lock. Each hyper-link, connecting you to a line of flight in a relational web that bends time and space. Dive in, hook-up and see where the Medusa Risings take you.

Medusa Rising

Clickable links below.

[“Some boys use rulers to lift up our skirts”](#)

[Ruler touching](#)

[Up her skirt](#)

[Between her legs](#)

[Ruler](#)

[Rule Her](#)

[Rule her with your ruler](#)

² Cwrdd is a welsh word for gatherings that can be made, found and stumbled upon.

Normalised

Ignored

Silenced

Some experiences are ruled out

Sexual violence in school

Can be one of those experiences

Something to get used to

A getting used

To being used

In this way.

Over-ruled?

Skirted over?

#metoo

What else can a ruler do?

from time to time

as discourse

as image

as object

as sound

as movement

as pedagogy

as policy

the ruler-skirt

s(w)ings

up-skirting

the promise of the not-yet

each movement

a minor gesture

calling out

the status quo

slapping us

to attention

and sometimes, into action

ruler-skirtrisings

assemble and #reassembletherules

with ethical response-ability

and heART as the way

they materialise an affective politics

making d/artaphacts for the not-yet

marking lines of flight

with lesbian rule

a tiny thousand minor gestures

beyond measure

of what relationships and sexuality education

might be

and become

PhEmaterialist PhArting as a Seriously Playful/Playfully Serious Practice (Jayne)

Having recently written about the dis/continuities and re-turns (Barad, 2007) between various feminist traditions to the study of gender in early childhood (Osgood & Robinson, 2019), when confronted with the question “How did I come to PhEmaterialism?” I encountered an acute sense of dis-ease; there wasn’t a single, defining moment, and I remain indebted to, and entangled with, a long history of feminist thought and practice. I found myself feeling simultaneously drawn towards, and repelled by, the prospect of composing a coherent, linear, auto-ethnographic account of my personal-professional journeying which has been shaped by feminist philosophies and methodologies. Wanting to resist falling into a space of introspection where the human subject becomes reinscribed as the focus, I wondered what it was that PhEmaterialism has provided that allows for flattened ontologies to become a reality in my research, everyday life and activism, and

why, when, and how that matters. For me, the affordances that feminist new materialist approaches have made to thinking deeply, and acting response-ably in each moment, has been entirely transformative—the political imperatives underlining PhMaterialist approaches have been hugely generative and massively unsettling. Being a PhMaterialist researcher rests upon an on-going willingness to engage with the everyday and to ask difficult questions that have no definitive answers but provide the motivation to undertake research that can make a difference in the world. Such questions demand research practices that insist upon a willingness to engage in world-making practices, to get in the thick of things. Feeling decidedly inexpert with arts-based research approaches (see Coleman & Osgood, this issue), I was reminded of photographic “art-work” I had created as part of recent research studies. These images were made possible by fairly unremarkable mobile phone technology, but they hold the potential to produce different knowledge differently. This arts-based practice was introduced to me by collaborator and artist-activist-academic, Dr. Red Ruby Scarlet, who, following Haraway, stresses that this mode of knowledge creation is serious, yet playful. This serious playfulness is captured in the term she uses to describe its form: PhArt (see Osgood & Scarlet, 2015, for further explication).

As with PhMaterialism, the term PhArt captures so much. Ph denotes *post-humanism*, *photography*, *philosophy* and *phEminism*—these entangled Ph’s sit alongside the Art which conveys experimental, embodied, creative practices. Doing and sharing PhArts provides one way in which the everydayness of life, replete with uncomfortable realities and political conundrums, can be registered. They provide a means to tap into the never-ending meshworks that constitute life in the Anthropocene, which can be more productively approached from a PhMaterialist sensibility that invites a mode of living that recognises (and celebrates) complexity, uncertainty, and hope. Following Scarlet, I want to stress that these PhArts do important political work in and of themselves. To contemplate what relationalities are at work within these images, the affective forces they set in motion, and the questions that they pose is inherently PhMaterialist. They are concerned with inequalities, power plays, diverse childhoods, and life in the Anthropocene. Yet they are also unremarkable, mundane, extra-ordinary curiosities that provoke and agitate. However, it is the act of resisting the urge to provide an interpretation (of what they are and what they might mean) that I feel is precisely the point. This is the reason they are left on the page/screen with no further explanation. Rather, I invite you to contemplate: *What do the PhArts do? What might we do with what they provoke?*



Figure 6. The ordinary affects of situated knowing (PhArt by Osgood, unpublished).



Figure 7. Reimagining anti-bias education as worldly entanglement (PhArt in Osgood et al., 2016).

PhEmaterialist Phiguration(s) (Jessica)

Rather than create a chronological account of my subjectivity as PhEmaterialist researcher, in the spirit of rhizomatic and nomadic inquiry I wanted to start in a middle—at a current buzzing (Niccolini, 2016) and “glowing” (MacLure, 2013) node of thinking—to spell out how PhEmaterialism is critically important for the topic and area of inquiry that I work in, which is often defined through “serious” hard angles of statistics, scales, and law—gender and sexual aggression and violence, particularly amongst young people. My concern is with theorizing and thinking otherwise about how regulative forces are disrupted and resisted, and by what means, through everyday ruptures along a continuum to formal feminist and LGBTQ activisms. For me, feminist posthumanism or posthuman feminism and our unique formulations in PhEMaterialisms are about identifying and challenging the patriarchal, male-centred domination of the planet and all the modes of territorialising force relations that enable and reproduce this domination (Braidotti, 2013), and its particular infringement

on the rights of children, particularly girls. I consider myself a “minor scientist” (Braidotti, 2019b), and take my capacities to find tools, conceptual and methodological, to document what is happening and to intervene into these relations and make material changes very seriously. I have insisted throughout my work, often in collaboration with other phabulous PhEminists, that these tools must help us map and harness the “affective pushes and pulls” through which social transformations occur, finding techniques and strategies for rupturing and disturbing the normative phallogocentric order (Ringrose and Coleman, 2013; Ringrose et al., 2018; Renold and Ringrose, 2018; 2019).

My middling in the moment, a generative node of sparking excitement, is a “feminist figuration” (Braidotti, 2002) in the form of Greta Thunberg, a 16 year old climate activist who rose to international fame after catalyzing worldwide, youth-led climate strikes through her #FridaysforFuture demonstrations, which mobilised a gigantic, global, digitally networked youth following. What has been commented upon at length in the media is the medicalisation of Thunberg as autistic. After learning about climate devastation at age 8, Greta noted: “I kept thinking about it and I just wondered if I am going to have a future” (Watts, 2019). Greta was then diagnosed with depression and a form of Asperger’s, “selective mutism”, a severe anxiety disorder where a person is unable to speak in certain social situations. Thunberg herself has talked about being painfully “introverted” and doubted her ability to make change because of her small size. Yet, by demonstrating her rights to speak about what she deems important to a global audience through her climate activism, she has ruptured her pathologization. For instance, Thunberg has reported never feeling nervous or scared to speak about climate change in front of large audiences. Greta with a megaphone amplifying her voice at rallies jars against the individualising psychopathologizing diagnosis of mutism.



Figure 8. Greta Thunberg (Getty Images, 2019)

Greta-megaphone embodies and catalyzes others to confront the “hopeless” realities of climate devastation. Where in normative deficit culture autism or selective mutism is seen as a learning difficulty or disability, through a posthuman feminist lens, neurodiversity is viewed as enabling new affective, mental and bodily capacities (Manning, 2014). Thunberg herself has turned her “disorder” on its head, explaining how her “condition” gives her focus and drive. She has even called autism her “superpower,” explaining it makes it easier for her to withstand conflict: “Being different is a gift,” she told the BBC. “It makes me see things from outside the box. I don’t easily fall for lies, I can see through things. If I would’ve been like everyone else, I wouldn’t have started this school strike for

instance." She uses her gift to challenge world leaders head-on, telling them, "I want you to panic. I want you to feel the fear I feel every day. And then I want you to act" ([Vertigan & Nelson, 2019](#)).

That Thunberg is mobilizing these seismic capacities for confronting ecological devastation in the body of a teenage girl is highly 'triggering' for normative, patriarchal territories of power (Deleuze and Guattari, 1987) particularly "climate change denialists" who have repeatedly attacked Thunberg's credibility on social media and the mainstream press saying she has a "mental disorder," is an "hysterical teenager" "needing a spanking" ([Nelson & Vertigan, 2019](#)). Greta's position as a teenaged girl occupying public and digital spaces, creating new "affective publics" (Mendes et al, 2019), is highly significant, as historically children have categorically been denied human rights, from knowledge, health, and access to political participation, such as voting. Thunberg can thus be seen as an assemblage of forces, where her "innocent" Pippi Longstocking-type braids entangle with the articulation of prescient insight into the collision of forces creating Anthropocene climate change that is predicted to eventually lead to human extinction.

Thunberg may not link her activism directly to eco-feminism, but her politics locate her in this genealogy as part of a long iteration of feminists challenging patriarchal, industrial, and capitalist modes of exploitation and domination of women, children, animals, and the planet (Shiva, 1998; Mies and Shiva, 2004). I also locate myself within this genealogy and see my own herstory of research and scholarship as driven by a feminist compulsion to overturn these power relations. I still remember the electrifying experience of listening to Vandana Shiva and Maria Mies twenty-four years ago at the 1996 ecofeminism conference Praxis/Nexus during my undergraduate studies at the University of Victoria, Canada. I carry their eco-feminist critique with me and it feeds into a PhEmaterial critical/affirmative methodology for intervening into everyday relations of power (Smith, 1989) through at least three threads:

1. Disrupting and refiguring the discursive construction of binary categories of deviance and normal, health and illness, that, for instance, pinpoint Thunberg as a "witch," or as an unnatural and dangerous autistic girl (rather than a nice, quiet, and pleasing figure of femininity). How can these binaries be disrupted and blown apart, and through which of our methodological war machines (Ringrose, 2015)?
2. Mapping the affective possibilities generated through the mass consciousness raising and networked solidarity online (Papacharisi, 2015). New iterations of *the personal is political* flow through Thunberg as a posthuman figuration of contemporary girlhood. Speaking back and "calling out" from an intersectional feminist perspective is something more and more young people are participating in, particularly through digitally networked feminist activisms (Mendes et al., 2019).
3. Finding ethical ways to engage with our educational ecologies (Braidotti and Bignall, 2018) and create positive transformations that will enable diversity to flourish, despite fatigue and hopelessness, as Thunberg so compelling demonstrates. Responding to attacks constructing her as unstable, hysterical and mentally ill, she has said: "I expected when I started that if this is going to become big, then there will be a lot of hate... It's a positive sign. I think that must be because they see us as a threat. That means that something has changed in the debate, and we are making a difference."

Each of these threads entangles with nodes of activity that emerged in the collected papers for the Special Issue, as we discuss next.

Collectively Re-Calibrating and Re-Imagining What Matters: PhEmaterialist Research and Response-ability

As we laid out at the beginning of this editorial, there are multiple overlapping and converging ethico-political imperatives that drive the work of PhEmaterialisms. There is a long history of coffee shop meetings to brainstorm and create conditions of solidarity and collaboration. Jayne and Jessica have held all their planning meetings in cafes outside of convenient tube stops across London. Katie, Jessica and Emma conceived of this Special Issue project in a New York juice bar over a conversation about the links between posthuman theories, research, and intersectional-ecological justice connected to a PhEmaterialism session held at the 2018 American Educational Research Association conference.

As our opening assemblage image shows, our talking and planning for the Special Issue continued through video conferencing, emails, and texts as we debated the ethical-political practices of how research comes to matter in the world, and specifically, how it matters beyond the academy. Although the conceptual creativity of posthuman perspectives is sometimes presented as its object, work that only serves as a thought experiment rarely travels beyond the abstract and, when *only* operating within the critical or speculative mode, does little to offer pragmatic means to put those ideas to work in ways that rupture the status quo. Focusing on the “more-than” (Manning 2016) of what else our research can do, be and become also often calls for a situated ethico-political “ontology of engagement” (Stengers 2019, p. 9). This political orientation became the focus of the [second PhEmaterialisms conference](#) in 2018, held once again at UCL Institute of Education and Middlesex University in London, “Matter-realising Pedagogical/ Methodological Interferences into Terror and Violence.” We initially planned the Special Issue in conjunction with PhEmaterialisms II, and we are delighted that some of the work presented at the 2018 conference has been included in some form or another here.

Perhaps it is not coincidental that the theme for the 2018 conference took shape in another coffee shop meeting between Jessica and Shiva Zarabadi in London, where pre-emptive anti-terrorism logic governs all citizens as they make their way through the transportation system with the refrain “see it, say it, sort it” (a warning to report any “suspicious” activity) and are captured on omnipresent CCTV (the more than half a million police cameras that surveil Londoners). In the conference call, we invited contributions that showcased politicized methodologies addressing our troubled times of right-wing, extremist, post-truth politics, including movements predicated on ethno-nationalism and xenophobia. The conference aimed to “experiment with innovative methodological and pedagogical strategies that run interference into and disrupt racism, misogyny, and homophobia/transphobia and the politics of terror/violence.”

Hence, there was an explicit focus on politicizing educational research bridged with theory and philosophy from the posthuman and new materialism traditions, which have been critiqued as white-centric, depoliticized, and colonializing (Ahmed, 2017; Todd, 2016, Puar 2018). Through the event, scholars from multiple continents came together to collectively create a highly diverse collective of participants ([PhEmaterialisms II Philm](#)). Presentations ranged from new materialist explorations of picture books as a way to interfere with xenophobic narratives with schoolchildren in Chile (Gonzales, 2018); to research from the Interfaith Childhoods project, which works with children and adults in the UK and Australia to build relationships across religions through art (Hickey-Moody, 2018); to new materialist examinations of ontological forces that shape race-related events in early childhood in Norway (Andersen, 2018); to racial intra-actions in a Finnish music class for asylum seekers (Leppänen, 2018).

This strain of politicized thinking around intersectional inequities in education, and the necessity to engage with and transform these *through our research methodologies*, strongly informs this Special Issue. In this issue, the focus centers on the imperative for onto-epistemological “response-able” ethics, as the title of the Special Issue—“PhEmaterialism: Response-able Research and Pedagogy” — indicates. This ethico-political praxis is drawn from Barad’s (2007/2014) and Haraway’s (2016) calls for “response-able” research that actively takes responsibility for how our research activities, the knowledge they produce, and the agential cuts entailed therein come to matter in the world. Barad (2007, p. 392) argues that researchers must pay attention to the “conditions of possibility of response-ability” and our “ability to respond” in complicated webs of accountability. While there are many ways to make ourselves response-able, PhEmaterialisms in particular emphasises the necessity of attending to ethico-onto-epistemological relationality—that is, the intra-active, sympoietic nature of our research processes. As educational researcher, Maggie MacLure, an original participant in PhEmaterialism 2015, argued in her presentation at AERA 2019 Toronto (“Witches and Wild Women: Bad Girls of the Anthropocene”), situated research practices will

Move beyond dogmatic critique, by infusing method with the pragmatic and speculative arts of ‘immanent discrimination’, in Stenger’s phrase, that senses the flows and intensities of that which is coming into existence, not in order to judge it, but in order to change it (MacLure, 2019, p.5)

Response-ability, then, includes attending to the more-than-human aspect of intra-active processes, including the entanglements and agentic capacities of affect and materiality, topics which are noticeably absent in mainstream educational research. By affect, we refer to the Spinozan concept of *affectus*, as critically re-interpreted by Deleuze and Guattari (1987), further theorized by Massumi (2015) and Manning (2016), and expanded upon by a range of feminist new materialist scholars in education (e.g., Dernikos, Lesko, McCall, & Niccolini, forthcoming; Hickey-Moody, 2013; Iverson & Renold 2013; Osgood & Robinson, 2019; Renold and Iverson 2019; Ringrose, 2011; Walkerdine & Jimenez 2013). Affect, in this sense, refers to pre-personal energies or intensities that diminish or augment bodies’ capacities to act (Massumi, 1987); or, as Hickey-Moody (2013, p. 79) describes, “affect is what moves us.” Affective analyses are political, since affects are produced by specific constellations of power relations. As Ringrose (2011) notes, “We have to analyze what the affective capacities of assemblages are in political and ethical terms—are they ‘life affirming’ or ‘destroying’?” (p. 602). However, PhEmaterialism affective inquiry may also dwell in the moments of “ordinary affect” (Stewart, 2007) to create a careful attention to the minutiae of power relations and their effects/affects, something that comes out in various ways in nearly all the submissions to this Special Issue.

Another key aspect of PhEmaterialism’s ethico-political imperative includes an explicit attention to materiality and its co-constitution with human, discursive, and affective elements. Taking a relational materialist perspective is a way to develop an onto-epistemology of radical immanence (Braidotti, 2013; Deleuze, 1988), a concept inspired by Spinoza’s monism that posits that “all matter is one, driven by the desire for self-expression and ontologically free” (Braidotti, 2013, p. 56). In other words, the universe is not divided into humans with consciousness and free will and inert, passive things and ideas; everything is all together and connected, and everything—including matter—is vital, alive, and constantly changing or becoming in relation to other elements it is in composition with (Bennett, 2010).

Employing an immanent perspective serves as response-able practice for multiple reasons. The

approach provides an alternative onto-epistemology departing from both realism (reality is completely static, stable, and objective) and postmodernism (reality is completely constructed, so there's no "there" there) (Barad, 2007). It also promotes a worldview that disrupts harmful hegemonic beliefs regarding objectivity and transcendence, or what Haraway (1988) refers to as the "god trick" of being the voice from everywhere and nowhere, which obscures that the voice is that of White cis-het men. PhEmaterialism explicitly "rejects racialized, sexualized, and gendered exclusion from humanity and prioritizes Indigenous and other forms of marginalised knowledge and meaning making" (Tuck and McKenzie 2015; Tallbear, 2015; Weheliye, 2014, cited in Renold & Ringrose, 2019, pp. 1-2) and attends to the non-rational, the spiritual, magical, and witchy forms of knowledge production that denaturalise the normative and allow for the "what else" to surface. In this way, a focus on material relationality disrupts rationalism and human supremacy, as well as highlights the vibrancy of matter (Bennett, 2010) and the "more-than," while also remaining grounded and accountable (Braidotti, 2013).

As another form of response-ability, feminist posthuman and new materialist research practices question traditional methodologies—which tend to be grounded in the logics of rationality and transcendence—and actively seek different ways of researching that attend to more-than-human world(ing) relations, experiment with different modes of creative expression beyond the textual, and produce situated forms of knowledge that respond to urgent ethico-political imperatives (Taylor & Hughes, 2016; Renold, 2018, 2019; Niccolini and Ringrose, 2019, Renold & Ringrose, 2019). From a PhEmaterialist perspective, researching is a creative, experimental endeavor—acts of research-creation (e.g., Springgay & Rotas, 2015), edu-crafting (Taylor & Hughes, 2016), performing methodology (Otterstad, 2018), and/or knowledge-production (Braidotti, 2019a).

When our call for papers launched into the world, we were astonished and pleased by the overwhelming response. In total, 34 abstracts were submitted to the Special Issue, some of which had been presented at the 2018 conference. The abstracts came from across the globe with submissions from Australia, Canada, Chile, China, Cyprus, Denmark, England, Finland, New Zealand, Norway, South Africa, Sweden, United States, and Wales. Submissions were received from scholars at varying stages of their academic careers from professors to doctoral students, and from a range of disciplinary backgrounds from counselling to maths education, sociology to fine art. Whilst we are hard-working PhEminists, even we had to admit this was more than we could tackle, and a review process narrowed down the submissions to those that most strongly related to our theme of "response-able" research. We are thrilled this has culminated in a fourteen-article, DOUBLE Special Issue that reflects some of the most exciting and innovative research happening globally.

The call for papers required submitting authors to contemplate what PhEmaterialism makes possible, and why and how it matters to them. Specifically, we asked authors to consider the question, "*How do the principles of feminism, posthumanism, and new materialism recalibrate and reimagine what matters for educational research, pedagogical and political practice?*" We used this question to guide our peer review evaluations, and the feedback from reviewers created ever more strands of thinking around how to pull out interwoven elements captured within the question. Everyone included in this Special Issue responded to this call, often honing their arguments through several rounds of revisions to do the work required to pull out and show these connections, put concepts to work and thinking into action, and make the affects/effects of scholarship beyond the ivory tower academy a focal point.

Like the wider field that is embracing the posthuman/new materialist turn, the papers in this Special Issue span a diverse range of creative methodologies and practice an ethics of response-ability in multiple areas. While the topics of the papers have many connections and overlaps, the summary of the contents of the Special Issue that follows explores knots or nodes that spring up in terms of

response-able research practices (because of the overlap between sections, we may reference papers in multiple places, but discuss them in-depth only once). These convergences include arts-based and creative methodologies; posthuman subjectivity; and research-activisms. We see these knotty nodes as the prevailing PhEmaterialist practices threading through, connecting, and energizing the researchers and research outcomes that we are so honoured to pull together for this Special Issue.

PhEmaterialist Response-able Art-fulness

Many PhEmaterialist researchers turn to creative and arts-based research approaches as a way to activate the virtual and generate new possibilities (see Burkeholder & Thorpe; Coleman & Osgood; Colemanares & Morvay; Safron; Renold; Ringrose, Shelton, Guyotte, & Flint; Zarabadi, Taylor, Fairchild & Moxnes, this issue). Arts-based research practices are not about the artistic skills and talents of the researcher; rather they are concerned to generate affect (connected to previous section), to agitate and provoke in the quest to ask different, troubling questions. It is about “the appropriation of art as process, as ‘the way’ we engage and becoming “resource-ful with how to attune to the ineffable proto possibilities of ideas as they roll, flow and are transformed through words, artefacts and new events” (Renold, this issue). Claire Colebrook (2002, p. 24) helpfully stresses that:

Art is not about knowledge, conveying meanings, or providing information. Art is not an ornament or a style used to make data more palatable or consumable. Art may well have meanings or messages, but what makes it art is not its content but its *affect*, the sensible force or style through which it produces content.

As Manning (2019) has recently argued, “the will to art sees the aesthetic yield as the creative force of the in-act that does not discount what remains cloudy. The merest of existences are valued here” (p. 6). For example, in her book *The Minor Gesture* (2016), Manning celebrates this (minor) mode of being for the ways in which it reveals the limitations of normative, fixed and standardised approaches (i.e. major): “The minor gesture...is defined by its capacity to vary...For the gesture is only a minor gesture in so far as it creates conditions for a different ecology of time, space and politics. This is its force...its call for freedom” (pp. 23-24).

Thus, arts-based approaches within the field of educational research are useful because they can enable affective flows, emergent knowledges, and articulations of relationalities to move beyond the capabilities of solely linguistic or textual modes of inquiry. This can also involve co-creating art-ful encounters with participants that facilitate emergent, speculative ways of working, where new techniques are invented, and where new things might be noticed, felt, made, and enacted.

For instance, Safron draws on art and visual methods as both data and analytic process, focusing on one aspect of a larger scrap-booking project designed to explore young Black and Latinx people’s encounters with health and fitness. Using health and fitness magazines, along with other art materials, the young participants created collages or “re-assemblages”, which had capacities to tell alternative narratives about health, fitness, gender, race, and bodies. Following the creation of the collages, the experimental analytic process produced an “entangled memo” through which a “collage-in-process” was created by cutting pieces of text from transcripts and snippets from the magazine re-assemblages which were then arranged on foam boards. The analytic process was further enhanced by listening to and viewing a Powerpoint that was created by Safron and populated with photos and audio from the collaging session with the young people. The collage enquiry was an affectively charged artful experiment, shaped by an entanglement of doubt, wonder

and slowness, which together created space and opportunities for the researcher and participants to reimagine, reappraise and reclaim what matters in education and pedagogy.

Coleman and Osgood explore what happens when materials, media, objects, devices and atmospheres are brought into focus in social research. They recount the unanticipated ruptures that convening an arts-based workshop, which placed “glitter” at its centre, set in motion. Glitter was chosen because it is provocative and troubling; it generates affective flows and forces. The authors argue that what glitter is, and what it does, raises important ethico-onto-epistemological questions about childhood, gender, ecological pollution, capitalism and (hidden, domestic, emotional and physical) academic labour. The authors argue that working with glitter and tracing its material-discursive reverberations presents PhEmaterialists with much to be troubled by. Their analysis draws attention to the unanticipated pedagogical capacities that art-ful and arts-based practices afford in a wider discussion about response-ability in serious play with plastic. They are concerned to map the ordinary affects that glitter sets in motion by identifying what new materialist methods and practices might contribute to undertaking research, pedagogy and political practices (differently) with a heightened sense of response-ability.

Becoming artful with the sticky string-figurations of “Feeling Medusa”, Zarabadi, Taylor, Fairchild and Moxnes draw upon Haraway and Cixous to share their entangled writing practices to imagine new ways of “becoming-(un)respectable” and “unfix the recognisable ‘she’ of academia.” By working with string and string figures, tentacular troublings and mutations of thinking and feeling are made possible. Making maps of their more-than-human feminist intersectional positions, they experiment with “images, poems, vignettes, different layouts, screenshots, notes in boxes, and comments” and work with the “tentacular troublings of academic positionality, recognition and respectability” across a lively writing assemblage of personal and collective differences and dissonances as feminist academics in higher education. Their paper offers a “Medusaen feminist hope” as they struggle not only with “neoliberal higher education but also with our hopes, our dreams and our positions”. Moving towards post-human auto-ethnography (Harris and Holman-Jones, 2018), their knotty praxis of “post-personal collective-collaborative writing” entangles with the power of a laughing Medusa and invites readers to engage with the not-yet of tentacular futures.

Staying with the trouble of neoliberal higher education, Shelton, Guyotte and Flint conjure and reimagine the posthuman figure of “(wo)monstrosity,” centering the identities and intra-sectional experiences of 19 women doctoral students through the collaborative arts-based praxis of patchworking and collaging. Bringing Barad, Crenshaw and Halberstam into critical dialogue with one another, participants created collages that celebrated the multiplicities of being/doing, melding the women’s identities, perspectives, words, images, and voices as doctoral students navigating neoliberal higher education in the US. A story of entanglement emerges, as “these (wo)monsters abandoned their starting points and literally wandered to others’ spaces, adding text, crossing through and illustrating their own and others’ words, and drawing lines and arrows that, while bisecting sections, sutured concepts and concerns together”. They powerfully describe how the students came to understand themselves and each other as “patchworks of multiple, ever-intersecting identities” and how “the women cut together/apart encounters, objects, stories, and experiences” in an arts-based process that “visually reflected their together/apart doctoral journeys.” This generative and empowering process of chimerical co/creation—cutting, drawing, and writing together/apart—formed “new (wo)monsters” and “new ways of being and wreaking havoc on hegemony and hierarchy”.

Posthuman Response-able Subjectivity

Other authors in this Special Issue focused on posthuman subjectivity (Doerr; Higgins, et al; Nordstrom; Coleman & Osgood; Shelton, Guyotte, & Flint; Warfield, this issue). As Braidotti (2019a) insists, posthuman perspectives must not jettison subjectivity, as some masculinist approaches to object orientated ontology have. Rather, we need to reimagine human subjectivity and exceptionalism through a rethinking of the self/other and non-human, as well as the agentic capacities produced in such assemblages. Response-ability is about moving from a humanist feminist politics of location based only on identity politics, for instance, to a recognition of non-human forces shaping power relations in complex ways. Accordingly, the papers in this knot complicate the notion of the humanist “auto.” Although the subject of posthuman scholarship *is* embodied and embedded in a particular location (Braidotti, 2013), they are not a pre-existing, separate individual. They are a temporal product of specific material-discursive entanglements and personal-affective flows and desires—an “enunciating assemblage” of heterogeneous, mobile mixtures of elements (Guattari, 2006; Ivinson & Renold, 2013). Further, the PhEmaterialist subject is not inward-looking, but focused on exteriorities, always connecting and expanding outward.

Critical posthuman intimate scholarship (Strom, Mills, & Ovens, 2018) forms a thread of the Special Issue, via focusing on forms of posthuman subjectivity and rethinking and re-tooling auto-focused qualitative research methodologies (e.g. self-study, autoethnography, performative self-narratives) that examine the experiences, knowledge, and/or practices of the researcher (Pinnegar & Hamilton, 2015). PhEmaterialist forms of intimate scholarship work explicitly to decentre the researcher in relation to the human-non-human-incorporeal assemblages in which they are embedded, foregrounding connectivity, material-affective relations, and more-than-human subjectivity (Strom, Mills, Dacey, & Abrams, 2018). In doing so, they follow Braidotti’s (2019) call for refusing to abandon attention to subjectivities. However, the view of subjectivity is expanded to include more-than-human objects and things in a radical move that disrupts the human exceptionalism of the Vitruvian (read: white, European, colonialist, patriarchal) man of reason. These features make posthuman intimate scholarship promising for exploring and engaging new modes of outward-looking subjectivity that are simultaneously grounded and accountable while also multiplicitious, processual, and hybrid. As Braidotti (2018) notes,

The auto forms of research are absolutely tools to map the politics of location... However, they need to be deployed in a relational manner, not inward, not based on the black hole of ego-indexed identity. They need to be used as tools to pull you out, toward the multiple locations of the world, outward-bound and becoming. (p. 185)

Katie Warfield offers a posthuman autoethnography that explores the ways field notes, emails, retrospective reflections, and other data intra-acted with the participants in her study of Muslim Canadian women, herself, and events to produce becomings of PhEmaterialist research method/ologist. Warfield builds on “jarring” (Renold and Ringrose, 2019), detailing three moments in which material and affective forces shaped her methodology as well as her own production as a postqualitative methodologist. The article is moving for us as editors in that it documents in raw detail some of the difficulties of holding together research practices inside the neoliberal academy amidst competing demands of teaching and administration, alongside family commitments, and even the jarring moments of PhEmaterial conference events, which collectively create both methods and researcher subjectivities. Often hidden, these reflections viewed diffractively (cutting together diverse moments of attention) are laid bare and the way that being response-able, both to her research participants, colleagues, family and self is practiced, is discussed in depth. This type of critical posthuman reflection/diffraction is vital to PhEmaterialism in that it shows the zigzagging, contradictory, complex backstories of how feminist research gets done, its challenges and rewards.

It also surfaces the toll of innovating and reaching beyond the known and secure methodologies and the exhaustion of experimentation, as well as why it is critical to keep pushing our thinkingfeelingdoing along. In the spirit of Warfield's article we share a snippet of the backstory dialogue between the editors as we worked with Katie Warfield on finessing and polishing her article during the final round of revisions:

Kate Strom <kathryn.strom2@csueastbay.edu>

Wed 13/11/2019 15:57

To: Ringrose, Jessica

"This is shaping up to be a really interesting piece. I'm a big fan of posthuman methodological pieces that really make the moves/thinking behind the method/ology transparent- I once read a piece that described an article as a quilt that shows the pretty, put-together side, and the transparency piece is about showing the side with all the crooked stitches, seams with the end pieces of thread hanging, and patchworked sections. Katie's [Warfield] so great at that!"

In dialogue with Springgay and Truman's (2017) walking methodology—although she describes it as “not so much ‘walking’ as it is ‘falling into step with’”—Doerr narrates a pilgrimage to Newtown, Connecticut, the site of a horrific mass shooting in 2012 where a White, affluent young man gunned down 20 children and six teachers at Sandy Hook Elementary School. The author, who once lived in Newtown, takes inspiration from medieval poet Geoffrey Chaucer and offers three tales from her pilgrimage as she embarks on a process of *Never Forget-ting* (“Never Forget” became the collective response to the shooting, a discursive memorial to those killed at Sandy Hook). Through these tales, she assembles together posthuman concepts, her own subjectivity and complicity in upholding violent White supremacy, histories of settler colonialism, and everyday affects, places, and objects of Newtown that evoke hauntings, “re-memberings,” and “dis-memberings.” As she describes her journey, she entangles the material and affective remembering of selves and places past, present, and future with the ghosts of those murdered at Sandy Hook, who are *never forgotten* through various material memorials and place-based memories, as well as the specters of those killed on the same land by settler colonialism, but who never have had the same privilege of being remembered. She also employs Deleuze's (1994) concept of difference and repetition to discuss the simultaneity of “never and always forgetting” the violence of school shootings—with an average of one mass shooting a day in the United States, the tragedy occurs again and again, a repetition with a difference of location. Through her mobile autoethnography, Doerr complicates discourses of childhood innocence and safety as a property of Whiteness while confronting the violent history of White supremacy and her own complicity in continuing to uphold it. She also troubles the dominant narrative that school shootings are the actions of an individual, instead arguing that they are the production of complex material-discursive entanglements of White supremacy, settler colonialism, misogyny, and capitalism.

Drawing on performative narrative, Nordstrom braids together a material-affective account of making a Deleuzian Body without Organs (BwO) in a neoliberal academic system, creating what she calls, in her reflexive footnote, an “antimethodological autoethnography.” She presents a set of “experimental tales” which describe, on the one hand, the domesticating, overcoding forces of the neoliberal university and the ways in which they attempt to produce her as an obedient neoliberal academic subject; and on the other, she “speaks back to the priests of the academy” through experimental configurations that create alternative becomings—her making BwO—through feminist alliances and subversive work-arounds: “We’ve learned to dance around you. We’ve twisted our

bodies around striated spaces to create smooth spaces.” Throughout the tales, Nordstrom interweaves lyrics from REM, Radiohead, Depeche Mode, Lesley Gore, Missy Elliott, and Lily Allen with composite photos, the bodily destruction brought on by the neoliberal university, processes of stitching-back-together, hopeful acts of resistance, and plans to multiply the population of “willful fussy creatures”. She promises, “We’re preparing our students to deal with your toys. And we’re like rabbits. We breed.”

PhEmaterialist Response-able Research-Activisms

Perhaps unsurprisingly, given the focus on political and ethical response-ability in the Special Issue, the final knotty node of response-ability comes together explicitly around research-activism (Burkeholder & Thorpe; Colmenares & Morvay; Dernikos; Higgins, et al; Pihkala & Huuki; Renold; Ringrose, et al, this issue). Stengers (2019) has recently written that “activist practices (...) demand engagement, involving partners for whom such practices matter, not choosy, off-ground, theory-armed onlookers” (p. 19). This is not a process, she suggests, where “academics critique from a ‘safe distance’ or ‘enter the ontological turn’ – this is ‘engagement all the way down’” (Ibid).

Accordingly, many of the papers in this Special Issue entangle with a range of policy-practice-activist assemblages. They also join a wider movement of PhEmaterialist scholar-activist practices that marble activism with arts-based methodologies (e.g., Coleman, Page & Palmer 2019; Denzin & Giardina 2018; Gray, Knight & Blaise 2018; Harris & Holman-Jones 2019; Harris & Taylor 2016; Hickey-Moody & Page, 2015, Hickey-Moody 2017; Hickey-Moody et al. 2016; Renold & Iverson 2019; Stanger 2018; Springgay & Truman 2019; Springgay & Zaliwska 2016; Taylor & Bayley 2019). However, as Renold, Edwards and Huuki (in progress) argue, “sustaining such deep engagement in toxic higher education assemblages is a precarious and perilous experience”, especially since they continue to register and value only what can be quantified in a metric system that assumes a linear process—research-dissemination-impact—in a sea of meaningless, yet mattering, “impact factors.” Nevertheless, many PhEmaterialists persist in their research-activisms and inject much-needed ‘ethical vertigo’ (Ibid) into the impact and engagement machines.

Several studies in this issue featured participatory forms of youth research that respond to a range of entrenched patterns in the new twists and turns of gendered and sexualised forms of harassment and violence. For example, Renold describes the creation of a government sponsored interactive toolkit, AGENDA, co-created with and for young people in Wales. The tool-kit uses arts-activism and creative pedagogies to address gendered and sexual violence while re-mattering conceptualizations of healthy relationships. AGENDA, which Renold explains is a “resource that puts the act(ion) back into activism,” employs a feminist, posthuman, and post-queer approach to understanding and addressing how gender, sexuality and relationships come to matter. The toolkit focuses on illuminating youth change-making while also providing links to resources and “how to’s” in the form of “stARTer activities” and case studies detailing the process of multiple youth activism projects that re-imagine ‘healthy relationships’ in the wider context of sexuality education. Drawing on Manning’s (2016) medieval appropriation of art as process, as “the way” we engage and take response-ability for what emerges, Renold illustrates the potential of a situated and speculative (Stengers 2019) arts-based approach for youth activism. She first describes how the resource was “secreting its own coordinates” as it evolved (and continues to evolve), and second, how its “contents” explicitly and implicitly share this process by offering ideas for creating art-ful encounters that facilitate emergent ways of working with sensitive issues. AGENDA and its connected activities have engaged youth across Wales and internationally, via an affirmative, speculative arts-praxis, and has influenced legislation like Wales’ Violence against Women, Domestic Abuse and Sexual Violence Act (2015) and

the formation of the new Welsh Government Relationships and Sexuality Education (RSE) curriculum and guidance for Schools.

Another example of youth-activism, Pihkala and Huuki's #MeToo Postscriptum project considers how to engage and transform gender and sexual harassment in children's peer cultures. The researchers worked with groups of ten-to-twelve-year-olds to explore how embodied experiences of sexual harassment can be reiteratively reconfigured through the intra-active entanglements with Valentine's Day cards sent to the Finnish government to disrupt notions of romance, heteronormative gender, love and consent. They document and explore fleeting moments when research merges with activism to activate change. They explicitly tie this focus to researcher response-ability (drawing on Barad) to work on sustainable practices to counter sexual harassment in child peer cultures in a context that they position as post #MeToo, a time where awareness of sexual harassment was growing in Finland amongst adults, but was less acknowledged with children. They draw on Renold's (2018) work to enact an experiment of working with children in participatory workshops to design Valentine's Day cards documenting stories of sexual violence and harassment, which were theorized as part of a #MeToo postscriptum (literally meaning written after the fact) evoking the enormity of the shift in public thinking signaled by the hashtag. Taking normative romantic objects, such as Valentine's day cards, and injecting them with stories of sexual violence and abuse changes the meaning of the card, and this twist and turn holds affective capacity to jar. The researchers sent the cards to members of the Finnish Parliament, an arts-activist manoeuvre generated to raise awareness and change consciousness.

The thread of using arts-based, participatory practices to intervene into normative educational policy and practice continues in Ringrose, Whitehead, Regehr and Jenkinson, who use feminist arts and craftivism practices to disrupt phallogocentric sex education. Working across a range of highly diverse schools with over 150 young people in England, they explicitly position their collaboration as an intra-activist research-pedagogical assemblage. Working together as researchers, teachers, and a sex education charity, Sexplain, they experiment with new relationship and sexuality education practices in the context of English Secondary Schools. Concerned with disrupting phallogocentric sex education models, which prioritize penile and masculine desire, they explore how to actualise posthuman sexual diversity and clitoral and voluptuous validity (Lather, 1993) through their participatory research and lessons with young people. They describe how using 'childish' materials and activities—modeling with Play-Doh and drawing/colouring with felt tip markers—were ways of engaging with young people about "serious" taboo' topics and matters including lack of knowledge about female genitalia and sexual pleasure as well as not knowing what to do about unsolicited and non-consensual digital dick pics. Play-Doh vulva modeling is a practice employed to re-matter and re-value feminine genitalia, which are often constructed by majoritarian discourses as ugly, taboo, and/or shameful, as well as passive receptacles for penile penetration. In addition, youth drawings about social media experiences helped to capture and disrupt uninvited digital dick pics (which had often disappeared or been deleted), empowering young people to understand when these practices are abusive and offering young people tools for how to block and report, online and at school. The authors argue that such PhEmaterial methodologies of witnessing (which includes both seeing as well as knowing from experience) generate clitoral validity—that is, valuing diverse embodied femininities—as well as resisting coercive phallic force relations.

Burkholder & Thorpe explore how the DIY techno-craft of cellphilmimg (that is, making films with your cell phone) can be understood as a posthuman process (hence the Ph of philmimg) through their work with queer, trans, and non-binary youth in Newfoundland Canada, focusing on sexual diversity and using methodologies to disrupt heteronormative spaces. They document the arts-based process where young people created a plot and developed drawn set pieces which were then

shot into short films to raise awareness at school about gender and sexual inequity. Ultimately, the article shows the power of posthuman participatory and youth-driven arts, film and You-Tubing practices for activating changes in gender inequitable schooling environments. Burkholder and Thorpe document how posthuman methodologies can support a range of political interventions, particularly for vulnerable and marginalised groups, in schools' gender/sexuality ecosystems. The authors explain how their cellphilm arts-based film practice disrupts coercive power relations, such as gender binaries and queer erasures, by making visible the intra-actions between objects and non-human agentic matter pictured within hallways, classrooms, kitchens, and walls. They show through their film, *Nackawic Needs a GSA Now!!*, how queer, trans, and non-binary youth's cellphilm practices demonstrate the urgent need for a safe space in school that would be made possible through creating Gender-Sexuality-Alliance clubs. Seeking to distribute and share the cellfilms beyond the research project, the researchers also worked with their youth participants to create a *Queer Cellfilms* You Tube channel to digitally network and spread the disruptive power of the cellfilms beyond the research, school and local context.

Other articles address various forms of research-activism with teachers. Colmenares & Morvay draw upon the notion of the "anarchive" from [Manning and Massumi's SenseLab](#), who note that anarchives are not a particular product, but rather a process: "They are the visible indexing of the process's repeated taking-effect: they embody its traces." For example, Colmenares and Morvay created "wondercabinet artchives" with research materials (printed papers, photographs, and so on) to affectively explore and then generate an online archive of the affective intensities that arose for teacher-activists participating in public political activism. The wunderkammern, or wonder cabinets, enable the material gathering of affective accounts of teachers in the research process and assembling these in order to generate an anatomy of the affective intensities and how they connected—or not—and what they enabled for the teacher participants. The online archive provided a way for the teachers to connect around their activisms and to dwell on how it felt—the loneliness and responsibility they feel working on social justice activism at school, but also the feeling of the connection they forged through the online research group, which was made possible by the archive. One participant described this connection as "being around others who felt like me, even when I didn't know who they were." The authors theorize the entire process as anarchiving because the wonder, intensities and experiences of accounting for one's activisms was not containable; and engaging in the archival process generated insights that would not have otherwise been possible.

Meanwhile, Dernikos' feminist new materialist-inspired ethnographic study explores the possibilities for teachers to be attuned to "what else" unfolds in literacy encounters as a form of subtle activism, focusing on Ms. Rizzo, a grade one teacher. Dernikos argues that by attending to literacy learning as affective, it becomes possible for teachers to take a more ethically response-able consideration of the intensities that surface in the classroom. She stresses that attuning to "allure" enables teachers to take seriously how forces of gender, sexuality, and race work to animate/contain bodies, spaces and things. She concludes with an invitation to educators to consider how attention to allure opens up possibilities to disrupt normalising fictions that have come to dominate literacy learning, and how these possibilities can create new narratives and pedagogical practices. Ultimately, Dernikos advocates, through her research, for teachers to become attuned to the agential forces in their classrooms and use this knowledge to disrupt particular knowledges, subjectivities, and institutional practices that limit what children believe is possible for them to be and become.

Finally, the patchworked figurations offered by Higgins, Mahy, Aghasaleh and Enderle capture their attempts at "slow activism" in science teacher education. The authors articulate multiple interwoven cases in which science and technology education are enacted in ways that think *with*, rather than

for, those “othered” by dominant discourses and practices of science teacher education. Through re- and un-weaving figurations, the authors diffractively argue for a different engagement with existing orientations, theories, practices, and ethics in science teacher education so that the Anthropocene (and its problems and possibilities) can be approached anew in critical, creative, activist ways. Their collectively-woven accounts attempt to de/colonize science teacher education with an Indigenous conception of pollution as colonization; scrutinize and re-envision the relationship between science and ethics in secondary schools by using speculative fiction; and deconstruct the computer science curriculum as it becomes entangled with deficit “at-risk” discourses that create dis/empowering experiences for Latinx learners. These provocations and examples from their pedagogical practices bring art, science, and activism together to produce other ways of knowing, ways of being, and ways of undermining the conditions of the Anthropocene. This patchwork presents possibilities to make science education more relevant, response-able, and reflexive in its efforts to be equitable, inclusive, and robust. These require an integration of “new” and alternative frameworks that are formed of posthumanist, post-colonial, indigenous, and feminist activist ways of world-making, or “making-withs”. Following Stengers (2018), the authors contend that these disruptive interventions/forms of slow activism might mean that “another science is possible”.

Tentacular Windings and Wrappings Up, but Not Endings...

We resist reaching a conclusion to this editorial because it, and each of the richly entangled contributions that follow, collectively work(s) to open out ways for you, the reader, to contemplate and ponder what PhEMaterialist thinkingfeelingdoings can make possible for reconceptualising educational research methodologies and for undertaking response-able research that can make a difference in the world. The processes involved in crafting, nurturing, suturing, and assembling this Special Issue have been incredibly generative. It has involved processes of collective, collaborative re-turning, aerating, composting and reconfiguring. The PhEmaterialist events of 2015 and 2018 provided vital spaces for a networked community, with a shared commitment to come together and imagine how else research, practice and pedagogy might be. As such, this Special Issue provides another vital space from which such reimaginings are made more visible and more widely accessible. For us, this editorial has offered an affirmative cut into a PhEMaterialist assemblage, and we invite you to engage with the various approaches that have been taken by the contributing authors—to become provoked, agitated, inspired—and ultimately, to get entangled and make your own cuts.

PheelyDoings

Enacting politics
Reimagining possibilities
Materialising hopes
Through entangled practices:
Practices that matter.

More than gathering re-presentations
Of a world out there
We resist the God-trick
Recognise our infected, affected place
And so, engage in world-making practices:
Practices that make a difference.

We collage
We felt
We Pheel
We walk
We craft
We PhArt
We doubt
We fear
We trouble
We reclaim

Our practices are with the (k)not-yet-knowns:
Practices that create more liveable worlds.

We are troublesome creatures
Descendants of witches, still burning bright.
Through our doings
Our agitating and activism
Our practices refuse to accept the status quo
Practices that generate, potentiate something more.

It is through practices of
Suturing
Cutting
Becoming
Haunting
Confessing
Crafting
Patchworking and
Activating that the
Mattering of Matter
Is materialised.
The thing-power of stuff
Takes on another life
Generates affective forces
That makes a difference to what we know
How we feel
What do we do with what is provoked, brought to life?
What is our response-ability?

By bringing the out of place
To a place
That matters
Glitter, rulers, play-doh and string
Take our investigations to other
Intensely productive places
That underline what matters.

(PheelyDoings: a poem, Osgood, 2019)



Figure 9. Pheelydoings (PhArt, Renold, 2019).

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