Posthumanism in Practice

Unlearning to Be Human?

13

Unlearning to be human? The pedagogical implications of twenty-first-century post-anthropocentrism

Stefan Herbrechter

Education needs to change, of that almost everybody is certain. Daniel Cottom's assessment of the situation in 2003 rings even more true today:

> It is astonishing how stupid education can make people. . . . To most people the very idea of education connotes a bettering of the self distinct from any possible acquisition of skills. . . . It is no wonder that people should think in this way, for they have been taught to do so by sappy movies, college catalogues, and devoted teachers and parents, not to mention centuries of humanist propaganda. (Cottom 2003: 2; 18)

noindent

Under the impact of a global pandemic, politicians, policy makers, educationalists, parents and children are realizing that educational systems were ill-prepared for such adverse conditions. However, the discussion quickly got side-tracked into a blame game about lacking investment and inadequate teacher training, bad technical equipment and obsolete humanist values and standards. If anyone mounted a half-hearted critique of and resistance to calls for more digitalization, blended learning, flipped classrooms, Zoom teaching and so on, it was mainly stubborn liberal humanists with an ingrained technophobia. Basically, the current war about '*Bildung*' is being waged mainly over form, or technical media and much less over content, one might say. Is distance learning able to

replace analogue human-to-human and face-to-face interaction in a classroom? Should robots replace teachers (Selwyn 2019)? How much technology is good for pedagogy? These are the questions currently exercising invested citizens and governments.

Posthumanist education, in this context, is usually associated with a techno-euphoric approach, embracing technological possibilities and promises of enhancement, networking, distributed cognition and participatory (media) culture. Henry Jenkins's report on digital media and learning was an early case in point, even though it did not specifically engage with posthumanism at the time (Jenkins 2009). It was strongly emphasizing the opportunities of participatory (media) culture afforded by digital and social media and thus equipping students with the necessary media literacies, cultural competencies and social skills 'for full involvement' (Jenkins 2009: xiii). The potential benefits of this shift included 'opportunities for peer-to-peer learning' (sometimes also referred to as 'peeragogy'), 'a changed attitude toward intellectual property, the diversification of cultural expression, the development of skills valued in the modern workplace, and a more empowered conception of citizenship' (Jenkins 2009: xii). The emphasis was on an 'ecological approach, thinking about the interrelationship among different communication technologies, the cultural communities that grow up around them, and the activities they support' (Jenkins 2009: 7) that would enable participants to understand themselves as 'produsers' rather than media consumers. Games and simulations, sampling and remixing, multitasking, using distributed intelligence and awareness of the affordances of technical media and media platforms – would all require 'multimodality' (Jenkins 2009: 88) and 'transmedia navigation' awareness, so much so that one might speak of a general shift or 'disruption' (Van Mourik Broekman et al. 2015). Even though this is just one, if prominent, example, digitalization by and large works well with a utilitarian technological drive towards adapting students' abilities to changed media-technological needs. It usually involves an extension or revision of the arch-humanist notion of 'literacy' to new domains opened up by technological change and economic requirements – a revised adaptation process of the future workforce to new socio-economic conditions based on new technological 'possibilities'. In

that sense, this kind of digital agenda forms a continuation of modern educational policy based on a renewed alliance between the liberal subject now future-proofed for a transhumanist future.

Posthumanism, as I would argue, lies entirely elsewhere. Technology, in the discussion about how humanist education should be, is a red herring. It is not, at least not predominantly, about cyborgs (1990s), data and algorithms (2000s), digital, social and open media (2010s) or artificial intelligence (2020s). These media-technological developments are without doubt important. And they rarely fail to captivate – money, attention, headlines. Posthumanism, at least in its 'critical' variety, however, is about the place of the human on this planet, human responsibility and the relation to non-human others. It is about ecology, ethics and politics. It is about constructions of the future and genealogies of the past. It is about a changing world picture, away from centuries of humanist anthropocentrism and towards multi-species social justice (Haraway 2008). It is about new answers to an old question: what does it mean to be human? Have we ever been human? Will we ever be? Should we be? How does one learn to be (a) human? Or should one rather unlearn to be just that?

Education has always been key to humanism and thus it is no surprise that it should continue to be so for posthumanism is understood as the contemporary critique of humanism. Humanism, as Michael Bonnett writes, is 'that broad perspective that assigns to human beings a special place in the greater scheme of things, setting their nature and interests at the centre of study and policy' (Bonnett 2003: 707). It is based on Enlightenment values, following Kant, that connects humanness with a process of progressive liberation from self-incurred tutelage through reason with the aim of producing an elevation above nature through cultural and scientific achievements. This same system of values expresses itself in modern, rational and colonial domination, conquest, exploitation and extraction of natural resources, including indigenous populations and non-human others. Humanism, thus understood, is from its beginning a pedagogical process positing, and addressed to, a very specific form of 'liberal humanist subjectivity'. It is a subjectivity in tune with

the self-perception of an individual who learns to embody certain (gendered, racial, national, social . . .) identities that modern societies 'construct' and privilege or set as normative and thus as worth aspiring to. The 'decentring' of this liberal humanist subject was begun in earnest in the second half of the twentieth century by theoretical and philosophical formations like poststructuralism, postmodernism and deconstruction. This decenting continues today due to the emergence of posthumanism and post-anthropocentrism under radically new technological, ecological and social conditions and due to new global challenges like climate change, depletion of natural resources, loss of biodiversity and extinction threats. These developments are all signs that humanism 'as a guide to human being' and as a 'basis for education' is no longer adequate as an explanation of how we (humans) 'should be in the world' (Bonnett 2003: 707). One could say that humanism fails humans (and non-humans) in the classroom by establishing hierarchies and exclusions: it claims to teach humans to become (more) human by embodying a universalist ideal which it claims is shared by all humans and which differentiates them or makes them unique and exceptional to other (non-human) animals and machines. This universal norm which it also sees as human 'nature' or its 'essence' (and which is thus at its core timeless and self-evidently 'true') is nevertheless clearly historically locatable and culturally specific – it is a 'Western', more specifically 'European', ideal based on a canon of philosophical, literary and artistic works, Enlightenment values, modern science and rationalism, and liberal bourgeois capitalism extended through colonialism, imperialism and globalization. Minorities, including women and non-white and indigenous populations, have only recently gained some 'access' to this 'timeless' community of planetary 'humanity'. The most problematic humanist feature, however, is that it is based on the necessary exclusion of non-human others, especially non-human animals, which should be treated 'humanely' but are nevertheless radically different and inferior in value, which always leaves open the possibility for 'animalizing' certain humans and treating them as 'lesser' or 'deficient' and legitimating either their 'education' and 'cultivation' (i.e. colonialism) or repression (i.e. racism, slavery, genocide). Ultimately, humanism is based on an

appropriative notion of 'nature' in contradistinction to 'culture', which is supposed to keep it in check and which legitimates its exploitation by humans.

In this sense, posthumanist education must begin with a questioning of, and a challenge to, the quasi-monopoly humanism has been exercising over education. And from that vantage point, it is therefore often, wrongly in my view, equated with 'posteducation', or with an attack on education as such. William Spanos's *The End of Education: Toward Posthumanism* (1993) must be one of the first texts to acknowledge this tendency. Spanos describes the 'shattering' of the humanist curriculum by the protest movement of the 1960s and the 'complicity of truth and power, of knowledge production and the dominant sociopolitical order' exposed by the Vietnam War and the subsequent calling into question of the 'discourse of disinterestedness' by theoretical discourses that have come to be called 'postmodern' or 'poststructuralist', but which he prefers to call 'posthumanist' (Spanos 1993: xiv). Spanos returned to his argument in a long article in 2015 pointing towards the 'dehumanizing work' of the 'global free market' and the neoliberalization of the university together with the threats this poses to the survival of the humanities (Spanos 2015: 37).

The same threat of 'dehumanization' also exercised John Knight in his intervention to a volume entitled *After Postmodernism* (1995). However, Knight argues that 'to equate mass schooling with a humanistic education is almost certainly to commit an oxymoron' (Knight 1995: 24). Knight, like many at the time, and in fact ever since, laments that (humanistic) education 'is replaced by the (re)production of flexible human units of production/consumption' – a 'disappearance of the (human-educational) referent' that he names 'posthuman' (Knight 1995: 24). While traditional humanism and (postmodern or poststructuralist) anti-humanism still depend on a previous knowledge of humanism, what Knight understands as 'posthumanism' is a (Baudrillardian) 'simulacra', or 'posteducation' (1995: 27) that fully embraces the '(post)ethos of the universal market and its (de)valuing of the individual to the status of commodity' without any place for 'human emancipation' and 'very little place for the human' (Knight 1995: 31). It is probably true to

say that Knight's perception has become the central tenet of the critique of posthumanism as a theoretical discourse colluding in the neoliberalization and globalization of education. And to a certain extent I would agree that this is in fact so, if posthumanism is understood, as it very often is, as 'technocentric'. As Knight explains: 'The availability of technologies (the metaphor itself is significant) for transforming schooling intersects with the need for flexible and multiskilled workers for a (presumed – this is an item of faith) post-Fordist situation in industry and with presses for economies in the public services' (1995: 32). The 'posthuman world' envisaged by 'emergent corporatist forms of posteducation' (Knight 1995: 33) that Knight foresaw has indeed led to a certain 'dehumanization' but not necessarily in the 'apocalyptic' way Knight and many others believed. What has in fact disappeared in the process is the ideal addressee of a 'humanistic' education, as well as the consensus about the universal reach of humanism as a discourse and political and ethical value system. And this is not an entirely bad thing at all.

Around the same time, other voices, like that of Gert Biesta, saw the legacy of poststructuralist anti-humanism much more favourably, namely as an opportunity for a 'pedagogy without humanism' (Biesta 1998). The focus was on the social interaction or 'transaction' at work in pedagogical settings and the critique of the 'asymmetry' this usually presupposed, that is, between the subject-supposed-to-know and the subject to knowledge. Largely following Foucault, Biesta saw the intersubjective transaction and the subject formation through interpellation or 'positioning', and thus the 'production' of the individual, as the result of 'power exercised over bodies, multiplicities, movements, desires, forces' (Biesta 1998: 7). Biesta's search for a pedagogy 'without humanism', like Foucault's earlier critique of humanism, is not so much an attack on subjectivation as such but is rather aimed at the ideological obfuscation that seeks to disguise pedagogical transaction through a metaphysical world picture and its values which are standing in the way of 'true' emancipation and freedom. It is precisely in confusing education with humanization, for example, that one prevents a questioning of what it actually means to be 'human' and a challenging of anthropocentrism, or as Biesta provocatively asks: 'Who designs the entrance exam for humanity?' (Biesta 1998: 11). There is

no fixed 'norm of what it is to be human' and thus pedagogy can and should not offer any 'anthropological comfort' (Biesta 1998: 32). At the same time, however, the focus on the 'singularity' of every subject formation, which then translates into (human) identity as task rather than as normative given, also implies a critique of the 'instrumentalization and dehumanization' of (post)education that Knight perceived as the main threat arising out of the vacuum left behind, once the consensus about humanism in education has disappeared.

This is where a *critical* posthumanism has its role to play in reforming contemporary educational, still predominatly humanist, theory, policy and practice. It represents a posthumanism that is mindful of the contemporary and accelerated post-anthropocentric drift, but one that at the same time is also critical of its technological determinism with its emphasis on artificial intelligence and its focus on technological solutions, as well as the instrumentalization of education as such. In an educationalist setting, posthumanism arrived surprisingly late and there are still relatively few attempts at thinking through its pedagogical and curricular implications (cf. e.g. Weaver 2010; Pedersen 2010; Herbrechter 2014, 2018; Knox 2016; Petitfils 2015a). In the manifesto, 'Toward a Posthumanist Education' (Snaza et al. 2014), a number of educators and educational researchers identify three ways in which posthumanism can transform educational thought, practice and research:

> 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. (Snaza et al. 2014: 40)

noindent

The aim of posthumanist education is thus to break up the anthropocentric foundations of virtually all education that tacitly or openly presupposes that 'the world' or all 'things' exist 'in relation to' or 'for' humans, in the sense that the world is 'ours' to explore and exists only insofar as it exists for humans (Snaza et al. 2014: 46). Consequently, Snaza and his colleagues call upon 'everyone – and everything! – implicated in the "anthropological machine" (Agamben 2004) of education to begin experimenting with forms of thinking, teaching, learning, and interacting that seek to create distance between us and humanism' (51).

The manifesto was followed by a volume edited by Snaza and J. A. Weaver, *Posthumanism and Educational Research* (2015), that stakes out the major areas in which posthumanism has been making inroads into (humanist) education and which have led to reconfigurations of it. Snaza and Weaver ask: 'What would a world be that did not insist on human superiority or dominance and that did not disavow the human's ecological entanglements?' (2015: 3). The greatest challenge, they suggest, apart from escaping the predetermination of 'learning outcomes' that close off 'wonder in the face of the world' (Snaza and Weaver 2015: 7) and thus radical change, as well as the compartmentalization of knowledge into 'disciplines', is to acknowledge the agency of knowing in non-human subjects (Snaza and Weaver 2015: 5). The key in stopping, jamming, maybe even disassembling the 'anthropological machine' of (humanist) education, continues to lie in a focus on 'subjectivity' and on thinking 'about how meaning is generated *among* subjects (although this word will have become untrustworthy)' (Snaza et al. 2014: 51–2). Extending subjectivity beyond the traditional humanist and anthropocentric human exclusivity to non-human others (animals, machines, things, plants, environments, the planet etc.) is not just a new and more inclusive learning process, or a generalized animism (although this may be a good start); it is first and foremost an *un*learning process. In other words, the decentring of the human(ist) subject does not 'automatically' lead to a pluralization of 'other' voices and agencies, it must be accompanied and motivated by an active process of deconstruction, of undoing or of unlearning. This can of course be achieved by changes to curriculum content, but it should also involve new practices of learning that are no longer

aimed at an individual human subject, taught, assessed and 'produced' according to a combination of institutional and economic requirements.

Unlearning

Snaza himself opens up the avenue of 'unlearning' when he says that 'if posthumanism has taught us that we have become "human", it also asks us to un-learn to be human' (Snaza 2015a: 105). For education to cease to be a form of humanization (in the sense of humanism's anthropological machine) however, it is not enough to reimagine the world 'without humans' although this can undoubtedly serve as an initial 'eye-opener' in the classroom or elsewhere. It is necessary to understand how learning to be a human works in the first place and then, through a patient and thorough working-through and rewriting process, to 'un-learn' it. The 'un' in 'unlearning' does not function as a simple negation, instead it signals its deconstruction. Like the 'un' in Freud's '*unheimlich*' (Dunne 2016: 20), which makes it both strange and familiar; it is a sign of the return of the repressed and a symptom of repetition-compulsion.

'Unlearning the hidden curriculum' is thus a 'crucial component of the learning experience', as Alan Wald already suggested in 'A Pedagogy of Unlearning' (1997: 127). Wald was writing in the context of the institutional racism in the humanities curriculum of the 1990s while following in the footsteps of Freire's *Pedagogy of the Oppressed* ([1979] 1993) and bell hooks's *Teaching to Transgress* (1994), but his argument in my view also applies to the 'hidden speciesism' of all 'humanist' education when he says that '[i]f a pedagogy is to lead to empowerment, in the sense of a student's gaining control over the forces shaping his or her life, one must develop courses that allow students who choose to do so to reassess the superficial and misleading paradigms brought into the classroom as a consequence of "the hidden curriculum"' (1997: 133–4). In a similar vein, in the context of queer studies, Jack Halberstam, commenting on his *The Queer Art of Failure* (2011), writes that 'unlearning is an inevitable part of new knowledge paradigms if only because you cannot solve a problem using the same methods that created it in the first place' (2012: 10). Halberstam,

too, evokes the notion of wonder, namely 'the curiosity, the sheer wonder, of not knowing on the path of transformation' that daring to unlearn promises (2021: 16). For Madina Tlostanova and Walter Mignolo, it is 'thinking decolonially' that implies such a *Learning to Unlearn* (2012), while Éamonn Dunne invokes Jacques Rancière's 'ignorant school master' (Rancière 1987) and Barbara Johnson's paradoxical 'teaching of ignorance' to the same effect, as the hardest pedagogical task of 'unteaching something to your students' and to 'suspend knowledge' (Dunne 2013: 625–6). Unlearning, in the sense of creating or at least accepting working with an 'enabling ignorance', despite its undeniable risks, is the only way of keeping the horizon of knowledge and futurity open, as opposed to masterful 'explication' which, perversely, always risks placing and keeping the student in a relationship of dependence and acceptance. This is the 'lesson' Rancière attributes to Joseph Jacotot, the 'ignorant schoolmaster', who 'taught' his Dutch students to 'self-teach' themselves French without him speaking any Dutch himself, and thus without being able to 'explain' the task. 'Explaining' as Rancière explains – which attests to the difficulty of 'unteaching' as a practice – is the blindness at the centre of teaching (Rancière 1987: 11–12), because it creates a dependence based on an infinite and unbridgeable regress of a distance (of an advance in knowledge) between the teacher and her students. In fact, and this may be almost too obvious a claim, it is the problem of subjectivity in education as such, in that a student needs to be addressed or positioned (as a subject to knowledge and learning) by a subject-supposed-to-know in order to start the learning process in the first place. Rancière's reading of Jacotot's practice characterized it as a prime example of unlearning of '*apprendre à désapprendre*'.

Learning – as opposed to 'learnification' – is in fact inherently unpredictable as Dunne explains:

> Learning begins when knowledge gets suspended. Good teachers are teachers who suspend knowledge, who open up the abyss. They're the ones that know that counselling Enlightenment values of self-reliance and autonomy initiate an inescapable double bind.

> ‘Listen to me but don’t listen to me’. ‘Listen to me: Think for yourself!’ *Sapere aude*. Some instruction! (Dunne 2016: 20)

noindent

Subjectification through interpellation, or addressing, is about power, not about equality. The subject interpellated by the representative of the knowledge institution is everything but free, even when it, ironically, or even cynically, is interpellated as a ‘free individual’ – it is for your best, in your own interest, that you should learn to learn. As Rancière explains, it is not a question of forgetting this ‘scene of teaching’ but of ‘unexplaining’ it:

> Un-explaining in general means undoing the opinion of inequality. Undoing it means undoing the links that it has tightened everywhere between the perceptible and the thinkable. On the one hand, the un-explanatory method unties the stitches of the veil that the explanatory system has spread on everything; it restores the things that this system has caught in its nets to their singularity and makes them available to the perception and the intelligence of anybody. On the other hand, it returns their opacity, their lack of evidence, to the modes of presentation and argumentation which were supposed to cast light on them. (Rancière 2016: 35)

noindent

It is hard not to hear in this passage the echoes of Althusser, Rancière’s own teacher, and his characterization of education as an ‘ideological state apparatus’ with its central power mechanism of subjectification through interpellation in this comment (Althusser 1971). A posthumanist education worthy of its name and time will have to primarily unlearn this aspect, this mechanism, of the anthropological machine, bearing in mind however that there is no simple escape to subjectification, neither through decentring the subject, nor through its repositioning nor through the proliferation of subjectivities. However, it would certainly be a good start to problematize the idea of a subject and

its positioning as well as speculate on and actually 'perform' alternative notions of subjectivity and thus extend them to non-traditional forms of agency like objects, animals, environments, networks and so on.

Addressing the posthumanist subject

In a move similar to Simone de Beauvoir's famous expression that one is not born a woman but becomes or is 'shown' how to behave as one, one could argue that one is not born human (at least not in the humanist sense) but is strongly 'encouraged' to behave as one, or to embody this 'identity'. It is a learning process that involves developing subjectivity to be able to connect with others through language, culture, media and technologies. Posthumanism implies that technological and ecological change poses challenges to humanism's anthropocentric model of subjectification; 'posthumanizing' developments like digitalization, cyborgization, artificial intelligence as well as anthropogenic climate change, or bioengineering require new conceptualizations of subjectivity and new narratives out of which subjects can construct identities, and which are different from traditional (liberal) humanist understandings of what makes a 'me', human. One could thus say that posthumanism involves an unlearning and relearning process as far as human identity is concerned. Un- and relearning to be human differently passes through undoing traditional and constructing new subject positions. It is therefore important to look closely at the actual subject positions posthumanism or post-anthropocentrism can provide or 'afford'.

In fact, there is no reason why Althusser's basic conception of the subject should not also apply under posthumanist conditions, provided one takes into account Althusser's antihumanist 'blindspot'. While Althusser seems to have had a quite specific 'ideal' addressee in mind in his description of the 'little ideological theatre' of hailing (undoubtedly involves a human, French-speaking, probably white, male being interpellated by police), alternative, less ethno- and anthropocentric scenes of interpellation under posthumanist conditions are not only imaginable but have always been available (cf. Althusser 1971; Gearhart 2004). The interpellation mechanism as

such is by no means suspended under new techno-, or eco-cultural and new, digital and social media conditions. Humans (and non-humans) can be interpellated by a whole variety of social actors: machines, animals, things, etc. Furthermore, subjectivity is, to extend Catherine Belsey's argument, not only linguistically and discursively but also technically, environmentally, maybe even epigenetically constructed (Belsey 1980: 61). If machines, animals, things, environments and media can each function as interpellators of humans as well as non-humans, then, in turn, they are also constantly being addressed by humans and, provided they can all be attributed with some subjectivity, which means that when machines address machines, animals, things, and soo on or when animals address…etc., aspects of subjectivity are always potentially involved. So, far from any end to subjectivity, posthumanist conditions rather imply a proliferation of subjectivity, ideology, address or forms and instances of interpellation and 'agency'.

Although the posthumanist critique of humanism often focuses on scientific and technological challenges, there are aspects that apply even 'without' technology. A post- or non-anthropocentric world view according to which we no longer see 'ourselves' as the central meaningful entity and form of autonomous agency in the universe, challenges 'our' ingrained habit to anthropomorphize everything that comes into human view. This may have become visible and seemingly inevitable thanks to twentieth- and early twenty-first-century technological development, however, 'critical posthumanism' in particular has been proceeding genealogically, that is, has been un- or recovering previous or parallel connection points with non-anthropocentric knowledges, beliefs and subjectivities. Donna Haraway's work on companion species, for example, provides such a theoretical framework for non-anthropocentric posthumanist forms of address and subjectivities. In her *When Species Meet*, she explains that: 'human beings are not uniquely obligated to and gifted with responsibility; (. . .) animals in all their worlds, are response-able in the same sense as people are' (Haraway 2010: 71). Haraway's notion of 'response-ability', which she, in this particular context, restricts to the interaction between companion species and the proliferation of subjectivities this implies, poses a number of political and ethical challenges. Haraway's suggested framework for

dealing with these challenges is a 'multi-species flourishing': 'Now, how to address that response-ability (which is always experienced in the company of significant others, in this case, the animals)? (. . .) multi-species flourishing requires a robust nonanthropomorphic sensibility that is accountable to irreducible differences' (2010: 89, 90). Haraway's answer to this challenge lies in a new (posthumanist, post-anthropocentric) ecology: 'We are face-to-face, in the company of significant others, companion species to each other. That is not romantic or idealist, but mundane and consequential in the little things that make lives' (Haraway 2010: 93). One could argue that from a posthumanist point of view, Haraway's ecology should probably be extended to all kinds of social actors (human, animal, machine, collectivities and networks) in the way advocated by Bruno Latour (2005) and actor-network-theory, or object-oriented-ontology, as well as new feminist materialism more generally (cf. Ringrose, Warfield and Zarabadi 2019).

For posthumanist education – unlearning and relearning to be human – the proliferation of subjectivities and their connection through post-anthropocentric stories or narratives in a 'post-human landscape'

> repositions childhood [or becoming-human more generally] within a world that is much bigger than us (humans) and about more than our (human) concerns. It allows us to reconsider the ways in which children [or humans] are both constituted by, and learn within, this more-than-human world. (Taylor, Blaise, and Giugni 2013: 49)

noindent

The realization of this involves a 'decenting' (or an unlearning) of humanist subjectivity or self-understanding, but also a 'recentering', according to Brad Petitfils, since, 'especially in an age of exponential innovation, how are young people supposed to understand their "decentred" selves if they cannot first have a reasonable understanding of themselves in relation to the posthumanist world in which they live?' (Petitfils 2015b: 33). In a concrete educational context one might thus, according to Petitfils, 'help students decenter themselves and understand the implications of their

digital and virtual lives' (2015b: 35), and help them 'recenter' by helping them see 'their own primordial essence as these formative years of posthumanity emerge' (36). The recentering, however, even though it may be triggered by media-technological change and directed against its dehumanizing (postbiological, or transhumanist) possibilities, is first of all a relearning of human animality, or 'humanimality', or indeed a resistance to human 'deanimalization'. It is illusory and harmful to both human and non-human animals to believe that humanity might be able (through technology) to escape its own animality. The 'anthropologcial machine', far from guaranteeing an exclusion of animality by creating a radical difference between humans and animals, constantly reinscribes the very continuity it seeks to deny. Instead of the (humanist or transhumanist) desire of postbiological 'deanimalization' it is important to stress the 'animal side' of the unlearning and relearning process of becoming-human, especially in these current techno-centred and techno-euphoric times with their fantasies of disembodiment. In practice, this involves an emphasis on human and non-human biological entanglement and the evolutionary and ecological continuity between human and non-human animals and their changing environments.

Animals in school – zoomimesis and rewilding

One of the most basic questions posthumanism asks of (humanist) education is 'must an educated being be a human being?' (Heslep 2009). Since posthumanism extends 'being' to all kinds of non-human entities, it also produces all kinds of ontologies. Even though technology is seen by many posthumanists as 'originary' to human (and arguably non-human animal, even plant) ontologies, there is at least an equally good and arguably even more urgent case of (re)acknowledging the 'originary' character of animality in anthropogenesis. Rather than seeing animality as a primordial state of humans and their bodies that education as a main 'anthropotechnics' must seek to overcome, being (with) animals can and should be seen as a necessary condition for (re)learning to be human, thus acknowledging 'human-animal co-constitution and mutual reconfiguration [as] being inextricably bound together in vanishing ecosystems', as Helena Pedersen writes (Pedersen 2010c:

246; see also Pedersen's *Animals in Schools* 2010a). Animals are thus not only good to 'think' with, they are also essential for 'learning', as Pedersen explains:

> Nonhuman animals enter systems of knowledge production in multiple ways, and on several levels. They may interrupt and disrupt 'our' familiar formations of knowledge and alert us to knowledge forms for which we (as yet) have no name. They may challenge preconceived boundaries between subjectivity/objectivity, inside/outside, and center/periphery in knowledge production, and they may, literally and figuratively, eat away at the artifacts that are simultaneously products and signifiers of knowledge. (Pedersen 2010b: 686)

noindent

In other words, 'our commonality with all (other) animals is cause for wonder' (Snaza 2013b: 27). Animals may help us 'unlearn' to be humans in a humanist sense and 'relearn' to be human differently, post-anthropocentrically, posthumanistically, in exploding 'the anthropocentric conceit that the world or cosmos is as it is for us only' (Carstens 2018: 63).

If unlearning to be human involves 'jamming' the anthropological machine (cf. Calarco 2007), especially in the sense of rethinking the relationship between human and non-human animals through the construction of alternative, posthumanist and post-anthropocentric subjectivities, then one might also speak of a need for 'rewilding' education. Humanism traditionally sees education as a refinement, or a purification process of 'deanimalization', or, in short a 'de-' or 'unwilding' of the 'barbaric' and 'uncultivated' human. By the same token, negligence, a slip in standards, a decline in humanism's central apparatus, that is, 'literacy', usually means giving in to a 'natural' process of *Verwilderung* (going feral, returning to some original state of 'savageness' or barbarization; cf. Sloterdijk 1999). Current ecological thinking, on the other hand, is strongly advocating 'degrowth' and 'rewilding' both as a 'pathway to compassion and coexistence' (Bekoff 2014). The 'unwilding' that modern education has caused, according to Bekoff, has produced an 'animal deficit disorder', which leads to a lack of connection with nature more generally (2014: 122–6). Even though nothing

may or should replace the first-hand experience of 'nature, nonhuman animals, and our shared home' (Bekoff 2014: 130), and as loaded and problematic as the word and concept of 'nature' may be, pedagogical practice informed by posthumanist theory can and should contribute to a more general ecological awareness of education as 'bewildering', as Nathan Snaza puts it (2013a: 40).

In sum, the main paradox of any humanistic education lies in the fact that it both presupposes the human – education is only possible or available for humans – and promises to 'produce' the human and to guarantee (its) 'humanity'. As Snaza explains:

> In conceiving of the human as both an ontological given (a being) and the result of a particular process of education, education structurally introduces the necessity of intermediate concepts: the less human, the less than fully human. In order to justify the pursuit of humanization, educators must approach their pupils as not yet or not fully human (otherwise there would be no need for education). This structural gap between the not yet fully human animal and the human that is education's *telos* allows for dehumanization to become a fundamental political fact of modernity. (Snaza 2013a: 41)

noindent

This is therefore education's participation in the workings of the anthropological machine – a machine that reproduces what it seeks to overcome by repression. And this is precisely what needs to be 'unlearned'.

The actual encounter with the (non-human) animal, the 'wonder' and strange empathy this may cause in the best circumstances, should produce an 'attention away from issues of cultivating human-centred knowledge, skills, and aptitudes' (Lewis 2018: 122). In doing so, it actually returns us, according to Roberto Marchesini, to our evolutionary 'zooanthropological' condition (based on the fundamental evolutionary continuity between human and other animals), in the sense that we learned (we had to learn) to be human, by observation and imitation of (other) animals (Marchesini

2016). What Marchesini calls 'zoomimesis' – human imitation of animals and its influence on human (techno-)culture – is a dialogic learning process guided by interaction with non-human animals and the world more generally. In and through mimesis, Marchesini argues, 'the subject discovers a new existential dimension, capable of undergoing an irreversible conversion in itself' (2016: 188), it involves a 'dialogue with an alterity' (2016: 189). This encounter with the non-human animal 'is a slow and painful metamorphosis, one that excites us but also exposes us to vertigo, broadening our horizon but also increasing our vulnerability since it moves us away from our species-specific gravitational centre' (Marchesini 2017: 100). Suspending anthropocentrism in this encounter means unlearning 'centuries of humanist propaganda', as the first epigraph by Daniel Cottom claims (2003: 18). In such an encounter there is always a risk and a chance of 'dehumanization' – a pedagogical moment par excellence, in its radical and non-instrumentalizable 'uselessness', as Cottom says – before the post-anthopocentric 'relearning' process can begin and posthumanist subjectivities may arise.

PS: Even though the earlier argument does make frequent reference to 'practice', I am aware that it will leave the 'practitioner' with a desire for examples of 'applied' posthumanist or post-anthropocentric 'unlearning'. In other words, and in terms of educational praxis, is any of this 'doable' in or 'relevant' for school – leaving aside the fact that most of the academic discourse produced on education tacitly assumes the 'university' as the ideal teaching situation and institution; and thus equally leaving aside that this discourse, even if understood as and based on 'educational research', is usually produced by people who are working quite far removed from the daily teaching practice in primary and secondary schools, where nevertheless most of the post-anthropocentric 'unlearning' process would have to occur to really make a difference. There is the possible connection point of teacher training, of course, where future teachers could be taught how to teach 'posthumanistically' – in fact, a lot of the initiatives aimed at 'digital learning' seem to be aimed at just that, even though they tend to, ultimately, work towards an ideal of a 'posthuman' rather than a posthumanist teaching scene, that is, teaching 'without' humans, instead of humans teaching other

humans about how to overcome their anthropocentric bias. This is not an argument against digital learning platforms or against the need for schools to prepare their students to become critical (digital, social or new) media 'produsers', but the question really is to what extent the current set-up of educational institutions will allow you to go with the idea of a post-anthropocentric 'unlearning'. Many educational policymakers would probably argue that school curricula have already been eroded too much by the imperative to digitally transform them. How to avoid a backlash under these circumstances, that is, back to good old humanist values of '*Bildung*' in the face of existential threats?

Apart from the institutional dimension of (and resistance to) taking posthumanism seriously, that is, as unlearning 'our' anthropocentrism, which would be one way of understanding 'posthumanism and practice', there remains thus the very practical question of what is 'doable' in the classroom 'right now'. This will inevitably have to rely on the initiative and approach of the individual teacher (working against national curricular restraints). For what it is worth, as one such humble and individual effort, I can point to a blog-based teaching unit I taught to, or rather with, a year ten class (15–16-year-olds) at a secondary school in Germany a few years ago. The subject was 'English' (i.e. EFL) and the topic, 'what makes us human?' The teacher input to the blog is available at: https://whatmakesushuman.edublogs.org/. The students' interactions of course remained their own and, for legal reasons, had to remain behind a protective 'educational' wall – which, to a great extent, of course, goes against the very idea of interacting 'postanthropocentrically' with the world and oneself. If anything, this experiment shows to what extent the 'typical teaching situation' occurs under serious institutional, technological and material constraints. I tried to capture some of this in the article I wrote about this teaching episode, and which appeared in a volume entitled *Teaching the Posthuman*, addressed to academics, naturally (cf. Herbrechter 2019).

References

1. Agamben, G. (2004), *The Open: Man and Animal*, trans. K. Attell, Stanford: Stanford University Press.

2. Althusser, L. (1971), 'Ideology and Ideological State Apparatuses (Notes Toward an Investigation)', in *Lenin and Philosophy and Other Essays*, trans. B. Brewster, 121–73, London: Monthly Review Press.

3. Bekoff, M. (2014), *Rewilding Our Hearts: Building Pathways of Compassion and Coexistence*, Novato: New World Library.

4. Belsey, C. (1980), *Critical Practice*, London: Methuen.

5. Biesta, G. (1998), 'Pedagogy Without Humanism: Foucault and the Subject of Education', *Interchange*, 29 (1): 1–16.

6. Bonnett, M. (2003), 'Retrieving Nature: Education for a Post-Humanist Age', *Journal of Philosophy of Education*, 37 (4): 551–730.

7. Calarco, M. (2007), 'Jamming the Anthropological Machine', in M. Calarco and S. DeCaroli (eds), *Giorgio Agamben: Sovereignty and Life*, 163–79, Stanford: Stanford University Press.

8. Carstens, D. (2018), 'The Politics of Animality and Posthuman Pedagogy', in V. Bozalek, R. Braidotti, T. Shefer and M. Zenbylas (eds), *Socially Just Pedagogies: Posthumanist, Feminist and Materialist Perspectives in Higher Education*, 63–78, London: Bloomsbury.

9. Cottom, D. (2003), *Why Education Is Useless*, Philadelphia: University of Pennsylvania Press.

10. Dunne, É. (2013), 'Love Foolosophy: Pedagogy, Parable, Perversion', *Educational Philosophy and Theory*, 45 (6): 625–36.

11. Dunne, É. (2016), 'Learning to Unlearn', in A. Seery and É. Dunne (eds), *The Pedagogics of Unlearning*, 13–24, London: Punctum.

12. Freire, P. ([1970] 1993), *Pedagogy of the Oppressed*, London: Penguin.

13. Gearhart, S. (2004), 'Interpellations: From Althusser to Balibar', in S. Herbrechter and I. Callus (eds), *Discipline and Practice: The (Ir)Resitibility of Theory*, 178–204, Lewisburg: Bucknell University Press.

14. Halberstam, J. (2011), *The Queer Art of Failure*, Durham: Duke University Press.

15. Halberstam, J. (2012), 'Unlearning', *Profession*, 9–16.

16. Haraway, D. (2008), *When Species Meet*, Minneapolis: University of Minnesota Press.

17. Herbrechter, S. (2014), 'Posthumanistische Bildung?', *Jahrbuch für Pädagogik*, 267–82.

18. Herbrechter, S. (2018), 'Posthumanist Education?', in P. Smeyers (ed.), *International Handbook of Education*, Vol. 1, 727–45, Cham: Springer.

19. Herbrechter, S. (2019), 'What Makes Us Human?: Teaching Posthumanism in Secondary School', in R. Bartosch and J. Hoydis (eds), *Teaching the Posthuman*, 75–100, Heidelberg: Winter.

20. Heslep, R.D. (2009), 'Must an Educated Being Be a Human Being?', *Studies in Philosophy and Education*, 28: 329–49.

21. Jenkins, H. (2009), *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, Cambridge, MA: MIT Press.

22. Knight, J. (1995), 'Fading Poststructuralisms: Post-Ford, Posthuman, Posteducation?', in R. Smith and P. Wexler (eds), *After Postmodernism: Education, Politics and Identity*, 23–35, London: Falmer Press.

23. Knox, J. (2016), *Posthumanism and the Massive Open Online Course: Contaminating the Subject of Global Education*, New York: Routledge.

24. Lewis, T.E. (2018), 'The Pedagogical Power of Things: Toward a Post-Intentional Phenomenology of Unlearning', *Cultural Critique*, 98: 122–44.

25. Marchesini, R. (2016) 'Zoomimesis', trans. J. Bussolini, *Angelaki*, 21 (1): 175–97.

26. Marchesini, R. (2017) *Over the Human: Post-Humanism and the Concept of Animal Epiphany*, trans. S. de Sanctis, Cham: Springer.

27. Pedersen, H. (2010a), *Animals in Schools: Processes and Strategies in Human-Animal Education*, West Lafayette: Purdue University Press.

28. Pedersen, H. (2010b), 'Education Policymaking for Social Change: A Post-Humanist Intervention', *Policy Futures in Education*, 8 (6): 683–96.

29. Pedersen, H. (2010c), 'Is 'the Posthuman' Educable?: On the Convergence of Educational Philosophy, Animal Studies, and Posthumanist Theory', *Discourse*, 31 (2): 237–50.

30. Petitfils, B. (2015a), *Parallels and Responses to Curricular Innovation: The Possibilities of Posthumanistic Education*, New York: Routledge.

31. Petitfils, B. (2015b), 'Researching the Posthuman Paradigm: The 'Subject' as Curricular Lens', in N. Snaza and J.A. Weaver (eds), 30–42.

32. Rancière, J. (1987), *Le Maître Ignorant*, Paris: Fayard.

33. Rancière, J. (2016), 'Un-What?', in A. Seery and É. Dunne (eds), *The Pedagogics of Unlearning*, 25–46, London: Punctum.

34. Ringrose, J., K. Warfield and S. Zarabadi, eds, (2019), *Feminist Posthumanisms, New Materialisms and Education*, London: Routledge.

35. Selwyn, N. (2019), *Should Robots Replace Teachers?: AI and the Future of Education*, Cambridge: Polity Press.

36. Sloterdijk, P. (1999), 'Rule for the Human Zoo: A Response to the *Letter on Humanism*', *Environment and Planning D*, 27: 12–28.

37. Snaza, N. (2013a), 'Bewildering Education', *Journal of Curriculum and Pedagogy*, 10 (1): 38–54.

38. Snaza, N. (2013b), 'Reductionism Redux: The Continuity Between Humans and Other Animals', *Journal of Curriculum and Pedagogy*, 10 (1): 26–8.

39. Snaza, N. (2015a), 'Departments of Language', *Symploke*, 23 (1–2): 91–110.

40. Snaza, N. (2015b), ‘Toward a Genealogy of Educational Humanism’, in N. Snaza and J.A. Weaver (eds), 17–29.

41. Snaza, N. et al. (2014), ‘Toward a Posthumanist Education’, *Journal of Curriculum Theorizing*, 30 (2): 39–55.

42. Snaza, N. and J.A. Weaver, eds, (2015), *Posthumanism and Educational Research*, London: Routledge.

43. Spanos, W.V. (1993), *The End of Education: Toward Posthumanism*, Minneapolis: University of Minnesota Press.

44. Spanos, W.V. (2015), ‘Posthumanism in the Age of Globalization: Rethinking the End of Edcuation’, *Symploke*, 23 (1–2): 15–39.

45. Taylor, A., M. Blaise and M. Giugni (2013), ‘Haraway’s “Bag Lady Story-Telling”: Relocating Childhood and Learning within a “Post-Human Landscape”’, *Discourse*, 34 (1): 48–62.

46. Tlostanova, M.V. and W.D. Mignolo, eds, (2012), *Learning to Unlearn: Decolonial Reflections from Eurasia and the Americas*, Columbus: Ohio State University Press.

47. Van Mourik Broekman, P., G. Hall, T. Byfield, S. Hides and S. Worthington (2015), *Open Education: A Study in Disruption*, London: Rowman and Littlefield.

48. Wald, A. (1997), ‘A Pedagogy of Unlearning: Teaching the Specificity of U.S. Marxism’, in A. Kumar (ed.), *Class Issues: Pedagogy, Cultural Studies, and the Public Sphere*, 125–47, New York: New York University Press.

49. Weaver, J.A. (2010), *Educating the Posthuman: Biosciences, Fiction, and Curriculum Studies*, Rotterdam: Sense Publishers.