

11-1-2014

Toward a Posthuman Education

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Recommended Citation

Snaza, Nathan, Peter Appelbaum, Siân Bayne, Dennis Carlson, Marla Morris, Nikki Rotas, Jennifer Sandlin, Jason Wallin, John A. Weaver. 2014. "Toward a Posthuman Education." *Journal of Curriculum Theorizing*, 30 (2): 39-55.
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Toward a Posthumanist Education

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CONSCIOUSLY OR NOT, WE EDUCATORS AND EDUCATIONAL RESEARCHERS are used to looking at schools as places where humans dwell together to learn what it means to be human and to accumulate the kinds of skills and habits required to participate in human societies as adults. This occurs in spite of the fact that schools are connected with the nonhuman world in so many explicit and implicit ways. For example, in addition to the many humans

inhabiting various spaces and roles within schools, schools are also sites that contain: networks of wire and pipe linking the buildings' architecture to the subterranean infrastructures of cities and beyond that to the swirls of the oceans and global deposits of prehistoric dead organisms waiting to be mined and refined; dead nonhuman animals on plates in cafeterias, as well as on feet, human bodies, athletic equipment, and biology dissection trays; innumerable microorganisms, weeds, and insects colonizing every nook and cranny; pheromones and other less "natural" chemicals passing among hormone-addled adolescent humans and slightly less-hormonal adults; and stockpiles of books, computer equipment, office supplies, light bulbs, cleaning chemicals, historical records, sporting equipment, and cooking utensils. This partial list should be enough to demonstrate that anthropocentrism puts us at the center of the universe and the center of the conversation when, in fact, we are not the center of the universe. Indeed, we should not be the center of conversation.

Posthumanist discourse, which has been sending shockwaves through the humanities and social sciences, has yet to make its presence felt in educational studies, despite some notable attempts to gain traction (Bayne & Ross 2013; Edwards 2010; Lewis & Kahn, 2010; Pedersen 2010; Snaza, 2013; Wallin, 2010; Weaver, 2010). We think this oversight is unfortunate and offer this essay to begin to rectify the invisibility of posthumanism within curriculum studies and educational studies more generally. Ultimately, we believe that posthumanism can transform educational thought, practice, and research in three related ways. First, it forces us to reckon with how resolutely humanist almost all educational philosophy and research is. Second, it allows us to reframe education to focus on how we are always already related to animals, machines, and things within life in schools at the K-12 and university levels. Third, building on and incorporating these first two insights, it enables us to begin exploring new, posthumanist directions in research, curriculum design, and pedagogical practice.

We first present posthumanism as a challenge to a series of historical mutations giving rise to the assemblage called "humanism," which has circumscribed and defined "politics" in particular ways. Next, we provide a very brief sketch of posthumanism's emergence as a critical theory in the humanities and social sciences that interrogates the relations among the terms in the *cybernetic triangle* of human/animal/machine. We then trace the emergence of an *object-oriented ontology* (OOO) that moves beyond the cybernetic triangle toward a *flat ontology* that makes even most posthumanist theory look remarkably humanist. That is, as Bogost (2012) has noted, much posthumanist theory that focuses on machines or animals at least unconsciously preserves a focus on humans and human thought, but "an ontology is flat if it makes no distinction between types of things that exist but treats all equally" (p. 17). After detailing these directions in posthumanist scholarship in order to sketch its breadth and major concerns, we offer some ideas about how posthumanist thought requires us to reconfigure how we understand politics and "knowledge," reconfigurations that would send shockwaves through educational research and pedagogical practice by troubling the humanist concepts through which virtually all educational thought has been articulated.

We believe it is important to explicitly acknowledge Tuck and Gaztambide-Fernández's (2013) critique of settler futurity within curriculum studies, which may (rightly) be applicable to certain formulations of posthumanism. We suspect they would likely see our attempt to critique humanism and "replace" it with posthumanism as another example of settler colonialism within curriculum studies—as another Natty Bumppo move—wherein:

the future of the settler is ensured through the absorption of those aspects of Indigenous knowledge that ensure survival, only to justify erasure and subsequent replacement. At the same time, the settler comes to imagine himself as ‘Native’ by highlighting the ineptitude of Europeans when it comes to surviving in the frontier. (Tuck & Gaztambide-Fernández, 2013, p. 73)

We are not attempting to reclaim, erase, or replace Indigenous knowledge, nor do we believe we are “staking claim” within curriculum studies. We fully acknowledge that posthumanism is certainly not the first theoretical perspective to critique humanism and, in fact, see posthumanism as having allegiances with feminist and anticolonialist perspectives, particularly as these various perspectives align in the ways in which we outline later in this article. As one example, our critique of humanism is in direct alignment with Tuck and Gaztambide-Fernández’s (2013) critique of settler colonialism, in that both critiques resoundingly reject “the construction of non-white peoples as less than or not-quite civilized, an earlier expression of human civilization”; both critiques also reject the ideology that “makes whiteness and white subjectivity both superior and normal” (p. 74). We are forwarding *posthumanism* not as a new “discourse” per se, but rather we are forwarding posthumanism as a way of recognizing that a wide variety of seemingly disparate critical approaches (feminism, anticolonial and antiracist thought, technology studies, ecology, etc.) have a common ground in directly challenging the ways humanism has restricted politics and education. We do not aim to replace or reclaim anything, but rather we call attention to how these previously disparate theories have a particular common cause and that curriculum studies could benefit from *always* engaging with the “human” as problematic. In other words, we problematize all human/humanist-centric theories because previous critiques of humanism’s violence have functioned as what Sedgwick (1990, p. 85) calls “minoritizing” discourses—discourses that matter to some people (women, the formerly colonized, etc.) and can be easily dismissed or ignored by those with the privilege of not needing, wanting, or choosing to care. We believe posthumanism pushes intersectionality to the point where no one—no matter their field, interest, or position of power—can afford to ignore these critiques.

Posthumanism as Challenge to Humanist Politics

The human is a concept that has been used to delimit the borders of politics. For Aristotle, the human is the only “political animal.” For humanism, politics may come in many forms, but in order to be defined as or considered politics they must be limited to human subjects and interactions. During the Renaissance, a return to this ancient Greek thought gave rise to the educational institutionalization of thought that had been called *the humanities* in the preceding Middle Ages, which in turn enabled the emergence of *humanism* in the nineteenth century (Davies, 1997). Building on the Greeks’ dialectical production of *humanity* as a concept, the human’s social production was systematized in fields of study, traditionally associated with the liberal arts. One had to study the humanities in order to know what it means to be properly human. That is, a certain program of study (Latin, Greek, and the histories and literatures articulated in those languages) leads to a particular philosophico-political outlook called humanism, a partisan commitment to humanity and its cultural achievements. Up to the nineteenth century and its “secularized” version of humanism (which projects itself backwards,

reorganizing the Renaissance into the historical “Event” we recognize today), the human was understood to be not quite an animal (although it may have an animal condition of possibility) and not yet divine (although its reason is proof of divine intervention).

As the Renaissance gave way to the Enlightenment and its aftermath, humanism emerged as a properly secular logic. If God is a *deus absconditas*, then the meaning of life has to be found in *human* pursuits. Out of this nexus, which included the beginnings of Western colonialism and racial slavery, was born the idea that we must pursue becoming “fully human” (an idea[1] whose contents shifted fairly dramatically across different historical contexts and registers). In concert with an explosion of technological invention (including modern medicine), the dialectical borders of the human were slightly redrawn. As secular, modern, scientific capitalism decentered religious thought (an uneven and unfinished decentering to be sure), the pressure on the boundary with the divine was eased, and the human had to be more carefully distinguished from the animal and the machine (Descartes’s *Discourse on Method* is symptomatic of the shift, even as he retains a theistic frame of reference).

The necessity of this differentiation took on new and more pressing importance as the *rights of man* gained traction in the eighteenth century. For if one had rights simply by virtue of being human, then *not being recognized as human*—something that women, black slaves, and colonized natives faced with horrifying regularity—was enough to relegate these inhumans to the status of things, objects to be used by humans. Enlightenment thinkers like Rousseau and Kant returned to Plato to insist that the human is not simply a being that *is*, but something that some beings can *become* through education.

While no doubt overly schematic and almost violently truncated, this brief history allows us to see that the human is not self-evident. What it means to be human is constructed differently at different historical moments, by biology, philosophy, political theory, and educational institutions. While the human may seem to be an old, sure, stable idea—it definitely disseminates itself through such a dissimulation—its contingent, historical character is becoming increasingly clear as a rising tide of research we may call *posthumanist* erodes its fabricated borders from the animal, the machine, and the thing. While the human can be thought of as an object of biology—a “species”—it is much more importantly a *social* and *political* category, one that has accrued a wide-range of interconnected meanings, beginning in ancient Greek philosophy and undergoing important transformations in modernity. Posthumanism spurs to consider how politics in its restricted, humanist sense is incapable of conceptualizing the most pressing problems in today’s world of advanced neo-imperialist, globalized capitalism. As Wolfe (2012) has noted, we need a new political vocabulary that will open politics to nonhuman subjects, which also necessarily entails opening politics to those who have been considered “less than human” by modern imperialist states.

While the posthumanist literature is far from uniform, its central claim is that the human has been misconceived by nearly every thinker in the Western tradition (it is worth noting here that while posthumanism has, so far, functioned through a deconstruction of the Western tradition from within, it must also find ways of engaging non-Western and non-hegemonic ontologies and epistemologies that have conceptualized the human and its relations with other beings differently). Most Western thinkers consider the human to be unlike any other kind of being—although they have often taken pains to clarify this uniqueness through comparisons with animals, machines, “savages,” slaves, and so on. Posthumanist perspectives decry the humanist positioning of the non-white and non-Western as less than human. Posthumanist research also focuses on *continuities* between the human and non-human. For some posthumanists, this means

focusing on how cybernetics, biotechnologies, prosthetics, and computerized communications devices are re-shaping human cognition, embodied experience, and relations with the wider world. For others, this means interrogating the supposed differences between humans and other forms of “biological” life, especially animals, and particularly between human “language” and animal “communication.” Cary Wolfe’s enormously influential research (2010) links deconstruction and systems theory—the theoretical outgrowth of a long history of cybernetics research—to produce a theory of communication that is able to account for *any* communication or interaction, regardless of whether the actors are human, animal, or machinic. Some posthumanists are even trying to radically de-center the living organism, adopting an object-oriented ontology that treats every single thing—living or not—as ontologically singular. If, for a very long time, man has been the measure of all things (*anthropocentrism*), posthumanism is looking to account for things (indeed, everything, at least asymptotically) in a non-anthropocentric way. This “new” way of thinking, which is only new in the sense that it puts humans back into the thick ontological and political relations in which they have always already been networked, is going to necessitate wide-ranging and radical changes in how we conceive of educational practices and institutions. We may begin to pose the importance of this way of thinking by looking at how posthumanism is re-interpreting the cybernetic triangle of human/animal/machine. In the next section we first turn towards examining relationships between humans and machines, before turning our attention to an exploration of animal/human relationships.

The Entanglement of Humans and Technologies

Posthumanism—or, rather, *the posthuman*—is probably most familiar to educational scholars from studies of the intersection of the human and various kinds of machines, computers, and technologies (Foster, 2005; Halberstam & Livingston, 1995; Hayles, 1999). As Haraway’s enormously influential “A Cyborg Manifesto” (1985/1991) contends, we live in a world where the stable boundaries separating humans from animals and machines have already become “breached.” From this perspective, it makes no sense to pitch any epistemology or politics in relation to nature or the natural for the simple reason that it does not exist: the world is radically hybridized, contaminated, integrated. Haraway’s work has foregrounded how *S.F.* (an acronym that can mean Science Fiction as well as Speculative Feminism) provides new models for experimental politics, communities, and relations. Although she does not (in that essay) use the word posthumanism, her work is an important touchstone both for the discourse of posthumanist theory that arose in its wake, and for this text.

The word *posthuman* rose to prominence in the 1990s thanks to studies like Hayles’s (1999) *How We Became Posthuman*. Hayles traces two seemingly distinct traditions in Western scholarship and culture in the twentieth century¹ that fostered posthumanist thought: on the one hand, the international, interdisciplinary Macy Conferences on cybernetics where researchers gathered to explore the possibility of an account of communication which would hold valid for humans, animals, and machines (these conferences produced important experiments in robotics and artificial intelligence, as well as Systems Theory). The other tradition consisted of science fiction literature by writers such as P. K. Dick and William Burroughs, where authors described (fictional?) worlds in which no clear distinctions between human and machine are possible, and did this through experiments with moving away from humanist notions of authorship

(Burroughs, for example, recorded himself reading texts and then cut up and reassembled the tape randomly without being able to consciously control the text's content, form, or meaning). Building on these studies, posthumanist scholars (including Haraway and Hayles in later work) have focused on online environments, virtual realities, prosthetics, robotics, and even pharmacology. As often as not, the focus is on how such machinic hybridizations seek to “enhance” the human. Posthumanist curriculum theorist John Weaver (2010) even argues that the posthuman “implies the merging of humans and machines in order to enhance or improve human capabilities” (p. 11). Of course, such “enhancements”—perhaps better conceived as *transhumanist* rather than posthumanist—can also be viewed as dangerous, both politically and ontologically, since such technologies are often products of transnational corporations and their forays into military technologies.

Posthumanists argue that we have never been separate from machines and that notions of “humanness” could not be produced without machines (Pettman, 2011). We have always been technological. If you are a wounded war veteran from America's latest wars then you have become part of a war machine² that disassembled the subject, reshaped you, and sent you out to do battle in an efficient, disciplined, unrelenting, uncaring manner (Protevi, 2009). This is the kind of machine Foucault and others have called the *dispositif* or *apparatus*. When in battle you lose an arm or leg or both, you become a different machine. You become part of the hero industry, where military personnel lose their individuality, soul, and body parts, but receive cheap platitudes. After the parades, flag waving, and car magnets disappear from sight, the hero is put back together as a cyborg. You might receive a prosthetic arm that allows you to feel again or a prosthetic limb that allows you to run again (Haraway, 1985/1991; Wills, 1995). Because you are now (part) machine, you can live a life you dreamt up before you went to war. Assuming of course, that you will overcome or learn to cope with your psychological wounds. There is a neuro-pharmacological machine to help you with PTSD, too.

Young people enter primary schools and become instantly a part of the school as anthropological machine (Agamben, 2004; Lewis & Kahn, 2010). They learn quickly to be quiet, stand in line, and place their finger over their mouths when in a hallway—or they will be punished by having privileges taken away, which also means no opportunities for experimentation through play. This machine demands a price from all young people. They become machines for the Educational Testing Services, future workers ready to play their part as money makers, and consumers patriotically saving the economy from recession, buying up anything just to rev up the engine we call an economy. If you are unable to fulfill your mechanical duties, the pharmaceutical machine will come to your rescue. Pills will allow you to do more than you thought possible. This machinic plugging in may cause a loss of appetite, listlessness, even thoughts of suicide but do not worry: the machine has many pills for you; one type is rarely enough.

However, before settling too deeply into a condemnation of this posthuman condition as a dystopian nightmare where corporations re-wire our bodies at the most intimate level, we should remember Haraway's admonishment to *celebrate* and *affirm* the blurred boundary between the natural and the “artificial.” Indeed, Hayles (1999) ends *How We Became Posthuman* by noting that the issue is not whether we will become posthuman or not (it has already happened), but the political question of *which* posthuman we will become. She writes that “[a]lthough some current versions of the posthuman point toward the antihuman and the apocalyptic, we can craft others that will be conducive to the long-range survival of humans and other life-forms, biological and artificial, with whom we share the planet and ourselves” (1999, p. 291). In order to approach

these “other” posthuman possibilities, we have to examine how posthumanism is reconfiguring relations within the cybernetic triangle. Towards this end, we now turn our attention to how posthumanism addresses animal/human relations.

Animality and Curriculum Studies

So-called “civilization” (which has often been little but a cover for imperialist domination) has sought to erase and tame the human’s animality; the humanist project places civilization at the pinnacle of evolution and thus sees civilization as inherently better than wildness or animality. Posthumanist discourse, however, questions the otherwise taken-for-granted “good” of civilization; in posthumanist discourse we are not human “beings” but human “animals,” or even *humanimalmachines* (Pettman, 2011). Affirming our own animality, we can begin to think about our inter-relations with other-than-human animals differently. Humans are like other-than-human animals in their animality, but humans are not the “same” as any other animals, since no two animals are, in fact, alike (Wolfe, 2010).³ Like Darwin in the nineteenth century, Marc Bekoff (2010) and other ethologists claim that other-than-human animals have emotions, culture, perhaps even language (Fontenay, 2012). These are not signs of human uniqueness and difference, but rather sites of connection. And yet, humans are not wild but rather “civilized” animals. Or, more specifically still, humanimals *become* civilized through schooling—or at least, that is the goal/hope of schooling, both historically and today (Lewis & Kahn, 2010; Tuck & Gaztambide-Fernández, 2013).

Schooling (among other technologies) attempts to tame our wild animal impulses early on, preparing the way for us to spend long hours in confined spaces, sitting at desks, excreting only in proscribed and gendered facilities during breaks, using technologies of inscription to textualize ideas and manipulate symbols, training our attentions away from the body and toward forms of “rational” thought. Freud (1930/1961) intimated the problems with these (attempts at) tamings when he wrote *Civilization and its Discontents* in the 1930s: We are discontented because we have lost our sense of animality. The need to be civilized has ruined us. It has made us what Michael Eigen (2003) calls “dream killers.” This taming civilization is propagated in schools where we learn a whole host of humanist ideas about human exceptionalism (in biology, social studies, languages, etc.) while learning to ignore both the ways some humans are treated as “more human” than others (which then justifies some humans waging all sorts of horrors against other humans) and also the concrete ways that humans and other animals actually relate in schools: dissections in biology class, eating dead animals and the byproducts of their killing in cafeterias and hallways, wearing animals on our feet, tossing balls made from their skins in gym class. Schools systematically teach us that animals are so unlike us that we can do whatever we want with them without worry.

In his 1974 essay, “What is it like to be a bat?,” Thomas Nagel proposes that we do not know. Not only do we not understand other creatures but we also do not understand each other. Indeed, from psychoanalysis we have even learned that we can never understand our “selves.” We think this agnosticism provides an important counterweight to the emphasis in schools on knowing the answer. When education is reduced to the stockpiling of facts and abstracted exercises in “basic skills,” we fail to foreground one of the most important reasons to educate the young in the first place: our world is plagued (or animated!) by innumerable problems for which we do not yet have answers. Nagel and other philosophers (Calarco, 2008) would push toward an

agnostic approach to knowledge and ethics. Building on an interview in which Immanuel Levinas acknowledges that he is not sure whether or not a snake might have a “face” (the *sine qua non* of Levinasian ethics), Calarco (2008) seeks ethical actions that do not “close the door on the question of where face begins and ends and the various ways in which an ethical interruption might take place” (p. 74). In other words, we cannot set up *any* prescriptive ethics in advance of concrete, entangled encounters. We believe this opens up some interesting possibilities. Mark Rowlands (2009) lived with a wild animal, a wolf, forcing us to ask: Can human animals understand wild other-than-human animals? Or, even more interestingly, does this open up ways of living-with that do not require “understanding” (what Haraway has called *sympoeisis* or *becoming-with*)? We think curriculum studies must ask what such lived relations might mean for *learning*: Rowlands claims that he learned more from the wolf Brenin than from his education at Oxford. Curriculum studies needs more attention to cross-species communication, and we can start this work with our own companion animals like dogs (Haraway, 2008), or by thinking about the animals present in schools (Pedersen, 2009). As we do so, we must also remember that we are animals and no hard and fast ethical/political/ontological line can be drawn between “us” and “them.” We must push ourselves not to think in an anthropocentric, speciesist manner (Wolfe, 2003; 2012).

Anthropocentric politics are concretized in the notion of *dominion*, which allows humans to view animals and the environment as objects given by God for humans to do with as they wish (Smith, 2011). Dominion also undergirds the logic of colonialism as the paternalistic civilization of indigenous peoples. It authorizes the slaughter of billions of animals and transforms agriculture into agribusiness with its attendant uses of monocultural farming, genetic modification of seeds, and ubiquitous herbi- and pesticides. Dominion props up the humanist fantasy that we are a separate (and special) species. Thinking about ourselves as a distinct species is, as Pettman (2011) demonstrates, impossible without the mediation of machines and animals. Thus, the terms in the cybernetic triangle are not the dialectical opposites humanism has pitched them to be; rather, they are connected in the most intimate ways. And yet, the most recent research in posthumanism suggests that tinkering with this triangle may still be too conservative, since focusing on the cybernetic triangle of human/animal/machine still preserves a decentered focus on the human. What might happen if a viewpoint on the world could be elaborated that would not situate all things *in relation to* humans? This is the problem that object-oriented ontology pursues.

Beyond the Cybernetic Triangle: Wondering About the Ontology of Things

Where the limits of posthuman thought remain requisite upon the role of the *human* as an albeit displaced actor in human-machine or human-animal assemblages, it might be said that posthumanism is not *posthuman enough*, or rather, is radically incapable of thinking realities beyond human access. In part, this claim might be extended to a problem identified by the speculative realist Quentin Meillassoux (2010) who argues that the Kantian tradition of correlationism continues today as a conservative and anthropocentric limit point in philosophical thought. In short, correlationism purports that the world exists via the *correlation* of thinking and being and, hence, that the world exists only insofar as it exists *for humans*. In educational thought, correlationism is evident in the privileged place given to epistemology (*what knowledge is of most worth?*) as the presumed battleground over social reality. Even further, the

anthropocentric conceit of correlationism extends to metaphors of the “gendered” earth, the reduction of posthumanism to *inter-species* relations (where the human comprises the role of primary agent), and the image of the posthuman (cyborgs, vampires, human-animals) insofar as these figures continue to rely up on the image of the human as a sufficient ground for thinking difference. What status within posthuman thought, speculative realist Graham Harman (2012) asks, should then be afforded to slime molds, crystals, rivers, and other non-animal assemblages? Do these things not *matter* as much for their ostensible lack of vitality, will, receptiveness to human transference, or the projection of human emotions and motivations? Here, speculative realism inaugurates a crucial about-face of posthuman thought. As Eugene Thacker’s (2011) anti-humanist philosophy purports, it is ethically insufficient that we should continue to think the world *as it is or means for us*. As emerging data throughout the sciences purport (Colebrook, 2010), the anthropocene has *already* eclipsed its tipping point into catastrophe. In light of this, what remains to be thought is the prospect of a *planet* (since the “Earth” is a anthropocentric designation for “grounding” thought) *without us*. Here, new fidelities of thought and modes of non-philosophy extensive of horror (H. P. Lovecraft), extreme art [SUNN O))), and new materialist ecologies (Braidotti, 2013; Morton, 2012) may prove more adequate for contending with Thacker’s (2011) *black ecology*—where “black” suggests neither death nor evil, but a kind of cosmic pessimism capable of dilating what life-forms might be ontologically accounted for while leveling the importance of the human above other *things*.

It is here that ecological posthumanist thought enters into fidelity with the emerging philosophical area known as object-oriented ontology (Morton, 2012) and affirmative eco-philosophy (Braidotti, 2013). As it is more commonly known, OOO begins with an ontological leveling: *everything is an object* and further, *all objects are “ecologies” of machinic relations*. Humans, ticks, slime molds, and rocks are *objects*, capable of constituting unique ecological relations irreducible to qualities ascribed to them in advance. Extending Deleuze (1988), OOO maintains that relations are independent of pre-formed identities. That is, we can only know things by the relations into which they enter, by the contacts they forge, and effects they are able to produce. To put this in another way, we cannot predetermine or know beforehand what will materialize from the relations entered into, nor can we predetermine the relations that *will be* entered into (this is an emergent praxis that is similar to Haraway’s [2008] notion of becoming-with). However, an emergent ethics and/or accountability for what is produced is necessary. Such a re-orientation would thus not rely on theories and methodologies already constructed, but rather would curiously pursue the affective intensities of what bodies or things could do in the act of becoming-with; that is, in the act before thought.

Eschewing the overabundance of analytic work born from a romance with post-structuralism’s linguistic turn and the hermeneutic cheating of critical discourses that presume to always-already know what things mean, OOO asks *what objects do* or might be capable of doing beyond our ability to think them, an asymptotically impossible questioning, but a necessary one. This is not only to take seriously Spinoza’s *immanent ethics* (we do not yet know what a body can do), but further, to realize that *things* have relations to one another independent of human thought and perception. Drawing from the philosophical work of Deleuze (1988), OOO marks a renewed ethico-ecological commitment to *geophilosophy* (the construal of a new Earth divorced from the transcendent ideals of anthropocentrism) while advancing the image of a new or ungrounded earth teeming with ecologies of relation *prior* to their presumed enlivenment by human thought. This shift in thinking entails a dis-orientation of the human and its relations; it

also involves an affirmative and affective dimension that is expressed as a generative force of relations that is not solely produced by the human body as we “know” it.⁴

Toward a Posthumanist Politics as a Possible Horizon for Curriculum Theory

Re-valuating the meaning of the human in relation to technologies, animals, and objects is, for us, inseparable from rethinking the concepts we use to understand how things—living and nonliving—relate, especially politics and knowledge. Bearing traces of Haraway’s work in her latest book *The Posthuman*, Braidotti’s (2013) stance is simultaneously embodied and embedded in the very mundane practices of life, and in the historical conditions and places that bodies inhabit. Subjectivity is not lost as a result of the posthumanist project, nor is there the presence of a “lacking subject” or unified one (Deleuze & Guattari, 1977). From this feminist lens, posthuman subjectivity reconfigures identities and humanistic practices in ways that produce new subjectivities and ways of doing things that have yet to be coded into heteronormative and/or disciplinary models (Braidotti, 2013). Such a proposition, Braidotti (2013) admits, calls for a “conceptual earthquake” that is shocking the field of the humanities. The humanist project, which is also the Enlightenment project, has been undermined by deep contradictions, all of which are related to governing binary oppositions (human-animal; human-machine; living-nonliving) and the power relationships constituted out of these oppositions. Because the humanist project was/is both Eurocentric and racist, non-European peoples were/are dehumanized and relegated to the status of animals, or at best half-human and half-animal, lower developmentally than fully human Europeans. In the United States, the genocide and forced relocation of indigenous peoples and the dehumanization of African Americans through slavery and in the Jim Crow era reached an oppressive extreme. Patriarchal or male supremacist logics achieved analogous forms of dehumanization of women, turning them into “objects” of trade, desire, and consumption. Such violence, made possible by “dehumanization,” continues unabated into the present. Posthumanism is, first of all, about realizing the democratic possibilities and limits of humanism in a new globalized age, in relation to global interactions between former colonial masters and subjects, and between gendered subjects (no longer reducible to two neat types).

The deconstruction of the Eurocentric binary that constitutes Europeans (or in America, whites) as human, whose human rights must be affirmed and protected, from indigenous and former colonial subjects who are represented as less-than-human and thus un-deserving of human rights, must be of the highest priority in any radical democratic public education today. As Haraway (2008) argues, “the discursive tie between the colonized, the enslaved, the noncitizen, and the animal—all reduced to type, all Others to rational man, and all essential to his bright constitution—is at the heart of racism and flourishes, lethally, in the entrails of humanism” (p. 18). If European and white subjects are not able to transcend this historic cultural binary, with its corresponding power relations, then the West (or more accurately now, the North) will continue to be embroiled in imperialistic military actions against “Third World” peoples and governments throughout the foreseeable future, opening new lands and labor for exploitation within the new global capitalism. It is all too easy to torture suspected terrorists and kill men, women, and children indiscriminately in drone attacks or in “Shock and Awe” campaigns as in Iraq, when the people to whom this is done are de-humanized.

Posthumanism allies itself with the politico-pedagogical projects of feminism, postcolonialism, anti-racism, and queer activism as it confronts the systematic dehumanization of people under the hegemonic Western form of political right. And yet, as long as the border of politics is drawn around the human, the virtual or structural possibility of dehumanization remains: it is all too easy for states (and, increasingly, non-state actors on the global stage) to declare some of us “inhuman” or less than human. Therefore, a deconstruction of the reigning human-animal binary opposition must reposition humans as animals, that is, back in the animal world, as part of an ecological web of life. We believe that the battle to transcend our current cultural mindsets and power relations, to save the planet and ourselves, must involve a movement to deconstruct the very category of the human. Even if we were to extend human rights to all humans on the globe, we may still do so in a way that separates humans from animals, as if these were two mutually excluding categories. Humans have known since Darwin that we are animals, even if this human-animal binary is still very deeply embedded in our consciousness and linked to religious beliefs. Now that binary opposition threatens to destroy us all in an ecological nightmare, for it not only allows for the exploitation and destruction of animals, it also sets humans off against nature itself, as something just waiting to be mined and exploited without regard for sustainability or the quality of life on the planet. This, too, is a logical outgrowth of a capitalist mode of mass production and consumption. While we all believe that education is inescapably political, this axiom cannot be limited to understanding it as such in simply humanist terms. Indeed, we believe that posthumanism forces us to wonder at how narrow our entire conception of politics is.

Writing about the relations between critiques of specieism and critiques of racism—relations that have not been given nearly enough attention by scholars—Seshadri (2012) writes that “perhaps it is time we acknowledge that we cannot do anything at all about the appalling ways human beings treat other human beings or animals without rethinking and renewing our norms, presuppositions, platitudes, and morals with regard to life and what is living” (p. 11). Building on such an insight, Snaza (2013) argues:

feminism, anti-racist, and postcolonial studies on the one hand and posthumanism on the other must supplement each other. The former provide powerful critiques of the historical complexities of dehumanization without offering a theoretical account of how these realities derive from a structural problem with the “human,” while the latter is too focused on the present moment to realize that the political importance of posthumanism’s reconceptualization of “the human” is most clear in relation to the history of dehumanization. (p. 48)

Although there remain a number of problems with a simple suturing of posthumanism and the critical projects of postcolonial, feminist, queer, indigenous, antiracist, and disability studies, recent studies by Seshadri (2012) and Chen (2012) go a considerable distance toward demonstrating why concern with racism, sexism, ableism, and heteronormativity can no longer afford to ignore the troubled (and troubling) boundaries that are policed between human and nonhuman, living and nonliving.

What posthumanism holds open is the possibility of political forms that are not narrowly restricted to humans and which will include animals, machines, and things on equal footing with respect to politics (see, for example, Latour, 2004). We have no illusions about this: trying to formulate a non-anthropocentric politics is a task of Sisyphean magnitudes, and it will require us

to rid ourselves of some of our most persistent and unconscious beliefs and biases. It is also vitally necessary to ensure the continued existence of the planet. This new politics will undoubtedly require not just new knowledge but engaging in political interactions that produce new ways of thinking about what knowledge, or perhaps more accurately *meaning*, is. Indeed, we believe that there is no actual separation between meaning and politics: the one is always already recursively bound to the other. We believe that we should also question the “we” who is posing questions and proposing a new politics (Braidotti, 2013). Curriculum studies must return to its emphasis on democratic forms of being-together in learning without insisting on human exceptionalism. By doing so, curriculum studies hopes to then become the most politically and conceptually radical field of intellectual labor in the posthumanist landscape.

Posthumanism, the Posthumanities, and Mutations of Thought

As discussed above, knowledge is a concept fundamental to humanism. It is an enactment of an embodied metaphor, and any use of the concept presupposes an embodied knower who collects data via forms of perception. Some readers of Plato define knowledge as “justified belief,” another version of a human being “knowing,” in this case believing. In the words of Evelyn Fox Keller (2009), “Both what counts as knowledge and what we mean by knowing depend on the kinds of data we are able to acquire, on the ways in which those data are gathered, and on the forms in which they are represented” (p. 199). Knowledge might be contrasted with “information,” which would refer to disembodied stuff that is not known in the sense of being owned by a body who has come to know via analysis of data (Hayles, 1999). For Donna Haraway (1988), knowledge is both highly local, in a particular situation that a body finds itself in, and simultaneously, a gaze from nowhere, a god-like vision of what is known by a knower in that situation. In Islam, The Knowing (*al-‘Alīm*) is one of the 99 names for distinct attributes of God. Knowledge seems in these senses to be a result of inserting a bodied perspective into the world in order to generate a system consistent with the position of that body in that world, in other words establishing a dichotomy of domination by that body and non-universal, relative (and hence lacking dominant authority) knowledges (plural) associated with specific positions. Posthumanism might need to undo rather than replace knowledge with a *conceptual creativity* that potentializes a new vocabulary that invites complexity and the chance for change (Braidotti, 2013). As Keller (2009) notes, there have been significant shifts in the ways that people come to know things and in the ways that we recognize knowing in particular contexts. The transition to the post-human might be a symptom of such changes, making visible to our bodied senses the fact that our knowledge is reliant on the ways that we insert ourselves into our worlds and the ways that we take data into ourselves. “Usually... we become aware of this dependence only in times of change, when new techniques noticeably alter our styles of knowing” (2009, p. 199), she writes.

However, to make such a statement presumes a “before” and a “now” or a “future” in which humans become posthuman, that is, new kinds of species, whereas it might simply be that our epistemologies have changed from placing ourselves in the center of our universes and how we interact with them (*humanism*) toward a recognition of the hubris and absurdity of such a human-centric presumption (the post-human?). The latter would have to accept that knowledge is a description of our very human embodied action in our lifeworlds despite the egocentric ramifications of such ways of being “very human.” The question then becomes, can our knowing

be accomplished in ways that do not overlay a humanist patina on top of a world that our own limitations of perception deny us from experiencing? Knowledge would, in this sense, be one of the categories of limitation critical to humanism, as understood from a posthumanist perspective, and, at the same time, a label placed on forms of manipulation of sense data and information that humans perform as they go about their practices of being human, as understood from a perspective that is witnessing the evolution of a new kind of human being, the post-human-being. We can have no knowledge of this new being, since knowledge and the human are mutually constitutive. We have to pursue, instead, the task of wondering about the meaning of ourselves (no longer understood as humans) in relation to myriad other entities in the thick relations of being-with. As we pursue this task, we have to look beyond and outside of dominant Western European philosophies of knowledge to the indigenous, non-Western (non-Northern), non-white, non-masculinist, non-humanist, non-hegemonic ontologies and epistemologies that Western humanism has systematically attacked. We must remember that Western humanism has achieved global dominance through relations of force, and that there have been innumerable *other* ways of thinking about the beings that we “are” and our relations with other beings—living and not. Posthumanist curriculum theory has to find ways of situating its work outside of the dominant Western frameworks within which it has emerged.

Posthumanist education needs to take into account the critical differences between contexts in which knowing occurs and relativity, which would be a comparison of the various potential forms of knowing that might occur in specific contexts. Meaning would replace knowing for education since meaning, understood as the interactions among patterns of information creation and the randomness of unperceived patterns, has implications for action, choice, and social/cultural life in physical environments that are transformed by human “knowing.” Only humans know; everything is imbricated in meaning (Bogost, 2012).

We call on everyone—and everything!—implicated in the anthropological machine of education to begin experimenting with forms of thinking, teaching, learning, and interacting that seek to create distance between us and humanism. We do not think this will be easy, nor do we have much hope for any sudden, radical departure. Rather, we believe posthumanism requires us to re-orient ourselves *elsewhere*, and begin, today, looking at ways that education can mobilize the possibilities of this elsewhere toward the formation of a global political network that is, to put this colloquially, far less fucked up than the one we inhabit at present.

Conclusions?

We call on curriculum scholars to explore experimental pedagogical and institutional practices that displace and dispose of humanness as their presumed ground or anticipated outcome. In order for this to transpire, we must also move from a theoretical critique of knowledge as a symptomatic foreclosure of non- or inhuman relations of *meaning* toward articulations of what we might call, for lack of a better term, new research methods. The “methods” of curriculum studies—like the methods in every existing institution disciplining thought—presume the human. That is, we tend to practice forms of inquiry and interpretation developed by the humanities or social sciences. This is an enormous problem, one that we cannot sketch in detail here, but we have already hinted at its major stakes: the ways such methods rely upon distinctions between knowing subjects and “known” objects. Posthumanist thought must abandon this distinction. We need to think about how meaning is generated *among* subjects

(although this word will have become untrustworthy). The work of Isabelle Stengers (1997; 2010)—a thinker who sits uneasily at the intersection of science studies, the history of science, and posthumanism—provides a way of imagining what this could mean. She is suspicious of fields that pretend to be science by displaying a multitude of props (lab coats, clip boards, graphs, technical latinized vocabularies, laboratory spaces, etc.). What makes a science a “science,” for Stengers, is that it seeks ways to let its “object” speak, or become a subject. The “what” of the study must be able to participate, to *surprise* the researcher. When a researcher decides in advance what will be taken into account and how the “findings” will be presented, surprise is impossible. All that can happen is “confirmation” or “disconfirmation.” The system is entirely closed. We need an open science, a science that is not afraid of remembering the cultural-political-historical construction of science within humanist networks, a science that will go beyond science as we know it toward helping us think the *meaning* of the disavowed relations in which we are always already entangled. These relations involve humans, animals, machines, and things. Curriculum studies, like other humanist forms of intellectual labor, has long been anthropocentric. While we cannot offer any specific vision of what a new posthumanist curriculum studies will *do*, we are at the dead end of humanism, and now, together, we have to burrow in other directions.

Notes

¹It is difficult, given current scholarship, to define posthumanism except in relation to the Western, modern philosophies and knowledges that have driven the field thus far. But rather than offer simply more deconstruction of Western thought from within, posthumanist curriculum theory has to engage what Paraskeva (2011) calls *the struggle against epistemicides* that seeks nonhegemonic epistemological (and ontological) grounding (see also Grande, 2007; Pierotti, 2011). As Evans (2012) argues, “indigenous spirituality offers many examples of ontologies that recognize the holistic circle of life in which every thing and every being is related to every other thing and being” (p. 153). She also notes that “similar to indigenous, place-centered ontologies, Buddhist traditions emphasize the interconnectedness of all beings and respectful relationship to nature” (2012, p. 159). Drawing on “African-based cosmological systems,” Alexander’s (2005) notion of *pedagogies of crossing* anticipates much of what posthumanist and new materialist curriculum theory has to register: “It is...living matter that links us to each other, making that which is individual simultaneously collective” (p. 326).

²This phrase does *not* refer to this concept in the thought of Deleuze and Guattari’s (1987) *A Thousand Plateaus*. In fact, what we propose as a posthumanist politics is precisely the “war machine” Deleuze and Guattari conceptualize as a force ontologically outside of and opposed to the state and its bloody—and increasingly posthuman—violence.

³This politics of the same plays out in intrahuman politics as well, where modern imperialist states have constructed “the intermediate category between animal and human” (Gilroy, 1995, p. 55) to deny the “humanness” of women and non-white, indigenous, poor, GLBTQ and other persons. For an overview of how such dehumanization or objectification has been addressed by feminist, Marxist, anti-racist, postcolonial, queer, and disability theories, see Chen (2012, pp. 42-50). We return to this point below.

⁴The weird fiction of Ambrose Bierce, Algernon Blackwood, Frank Belknap Long, Fritz Leibner, and H. P. Lovecraft have constituted in Speculative Realism and New Materialist writing a non-philosophical fulcrum for thinking a more-than-human world, or rather, of *inhuman* worlds distinct from anthropocentric and anthropomorphic thought (Thacker, 2012).

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