CAMBRIDGE
UNIVERSITY PRESS

ARTICLE

[Birdsong]: Pedagogies of Attunement and Surrender with More-than-Human Teachers

Kay Sidebottom[1,2] and Lou Mycroft[2]

[1]Carnegie School of Education, Leeds Beckett University, Leeds, UK and [2]Social Sciences, University of Stirling, Stirling, UK
Corresponding author: Kay Sidebottom; Email: kay.sidebottom@stir.ac.uk

Abstract

Our current ecological predicament requires a shift to a post-anthropocentric educational paradigm in which we educate for and about a world that is not "for us," but comprised of a multitude of eco-systems of which we are simply a part. To facilitate this, education should be enacted differently; we need to experience learning not as furthering entrenched nature/culture binaries, but as "worlding" processes, whereby imaginary divides between individual and environment are troubled, as humans and the material world are revealed to be relational and entangled. Posthumanism offers an affective turn towards a social and ecological justice that accounts for such entanglements; enacted through necessary processes of de-familiarisation from the dominant vision of education. In this article we firstly explore the theoretical underpinnings of critical posthumanism to critique sustainability education-as-usual and propose new modes of teaching that lean into affective processes of noticing and surrender. We then discuss a research project in which participants came together to explore what happens when we cease to privilege humans as the ultimate instructors and holders of knowledge. In doing so we disrupt normative methodologies, drawing on affect, embodiment, relationality, transdisciplinarity and an ethics of care which extend learning to more-than-human kin.

Reading a novel in summer heat, looking out onto a deep Mediterranean blue bay, hornets and butterflies licking honey from the wooden terrace floor, changes my reading. The book hasn't changed, but my experience of it genuinely has. The cavities my thought is able to slide into, change (Tamás, 2020, p.46).

Introduction

In this article we suggest that our contemporary ecological crisis calls for a new understanding of curriculum; one that encourages notions of kinship with non-human others and accepts the entangled nature of human and natural activity. Issues of global concern including climate change, pandemic, increased military conflict, democratic predicament and mass migration converge to produce complex problems which cannot be untangled through simple understandings and current ways of thinking. In this article we argue that critical posthumanism can offer a

This manuscript is an original work that has not been submitted to not published anywhere else.

much-needed turn towards a social justice that accounts for difference; enacted through a necessary process of de-familiarisation from the dominant Western vision of education. As Abblitt (2019, p.509) suggests, we need to see life "...not as an act of autopoiesis [*able to sustain and reproduce itself*] but instead as sympoiesis [*collectively-producing systems*], decentering the human and bearing witness to our interrelations and intra-actions, at an intimate but also global scale." The opening quote by Rebecca Tamás speaks powerfully to the ways in which understanding ourselves as intrinsically connected to the natural world means acknowledging that the presence of more-than-human others always and already shape our experience, whether that is reading, teaching or research.

Despite ongoing and accelerating environmental crises—which are deeply entangled with the socio-political predicaments outlined above—our standard education systems persist in their centreing of humans (Snaza & Weaver, 2015). Education and schooling, which continue to be rooted in industrial framings of society, have long been inadequate in terms of preparing people for the complexities of these times. Even educational activity focused on nature (such as Forest Schools) can arguably continue to position human progress as the ultimate aim; the environment is at the service of *us,* and thus teaching continues to play into neoliberal ideals of rationality with "schooling" as preparation for world based on individual (human) attainment and growth (Leather, 2018). Problematising this ongoing tension between the focus on individual achievement and the need for forging new, and different relations with non-human kin is thus a key concern.

In this article we share details of a research project in which teachers (both human and non-) came together to explore what happens when we address the issue and potential of de-centring humans as educators and ceasing to privilege ourselves as the ultimate instructors and holders of knowledge. Specifically, we aimed to discover:

1. What can teachers learn from "more-than-human" educators such as water, plants and animals?
2. How can posthuman pedagogies help teachers to shift from an anthropocentric world-view to an anthropomorphic, or animist one, and what might this mean for their teaching practice?

Anthropomorphic here refers to Quay's (2021, p.293) notion of "enlightened anthropomorphism"; that is, the "formation of pedagogical practices, of habits, that acknowledge the self-will not only of humans, but of non-humans." Considering what these habits might be, not by patronising more-than-human kin, or maintaining a hierarchical anthropocentric stance was thus an essential consideration in the project.

Before discussing our methodological approach and the project's outcomes, we firstly explore the theoretical and conceptual underpinnings of our disruptive posthuman turn. Drawing on theories of materiality, wildness and Indigenous epistemologies, we critique "sustainability" education and propose new ways of framing teaching and learning that lean into affective processes of noticing and surrender. We then explore the findings from our "More than Human Teachers" inquiry and conclude by considering how these ideas might be applied more widely in pedagogical practice, despite the multitudinous challenges facing educators working within formal systems.

The need for a posthuman turn

The various crises outlined previously demonstrate a need for a new ethical engagement that accepts complexity and allows us to "dwell in the dissolve...where fundamental boundaries have begun to come undone, unravelled by unknown futures" (Alaimo, 2016, p.2). Critical posthuman thinking represents a move away from humanism as a limiting ideal which situates "Man" at the pinnacle of the species chain; whilst at the same time critically examining and troubling which kind of humans have been centred at the expense of others (Braidotti, 2013). This lens brings into prominence concepts from postcolonialism, queer theory, new materialism, Indigenous cosmologies and many more "minoritarian" theories, allowing new knowledges to be created.

Within the Western neoliberal context, education has become a space of measurement, performativity and datafication in which policy becomes an algorithm and teachers act as controllable variables within the system (Jarke & Breiter, 2019). The emphasis is on pedagogical activities which will have a significant impact on students' measurable outcomes; not those that impact emotionally or relationally (Ball, 2016). Within these spaces it is difficult (and in fact counter-cultural) for teachers to find room for consideration of deeper ontological or epistemological questions around education in the current times. Alongside this sits a culture of anti-intellectualism, whereby subjects such as art, literature and science are downgraded into the kind of knowledges that can be memorised and regurgitated to suit prescribed tests rather than studied deeply and meaningfully. The reluctance, even in the midst of a global pandemic, to imagine education differently is a testament to the way in which "social reality" itself has become "schooled" (Illich, 1970, p.3).

It is clear that old approaches are becoming limited — as Strom & Martin (2017, p.5) state: "As we move into this new political era ... good and common sense (Deleuze, 2004) ways of understanding the world and the current political movements are unable to account for the complexity and contradictions inherent in the confluence of today's socio-political phenomena." The dominant, and arguably damaging model of (Western) schooling is one such "good and common sense ways of understanding the world" that we suggest needs disrupting by employing a critical posthuman lens.

Problematising sustainability

The various and connected crises outlined previously suggest a need for new education practices which go beyond the additions of further knowledge and content. Affrica Taylor, for example (2017, p.61) calls for a "Common World" curriculum, which re-situates human relationships with the natural environment so that nature is not positioned as a romantic ideal or "other," but is messy, integrated and located. Such a curriculum accepts that we are always already entangled with the world, whilst also being differentiated from it along geo-socio-political lines and problematic, exploitative histories. Pedagogical practices that allow for shared explorations and recognitions of mutual dependence must therefore be integrated with care and criticality. Within this practice, the silo effect of separating learning into subjects and disciplines becomes increasingly problematic. Issues of ecological concern require embedding throughout the curriculum, to counter the inherent dualisms that continue to separate "nature" from human; leaving us without the understanding we are part of emerging systems and processes that continually unfold and intra-act (McPhie & Clarke, 2019). Initiatives such as AimHiEarth are currently addressing this. Their "16 Green Skills, Clearly Explained" (AimHiEarth, 2022) is expansive, reaching into "unexpected" curriculum areas, challenging the prevailing, instrumentalist view of "embedding sustainability skills," by drawing on what can be learned from dying languages, the stewardship of places close to ecological collapse, history, storytelling and kindness.

UNESCO in late 2019 instigated "Futures of Education: Learning to Become"; a global initiative which attempts to shape the future of the planet by addressing learning in a world of complexity, uncertainty and precarity (UNESCO, 2023). Using the language of "becoming" in their strapline may not be an intentional nod to Deleuze, but nevertheless the project, which describes learning as " ... a continual unfolding that is ongoing and life-long" (ibid.) resonates with posthuman ideas of process, potentiality and different ways of knowing. The Common Worlds Research Collective, an interdisciplinary network of new materialist and feminist scholars, were commissioned to produce a background paper to assist in the drafting of the final report: containing seven visionary declarations for education, the paper begins by outlining the problems posed by educational systems that are rooted in anthropocentric thinking, and concludes with a commitment to collectivist ethics (Common Worlds Collective, 2020).

Education for Sustainable Development (ESD), UNESCO's detailed education response to the Futures of Education initiative, aims to address " . . . interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, and inequality" (UNESCO, 2023). Whilst it does bring together the generally separated key issues relating to society, the economy and the environment, ESD when enacted in practice often departs significantly from post-anthropocentric conceptualisations of "becoming" and "unfolding." When articulated in schools it is often seen as another route to qualification or the gaining of skills for employment rather than being an ongoing process to address the disconnection of humans from nature. In the English national curriculum for children aged 11–16 for example, ESD continues to be taught within a disciplinary framework, falling within the siloed subject remits of Science and Geography.

Further to this, Stacey Alaimo (2012) troubles the word "sustainability" itself, suggesting that the discourse of sustainability (much like conservation) can continue to position the natural world as a resource for human use. Riley (2023, p.8) puts forward a similar argument, stating that sustainable development discourses are " . . . enmeshed in neoliberal ideologies that affirm staunch individualism, human exceptionalism, and the supremacy of humans over nature." Whilst it purports to emerge from critiques of an economic growth agenda, the term "sustainability" has also been appropriated by conglomerates that continue to advocate for and profit from "capitalist ideals of unfettered expansion" (p.559). In education and third-sector work, it also becomes confused with pressure for new initiatives to become "sustainable" i.e. be economically self-sustaining, rather than relying on funding from the state. Alaimo instead advocates for a turn to theories of materiality that do not externalise and objectify the world, but insist on its relationality and entanglement with our own beings. In this way, her ideas of transcorporeality recall and connect with Indigenous epistemologies — that do not see matter as inert but as animate, urging us to consider relationships of reciprocity, humility and relationality.

From a more holistic perspective, there is a wealth of evidence to suggest that spending time in the outdoors is therapeutic (Walton, 2021), of particular benefit to mental health (abundant research and meta-analyses, including Wicks, Barton, Orbell, & Andrews, 2022) and as such, is emerging as a prescribed therapy as well as being embedded across a range of educational practices. However, this very articulation of disconnection continues to uphold the nature/culture binaries inherent in Western discourse. As Fletcher (2016, p.229) states "Asserting that we must 'reconnect with nature', . . . reinforces the impression of an entity from which we are fundamentally separate even in its advocacy of our overcoming this ostensible separation." We go on to explore ways in which education can begin to trouble these dualisms.

"More than human": two shifts in conceptualising learning

According to Carvalho et al (2020), taking a "more than human" orientation involves two key shifts in the way that we conceptualise learning. The first shift proposes that learning is not predominantly cognitive, but is a "movement of life," involving not only the human subject but the ecological environments of which we are a part. The second shift breaks down the binaries inherent in discourse of teaching and learning; dualisms such as teacher/learner, mind/body, nature/culture, indoors/outdoors and reason/emotion. Such binaries are rooted in colonialist ideals of rationality and the dominance of "Man," dating from "Enlightenment" times, and continue to be upheld in educational processes (Braidotti, 2019).

One productive challenge to binary thinking involves what Gough (2015, p.8) describes as employing an "irreducible anthropocentrism." Rather than taking a hierarchical, egocentric humanistic standpoint, extending moral considerability to non-humans is essential in order to (re)imagine nature as active and agentic. To be anthropomorphic — attributing human characteristics to more-than-humans — necessarily centres us and can be seen as unethical, yet can also be, as Gough suggests, an inescapable yet productive quality of human understanding and

relationality. We see the world necessarily through the lens of our own cultural, social and formative relations, and this can help us to connect with the empathy required to give subjectivity to our non-human kin. For Quay (2021, p.302), this is a move from hierarchical anthropocentrism to an "...enlightened anthropomorphism, an ecocentric personification that enables moral reasoning to include non-humans and to give voice — prosopopoeia — to their self-wills." Working with these ideas, alongside Indigenous concepts of animacy (Wall Kimmerer, 2013) requires a challenging leap in ontological understanding for Western educators inculcated in hegemonic notions of human superiority. As jagodzinksi (2018, p.84) suggests however, we need to stop focusing on emancipatory humanist teaching that aims to create (but of course never establishes) a "world-for-us"; and instead "grasp the event of the Anthropocene, for the future of our species." The "grasping" of this event, and how to do this in affirmative ways without the appropriation of other knowledges, became the subject of our work.

"More than human" encounters in the Yorkshire dales

Given the dualisms, nature/culture binaries and knowledge retention practices inherent in our education systems, our aim with this project was not to create something separate to daily practice, but to consider what taking a more-than-human turn could mean for educators working in subject areas without an explicit mandate for educating about climate change, ecology or sustainability. We thus brought together 12 teachers from diverse areas within informal and community education, schools, further and higher education with specialisms ranging from art, English, teacher training, sex and relationships education, geography and biology. At the time of the project, teachers were emerging from lockdown and associated practices of online learning which for some had been distancing and lonely. For many, relations with nature had already begun to shift due to gaining their greater familiarity and intimacy with local spaces on the daily walks which had been their only access to the outside during the pandemic. As a result, there was an opening in time for the affective influences of "more-than-human" teachers to be explored.

We had been overwhelmed by expressions of interest in the project and had more applications than we could accommodate. Our selection process focused on two elements: firstly, the potential impact of the weekend on the educator's practice, and secondly, the positionality of the educator's intersecting identities in contrast to the Vitruvian "ideal" (following Simone Bignall's warning that the further you are from the white supremacist, heteronormative, ableist, classist Vitruvian Man of Leonardo's imagination, "the closer you are to death" (Bignall, 2019)).

A more than human assemblage

The context of our more-than-human explorations was a residential centre in the Yorkshire Dales, UK. Situated high above Malham Cove, the centre is relatively cut-off from the outside world; snow during the weekend (despite the visit taking place in spring) increased our sense of distance and heightened the impact of our pedagogical explorations. It was important to note that our situation was not posited as a utopia; the Dales themselves are problematic spaces, overgrazed, de-forested and subject to gentrification. Woodland now comprises only 5% of the landscape (Yorkshire Dales National Park Authority, n.d.). The paradoxical nature of place formed an important part of our critical affirmative stance, as outlined later in this article.

In order to gain knowledge of an unfamiliar landscape, we sought guidance from our hosts and locals with knowledge of the land, its history and the problematic issues faced in this rural area. Carvalho et al. (2020) suggest that more-than-human pedagogies require guardians and facilitators whose place is more "modest and reverent" than instructive: "The position of mastery is, instead, occupied by the plants and the more-than-human world from which everyone learns." (p.147). Guardians have a particular relationship with the space and a familiarity which allows them to present a group with a diversity of "things" and encourage their attention to move towards

them. In this context, our human "guardians" were Sumac, the resident caretaker, and Gill, our fungi expert. Facilitators, on the other hand, are responsible for the maintenance of spaces of protection (Yunkaporta, 2019) within which participants can think, discuss and be accepting of each other's vulnerabilities. Given the heightened affective nature of the time (immediately post-lockdown), [the authors] as facilitators took the opportunity to frame the weekend within a Thinking Environment (Kline, 1999); a process which encourages individuals to be "present as themselves" within ten components of being which include ease, attention, equality and feelings.

Much of what took place over the weekend emerged as a result of our response to the land and the guidance of the guardians. We did however plan several interventions. The first was a walk in which we shifted our perspective by putting to work Wall Kimmerer's (2013) call to use a "Grammar of Animacy." This notion invited us to rethink ways in which we address natural phenomena such as trees, plants and water. The second intervention was a session exploring fungi as "queer" educators. We also facilitated art and poetry spaces and included individual time for reflection, including walking together or alone. Reflections on experiences from participants Nettle, Tarn, Ant and Lichen (pseudonyms chosen by the individuals to reflect the rhizomatic and relational nature of their weekend experiences) are shared in the findings below.

A more-than-human methodology

> "...it's left me with - oh look! that tree's uprooted...and there's fungus there!" (Lichen)

Method, within a posthuman framing, can be problematic. The ontological basis on which much research is founded is rooted in certain understandings of the human; as the rational, individual, "man of reason," closely connected with the "Enlightenment" and its associated reverence for Vitruvian Man (the idealised white, male, able-bodied, Western figure encoded within notions of humanism). Our inquiry wanted to challenge this via epistemologies which took account of both the inevitable intra-actions between and entanglements of humans and non-human others, and the multiple ways in which knowledge is produced. As a result, rather than the human-centric process of interviewing participants at the close of the weekend, we undertook a series of walking "intra-views"; the "intra" here meaning "within," thus acknowledging the way in which we view interviews as "wholly engaged encounters" (Kuntz & Presnall, 2012) which necessarily involve agents of all kinds. As Smith et al (2021) put it, this acknowledgement:

> ...leads to a complex idea of relational agency and relational ethics; we never act on something separate from ourselves, but rather act through relationships. We are never a static entity, never discrete, but always emerging through relationships, our being and our acting defined through them. (p.710)

As revealed in the Lichen's words that open this section, the presence of non-human agents shapes and alters our thinking, be it consciously or unconsciously. As Kuntz & Presnall (2012, p.72) suggest: "...the embodied act of walking mobilises the tactical and makes possible thoughts that would not find expression in the seated interview." Much like the fungi that served as a distraction to the intra-view question, more-than-human agents disrupt our thoughts rhizomatically and diffractively. Though we may return to the same point or comment, the affective nature of these intra-actions means that our thinking will have shifted — in ways of which we may well be unaware. Hence, interviews become events comprised of multiplicities; they are assemblages which cannot be replicated. As we wander together, open to the world, so too our minds also wander in unforeseen ways. As Ant articulated: "So now I'm telling you [things] from a different perspective. It's kind of lovely isn't it...I think your mind works differently. Maybe slower...but deeper. More like a river than a stream, kind of thing."

Five participants in total took part in a walking intra-view during the residential weekend, which aimed to explore, in communion with the environment, feelings and responses to the more-than-human explorations we had undertaken. Two months later, three participants from this group met the researchers again to consider the longer-term impact of the weekend and its findings.

More-than-human ethics

Involving naturalised others in the research process; acknowledging their agency, and elevating their position as knowledgeable entities, meant that we needed to extend our ethical imperative to issues of consent and participation. As Smith et al. (2021, p.710) suggest:

> If we are to take seriously the knowledge and agency of Country and more-than-human beings, it follows that we must seek their consent, acknowledge their boundaries and limits, and follow processes of meaningful engagement, consultation, and sharing, just as we might for human-centred research.

We thus began and closed the weekend with a circle acknowledgement, standing together in the grounds of the residential centre and acknowledging and thanking the more-than-human kin surrounding us. Each participant also selected a "more than human" companion which had taught them something over the course of the weekend. These included plants, sticks, trees and fungi, as well as (vital) material entities such as benches and dry-stone walls. The use of ritual practices, such as Joanna Macy's "Council of All Beings" may seem strange at first, but aim to " . . . heighten awareness of our interdependence in the living body of Earth, and to strengthen our commitment to defend it" (Macy, 2005).

Such rituals were transformative in terms of relations, but we remained mindful that, as Zoe Todd (2016) reminds us, these practices have been enacted and inscribed as part of Indigenous cosmologies for centuries, and that they are always rooted in specific relations to land and place. While some notions of posthumanism continue the colonial erasure of Indigenous thought and practice, critical posthumanism with an ethics of relational reciprocity calls us to avoid the co-opting of traditional worldly-knowings as "new" discoveries or novel contributions to knowledge. For example, the notion of "affective pedagogies" can be seen as akin to the idea of "learning spirit" spoken of by the Mi'kmaq First Nations people (Battiste, 2013); a long-articulated belief and understanding of the world. There was therefore an ethical imperative for us to turn to non-Western Indigenous ontologies, not via a process of "cognitive colonialism," but with ethical hesitation and humility (Wu et al., 2018).

Decentering the human as teacher

A number of themes emerged from the weekend's intra-views and reflections which we now see as fundamental to the process of decentering the human and learning from more-than-humans as teachers. While this is not a prescriptive list, we suggest that these four micro-transformations can help ourselves and our students to shift to a position where we may be able to begin to act differently in the world:

- Noticing and attunement
- Naming differently
- Recentering the human as relational being
- Processes of critique and affirmation.

In this section we explore each theme in turn, considering how they manifested over the course of the weekend.

Noticing and attunement

> *"You can be taught by the absence of something"* (Nettle)

Noticing is emerging as an activist practice across many approaches to changemaking. The importance of slowing down, noticing and appreciating (that is, allowing yourself to be affected) is fundamental to the work of thinkers such as Robin Wall Kimmerer (2013), Jasmine Ulmer (2017), Shawn Ginwright (2022), Tyson Yunkaporta (2021), Karen Walrond (2021) and others. It is entangled in the radical rest work of "Nap Bishop" Tricia Hersey (2022), who makes deep connections between rest — including dreaming and daydreaming — as resistance to capitalist grind culture and in honour of enslaved ancestors who were literally worked to death. Ulmer extends the "slow cities," "slow food" movement by suggesting a "slow ontology," which disrupts the corporate rhythms of education and creates space to think.

Pausing, noticing, appreciating and attuning to what can be learned from the (human and) more-than-human teachers around us was enabled by the easeful discipline of the Thinking Environment and acted as a brake on our conditioned tendency to pack the weekend full of "content." As a counter to the hegemonic practices of speed and acceleration as seen in typical residential experiences, we left gaps for individual reflection and exploration, and moments of "flow" (Csikszentmihalyi, 2008). Our modern systems are centred around chronos (linear time) rather than aion (an understanding of time as cyclical, dynamic, insurgent and connected to nature (Braidotti, 2018)). Yet as Bridle (2022, p.115) reminds us, "... the idea of global time — a single, universal standard, divided into hours and minutes, and shifting across time zones - is a recent one." Processes of pause for noticing were articulated by Ant as being significant in terms of shifting relations: "Actually there's a deep time that we're part of — if we only watch the clock we miss it all."

Perhaps unsurprisingly, this simple practice of noticing was the most powerful aspect of the weekend. Slowing our pace and noticing and attuning to what was around us was a vital first step in decentering ourselves as teachers. We noticed and paid attention to non-human entities such as crows, cars, pigeons, dogs, wind, water, bikes, tractors, dry-stone walls, artwork, mushrooms, food, sticks, carvings, moss and many more; the "and ... and ... and ... " of assemblages made up of innumerable more-than-human components. These entanglements led to a more reciprocal relationship; as participant Nettle stated when observing moss and lichen growing on dry-stone walls:

> ... there's a dialogue, so something is evoked and then I have responded to that, so it becomes the start of a dialogue, the start of the recognition of the mirror, so the little cluster of things in the moss in the wall yesterday, I concluded as I walked away, this is a reflection of, you know, something in me has drawn me to this which is reflecting some part of me, back to me.

Being a simple process did not mean it was easy. It required a necessary giving up of agency and resisting normative modes of speed and acceleration as seen in our everyday classrooms and daily activities. For Ant, this was described as a process of surrender:

> Surrendering to the whole thing.... so that's what non-human teachers teach us ... that society is a construct but there is an existence that we are part of and we need to surrender to it and not seek to own it ... just surrender and be in it.

And alongside surrender came an inevitable sense of desire as well as hope; as Tarn stated: "It makes me feel . . . a kind of yearning."

These disruptions altered our understandings of time and temporality, reminding us that learning is not a linear process, however much capitalist forces may wish it to be. This slow ontological approach (Ulmer, 2017) does not rush to elucidate feelings or responses. Tarn went on to say: "There will be moments . . . maybe in 10 or 15 years' time . . . when I think of something, and realise . . . it came from here." There was comfort too, for Nettle, in considering the longevity and persistence of trees in an inhospitable landscape:

> There is all this and more and this blue, blue sky that's kind of there looking on, and that's gonna outlive and outlast any of this institutional life.

As Robin Wall Kimmerer (2013, p.9) reminds us, we are a relatively new species on this planet:

> In Native ways of knowing, human people are often referred to as "the younger brothers of Creation." We say that humans have the least experience with how to live and thus the most to learn—we must look to our teachers among the other species for guidance . . . They've been on the earth far longer than we have been, and have had time to figure things out.

Exploring these temporal shifts together provided comfort in the face of the ecological grief and fear undercutting discourse of climate change and environmental degradation.

In our later reflections on our experiences of "noticing" we wanted to maintain a critical stance; after all, there is much to pay attention to, and as Nelson & Drew (2023, p.4) warn us, such desire to notice can " . . . open the door to romanticised notions and ambiguous, depoliticised claims ('everything is relational')." The Yorkshire Dales in spring-time is an easy place to idealise, and so we reflected on what our noticings may entail and reveal when we returned to busy urban environments. How to maintain this awareness outside the bounds of "pristine nature" (Taylor, 2017), and notice more-than-humans as part of complex systems rather than discreet entities) became an important consideration as we returned to our everyday lives.

Naming differently

The (English) language is rooted in cultural, social and political dominance and that is as true in education as it is in every aspect of our public and private lives. To live differently, we must disrupt the language we employ, given the inextricable connection between the socio-material-discursive ways in which relations are formed. Wall Kimmerer (2013) refers to the "Grammar of Animacy"; a principle based on Anishinaabe understandings of relationality and respect for more-than-human others. This lexicon does not refer to our non-human kin as objects (an "it," as we might say in English) but instead uses verbs rather than nouns to demonstrate the ways in which animals, plants, water and other kin are part of wider relations and processes. Kimmerer uses the example of how distancing it might be to refer to a person's grandmother as "it," and questions what can change if we relate differently to the natural world, by naming in alternative ways. By categorising, classifying and using taxonomies to label species we risk also losing connection: "Science is a language of distance which reduces a being to its working parts, the language of objects" (2013, p.48). During the weekend we thus challenged our inherent tendency when walking to identify plants and trees by taxonomical names: "It's a birch tree"; "It's a bullfinch" and so on. Instead we used the practice of referring to trees as "ancestor"; a practice taught to me (Kay) by my friend Jody Bluebird Cloutier, an artist and member of the Cree First Nation (personal communication,

21 January 2023). We considered during our walks what this shift in language changed for us in terms of our relations and feelings in the moment:

> There was sparkliness in trees, and on moss and on grass, and it was telling me something. It wasn't like a cognitive thing, it wasn't saying 'oh my name is this in Latin' and this is my quality, my properties, it was just telling me this is a frosty morning, this is a beautiful space to me, this is fresh, this is like vulnerable, this is vigorous, it was telling me all these different things and I was kind of aware of that (Ant).

Kline's Thinking Environment (1999) also calls us to use and remember (human) names accurately and with care. The importance of naming thus extended between human and more-than-human kin, as we patiently learnt each other's names and preferred pronouns, paying attention to the ways in which language can both distance and objectify.

Recentering the human as relational being

In the face of our contemporary global crises, Braidotti (2019, n.p) calls us to question what it means to be human and to undertake "joyful, gratuitous experimentations [regarding] what 'we' are capable of becoming." Education can be an individualising experience, based as it is in this contemporary moment around end-point assessment and the gaining of qualifications designed for personal gain and development. One unanticipated outcome of the weekend was the need, post-Covid, to reframe what it meant to be together in community; this being integral to our re-imaginings of communing differently with the natural world. As Nettle stated "The knowledge we've generated together . . . is bigger than any one of us."

Donna Haraway notes that storytelling is, "the most powerful practice for comforting, inspiring, remembering, warning, nurturing compassion, mourning, and becoming-with each other in . . . differences, hopes, and terrors" (2016, p. 150). The process of writing poetry together, sharing reflections and creations, eating local food and talking openly via Thinking Environment question rounds allowed us pause to remember the importance of fostering communities centred around shared values and ethics. As Nettle reflected:

> . . . just as we are now, seeing the rocks, the moss, the trees, the different shades of green . . . these have all been my teachers but the environment we've been with, in and, you know, the people we've been with, they have also been more-than-human . . . I've found myself at mealtimes thinking about the nourishment that is - you know - created by human and non-human hands and energies, so all of it, I think everything we've encountered has taught us something in some way.

Lichen went on to note the significance of human-human relations, which are entangled with and often reflective of our relationships with more-than-human others:

> I think there is the 'human' in the more than human, and that we get to these other beings through human cultures often. We understand them [more than human others] and they speak to us through human cultures . . . The way we interact with them in our very-divorced-from-Indigenous thinking way of living can be quite violent and damaged, and so the way in which we learn from animals is that we harm them and exploit them . . . And so our more than human teachers can maybe help us be better teachers and reach out in a more kind of inclusive and loving way to the landscape we inhabit.

Critique and affirmation

Our setting in the Yorkshire Dales, whilst upholding the idyllicism and wildness of the English pastoral landscape, was also complicated; the space is boundaried, de-forested, inaccessible for many people, and thus problematic in many respects. As a result, it felt important to maintain a sense of critique alongside the affirmative aspects of being together in a space often lauded for its beauty and quintessential charm. Conversations over the course of the weekend thus often centred around the history of the land and place, the violence and dispossession that shaped it, and the enclosed nature of the landscape. We related this problematic relationship with land to our discomfort and fear of appropriating Indigenous knowledges in our own, very particular geographical context. As Lichen suggested, we perhaps need different frameworks that root us within our own notion of place. As a group of teachers, the majority of whom were not from Yorkshire, this challenged us to (re)consider our own individual traditions and positionalities, along with our histories and connections with land after the weekend concluded. "Thinking-with" ideas of panpsychism and romanticism via poetic and arts-based practices, as Reason and Gillespie (2023) suggest, can be a way of elevating and acknowledging Western traditions of thought. These (re)connections with our own land and place will be something, as a collective, we will explore together in future projects.

We also considered the ways in which more-than-human educators can teach us the power of "easeful, gentle resistance" and communion with our environment:

> . . . there's something about the ease with which the stream flows through the landscape, goes at its own pace . . . it's still moving, it's doing what it needs to do, but it's not in a rush and I think we could all learn a lot from that. We can learn from [how] the trees are rooted, they're in their place, they being swished by the wind, they're pointing in a wind direction, but . . . that's ok, they're bending to it, and they're surviving because they can be flexible and move in that direction, even if it's slowly . . . and the sheep, the ones that have been a bit cheeky and gone on to the verges or into lanes looking for better grass, but not rushing or hurrying, just pushing the boundaries . . .

We connected this to Haraway's (2016) notion of response-ability; the bringing together of noticing and attunement with affirmative action. Becoming ethically sensitive, working to (re) connect with our own knowledge of land and place, and "cultivating collective knowing and doing" (ibid., p. 34), requires us to live in the present, accounting for power relations and not passively accepting the status quo; via a politics of location that is " . . . embodied, embedded, relational and affective" (Braidotti, 2019, p.466).

Conclusion: or, what we learnt from more than human teachers

Our affirmative, experimental weekend in the Yorkshire Dales opened us to deeper understandings of the affective and emotive nature of teaching and learning with more-than-human teachers. Resisting and disrupting typical teaching practices through a process of de-familiarisation from "education-as-usual" (Braidotti, 2019) allowed space for viewing learning as relational and reciprocal; both together as human kin, and in kinship with the more-than-human entities from which we were able to learn. We drew on Indigenous epistemologies to (re)connect to our own land and place—in spirit of humility and critical affirmation—with the understanding that we have much to learn and remember in order to better acknowledge our own distributed and various land-place relations. As Ant suggested, we need to engage our lost connection with land and kin as an act of "counter memory"; " . . . we have to become capable of accessing [land-memory] and finding what it is, like we have forgotten it, and have to remember it."

Being constrained within neoliberal educational systems means that it is difficult to break out of these frameworks and paradigms entirely. However, in this article we argue that enacting micro-transformations in pedagogy, such as noticing and naming differently, can help educators take an affirmative standpoint. As Anna Tsing (2015, p.282) states:

> Without stories of progress, the world has become a terrifying place . . . Luckily there is still company, human and not human. We can still explore the overgrown verges of our blasted landscapes — the edges of capitalist discipline, scalability, and abandoned resource plantations. We can still catch the scent of the latent commons — and the elusive autumn aroma.

Pausing, noticing and paying attention to the "scent of the latent commons" can help us towards the decentering imperative in posthuman times. This is Braidotti's (2023) notion of the "affirmative yes!" a call not to turn away from pain and become cynical, but to step outside ourselves and allow joy and learning to be present. Such "lines of flight" (Deleuze & Guattari, 1987) may be momentary, but in their elucidation and acknowledgement we are able to disrupt hegemonic "teaching-as-usual"; we cannot predict what impact these micro-shifts will have in ourselves and others, and what the accumulative effect could be.

Our intra-view recordings were infused with the sounds of water, wind, sheep and many other more-than-human teachers whose presence moved us to think in diffractive ways. So too, we close this article with the voice of our more-than-human kin from whom we learnt so much:

[Birdsong].

References

Abblitt, S. (2019). Composite lives: Making-with our multispecies kin (Imagine!). *a/b:Auto/Biography Studies*, *34*(3), 507–518.

AimHiEarth. (2022). 15 green skills, clearly explained. https://www.aimhi.earth/blog/what-are-green-skills-15-green-skills-clearly-explained.

Alaimo, S. (2012). Sustainable this, sustainable that: New materialisms, posthumanism, and unknown futures. *PMLA/Publications of The Modern Language Association of America*, *127*(3), 558–564.

Alaimo, S. (2016). *Exposed: Environmental politics and pleasure in posthuman times*. University of Minnesota Press.

Ball, S. (2016). Neoliberal education? Confronting the slouching beast. *Policy Futures in Education*, *14*(8), 1046–1059.

Battiste, M. (2013). *Decolonizing education: Nourishing the learning spirit*. Purich Publishing Ltd.

Bignall, S. (2019). *Posthuman knowledge(s)*. Utrecht University. 19-23 August 2019.

Braidotti, R. (2013). *The posthuman*. Polity Press.

Braidotti, R. (2018). A theoretical framework for the critical posthumanities. *Theory, Culture and Society*, *36*(6), 31–61.

Braidotti, R. (2019). Affirmative ethics and generative life. *Deleuze and Guattari Studies*, *13*(4), 463–481.

Braidotti, R. (2019). *Posthuman knowledge*. Polity Press.

Braidotti, R. (2023). *The ethics of affirmation: The philosophy of the big critical YES! [Lecture]*. Utrecht University. 25 August 2023.

Bridle, J. (2022). *Ways of being: Animals, plants, machines: The search for a planetary intelligence*. Penguin.

Common Worlds Research Collective (2020). Learning to become with the world: Education for future survival, *Education Research and Foresight Working Paper 28*. UNESCO.

Csikszentmihalyi, M. (2008). *Flow: The psychology of optimal experience*. Harper Collins.

de Moura Carvalho, I.C., Steil, C.A., & Gonzaga, F.A. (2020). Learning from a more-than-human perspective. Plants as teachers. *The Journal of Environmental Education*, *51*(2), 144–155.

Deleuze, G. (2004). *Logic of sense*. Bloomsbury Publishing.

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia. Trans. B. Massumi*. Bloomsbury Academic.

Fletcher, R. (2016). Connection with nature is an oxymoron: A political ecology of "nature-deficit disorder". *The Journal of Environmental Education*, *48*(4), 226–233.

Ginwright, S. (2022). *The four pivots: Reimagining justice, reimagining ourselves*. North Atlantic Books.

Gough, N. (2015). Undoing anthropocentrism in educational inquiry. In N. Snaza & J. Weaver (Eds.), *Posthumanism and educational research* (pp. 151–166). Routledge.

Haraway, D. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Hersey, T. (2022). *Rest is resistance*. Aster.

Illich, I. (1970). *Deschooling society*. Marion Boyars.

Jagodzinksi, J. (2018). From the artist to the cosmic artisan: The educational task for art in anthropogenic times. In C. Naughton, G. Biesta & D. Cole (Eds.), *Art, artists and pedagogy: Philosophy and the arts in education* (pp. 83–95). Routledge.

Jarke, J., & Breiter, A. (2019). Editorial: The datafication of education. *Learning, Media and Technology*, *44*(1), 1–6.

Kline, N. (1999). *Time to think*. Cassell Illustrated.

Kuntz, A., & Presnall, M. (2012). Wandering the tactical: From interview to intraview. *Qualitative Inquiry*, *18*(9), 732–744.

Leather, M. (2018). A critique of "forest school" or something lost in translation. *Journal of Outdoor and Environmental Education*, *21*, 5–18.

Macy, J. (2005). *The Council of All Beings. Encyclopedia of religion and nature*. Continuum.

Mcphie, J., & Clarke, D. (2019). Post-qualitative inquiry in outdoor studies: A radical (non-) methodology. In H. Prince & B. Humberstone (Eds.), *Research methods in outdoor studies* (pp. 186–195). Routledge.

Nelson, N., & Drew, J. (2023). Multispecies collaboratories: Reconfiguring children's more-than-human entanglement with colonization, urban development and climate change. *Children's Geographies*, *22*(1), 165–181.

Quay, J. (2021). Wild and willful pedagogies: Education policy and practice to embrace the spirits of a more-than-human world. *Policy Futures in Education*, *19*(3), 291–306.

Reason, P., & Gillespie, S. (2023). The teachings of mistle thrush and kingfisher. *Australian Journal of Environmental Education*, *39*(3), 293–306.

Riley, K. (2023). *(Re)Storying human/earth relationships in environmental education: Becoming (partially) posthumanist*. Springer.

Smith, A.S., Marshall, U.B., Smith, N., Wright, S., Daley, L., & Hodge, P. (2022). Ethics and consent in more-than-human research: Some considerations from/with/as Gumbaynggirr Country, Australia. *Transactions of the Institute of British Geographers*, *47*(3), 709–724.

Snaza, N., & Weaver, J.A. (2015). *Posthumanism and educational research*. Routledge.

Strom, K., & Martin, A. (2017). Thinking with theory in an era of trump. *Issues in Teacher Education*, *26*(3,), 3–22.

Tamás, R. (2020). *Strangers: Essays on the human and nonhuman*. Makina Books.

Taylor, A. (2017). Romancing or re-configuring nature in the Anthropocene? Towards common worlding pedagogies. In M. Malone, et al. (Eds.), *Reimagining sustainability in precarious times* (pp. 61–77). Springer Nature.

Todd, Z. (2016). An Indigenous feminist's take on the ontological turn: 'ontology' is just another word for colonialism. *Journal of Historical Sociology*, *29*(1), 4–22.

Tsing, A.L. (2015). *The mushroom at the end of the world: On the possiblity of life in capitalist ruins*. Princeton University Press.

Ulmer, J. (2017). Writing slow ontology. *Qualitative Inquiry*, *23*(3), 201–211.

UNESCO. (2023). What is education for sustainable development? https://www.unesco.org/en/education-sustainable-development/need-know.

Wall Kimmerer, R. (2013). *Braiding sweetgrass*. Milkweed Editions.

Walrond, K. (2021). *The lightmaker's manifesto: How to work for change without losing your joy*. Broadleaf Books.

Walton, S. (2021). *Everybody needs beauty: In search of the nature cure*. Bloomsbury.

Wicks, C., Barton, J., Orbell, S., & Andrews, L. (2022). Psychological benefits of outdoor physical activity in natural versus urban environments: A systematic review and meta-analysis of experimental studies. *Health and Well Being*, *14*(3), 1037–1061.

Wu, J., Eaton, P.W., Robinson-Morris, D.W., Wallace, M.F.G., Han, S., (2018). Perturbing possibilities in the postqualitative turn: Lessons from Taoism (道) and Ubuntu. *International Journal of Qualitative Studies in Education*, *31*(6), 504–519.

Yorkshire Dales National Park (n.d.). Woodland and trees. https://www.yorkshiredales.org.uk/about/wildlife/habitats/woodland-trees/#:~:text=The%20predominant%20tree%20in%20the,%2C%20Oak%2C%20Rowan%20and%20Elm.

Yunkaporta, T. (2019). *Sand talk*. Text Publishing.

Author Biographies

Kay Sidebottom is a Lecturer in Education, and Programme Director for a new MSc Education at the University of Stirling. With a background in community and adult education, her pedagogical specialisms include critical, radical and anarchist education, arts-based practice and community philosophy. Current research projects focus on what we can learn from 'more-than-human' teachers; that is, the animals, insects and wider ecological systems on which humanity depends. Her recent collaborators include dogs, bees, and algae.

Lou Mycroft is an independent researcher, coach and facilitator who works with changemakers in education. She has contributed chapters and articles about aspects of thinking differently for sustainable change in public service. Her PhD looked at the philosophy and structures of community education through a Posthuman lens.