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Composting Humboldt: a reconceptualisation of Wilhelm von Humboldt's Bildung understood through Donna Haraway's 'compostist' posthumanism

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Abstract

This conceptual research aims to reconfigure Wilhelm von Humboldt's Bildung considering Donna Haraway's 'compostist' posthumanism. Three aspects of Humboldt's Bildung are identified and analysed: individuality, unity of nature and mind, and holistic knowledge. Posthumanism is narrowed to Haraway's 'compostist' conception, with the identified aspects: making kin as 'oddkin' and recognising Indigenous Knowledges. The main conceptual argument draws on these analyses to recast Humboldt's Bildung in the following ways: 1) individuality is understood in terms of ecological relationality; 2) the human mind and 'nature' 'become-with' one another in more dynamic interplay; and 3) holistic knowledge is revised to incorporate knowledges beyond 'Western' epistemologies. The paper aspires to open up a new horizon for Humboldt's Bildung, understood through Haraway's 'compostist' posthumanism. The resulting 'compostist' posthumanist Bildung has the potential to shape our formation to be compatible with living on a damaged planet and to lay the preliminary conceptual groundwork for addressing some of our times' most complex questions.

Keywords: Bildung, Wilhelm von Humboldt, posthumanism, Donna Haraway, indigenous knowledges

Introduction

To 'compost Humboldt' means to understand Wilhelm von Humboldt's (1793) conception of *Bildung* through Donna Haraway's (2016) 'compostist' posthumanism. The terms 'compost' and 'posthumanism' are used in parallel to reflect a tension in Haraway's (2016) work: she is often considered a pioneer and leading thinker in posthumanist academia (e.g., Badmington, 2000), but is simultaneously uncomfortable with the term for being overly tied to theoretical discussions (Franklin, 2017). 'Compost' is instead preferred, as Haraway explains: "So when I say 'compost', it's more than a joke [...] It's a refusal to be quite so serious about categories, and to let categories sit a bit lightly with the complexities of the world" (Franklin 2017, p.50). Furthermore, 'compost' includes both living and dying, raising the prominence of questions about finitude and mortality, which Haraway (2016) sees as central at the present time of ecological crisis. So, to 'compost Humboldt' is to open up a new horizon for Humboldt's (1793) *Bildung* by reconceptualising the concept in conjunction with Haraway's (2016) 'compostist' posthumanism.

Bildung is a foundational educational concept in the German-speaking world deserving of attention, commonly translated as 'self-education', 'formation' or 'cultivation'. It represents a certain educational ideal premised on individual perfectibility, and the improvement of society based on the realisation of this potential by each and every individual (Danner, 1994). *Bildung* is increasingly also now used in the Anglosphere as a 'catch-word' to combat an encroaching 'measurement culture' in education studies (Horlacher, 2016). This is epitomised by the reduction of what is interpreted as 'education' to mean 'Programme for International Student Assessment (PISA) tests (Biesta, 2010). For example, Scotland faces an 'education crisis' thanks to a few percentage points drop in PISA scores (Deerin, 2020). A shift in focus from PISA scores to *Bildung,* which is difficult if not impossible to measure (Horlacher, 2016), might well play a role in pushing back against this 'measurement culture'. Invoked wisely, Horlacher (2016) is unabashedly sanguine about *Bildung's* value: "Bildung has the potential to 'save' the world" (p.127). *Bildung* therefore necessitates further consideration, but caution is required given the inconsistency, arbitrariness and 'fuzzy use' of the concept (Horlacher, 2016).

Posthumanism demands consideration too: recognition of entangled identities is needed to find solutions to the complex challenges of our times (Haraway, 2016), such as the COVID-19 pandemic or the climate crisis. COVID-19 has brought the interdependence of humans and everything 'other' (animals, plants, machines, etc.) to the fore. Against the backdrop of a virus oblivious to human intentions, human exceptionalism seems foolhardy, if not lethal (Hayles, 2021). The virus is thought to have originated in bats or pangolins (animals) and jumped between species to infect humans (another type of animal) (WHO, 2021). Some people need ventilators to breathe, i.e., it is machines which keep us, 'we' humans, alive. Arriving at answers to such complicated problems is not about 'being nice to nature', but for our own future: "we become with each other or not at all" (Haraway, 2016, p.4). Posthumanism understands 'we' in the broadest sense with no clear ontological boundaries between humans, animals, machines or other non-human materialities (Snaza and Weaver, 2015). Perhaps this is what is needed to live well together on a damaged planet.

Research significance and research questions

The significance of this research lies in adding weight to discussions of posthumanism in education studies by exploring more deeply the possibility of a posthumanist *Bildung*. Whilst education studies (including *Bildung*) research which refers to 'posthumanism' is considerable, conceptual discussion is often superficial (Taylor, 2017). The aim of this research is not to present an assured 'answer' as to what a posthumanist *Bildung* might represent, but rather to make a convincing argument. Doing so, following Pedersen (2015), I hope "to create a few cracks and fissures […to] squeeze a little bit of posthumanist 'noise'" (p.56) into *Bildung*.

The impetus for this research is furthermore guided by the words of Marilyn Strathern, chanted throughout Haraway's (2016) '*Staying with the Trouble':* "It matters what ideas we use to think other ideas (with)" (Strathern, 2005, cited in Haraway, 2016, p.12). *Bildung* matters: it concerns "becoming and being somebody", alluding to self-formation of a sort richer than the prevailing 'measurement culture' permits (Biesta, 2002a, p.343). Posthumanism matters: it helps us to reconsider "the basic unit of common reference for our species, our polity and our relationship to the other inhabitants of this planet" (Braidotti, 2013, p.2). It matters if posthumanism is used to reconceptualise *Bildung*. In connecting the concepts, I hope to make the case why.

The argument will be built by answering three interrelated research questions:

RQ1: What is Humboldt's conception of *Bildung*?

RQ2: What is posthumanism and, specifically, what are the defining characteristics of Haraway's 'compostist' conception of posthumanism?

RQ3: In what ways might Haraway's 'compostist' posthumanism help to reconceptualise Humboldt's *Bildung*?

Methodology, material and method of analysis

This section describes the methodology, choice of material, and method of analysis. Although much less has been written about research methods for conceptual research as supposed to empirical, that does not mean it is without process (Jaakkola, 2020). In a sense, not being tied to empirical restraints gives more room for manoeuvre to build a strong argument (Vargo and Lusch, 2004). However, this freedom can be considered a 'double-edged sword': given the lack of a 'recipe' or set way of conducting conceptual research, researchers can find it a struggle to write such papers (Cornelissen, 2017). Based on my own experience, I concur: finding guidance on how to 'do' conceptual research in the research methods literature proved to be rather futile. What follows is an attempt to make sense of this process and delineate it for the reader.

Methodology: conceptual research

Conceptual research is not based on 'data' used to test hypotheses as in empirical research; the onus is rather on the development of logical and complete arguments. The focus is to bridge existing theories in novel ways, forge connections across disciplines, and broaden the scope of thinking (Gilson and Goldberg, 2015). For Whetten (1989), it is critical for conceptual papers to attend to the question: "What's new?", i.e., that they take a problem-focused approach and work to resolve an existing tension

in the field. My research was therefore targeted to ensure it 'added value' to contemporary debate and did not simply regurgitate pre-existing lines of thinking.

The difference between 'domain theory' and 'method theory' was a helpful distinction in differentiating between prior and new lines of thinking (Lukka and Vinnari, 2014). The 'domain theory' refers to the existing knowledge on a topic, whereas the 'method theory' provides the conceptual insight into studying the substantive issue(s) presented within the 'domain theory'. Accordingly, the literature review functioned as 'domain theory', as did the primary text analyses. 'Method theory' was then used to construct the main argument, thereby providing my own analysis on the conceptual linkages. Being clear on the role each section served will have hopefully improved the cogency of argument.

Choice of material

A literature review served as the starting point for my enquiry. This built a strong foundation of the key lines of argument, authors, and texts in the areas of interest (Bildung, posthumanism, posthumanist *Bildung*). To give a broad overview of the relevant literature, four major education databases (those listed on the University of Strathclyde's LibGuide for Education) were searched: the *Australian Education Index*, *British Education Index*, *Education Database* and *ERIC*. Using Boolean operators allowed me to search for research focused on both variables (Bryman, 2012, p.118), 'posthumanism' and '*Bildung*'. I wanted to exclude results that focused on 'transhumanism' (and its relevant morphemes), since this is a term often used alongside posthumanism, but was not the focus of my enquiry (in short, transhumanism understands the capabilities of humans as unlimited and enhance-able, with no fixed 'lifetime' in which an individual human life can be said to end (Engelmann, 2020)). I furthermore wanted to include research that made specific mention to 'education' more broadly than just *Bildung*. Since *Bildung* is originally a German word, narrowing my search to solely return results for this term would have greatly limited my findings. My full search thus became "(posthuman* NOT transhuman*) AND (Bildung OR education)".

To limit search results, filters were set to only include recent research (published within the past 10 years), written in English and in peer-reviewed journals. The initial search yielded a total of 755 results across the four databases. Exporting these to *Endnote* and removing duplicates left 575 unique results. I then screened these using Randolph's (2009) advised two-stage approach: first by title, then by reading the abstract. At both stages, inclusion was guided by judgement as to whether the focus of the text was on my chosen search terms (posthumanism and *Bildung*/ education). The screening criteria can be summarised as follows: research was included whose substantive focus was on connecting the concept of *Bildung*/ education with posthumanism and excluded where this appeared as an addendum. For example, there were numerous results that focused on education for sustainability, whose focus was environmental concern (not conceptual exploration of *Bildung* or education). These were excluded in stages one and two of the screening process, leaving 14 results. I then read the full texts to establish their relevance for my research focus, which left 10 texts. Two further texts were added following 'snowball sampling' – a dynamic process that allowed references provided by accessed work from the initial search to be followed up on (Cohen *et al*., 2018, pp.202 – 226). Four additional texts were then

added through a Google Scholar search (using the same search terms and filters as the initial search). This meant 16 texts in total were included in the literature review.

Proceeding the literature review, it quickly became apparent that there were wide-ranging different conceptions of posthumanism. Attempting to amalgamate these diverse and at times competing views would have led to a lack of conceptual clarity. The scope was therefore narrowed to just one text often cited to make 'posthumanist' arguments: Donna Haraway's (2016) most recent book, '*Staying with the Trouble*'. Accessed texts on *Bildung* proved to be similarly varied. However, Wilhelm von Humboldt's (1793) '*Theory of Bildung*' seemed to be the basis of much of these works, albeit commonly only with superficial mention. For this reason, a primary text analysis of this foundational work seemed sensible.

Method of analysis: hermeneutics

I used hermeneutics to analyse the texts. Hermeneutics, simply put, is the art of interpretation (Boell and Cecez-Kecmanovic, 2010). This raises the question: what type of interpretation? For Gadamer (1960), the type of interpretation must not be whimsical: "All correct interpretation must be on guard against arbitrary fancies and the limitations imposed by imperceptible habits of thought" (p.269). These 'arbitrary fancies', what Gadamer (1960) might also term 'prejudices', should not be obscured; it is rather the acknowledgement of these that gives hermeneutics its real thrust. One such prejudice is my position that we are living at a time of ecological discord in urgent need of change. Therefrom, I regarded positively the language of 'innovative thinking', 'novel ideas' and 'radical systems change' as commonly proposed by texts on posthumanism. Acknowledging my own pre-understandings is not, however, to be doggedly attached to them. The hermeneutic task also necessitates an openness for the text to tell you something (Gadamer, 1960, p.271). Accordingly, I tried to keep an open mind when reading, to question my pre-existing beliefs and embrace competing perspectives.

The hermeneutic circle presents understanding as an iterative process in which the researcher is continually relating the meaning of each text (a part) back to the broader context (the whole) and vice versa (Gadamer, 1960). Interpretation of each individual text depends on an understanding (and interpretation) of the wider body of relevant literature (Boell and Cecez-Kecmanovic, 2010). Given this open-ended, circular conception of understanding, I engaged with as much relevant literature as possible in the time available. The two key texts were then continually revisited in light of this wider understanding.

Literature review

This section provides an overview of the literature related to the two concepts of interest, *Bildung* and posthumanism, as well as their conceptual linkage, posthumanist *Bildung.* Had this paper been written 20 years ago, this section would have likely been rather scant. This is because academic interest in the topic of 'posthumanism' is recent, but growing fast: for example, in the past year there have been over 500 papers (available on the Web of Science database) published with the term "posthuman*" in the topic. 20 years ago, there were fewer than 10. Posthumanism has recently been the focus of this very journal, with a 2019 *Education in the North* special issue dedicated to *'Education in a Posthuman Age'*. This is testament to the newfound impetus within education studies to explore posthumanism, with

much of the prior research rooted in other disciplines such as literature studies, philosophy, and other disciplines (Bayne, 2015). As Gourlay (2021) puts it, posthumanism has been brought in from "the 'wild fringes' of education theory" (p.11).

Conceptualising Bildung within education studies

Sjöström *et al*. (2017) lay the groundwork for understanding *Bildung* as a concept within studies of education, but not to be equated with education *per se.* The concept of education first bears some deliberation. Education is an aspiration of change; when someone acts upon their intentions to improve someone's relation to content, this is 'education'. Education is not solely the effects of these acts; it is the acting upon the aspiration of improvement (Kenklies, 2020). Working with this definition means that education is by no means limited to formal settings such as schools. Education studies as an academic discipline takes this analytical notion as its foundation (Kenklies, 2020), but there are of course also many other interrelated concepts of interest to those involved in education studies, such as 'learning', 'pedagogy' and 'curriculum'.

Bildung is one such foundational concept within education studies, but it differs to the aforementioned definition in some notable ways (Sjöström *et al*., 2017). The definition of 'education' used above is structural and independent of time and place. *Bildung* is not: although it can be traced back earlier, it is most associated with eighteenth century Germany (Horlacher, 2016). Since none of the English translations of *Bildung*, such as 'education', 'self-education' or 'self-formation' adequately reflect the concept's historical and cultural roots, it is best left untranslated (Sjöström *et al*., 2017).

Bildung in its eighteenth-century conception was fundamentally connected to morality, humanity and individuality. As Nordenbo (2002, cited in Sjöström *et al*., 2017) puts it, "*Bildung* is about the individual in society" (p.168), whilst not forgetting that "individuality was not understood by the classical theoreticians as being 'individualistic', as a self-centred isolation" (Klafki, 2000, p.169). Individuality is a fundamental aspect of *Bildung*, but this should not be misunderstood as individualism. There are competing perspectives on the form this individuality takes. Biesta (2002a), for example, suggests that it ties *Bildung* to political ends: that it is a concept used to advance the notion of being a citizen in a modern society. However, Klafki (2000) emphasises the 'freedom' and 'autonomy' associated with the concept. Given the multitude of different interpretations, Sjöström *et al*. (2017) 'map the field', proposing five different 'versions' of *Bildung* present in the literature: a) classical *Bildung;* b) liberal education; c) Scandinavian folk-*Bildung*; d) democratic education; and e) critical-hermeneutic *Bildung*. 'Classical *Bildung*' is based on one small text by Wilhelm von Humboldt which, according to Sjöström *et al*. (2017), exerts influence that can be seen in all other 'versions' of *Bildung.* Given the foundational significance of this work, it is chosen as the basis of analysis in this research.

Conceptualising posthumanism

Posthumanism in its critical, more 'benign' form, is defined by Engelmann (2020) as "the ongoing theoretical project that tries to decentre human beings in both theory and practice" (p.43). The term 'critical' signifies an ethical-political commitment to analysing and addressing power relations at work in academic practice, as well as in the 'real world' (Braidotti, 2018). Critical posthumanism furthermore

does not neglect the specific situatedness of human beings in the world in favour of privileging materiality or posthuman 'others' (Engelmann, 2020). Human beings are the addressees of such a conception, concurrently rejecting human exceptionalism. Drawing from a wide range of academic disciplines, such as animal studies, philosophy, biology, political theory, and literary studies, critical posthumanism challenges the dominance, uniqueness, and singularity of human agency (Ferrando, 2018).

Knox (2016) traces the origins of posthumanism back to Hassan (1977), who said: "we need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism" (p.843). Bayne (2018) attempts to remedy the 'helplessness' by providing a 'posthumanism navigation aid for educators'. For Bayne (2018), posthumanism can be separated into its 'technological' and 'ecological' strands. 'Technological posthumanism' concerns the "inextricable involvement of the human in its networks – technical and informatic" (Bayne, 2018, p.3). This has been explored in some detail by Bayne (2015), who considers automation in teaching by means of a 'teacherbot' and Knox (2016) who analyses student engagement with Massive Online Open Courses (MOOCs).

'Ecological posthumanism' instead focuses on connectedness and synergies of humans with other species and materialities. It places an emphasis on the complexity of environmental relations, challenges boundaries between species and acknowledges the interconnectedness of humans and everything 'other' (Oppermann, 2016). At a time of climate and ecological crises, this area of research is particularly pertinent. Bayne (2018) concurs and argues that ecological posthumanism is current and exciting in education studies:

> "Some of the most interesting work emerging in the field of education from this area emerges from the field of animal studies and the issue of species segregation: the privileging of the 'human animal' over the 'non-human animal' and how – as educators – we challenge the assumption of human exceptionalism." (p.4)

Even within this narrowing, Bayne (2018) notes how research on posthumanism can still be a 'labyrinth'. Narrowing my analysis to just one key text often cited to make ecological posthumanist arguments, Haraway's (2016) *'Staying with the Trouble'*, has helped navigate the labyrinth.

Conceptualising a posthumanist *Bildung*

The term 'posthumanist *Bildung*' is not explicitly invoked by Biesta (2002b) but his (re-) conceptualisation of *Bildung* resonates with posthumanist lines of thinking. He suggests that we should give up on a conception of *Bildung* as one of 'rational liberation', instead proposing that a 'modern' conception of *Bildung* requires us to take difference seriously. In doing this he moves the discussion from one of subjectivity to intersubjectivity. According to Biesta (2002a), *Bildung* needs to be about more than individual character formation and instead focus broadly on relations with others, humans, non-humans and more-than-humans alike.

An explicit conceptual connection of *Bildung* and posthumanism is attempted by Taylor (2017). She argues that *Bildung* needs to undergo a 'posthumanist reconfiguration' to take into account not just humans, but also other bodies, things, spaces and materialities. Taylor (2017) suggests:

> "So it may be that figuring Bildung as a posthuman going somewhere, a wandering-with and in relation to, others – human and other-than-human – rather than an inward, individual or spiritual journey offers a better fit with the increasingly hybrid ways of knowledge-making in a contemporary world of migrant flows, global dislocations and ecological upheavals." (p.431)

By this reconfiguration, *Bildung* then shifts from being an 'inner process' toward a 'posthuman going somewhere', with agency not solely the domain of humans, but rather shared and confederate between species and matter, human and non-human alike.

Summary

The above literature review lays the groundwork for understanding the concepts of focus: *Bildung,* posthumanism, and their conceptual synergy, posthumanist *Bildung.* The proceeding text analyses aim to deepen this understanding by narrowing the scope of each concept to one text and highlighting relevant facets to build the argument.

Primary text analyses

Humboldt's Bildung

What is known of Humboldt's (1793) *Bildung* is based on a text found after Humboldt's death and published posthumously in 1903, over 100 years after it was thought to have been authored (Leitzmann, 1903). Originally written in German, the text referred to here is a translation into English and, as such, brings with it myriad hermeneutic challenges. For example, some words are difficult if not impossible to translate, references are made to a different cultural context, and prejudices both enable and limit understanding of the text. The title *'Theory of Bildung'* was not assigned by Humboldt, but later added to the text (Leitzmann, 1903). Moreover, it is an unfinished fragment alluding to a much larger piece of work, as shown by its opening lines: "A substantial and exquisite *could* be produced *if* someone were to undertake […] [emphasis added]" (Humboldt, 1793, p.57). Humboldt's (1793) *Bildung* text does not claim to represent a complete theory; it will not be presented as such, but rather some of the concept's key aspects will be highlighted.

Individuality

Humboldt's (1793) *Bildung* is teleological, albeit in an abstract sense. The goal of *Bildung* – "the development of mankind" (Humboldt, 1793, p.58) – is realised by the process of people becoming individuals and their resulting individuality. Prior to this, *Bildung* had been associated with more theological teleology: the thirteenth century German mystic, Meister Eckhart, used the term to refer to an individual's self-formation in God's likeness – becoming an image of God (Kenklies, 2018). With Humboldt (1793), humans have instead embraced unlimited growth (of the possibilities of humankind), with each human contributing to the notion of 'humanity':

> "It is the ultimate task of our existence to achieve as much substance as possible for the concept of humanity in our person, both during the span of our life and beyond it, through the traces we leave by means of our vital activity." (p.58)

What it means to be human is an open concept, shaped by the inner development and resultant action of every individual. Humanity is hereby characterised by an abundance of possibilities, contributed to by each individual human.

Individuality can extend in all different directions. For example, a mass murderer extends the concept of what it means to be human just as much as an epidemiologist who develops a vaccine for a novel virus does or a mountaineer who pioneers a new climbing route. Every life extends the boundaries of what it means to be human and therefore also what is understood by 'humanity'. However, the boundaries of Humboldt's (1793) *Bildung* are not entirely free: to form humanity as "a rich and worthy substance" (p.59), the sequence in which individuality arises from the influence of their times and nation must also be considered. Both history and the prevailing national culture need to be learned from for it to make any sense to talk of *Bildung* being 'rich' or 'worthy'. To foster a *Bildung* of the form Humboldt (1793) is talking about thus necessitates 'looking back' to learn from history and 'looking within' contemporary society to learn from others. So, without specifying a particular type of individuality for people to adhere to, Humboldt's (1793) *Bildung* does not seem to allow for an unbounded range of possibilities.

Unity of nature and mind

Humboldt's (1793) *Bildung* addresses the "not unjustified complaints that knowledge remains idle and the cultivation of the mind unfruitful, that a great deal is achieved around us, but only little improved within us" (p.58). This quote suggests that despite humanity appearing to continually make progress, internal development is lacking. *Bildung* puts the emphasis on this internal development: "he is not really concerned with […] what he achieves outside himself […] but only with his inner improvement and elevation" (Humboldt, 1793, p.58). *Bildung* concerns inner self-development, however,

> "[…] his thought and action are not possible except by means of a third element, the representation and cultivation of something that is actually characterised by being nonman, that is, world, he seeks to grasp as much world as possible and bind it as tightly as he can to himself." (Humboldt, 1793, p.58)

Inner development is only possible by linking the self to the world. The human mind sees the world (or 'nature') as its object upon which, through will, its actions can take effect. However, such a subject-object (human-world) relationship is not one-way, with humans simply acting on all that is outside themselves: "this can be fulfilled only by the linking of the self to the world to achieve the most general, most animated, and most unrestrained interplay" (Humboldt, 1793, p.58). 'Nature' (the world) is not just an object upon which humans act and shape; it also impresses itself upon the human mind. *Bildung* concerns the unity of the two, harmony between what is 'out there' and what is developed within.

Humans must encounter 'otherness' to develop themselves. Yet Humboldt (1793) is alert to the risk of estrangement when encountering diverse impressions: "it is crucial that he should not lose himself in

this alienation, but rather reflect back into his inner being the clarifying light and the comforting warmth of everything that he undertakes outside himself" (p.59). For this to happen, 'otherness' needs to become 'sameness', with the world outside ('nature') in unity with the human mind. Humboldt (1793) does not prescribe a specific formula as such for how to achieve this (unity of nature and mind, and subsequently *Bildung)* but does offer more abstract guidance, suggesting "perfect unity and constant interplay […to] create more of a resemblance between the two" (p.59). Humans are encouraged to make sense of the world according to their own mental structures and act on 'nature' according to this same structuring of the mind.

Holistic knowledge

Humboldt's (1793) *Bildung* understands knowledge holistically. Fostering *Bildung* concerns "tak[ing] refuge from the infinity of objects […] in a simultaneously brightening and mustering mirror […] which we only otherwise glimpse in fragmented form and through external successes only" (Humboldt, 1793, p.60). To achieve this, one must neither be a generalist without specialism nor a specialist without being able to apply principles more generally. For example, a mathematician who is unable to relate the principles of mathematics to other branches of knowledge cannot be said to have fostered *Bildung* of the form Humboldt (1793) is referring to. In an even worse position to such a specialist, however, is "the person who does not choose one field exclusively but wishes to draw on them all" (Humboldt, 1793, p.58). Knowing a wide range of small fragments of knowledge without specialising does not bring about *Bildung* either. What is required is holistic knowledge, understanding one's own discipline deeply, and concurrently being able to relate it to 'the whole': to other disciplines and the entirety of knowledge.

Interdisciplinarity is crucial: one needs to look beyond the confines of one's own discipline to bring about *Bildung,* to "transform scattered knowledge and action into a closed system" (Humboldt, 1793, p.60). Only through genuine interdisciplinarity – understanding how all disciplines are related to one another, describing the same world but from different perspectives – can one perceive "the influence that every business of life can exercise on our inner Bildung" (Humboldt, 1793, p.60). For Humboldt's (1793) *Bildung*, it is thus the "useful development of principles" (p.58) that is important as supposed to specific chunks of knowledge that can be ordered and categorised in an encyclopaedic fashion (cf. Comenius, 1658).

Humboldt's Bildung: summary

To lay the groundwork for the argument so far (and address RQ1), three important facets of Humboldt's (1793) *Bildung* have been highlighted: individuality, unity of nature and mind and a holistic understanding of knowledge. Fundamental to all of these is an open conception of what it means to be human; realising these tenets helps humans to self- develop, in doing so also extending the notion of humanity (as the sum of the diversity of individuals).

The discussion of *Bildung* has, however, to this point been firmly rooted to humans. Humboldt (1793) is in fact quite damning of the 'monotony' of non-human nature, bemoaning how it "goes through same transformations time after time, without ever producing anything new" (p.61). To be human is for Humboldt (1793) a privileged category, set apart from non-human nature by dynamism and creativity.

There evidently remains some conceptual probing to bring *Bildung* closer to posthumanism (or vice versa). To do this, I will now clarify my understanding of Haraway's (2016) 'compostist' posthumanism (thereby addressing RQ2).

Haraway's 'compostist' posthumanism

In Donna Haraway's (2016) '*Staying with the Trouble: Making kin in the Chthulucene'*, 'Chthulucene' (noting the different spelling to H.P Lovecraft's "misogynist racial-nightmare monster" 'Cthulu' (p.101)) names the time we are currently in. Chthulucene is a compound of two Greek words: *khthôn* and *kainos*. *Khthôn* is one of several Greek words which means 'earth', used to refer to what is under the earth, as supposed to the living surface or the land as territory (Glabau, 2017). "*Kainos* means now […] full of inheritances, of remembering, and full of comings, of nurturing what might still be" (Haraway, 2016, p.2). The term 'Chthulucene' is thus used to emphasise our connectedness to the earth and the temporality of the present, remembering the past but also looking forward to what will come. It furthermore symbolises a rebuttal to other commonly used terms such as the 'Anthropocene' and 'Capitalocene': "specifically, unlike either the Anthropocene or the Capitalocene, the Chthulucene is made up of ongoing multispecies stories and practices of becoming-with […] [in which] human beings are not the only important actors" (Haraway, 2016, p.55). Human beings matter: it is however the style of being which is addressed here, with emphasis on 'nonarrogant collaboration' across species and materialities. A 'compostist' posthumanism is therefore a critical posthumanism: humans are evidently being addressed by this conception, at the same time rejecting human exceptionalism.

The task for a 'compostist' posthumanism, as Haraway (2016) sees it, is "learning to live and die well with each other in a thick present" (p.1). 'Dying well' together suggests looking beyond our individual lifetimes to consider the impact we might have beyond them. This signifies the mutual composition and decomposition of humans, other living organisms and non-living matter: we live and die not in isolation but entangled with others, all 'compost' in the end. A 'compostist' posthumanism is therefore a posthumanism in its ecological form: it rejects the privileging of the human, and instead focuses on the connectedness and synergies of humans, other species and materialities.

Making kin as 'oddkin'

Kinship is the conduit Haraway (2016) uses to emphasise these connections across species. For Haraway (2016), 'kin' is a contested word, meaning more than just ancestry or genealogy. Making kin as 'oddkin' entangles humans and other 'critters' (Haraway's (2016) preferred term when referring to other living species) in complex assemblages. At first this seems like a mistake – a semantic confusion – does 'kin' not refer solely to familial relations? This has not always been the case: 'relatives' were originally 'logical relations' and only became 'family members' in the seventeenth century (Strathern, 2005, cited in Haraway, 2016, p.103). Haraway (2016) reimagines the seventeenth century definition of 'logical relations' to extend beyond how it was originally conceived as bloodline, detached from notions of inheritance and ancestry (Klumbytė, 2018). Kin as 'oddkin' by this conception – logical relations – facilitates interspecies kinships. Butterflies are kin. Bumblebees are kin. Making 'oddkin' might be "one way to live and die well as mortal critters" (Haraway, 2016, p.101), more attuned to our connectedness with other species.

In moving to make kin as 'oddkin' – not only as in procreating but also in sustaining – Haraway (2016) addresses what she terms a 'taboo subject': global population pressure. Haraway (2016) wonders:

> "[…with] the stretch and recomposition of kin […] maybe the human people of this planet can again be numbered 2 or 3 billion or so, while all along the way being part of increasing well-being for diverse human beings and other critters as means and not just ends." (p.103)

Citing irreversible destruction if the global (human) population continues to increase, Haraway (2016) urges readers to "make kin, not babies!" (p.103). Haraway (2016) is clear that 'multispecies ecojustice' is the aim of her pleas: no conversation about reproductive justice can be approached as if only humans matter. This is not just to the benefit of other 'critters', but also to humans: we need the earth to be habitable for our continued existence. This initially sits uncomfortably: is a 'Western' academic really preaching from a privileged position not to have children? Haraway (2016) is alert to the 'hornet's nest' discussion she strays into here, but concurrently:

> "[…] refuse[s] to cede population to those who would use it to further entrench racial, gendered, and economic inequality […] refuse[s] to disengage from a difficult, uncomfortable feminist exploration of large and growing human numbers as problems to be intervened on for the sake of the planet, for human and nonhuman life." (Strathern *et al.*, 2019, p.164)

Global population pressure is indeed an uncomfortable topic for a 'Western' academic to discuss, but not engaging does not mean the problem will cease to exist. Making kin as 'oddkin' may be seen as one of Haraway's (2016) primary conceptual contributions to the discussion.

Indigenous knowledges

Ecological discord caused by global population pressures provides the impetus for Haraway's (2016) enquiry but, in probing for 'solutions', the argument is 'taken elsewhere': to Indigenous Knowledges. As Haraway (2016) puts it, "the chthonic ones are those indigenous to the earth in myriad languages and stories; and decolonial indigenous peoples and projects are central to [Haraway's] stories of alliance" (p.71). One such story told by Haraway (2016) is that of the indigenous Navajo of Arizona. Navajo weaving entangles the Navajo people with churro sheep in an individual, relational, and connected practice (Haraway, 2016, pp.89 – 97). Weavings are individual: they embody the creativity, style, and sensibility of individual women (and reflect differences in the wool of individual sheep). They are relational: the geometric patterns are an expression of *hózhó* (usually translated into English as "beauty", "harmony" and "order"), of living in the "right relations of the world" (Haraway, 2016, p.91). They are also connected: they link the Navajo people to churro sheep in companionship important for *hózhó.* The agency of Navajo weavers matters, but it is always in relation to the churro sheep. Instead of being 'objects' for the Navajo human 'subjects' to 'use', the churro are 'agents' in a shared, relational existence (Haraway, 2016).

By shifting the focus of discussion to Indigenous Knowledges, Haraway (2016) rejects a biased privileging of 'Western' knowledge systems. She hereby challenges the well-versed notion that the world can be explained and understood solely in terms of 'Western' epistemologies, and that Indigenous Knowledge systems are less worthy of consideration. The focus on Indigenous Knowledges in

discussions on posthumanism is needed: to talk of posthumanism without their acknowledgement seems at best 'epistemologically ignorant' and, at worst, colonial appropriation (Sundberg, 2014). According to Asker and Andrews (2020), "much of the 'posthumanist turn' is indebted to indigenous thinking; a fact that is largely unacknowledged" (p.554). Posthumanist academics often present 'Western' theory as universal, as the only body of knowledge that matters. In doing so, they enact a notable silence regarding Indigenous Knowledges, when in fact many of the same ideas are well established in indigenous scholarship (Sundberg, 2014). That said, in invoking 'Indigenous Knowledges', a large caveat is first required: they are not monolithic, but diverse (TallBear, 2015). Following Kuokkanen (2000), I use the terms 'Western' and 'Indigenous' as heuristic devices to highlight that differences between these categories exist. This is done with an appreciation of the dangers of oversimplification and generalisation, and acknowledgement of the diversity of differences contained within each category.

Haraway's 'compostist' posthumanism: summary

To recap, I have argued that Haraway's (2016) 'compostist' posthumanism is critical: it aims to decentre human beings whilst maintaining their situatedness. It is also ecological: it considers humans in the same 'compost pile' with other living organisms and calls into question species segregation. Two fundamental facets of a 'compostist' posthumanism were highlighted: making kin as 'oddkin' and recognition of Indigenous Knowledges. Present throughout Haraway's (2016) posthumanism is a relational understanding of becoming and being: humans are who they are in relation to 'others', be those human, non-human, other-than-human or more-than-human.

Method theory: toward a 'compostist' posthumanist *Bildung*

This section shifts the focus from primary text analyses which, along with the literature review, formed the 'domain theory', onto the main conceptual contribution(s) of the paper, the 'method theory'. I have shown that *Bildung* as a concept takes an open definition of what it means to be human. The concept of posthumanism I have presented does the same by stressing the relational nature of our existence: our becoming and being is always in relation to others, with no reason for this to be limited just to other humans. These relations are dynamic: the 'set of 'others' is expandable, meaning that what it means to be human is too (Haraway, 2016, p.65). Thus, it appears possible to bring the two concepts together. To clarify and deepen the conceptual synergy, I will now analyse aspects of Haraway's (2016) 'compostist' posthumanism which might serve to reconceptualise Humboldt's (1793) *Bildung*. I will also speculate on what the educational implications of this reconceptualisation might be. It is worth first recalling that education is by no means limited to formal settings such as schools (Kenklies, 2020). The implications are therefore relevant for everyone with an intention to improve themselves or others and not just for teachers and/ or students in formal educational settings.

Individuality as ecological relationality

Making kin as 'oddkin' supports an understanding of the individuality celebrated by Humboldt's (1793) *Bildung* in terms of ecological relationality. For Humboldt (1793), every individual contributes to the notion of humanity by way of their inner *Bildung* and resultant actions. The range of possibilities for

Bildung (as an expression of individuality) is guided by suggesting that we understand the influence of the history and present culture of a nation (Humboldt, 1793). In other words, we should 'look back' to history and 'look within' our society to shape the development of ourselves. Understanding individuality alongside Haraway's (2016) making kin as 'oddkin' recognises that self-formation does not happen in isolation from relations. Danner (1994) notes how this is lacking in Humboldt's (1793) conception, in which the only relation outside of oneself is the contribution one makes to a definition of humanity. Relations to others and the world are neglected in favour of the development of harmonious, perfected selves. In contrast, understanding individuality in relation to others, human and non-human alike, ties the range of possibilities for human potential to social and environmental relations and processes.

Making kin as 'oddkin' adds a further ecological stipulation to Humboldt's (1793) *Bildung*: our individuality is restricted if not impossible if the environment we live in is damaged or uninhabitable. It makes little sense to speak of realisation of human individuality if this comes at the expense of others and the world. As Engelmann (2020) puts the problem, "humans are destroying the earth, killing other entities – and finally their own future" (p.52). Extending kin to 'oddkin' might accordingly be considered as enabling *Bildung* in the long run, of ensuring the ecological sustainability required for others and for future generations. Put differently, we also need to 'look forward' to consider the effects of our individuality, not just in the present, but also in the future. Reconceptualising *Bildung* in this 'compostist' posthumanist light has broad implications for education. A 'compostist' posthumanist *Bildung* that connects the concepts of individuality and 'oddkin' might help us to show greater regard for others and the environment, for realising our individuality in a more inclusive frame of ecological and social justice.

'Nature' and humans 'becoming-with' one another

In a 'compostist' posthumanist reconceptualisation of *Bildung,* 'nature' and humans 'become-with' one another in dynamic interplay. For Humboldt (1793), there is a clear subject-object dichotomy between 'nature' and humans. 'Nature' (the object) is largely seen as a 'blank canvas' by and through which humans (the subjects) can perfect themselves. Haraway's (2016) recognition of the inter-relationality of humans with non-human others corrodes the clarity of such a dichotomy. 'Nature' is no longer an 'object' clearly distinguished from human 'subjects', but rather entangled and enmeshed in an understanding of human formation. The boundaries between humans and 'nature' are breeched, with no clearly distinguishable limits.

This takes the connection of individuality and making 'oddkin' further towards recognising entanglement and has broad educational implications. If 'we' humans are not bound as individual subjects, but instead 'become-with' others in complex assemblages, a 'compostist' posthumanist *Bildung* is an invitation to consider these entanglements sincerely in educational contexts (Taylor, 2020). Because the human is no longer considered individually bound but always in relation to others, such a reconceptualisation could generate more sustainable co-living and co-flourishing between humans and all that is 'other'. If I understand my own formation as an individual to take effect on and be affected by other humans, animals, plants, machines, and more, I may be more likely to act in a socially and ecologically responsible manner.

Holistic knowledge beyond 'Western' epistemologies

Holistic knowledge as required in Humboldt's (1793) *Bildung* is reconceptualised in light of Haraway's (2016) recognition of Indigenous Knowledges by extending understanding not just between disciplines but also across knowledges. For Humboldt (1793), *Bildung* cannot be fostered by being a specialist without the ability to generalise across disciplines nor a generalist without specialism. A recognition of Indigenous Knowledges, as arising from Haraway's (2016) problematisation of ecological discord, suggests how this holism might be widened: by considering not just knowledge across disciplines but also across different knowledges. There are other knowledges that co-exist alongside what are often considered dominant 'Western' or 'scientific' epistemologies (Haraway, 2016). To achieve interdisciplinarity of the type that Humboldt (1793) alludes to requires an understanding and respect for the intellectual structures referred to as 'disciplines', such as psychology or geography. Holistic knowledge reconfigured in this way incorporates knowledges beyond the confines of 'Western' academia that recognise disciplines differently (or not at all).

In educational contexts, this means learning to engage with other epistemologies, not so that they can be subsumed into a 'Western' framework of understanding but learning to respect the multiplicity of ways of knowing (Sundberg, 2014). A 'compostist' posthumanist *Bildung* therefore recognises and engages with Indigenous Knowledges. For educators, this requires first learning to learn about multiplicity, before being able to teach others (Kuokkannen, 2011). In other words, one first needs to be able to acknowledge the existence of different epistemologies, as well as to learn how to engage with them. Only once educators have first transformed their own understandings and engagement with different epistemologies will they be able to teach others. A 'compostist' posthumanist reconceptualisation of *Bildung* can be said to meet Biesta's (2002b) stipulation that it should 'take difference seriously'. This is seen not just in the outward form that individuality takes, but also in the appreciation of multiple knowledge systems that bring about these differences.

Conclusion

This paper has argued that a 'compostist' posthumanist reconceptualisation of *Bildung* is urgent and worthwhile. Against the backdrop of COVID-19, the climate crisis, and myriad other complex challenges of the 21st century, *Bildung*'s portrayal of human perfection and unlimited possibilities for humanity requires an overhaul. If the narrative of infinite possibilities for human growth in isolation from ecological relations continues, 'we' humans may end up destroying the playground of extraction 'we' have come to rely on. As Taylor (2020) puts it, for continued existence on a damaged planet, "we have to re-tool the orbit of *Bildung* to more inclusive, ecological and posthuman ends" (p.220). To do this, *Bildung* needs to be updated and reconceptualised. Incorporating Haraway's (2016) 'compostist' posthumanism into an understanding of *Bildung* provides a means of doing this. In connecting the concepts (of *Bildung* and posthumanism), I hope to have made the case why this is a worthy objective.

The main contributions of this research are as follows. First, by showcasing Humboldt's (1793) *'Theory of Bildung'* and Haraway's (2016) *'Staying with the Trouble',* I have aspired to convince readers of their value. Humboldt's (1793) *Bildung* reminds us of the educational importance of individuality in self-

formation and is particularly pertinent against today's 'measurement culture' in educational contexts. Haraway's (2016) 'compostist' posthumanism implores us to reconsider our being in relation to other species, plants, machines and materialities, and is apposite at a time of climate crisis and the COVID-19 pandemic. Second, the main conceptual argument (the 'method theory') recasts Humboldt's (1793) *Bildung* so that: individuality is understood as ecological relationality; the human mind and 'nature' 'become-with' one another in more dynamic interplay; holistic knowledge is revised to incorporate knowledges beyond 'Western' epistemologies. Third, this paper has argued that there is broad educational promise of a 'compostist' posthumanist *Bildung.* This new horizon for *Bildung* has the potential to shape our formation to be compatible with living on a damaged planet and to go some way to addressing the complex questions of our times. It is hoped that this conceptual groundwork may serve as a starting point for further research, for example, to translate theory into practice.

Acknowledgements

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