The Trouble with Posthumanism: Bacteria Are People Too

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This chapter warns against the growing trend to conflate Critical Animal Studies (CAS) with posthumanism. As Ken Shapiro and Margo DeMello note, from the 1990s onwards, after humanities and social sciences disciplines "joined the crowd," the majority of animal studies (AS) "scholarship occurred under the rubric of posthumanism and postmodernism" (2010, p. 310). It is not unusual for many CAS scholars, such as Steve Best, whose politics would otherwise militate against any formal association with posthumanism, to situate their work within the discourse of posthumanism. The explosion of posthumanist literature and theory in recent decades also attests to its increasing popularity and dominance within AS. Cary Wolfe's Posthumanities series with University of Minnesota Press—which includes well-known theorists such as Donna Haraway, Judith Roof, and Michel Serres—is perhaps the most well-known example. Posthumanism is not limited to animal studies, but is also gaining ground within gender studies, queer theory, postcolonial theory, science and technology studies, cultural studies, comparative literature, and other disciplines.

Perhaps because of posthumanism's wide applicability and presence across disciplines, it is difficult to define with precision. Many acknowledge different strands of posthumanism and, in an effort to avoid a reductive account of such a multi-faceted field, refer to posthumanisms in the plural. Nevertheless, three assumptions underlie what is identified as critical posthumanist thought (first so named by Didur, 2003), at least within AS: (1) we are at a crucial historical juncture wherein the human subject is destabilized by increasing incursions of technics and informatics into human and non-human life; (2) the arbitrary opposition between the historically embedded and essentialist categories of "the Human" and "the Animal" is no longer tenable; and (3) humanism—which perpetuates a phantasmagorical conception of a disembodied rational human subject wholly disconnected from, yet simultaneously "lording over," the material world and its non-human inhabitants—can no longer serve as the basis of critical philosophical inquiries into human and non-human interrelationality, ethics, and politics (Wolfe, 2010, p. xvf; Badmington, 2000, p. 2).

While in advancing these claims critical posthumanist theory makes important contributions to wider efforts in AS, CAS, and beyond to free theoretical investigations into the subject from anthropocentric constraints of humanist thought, it is also prone to some troubling

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tendencies that potentially jeopardize AS's, and especially CAS's, ability to uphold their fundamental ethical and political commitments. Problematic elements of posthumanist thought include its fetishization of boundary dissolution, hybridity, and technoscience; its derogation of species-integrity; its conflation of creaturely essence with essentialism; and its frequent lapses into self-indulgent theorizing at the expense of genuine ethical analysis. While it is undesirable to homogenize CAS, it is equally undesirable for CAS to uncritically adopt posthumanism's problematic categories of analysis, and to allow itself to become indistinguishable from it, as is increasingly the case.

Merits of Posthumanism: The Critique of Dualist Metaphysics and Human Exceptionalism

There is unequivocal consensus among critical posthumanist theorists that what they variously refer to as "traditional," "conventional," "metaphysical," (Castricano, 2008, pp. 6–8; Cavalieri, 2008, p. 97) and "ontotheological" (Calarco, 2008, pp. 104–106) humanisms are not progressive, as typically assumed, but "reactionary" (Badmington, 2000, p. 2). For posthumanists, the philosophical glue that binds all otherwise historically distinct forms of humanism together—Renaissance, Enlightenment, liberal, and even more recent Marxist, socialist, existentialist, and ecological iterations of humanism—is the notion that humans are unique and superior to other animals, not least because of their supposed monopoly on reason and language and/or their possession of a soul. As Richard Twine says, the view "common to the overlapping fields of critical posthumanism and animal studies, is of humanism as a reduction of value and agency to the 'human,' a curiously centred and bounded category that has elevated itself by contrast to the 'animal' and drawn upon ideas of animality to essentialize human difference" (2010, p. 175–76). In even more uncompromising terms, Best maintains that

"humanity" is a social construct involving the identity and conception humans have of themselves as members of a species. In its arrogant, alienated, and domineering Western form, human identity reflects a host of problematic assumptions, biases, prejudices and myths derived from religion, philosophy, science, and culture as a whole. (2009b, p. 1)

As I have argued elsewhere, Donna Haraway goes so far as to regard humanism as a form of sadism (Weisberg, 2009, p. 23). In Haraway's view, "Sadism produces the self as a fetish, an endlessly repetitive project" (1989, p. 233). Modern humanism, she observes, does the same by projecting the image of "man" onto nature and reshaping it in "his" image—a phenomenon she calls the "god trick" (1991b, p. 189). Thus, Haraway concludes, "Sadism is a shadow twin to modern humanism" (1989, p. 233). Haraway (1989) recognizes that the impact of sado-humanism on animals has been particularly devastating, citing Harry F. Harlow's outrageously cruel "maternal deprivation" experiments at the University of Wisconsin-Madison from the late 1950s and early 1960s, in which he subjected infant monkeys to egregious cruelties (pp. 239–42; Weisberg, 2009, p. 24–25).

Posthumanism's incredulity towards the unified, autonomous, rational subject on one hand, and its presupposition that humanist metaphysics are largely to blame for the subjugation of animals (as well as other "others," such as women, people of colour, and indigenous peoples) on the other, are directly inherited from its theoretical and ideological antecedents, poststructuralism and antihumanism (Badmington, 2000, p. 9). Wolfe suggests that although posthumanism has several lineages, it can be traced to the antihumanist bent of poststructuralism, epitomized by Foucault's claims in the 1960s that "man" was only a recent invention and was rapidly spiralling towards obsolescence (2010, p. xii). Posthumanists have developed this Foucauldian line of thinking, but focus especially on the implications of the "death of man" for rethinking human-animal relations. For example, posthumanists urge us to recognize the myriad ways in which information, digital, and biotechnologies are radically disrupting any lingering early modern conceptions of static, homogeneous, and unified human identity.

A central tenet of critical posthumanism is that we are at a crucial historical juncture at which "the decentering of the human by its imbrication in technical, medical, informatics networks is increasingly impossible to ignore" (Wolfe, 2010, p. xv-xvi). Posthumanism, more than other branches of animal studies, recognizes that it is no longer tenable to assume that human and non-human beings are independent from the technological infrastructure but are always already enfolded in it (Best, 2009a, p. 4). Hayles observes that "technology [has] become so entwined with the production of identity that it can no longer meaningfully be separated from the human subject," or from the animal subject (1999, p. xiii). In this context of increasing technological intervention in human and non-human life, posthumanists are right to insist that it is no longer plausible to claim that humans are somehow at one remove from the material world and its organic and inorganic components.

Overall, posthumanists' repudiation of the anthropocentric tenets of conventional humanism is a crucial feature of any substantive critique of animal oppression. Undeniably, humanism has contributed to the rationalization of non-human animals' brutal subjugation for centuries. A brief glimpse into the work of three key early modern humanists demonstrates this. Renaissance humanist Pico della Mirandola (1463–1494), for example, positioned humans at the centre and apex of creation and claimed that for humans to become fully human—i.e., quasi-divine—they would need to suppress and eliminate animal elements of their natures by way of the exclusively human activity of philosophical contemplation ([1496] 1956, pp. 7, 10). For Pico, humans are as gods in contrast to the "fermenting dung-heap of the inferior world teeming with every form of animal life" (p. 5).

Displaying similar contempt for non-human life, English statesman and humanist philosopher and scientist Francis Bacon (1561–1626) posited that it was humans' divine calling to subjugate nature and non-human animals (1999b, aphorism 129), and that their subordination was integral to the twin pursuits of knowledge and power (1999b, aphorism 129). He also argued that non-human animals are ontologically malleable material for manipulation and transformation. As he says, nature reveals "her" secrets best when "under constraint and vexed; that is to say, when by art and the hand of man she is forced out of her natural state, and squeezed and molded" (1999a, p. 82).

French philosopher and scientist René Descartes (1596–1650) characterized animals as automata that "functioned" much like clocks—a view that reflected the Baconian notion that

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non-human animals were effectively objects to be disassembled and reassembled at will ([1637] 1968, p. 73–74). Though the Cartesian disdain for non-human animals is well known and need not be repeated here, it is worth reminding readers that by regarding animals as automata in theory, Descartes was able to inflict excruciating tortures on them in practice—such as nailing dogs to boards and cutting them open for circulation experiments, all without anesthetic—without the slightest hesitation (Singer, 1990, p. 201–2). The agony of Descartes's animals—and of billions of others being tortured in similar ways in modern laboratories—should reverberate through the conscience of any critically thinking person today as a scathing indictment of the sado-humanist legacy. It is only a small step from Descartes's nails to Harlow's wells of despair, and to today's biomedical laboratories.

Liberal humanism, meanwhile, has perpetuated human exceptionalism by suggesting that it is by virtue of being human alone that one should be accorded rights. By advancing a theory of natural law, natural rights, and natural man, liberal humanist contract theory helped solidify the notion of a common essential identity between humans to the exclusion of other animals. As Davies says, with the "abstract singularity and universality" of these thinkers' respective conceptions of man, "a full-blown essentialist humanism is generated" (1997, p. 26). Left humanisms also reproduce anthropocentric assumptions. While Marx called for humans' reconciliation with nature, his conception of reconciliation was hardly advantageous for non-human animals, as it prioritized interests of humans and allowed for nature's ongoing objectification and instrumentalization. Marx perpetuated some of Enlightenment humanism's worst fallacies, such as the (essentialist and anthropocentric) view that humans are the sole possessors of the supposedly superior qualities of rationality, will, and self-consciousness—the constituents of his "species-being." Meanwhile, Jean-Paul Sartre's existentialist humanism suggests another troubling contradiction. One the one hand, Sartre replaced a static conception of "human nature" with that of "a human universality of condition." For Sartre, it was false to conceive "of man as the end since," he rightly insisted, "man is still to be determined." On the other hand, Sartre's existentialist humanism remained loyal to Cartesian dualism and rationalism (1960, p. 67). Other humanisms, such as Murray Bookchin's (1995) anarcho-humanist social ecology, allow the ongoing exploitation of animals, while Peter Staudenmaier's eco-humanism rejects animal liberation as anathema to the emancipatory project (2005, p. 116). Staudenmaier says that animal liberation is "a specific kind of moral mistake and a symptom of political confusion," and that it is "anti-humanist and anti-ecological" and "frequently at odds with the project of creating a free world" (2005, p. 116). Such statements lead Best to conclude that Left humanisms carry the "pathology" of humanism: "As part of the problem rather than the solution, Leftist humanist theories (including 'eco-humanist' variants) fail to advance a truly revolutionary break with the mindsets and institutions underpinning hierarchy, oppression, violence, species extinction, and the current global crisis" (2009b).

If the link between humanism, human narcissism, and sadism is not enough to delegitimize humanism as a valid ground for an account of human and non-human animal subjectivity and interrelationality, the growing knowledge about the cognitive, emotional, social and even political and cultural complexity of other animal species emerging from a variety of disciplines

confirms that it is simply untenable to attempt to preserve the centuries-old rigid bifurcation between humans and the millions of other species on earth. Posthumanism properly insists that we finally "get with the program," abandon tired old prejudices, and reformulate our understanding of ourselves and our role in the universe as one among many other species with whom we are always already in relation. Posthumanists posit doing so not by relying on metaphysical speculation, but rather on indisputable scientific truths surrounding the complexity of animal subjectivities. Reaffirming the importance of non-violent scientific practices pointed to above, Best insists, for example, that

ethically progressive and truly inclusive, the new outlook—not only post-capitalist, but also post-anthropocentric, post-speciesist, and post-humanist—would also be scientifically valid, by accurately representing the true place of *Homo sapiens* in the social, sentient, and ecological communities in which it finds itself enmeshed. (2009b, p. 26)

Paola Cavalieri and Kelly Oliver similarly stress the important role a non-exploitative, non-mechanistic science can play in debunking humanist prejudices (Cavalieri, 2008, p. 98; Oliver, 2007, pp. 15–19).

The importance of (certain forms of) science in rescuing animals from their objectified status cannot be overstated. Renowned primatologist Jane Goodall points out that with the rise of cognitive ethology—or the non-invasive study of animal behaviour—in the early 1960s, for example,

there was increasingly compelling evidence that we are not ... the only creatures capable of love and hate, joy and sorrow, fear and despair.... In other words, there is no sharp line between the human animal and the rest of the animal kingdom. It is a blurred line, and becoming more so all the time. (2007, p. xiii)

Cognitive ethologists, scientists, and even psychoanalysts such as Marc Bekoff, Jonathan Balcombe, and Jeffrey Moussaieff Masson have demonstrated the cognitive, emotional, and sensuous complexity of other animals and, by so doing, have shattered the artificial barrier that has been erected between humans and all other species. They thereby aim to restore—or perhaps for the first time explicitly *affirm*—other animals' *co*-subjectivity with human animals (Bekoff, 2007; Balcombe, 2006; Masson, 2003).

With ethologists' abundant and indisputable evidence of other animals' subjecthood in mind, Wolfe asks us to

rethink our taken-for-granted modes of human experience [which he characterizes as the "closed domain of consciousness, reason, reflection"] ... by recontextualizing them in terms of the entire sensorium of other living beings and their own autopoietic ways of "bringing forth a world"—ways that are, since we ourselves are human *animals*, part of the evolutionary history and behavioral and psychological repertoire of the human itself. (2010, p. xxv)

Here Wolfe takes on not only Descartes but also Martin Heidegger, who insisted that other animals were "poor-in-world" because they did not "dwell" in the "house of Being," which is constituted by language (quoted in Calarco, 2007, p. 20). By grounding humans in the "entire sensorium of other living beings," Wolfe dispenses with the humanist (/idealist) fixation on language, reason, or *logos* as constitutive of human subjectivity. Instead, Wolfe asserts shared sensuousness alone as the basis of subjective experience, of richness-in-world.

Anat Pick builds on Simone Weil's philosophical theology to replace the human/animal divide with a species-inclusive conception of the "creature." In her words, "the creature ... is first and foremost a living body—material, temporal, and vulnerable" (2011, p. 5). Rather than trying to determine which criteria a being must meet to merit ethical consideration—an approach that lends itself to anthropocentrism and "like us" arguments—Pick maintains that we should focus on the basic experience of "the flesh and blood vulnerability of beings—whether human or not" (pp. 2–3). As creatures, humans and animals share the common risk of injury and the inevitability of death—whether or not one can perform algebra is of no consequence here. Vulnerability alone justifies ethical attentiveness.

Other critical posthumanist theorists, such as Jodey Castricano, overcome human exceptionalism, binary thinking, and especially the glorification of human rationality, in part by "exploring the medical, biological, cultural, philosophical, psychological, and ethical connections between nonhuman animals and ourselves" (2008, p. 2). For Castricano, developing an ethics based on empathy is of central importance (pp. 5–6). With a strict hierarchy of beings in place, empathy is moot, for one cannot share the experience of another being who exists on an entirely different ontological plain, so to speak, than oneself. As Emmanuel Levinas and other existential phenomenologists have shown, empathy and (non-totalizing) identity with the Other (not the generalized Other but a particular individual Other) are potential cornerstones of a radical interspecies ethics and politics.

Such efforts to debunk the myth of the rational disembodied human subject are integral to the larger campaign to reconfigure human and animal subjectivities in a complex matrix of sensuous, emotional, cognitive, and ethical potentialities. But there is another side to the critical posthumanist coin that threatens to derail the important work being done in AS and CAS to re-examine human/animal subjectivities and relationships.

The Haraway Effect: The Fetishization of Hybridity and Boundary Dissolution

Since the publication of Haraway's A Cyborg Manifesto (1991a), The Companion Species Manifesto (2003) and When Species Meet (2008), hybridity—or the collapse of boundaries between organic (human, animal, nature) and inorganic (technics, culture)—has been seen as an antidote, if not the panacea, to the scourge of humanist dualist metaphysics. Hybridity has become a kind of fetish concept—cited ad nauseam in critical posthumanist literature with little critical attention to the dangers it represents when actualized in practice, while Haraway herself is fetishized as the authority on progressive reconfigurations of human-animal relationships. Far from being a

liberatory concept, hybridity is in fact a pernicious and repressive notion that ultimately reaffirms the logic of late capitalism (Weisberg, 2009). In addition to promoting the disorientation of the human subject in compressed space and time, late capitalist modernity exhibits flagrant disregard for animals' ontological integrity, as evinced in the mass production of transgenic, chimeric, and other genetically modified animal commodities in the animal industrial complex. Thus, while hybridity may sound like an important challenge to humanist fantasies of a huge metaphysical gulf between humans and non-human animals, and between "nature" and "culture," it is much more troubling when we consider its implications in practice. Transgenic animals—including so-called "spider-goats," or goats spliced with spider genes so that they produce spider "silk" from their milk, which can be used for weapons manufacturing, among other things; or pigs mass-produced as "organ factories" for xenotransplantation; or chimeric "food" animals injected with human growth hormone to shorten the time between birth and market; or "pharm animals" genetically engineered to produce pharmaceuticals and destined to serve as "drug factories"—are among the most abject victims of the excesses of corporate technoscience. These and other transgenic animals are wholly integrated into the machinery of production. Their integration with the technical apparatus as extensions of it—the collapse of boundaries between animals and technics, in other words—is co-extensive with their dis-integration, literal and figurative, as embodied subjects-of-a-meaningful-life. Despite these obvious concerns with advancing a theory of hybridity, Theresa Heffernan approvingly observes that "hybridity is a privileged concept in the linear reproductive model that produces the same, allowing 'difference' to proliferate; the hybrid also displaces emphasis on the original and challenges the traditional understanding of nature" (2003, p. 118). A brief glimpse into posthumanist literature bears out Heffernan's observation about the primacy of hybridity theory in posthumanism.

In his foreword to Wolfe's Animal Rites: American Culture, the Discourse of Species and Posthumanist Theory (2003), W. J. T. Mitchell falls into the same trap of collapsing the critique of dualism with the celebration of hybridity: "Perhaps we need a new term to designate the hybrid creatures that we must learn to think of, a 'humanimal' form predicated on the refusal of the human/animal binary" (p. xiii). Why must the repudiation of dualism amount to the celebration/promotion of hybridity per se, given the many problems associated with actual practices of hybridization? Surely there are other ways of imagining co-human and non-human animal subjectivities that don't risk reaffirming the logic of corporate technoscience? In a manner that is also similar to Haraway, Scott Bukatman waxes lyrical about the "infinite possibilities and cyborg multiplicities, defined in and through the technologies that now construct our experiences and therefore ourselves" (2000, p. 111). What he does not acknowledge is that these "infinite possibilities" and "cyborg multiplicities" are, as noted, actualized in the form of cloned, chimeric, and otherwise genetically engineered animals.

In a similar vein, Eugene Thacker praises Haraway's hybridity theory. He is especially tickled by the way in which she supposedly "shows how the doubled contingencies of humans and technologies will always require critical gestures, ironic gestures, even ludic gestures, which will turn upside down, and render impure and non-innocent, our views of the human condition" (2003, p. 79). Thacker's reproduction of Haraway's language of "ironic and ludic gestures"

and "non-innocence" indicates that he and other posthumanists influenced by Haraway treat hybridity as integral to some risk-laden but ultimately healthy, exhilarating, playful, and even fun proverbial teenage rebellion against narrow-minded parents—a rebellion that catapults the adolescent from its stifling and "innocent" humanist origins into the "non-innocent" wonders of posthumanity and the ontological chaos it induces. The romanticization of "non-innocence" in this context, no matter how loosely the term is used, is not only inappropriately sanguine, but entirely misleading. Who said there was anything "innocent" about the humanist homogenization of animal being into raw material for ontological manipulation and commodification in the first place? Hybridization is decidedly non-innocent inasmuch as it involves a violation of animals' ontological boundaries. Surely, this lack of innocence should not be cause for celebration, but for consternation.

Rosi Braidotti regards her theory of "nomadic subjects" and "nomadic thought" as a development of Haraway's hybridity theory and so-called "process ontology" (2006, pp. 199, 200). She praises Haraway for representing "power as a dynamic web of interconnections of hybrid contaminations, as a principle of non-purity," and for "refus[ing] to fall into the pitfall of the classical nature/culture divide." She claims that by rejecting the "subject-object, nature-culture divides [that] are linked to patriarchal, oedipal familial narratives," Haraway "mobilizes an enlarged sense of community, based on empathy, accountability, and recognition.... Moreover, she extends these prerogatives to non-human agents or subjects, such as animals, plants, cells, bacteria and the Earth as a whole" (p. 200). She does not mention, however, that Haraway's conception of empathy is such that one may claim solidarity, sisterhood, and solicitude for the same creatures one condones killing and eating (see Haraway, 2008, pp. 296-300; Weisberg, 2009 p. 49). Braidotti applauds Haraway for the "inspirational force" emanating from her posthumanist project in general and her account of oncomouse (see Haraway, 1997b)—the first patented transgenic animal, hailed by Haraway as the embodiment of "transgressive" politics—in particular. For example, she contends that "the cyborg, the coyote, the trickster and the oncomouse" all of which figure prominently in Haraway's work, "produce alternative structures of otherness" (p. 201). Braidotti's claim that oncomouse and other hybrids "produce alternative structures of otherness" is simply untenable—the relationship between humans and oncomouse reproduces the unequal (human) subject/(animal) object relation that has been characteristic of sado-humanism for centuries.

It is important to acknowledge that not all posthumanists regard hybridity as inherently liberatory, nor do they conflate the theory of boundary dissolution with the practice of genetically altering animals. While Twine emphasizes that "new biotechnological innovations and their associated imaginaries have become the science for much speculation on the ontological status of the 'human,'" (2010, p. 175), for example, he also acknowledges that "animals remain real conduits for bio-capitalisation and targets of human consumption at the outset of the 21st century" (2007, p. 99). Perhaps because of the problems outlined above, some critical posthumanists attempt to disassociate themselves from hybridity theory and articulate a different version of critical posthumanism. Helena Pedersen, for example, resists identification with the posthumanist "cybernetic' orientation towards relationality, focusing on human-machine interaction and hybridity" (2010, p. 242). Heffernan too acknowledges that, "at first glance, it seems that,

in many ways, these theoretical interests in hybridity seem to parallel and challenge the production of 'hybrids' in the scientific arenas of biotechnology and genetic engineering, begging the question whether postmodern theory has unwittingly laid the philosophical ground for this new science" (2003, p. 118). Bart Simon notes that critical posthumanists such as Heffernan are aware that "the proliferation of hybridizing practices in biotechnology and genetic engineering seem to turn the postmodern conception of hybrid subjectivity into a technoscientific fact." He adds that "increasingly the discourse of popular posthumanism [transhumanism] and theoretical postmodernism seem to parallel each other." As a result, he rightly concludes that "this is a troubling situation for those invested in the political promise of the postmodern franchise" (2003, p. 4). However, these acknowledgements of the dangers of hybridity theory are typically drowned out by ringing endorsements of it.

The Derogation of Species-Integrity and the Conflation of Essence and Essentialism

Not only do hybridity theorists fail to properly evaluate the real implications of biotechnological hybridization, they also often dismiss opposition to hybridity as nostalgic obsession with the allegedly fictitious notion of "species-integrity." For Haraway, for example, critics of hybridity and biotechnology subscribe to the supposedly naive belief that each being has its own ontological trajectory (1997a, p. 217). Pitting her work against the supposedly reactionary tradition that espouses preservation of species integrity, she warns condescendingly, "Neither a cyborg nor a companion animal species pleases the pure of heart who long for better protected species boundaries and sterilization of category deviants" (2003, p. 4). The implicit claim that concern for preserving species boundaries is equivalent to fascistic or eugenic sterilization programs is not only unfairly dismissive of legitimate concerns regarding the agony resulting from the disregard for species integrity. It is also profoundly ironic given that biotechnology, which is committed to producing profitable and/or "productive" and "successful" "designer" animals (and eventually designer humans as well), is devoted to eliminating "deviant" behaviours, characteristics, and traits that interfere with its rapid production as meat or some other profitable product for human consumption and use—just like the Nazis and eugenicists of the early to mid-twentieth century sought to do with humans who disrupted the social and political order by failing to meet their standards of racial, cognitive, and physical "perfection."

Although, compared to Haraway, Jill Didur is more wary of the naturalization of "genetic hybridization" and the way it is "represented as continuous with the 'natural processes of evolution," she is equally perturbed by what she regards as "humanist" overtones in the critique of species boundaries violations (2003, p. 108). She dismisses Vandana Shiva's critique of the horrific injuries and congenital defects experienced by factory-farmed pigs as another example of the supposedly puritanical obsession with species boundaries (p. 108). She reduces Shiva's outcry to a paranoid response to the "images of miscegenation, contamination, deformity, and social deviance [that] abound in this [activist] literature," which is critical of biotechnology. Unsurprisingly, Didur cites Haraway's claim that debates surrounding biotechnology convey

"unintended tones of fear of the alien and suspicion of the mixed" (Haraway quoted in Didur, 2003, p. 109). Like Haraway, Didur reduces legitimate criticism of the extreme violence against animals necessarily involved in genetic modification to an extension of oppressive ideological and social presuppositions and prejudices. Shiva and others' concern is, as Didur sees it, not for the unfathomable suffering and humiliation experienced by transgenic creatures, but for some racist preoccupation with genetic purity (p. 109). What these critical posthumanists forget is that the biotechnologists responsible for systemic atrocities against animals similarly scoff at the notion of species-integrity to justify the violence they commit (see Rollin, [1985] 2002). Biotechnologists defend genetic manipulation of other animals in laboratories by suggesting it is simply another phase in the natural course of evolution (which is, not coincidentally, something Haraway has also claimed) (see Gigliotti, 2009, pp. xv-xvi; Haraway, 2004, p. 72).

Another disturbing element of posthumanists' condemnation of the notion of species-integrity is that they see no difference between criticizing the way notions of telos and species differentiation have been used to stratify human and animal groups into oppressive hierarchies—and to justify violence against and extermination of those at the bottom of the heap—on one hand, and congratulating those who reject the notion of telos and species differentiation to further systemic inequalities and atrocities, on the other. In truth, animal liberation and environmental activists are not critical of biotechnology and hybridity because these destabilize widespread conceptions of normality, nor because they free various groups from confinement within restrictive categories that silence and enslave them, but precisely because these involve unfathomable cruelty to animals, which creates another avenue for the fascistic elimination of undesirables (both non-human and human animal), and will inevitably create chaos within the already fragile ecosystem (Rifkin, 1998, p. 2). In ignoring these key impetuses behind the wish to balance a respect for species-integrity—for other animals' ontological unity and entelechy, that is—while dispensing with the tradition of confining animals within rigid taxonomies to rationalize their subjugation, critical posthumanists jeopardize the credibility of their own critique.

Also, like many mainstream bioethicists and biotech apologists, posthumanist hybridity theorists fail to recognize the difference between creaturely essence and essentialism. Whereas essentialism reifies the subject into a fixed type with predetermined and immutable characteristics, the avowal of essence within phenomenology and critical theory simply translates into the recognition that all beings possess a trajectory of possibilities that are meaningful to them, and that can only be actualized and come to fruition under certain conditions. Respecting essence does not mean projecting fantasies of pure, untouched, unchanged, and unchanging nature, as posthumanists claim. Honouring essence means honouring the fact that each species has a particular set of psychological, physical, perceptual, social, and emotional behaviours and needs that are specific to it—such as, in the case of humans, walking on two legs, or, in the case of other animals such as pigs, cows, and chickens, having ample space to roam around, grass to eat, sunlight to bask in, mud to roll in, nests to build, the unhindered opportunity to nurse and wean their young—and that if unmet, violated, or otherwise dishonoured cause tremendous distress and suffering.

Essence is not mutually exclusive with historical contingency. Phenomenology is an especially helpful framework for striking this important balance. While phenomenology is "the

study of essences," it is "also a philosophy which puts essences back into existence, and does not expect to arrive at an understanding of man and the world from any starting point other than that of their 'facticity'" (Merleau-Ponty, 2006, p. vii). In other words, to study essences is not to study immutable forms, but rather to recognize how beings unfold within the always changing historical and material conditions; it is to study the vicissitudes, nuances, and particularities that constitute material and embodied life in the world. To say that the essence of the human (and animal) subject is rooted in existence is to say that its style of being is either promoted or undermined by the environmental, historical, and social conditions in which it is situated.

Terry Eagleton agrees with anti-essentialists that essentialism can be reductive and lead to oppressive ideologies and regimes that subjugate certain groups on the basis of perceived fundamental differences from the dominant group(s). However, he maintains that essence can also mean that beings are constituted by certain qualities, properties, and capacities that are essential to their flourishing, such that if they were prevented from unfolding they would radically transform the subject. In short, to insist that each being has an essence does not suggest that there is only ever one central property to which that being is reducible (1996, p. 98). It simply means that other beings ought to be allowed to be what they are. For birds to be birds, they cannot live in cages, but must fly freely and land where they wish and do what birds do. By suggesting that animals ought to be permitted to be what they are, I am not positing some romanticized ahistorical figure of the untouched animal. Animals have been transformed by humans for millennia (by way of breeding, domestication, and so on). There is no idyllic "before" to which we should aspire to "return" in some kind of primitivist narrative. Rather, the goal is to create conditions for the mutual unfolding of both human and animal subjects as internally coherent and unified, but also intersubjectively intertwined, sensuous beings—which is to say, animals. Ultimately, for a being to be free to actualize itself and its potentialities on one hand, and to be free from harm on the other, it must remain within certain species-specific ontological (and genetic) limits.

Fetishization of hybridity and boundary dissolution, and allergy to species-integrity and essence, are symptomatic of a larger problem plaguing postmodern/poststructuralist thought, which posthumanism has inherited: perpetuation of an ahistorical grand narrative about the rise and fall of the grand narrative of the unified subject. As Eagleton warns, we should be skeptical about postmodern/poststructuralist theory's tendency "to deliver a fable about the so-called 'unified subject,' which sounds wildly unhistorical—which sounds, indeed, alarmingly like the grand narratives it disowns" (p. 34). Most importantly, we ought to ask why we must dispense with the subject entirely. Why not simply speak in terms of embodied, vulnerable, perceptually attuned subjects, instead of rational, disembodied subjects? Why must we be "posthuman," rather than more completely human, which is to say, more completely animal?

Cybernetics, Technoscience, and the Transhumanist Connection

In its largely uncritical appraisal of technoscience, posthumanism resembles transhumanism (also known as popular posthumanism and extropianism), despite the latter's overt avowal of Renaissance and Enlightenment humanism. Transhumanism, which emerged as a movement in the 1980s, seeks to "ameliorate" human life, and even overcome mortality, through technological innovation and intervention (Transhumanist FAQ, n.d.). According to Nick Bostrom, Oxford philosopher and founder of the World Transhumanist Association, tranhumanism "holds that current human nature is improvable through the use of applied science and other rational methods, which may make it possible to increase human-health span, extend our intellectual and physical capacities, and give us increased control over our own mental states and moods" (2005, p. 202-3). As noted, transhumanism also considers itself an outgrowth of Renaissance, Enlightenment, and secular humanisms (Bostrom, 2005, p. 202). The "Transhumanist FAQ" posted on the Humanity+ website cites Pico della Mirandola, Francis Bacon, Isaac Newton, Thomas Hobbes, John Locke, and Immanuel Kant, as well as Benjamin Franklin and Voltaire as key ideological predecessors, and describes among its key principles (the very humanist notions of): "Perpetual Progress, Self-Transformation, Practical Optimism, Intelligent Technology, Open Society, Self-Direction, and Rational Thinking" (Transhumanist FAQ, n.d.).

Given transhumanism's self-conscious grounding in humanism, it is unsurprising that many posthumanists are loath to be associated with it. Haraway, Thacker, Wolfe, Badmington, and others draw a line in the sand between critical posthumanism and transhumanism. Haraway proclaims that she has abandoned the terms "posthuman" and "posthumanism," precisely because of the risk of their conflation with transhumanism. Haraway says, "I never wanted to be posthuman, or posthumanist, any more than I wanted to be postfeminist" (2008, p. 17). She is especially repelled by the transhumanist "techno-blissed-out" call, "'Let's just go for downloading human consciousness onto the latest chip' and get rid of pain and suffering that way" (Gane & Haraway, 2006, p. 151). Nevertheless, Haraway remains a major influence on critical posthumanist thought. Wolfe also distinguishes between various iterations of cyborg-transhumanism and his version of posthumanism, which eschews the transhumanist goal of "escaping or repressing not just its animal origins in nature, the biological, the evolutionary, but more general by transcending the bonds of materiality and embodiment altogether" (2010, p. xv). Thacker similarly distinguishes transhumanism from critical posthumanisms. He explains that, "while not denying the significance and transformative possibilities of new technologies, these critical [posthumanist] takes on the posthuman offer a more rigorous, politically and socially rooted body of work from which the difficult task to imagining the future may begin" (2003, p. 79-80). Thus, it is unfair to conflate critical posthumanism with transhumanism; however, such differences notwithstanding, certain key parallels exist between the two bodies of thought and signal the need to rethink the basic assumptions and aims of critical posthumanist theory, and to temper reliance on the discourse of posthumanism and the posthuman within CAS.

For a start, critical posthumanism and transhumanism are historically linked. Posthumanism in general and hybridity theory in particular are direct and loyal descendants of cybernetic theory. As Wolfe and Hayles note, posthumanism can be traced back to the Macy Conferences on cybernetics from the mid-1940s to the 1950s, which disrupted any assumed mutual exclusion between human ontology and mechanical, technical, and communicational systems (Wolfe, 2010, p. xii; Hayles, 1999, p. 7). Hayles says the key outcome of the Macy Conferences was "a

theory of communication and control applying equally to animals, humans, and machines" (1999, p. 7). At the same time, cybernetics set the stage for transhumanism inasmuch as it involves controlling, manipulating, altering, and "enhancing" organic life through technoscience. Although Haraway attempts to distance herself from transhumanism, her cyborg theory has been hugely influential in both critical posthumanist thought and transhumanist thought. Wolfe says Haraway's Cyborg Manifesto is the "locus classicus" of "the 'cyborg' strand of posthumanism[, which] is what is now being called 'transhumanism'" (2010, p. xiii).

Transhumanists are as dismissive of preserving species boundaries as posthumanists. Bostrom levels his criticism of the notion of species integrity against those he contemptuously calls "bioconservatives." Prominent members of this group include Leon Kass, Francis Fukuyama, and Jeremy Rifkin, among others. Bostrom says their main concern is that "human enhancement technologies might be 'dehumanizing'" (2005, p. 203). Like Haraway, Didur, and others, he conflates the argument for preserving respect for species boundaries—especially when presented along the lines of Aristotelian entelechism—with a naive misconception that "nature" is wholly disparate from "culture," or that massive gulfs exist between species and ought to be maintained. Bostrom explains that while so-called bioconservatives such as Kass argue that each creature exhibits characteristics unique to, or typical of, its species,

[t]ranshumanists counter that nature's gifts are sometimes poisoned and should not always be accepted. Cancer, malaria, dementia, aging, starvation, unnecessary suffering, and cognitive shortcomings are all among the presents we should wisely refuse. (p. 203)

Although, as this example demonstrates, transhumanists approach species integrity from a different angle than critical posthumanists—and even insist, contra the latter, that there are some universal and essential human characteristics—they concur that tampering with "species-specific natures" is, well, perfectly natural and acceptable (p. 203). Bostrom criticizes folks like Kass who "rely on the natural as a guide as to what is desirable and normatively right" (p. 205). Yet he presents a confused logic: he biologizes social ills and naturalizes artificial technological modification of humans (and other animals), while at the same time he accuses bioconservatives of naturalizing human behaviour—in short, he accuses bioconservatives of the same tendency he is equally guilty of. In any case, his repudiation of the Kassian view, that different creatures have certain ontological trajectories that we ought not interfere with, recalls posthumanists' reductive view of the concept of telos explored above.

Relatedly, transhumanist and posthumanist theorists are equally impatient with opposition to biotech and enhancement technologies and often dismiss criticisms as unnecessarily pessimistic, apocalyptic, and dystopian. Bostrom, for example, writes off concerns that technological modifications of human "nature" will necessarily reduce the human to "a contented cow" as "exceedingly pessimistic" (p. 205–6). Although Hayles distinguishes herself from transhumanists in part by not allowing herself to be "seduced by [their] fantasies of unlimited power and disembodied immortality," she nonetheless resembles them in reinforcing a dualism between either "nightmare" or "dream" scenarios of the posthuman (1999, p. 5). Didur follows suit

(2003, p. 98). Braidotti, in turn, praises Haraway for being an "utterly non-nostalgic post-human thinker" whose "conceptual universe is the high-technology world of informatics and telecommunications" (2006, p. 198). The implication is that critique of technoscience, like the critique of the violation of species boundaries, is symptomatic of a foolish "nostalgia" for some kind of non-existent idyllic pre-technological age.

The most troubling overlap in critical posthumanist and transhumanist thought, however, is the two traditions' shared belief in the emancipatory potential of technoscience. Both posthumanism and transhumanism embrace technoscience as the principal means for freeing human and non-human animal life from existing oppressive ontological and ideological constraints. Of course, critical posthumanists reject transhumanists' placement of humans at the top of the imagined hierarchy of beings, and they do not accept the transhumanist goal of "perfecting" human beings through technological enhancement. However, abundant evidence shows that they share enthusiasm for ways in which technoscience can ameliorate human and non-human life.

Enter Bacteria, Exit Ethics

Posthumanist thought risks systematically purging CAS of its political and ethical substance. On one hand, critical posthumanism is committed to the larger struggle in the animal advocacy movement to effect systemic change on this basis. As Castricano, citing Wolfe, explains,

Posthumanist theory takes seriously the possibility that, "a hundred years from now we will look back on our current mechanized and systematized practices of factory farming, product testing, and much else that undeniably involves animal exploitation and suffering ... with much the same horror and disbelief with which we now regard slavery or the genocide of the Second World War." (quoted in Castricano, 2008, p. 11)

Such claims confirm that critical posthumanist theory aims to bridge theory and practice and seeks political and ethical transformation. For this, it should be applauded. However, posthumanism has disappointed on this front. As Gary Steiner notes, despite their promise to validate the non-human subject and take moral commitments to them seriously, "this is precisely what one does not find in postmodern writings on animals." Instead, Steiner says, "one encounters a panoply of vague gestures toward some indeterminate sense of continuity between human and animal life, and a general sense that we ought to have more compassion for animals" (2013, p. 2). Although Steiner is referring to postmodern theory in particular, the grievance applies to posthumanism, too. We have already seen the ethical dangers associated with affirming this "indeterminate sense of continuity between human and animal life" in the form of hybridity theory. While Haraway and other posthumanists gesture in the direction of the ethical, they do not recognize that their ontological claims are inconsistent with their ethical claims. Or, if they do try to develop an ethics out of their hybrid ontology and technoscientific theory, they can only offer a distorted or perverted ethics, which implicitly and sometimes explicitly supports violent domination.

Posthumanist scholars often explore the animal question as a self-indulgent intellectual exercise, rather than as a means for developing a radical praxis, and so produce what John Sanbonmatsu aptly calls "baroque theory." Sanbonmatsu observes that "for earlier generations of radical intellectuals, theory was closely tied to its usefulness both in illuminating structures of power and in providing a theory of how to actually change society" (2004, p. 79). Baroque theory, however, eliminated this connection between theory and practice. Theory is increasingly committed more to "trend innovation" than to ethical or political transformation (p. 91). Without recognizing this contradiction in his own affiliation with posthumanism, Best echoes Sanbonmatsu, arguing that in its "immersion in abstraction, indulgent use of existing and new modes of jargon, pursuit of theory-for-theory's sake, avoidance of social controversy," and so on, animal studies is emptied of ethical and political substance (2009c). In their poststructuralist preoccupation with textuality, semiotics, and deconstruction, posthumanists "vaporize animals' flesh and blood realities" and "reduce them to reified signs, symbols, images, words on a page" (2009c).

Myra Hird's work provides an exquisite example of vaporized theory, obscurantist technoscience-speak, and the ethical and political abyss into which posthumanist thought leads, and what I am increasingly inclined to call "pornographic theory." Drawing directly from Haraway's work, Hird "attempts to build a microontology-engaging with the sciences of the microcosmos—within biophilosophy" (2010, p. 36). Hird delivers the final proverbial blow to the subject by urging us to think of ourselves not as subjects, not as selves at all, but as clusters of bacteria. "Bacteria are people too," she implies, and ought to be ignored no longer. Reproducing Haraway's "ironic" and "cutesy" language, she writes,

Of all the cells in a human body, 10% are eukaryotic (derived from bacteria) and 90% are bacteria.... So turtling all the way down means that we are, ancestrally, made up of bacteria. It also means that any given human/animal body is a symbiont: 600 species of bacteria in our mouths and 400 species of bacteria in our guts, and the countless more bacteria that inhabit our orifices and skin. (p. 37)

Confirming her wish to eliminate the subject once and for all, she exclaims, "Indeed, the number of bacteria in our mouths is comparable to the total number of human beings that have ever lived on earth" (p. 37). Here, Hird resorts to crude mathematical logic—the logic of technological rationality—whereby quantity is more important than quality. For Hird, the very fact that there are so many bacteria inhabiting our bodies suggests that they ought to take the place of the anyway already dead subject. Resorting to abstruse technobabble, Hird explains, that

microontologies concern companion species that are not species at all: companion with not-species as it were. Populating this "unseen majority" are about 5x1030 bacterial cells estimated 1018-1 000 000 000 000 000 000-bacteria circulate in the atmosphere attached to dust. Most organisms are bacteria: they evince the greatest organismal diversity, and have dominated evolutionary history. (p. 36)

The world is saturated with bacteria, Hird reminds us with entirely unnecessary numerical precision, yet we hardly pay heed to them when conceptualizing intersubjective relations. And this is, in her view, intolerable. For, as Hird goes on to explain, bacteria have done so much for us. Ejecting human subjects from history altogether, Hird claims that, "Bacteria invented all major forms of metabolism, multicellularity, nanotechnology, metallurgy, sensory and locomotive apparatuses (such as the wheel), reproductive strategies and community organization, light detection, alcohol, gas and mineral conversion, hypersex, and death" (p. 36-37). In other words, bacteria, not human subjects, are the agents of innovation and transformation. Echoing Haraway, and with the unsung glories of microcosmic organisms in mind, Hird says that "our all-too-human insistent focus on 'big like us' obscures the rich diversity of living structures and processes through which the biota, including animals like us, thrive" (p. 37). The only way to break this putatively anthropocentric pattern, Hird insists, is to preoccupy ourselves with infinitesimal microorganisms who have been unjustifiably neglected in metaphysics, ethics, and politics for so long. The implication is that animal liberationists focus on "big" creatures, such as primates, cows, pigs, and chickens, not because they are being subjected to horrific systemic violence, but because they are more human-like than bacteria. Hird conveniently forgets that animal advocates also defend small creatures such as rodents, reptiles, and insects, many of whom are distinctly unlike humans in many ways.

The disastrous ethical repercussions of Hird's micro-ontology are exposed in her closing statement. Hird's emphasis on the microscopic and the numeric reflects late capitalism's increasing preoccupation with the minute and the mathematical in the form of computer code, DNA, and so on. We have seen what this has done to animal subjects. Yet again, imitating Haraway's characteristically "ironic" and "cutesy" tone, and cribbing Derrida's ethically dubious conception of "eating well" (which gives licence to continue eating animals as long as one does so "responsibly"), Hird claims that "microontologies partake of further parting bites.... How does our current concern with human-animal relations obscure bacterial intra-actions that have nothing to do with humans, and are beyond human recognition? Eating well with bacteria, for instance, complicates animal rights discourse, vegetarianism, and veganism" (p. 38). If it were not so deeply disturbing, it would be laughable that Hird feels no qualms displacing sentient beings with bacteria and suggesting in no uncertain terms that animal rights, vegetarianism, and veganism are potentially irrelevant, or, at the very least, radically destabilized as a result. Hird closes by, not surprisingly, dismissing humanism: "This task is indeed far ahead of us: we must somehow survive humanism, if we are to survive at all" (p. 38). Since this statement follows on the heels of the challenge to veganism, Hird appears to be blaming humanism for leading animal activists to direct their attention to mammals, birds, and fish instead of bacteria. Humanism has led animal rights to focus solely on animals who resemble us in size, if nothing else.

Certainly, it is important to recognize that the earth is made up of diverse organisms of various sizes, and that there is more life and vitality around us than mechanistic science has acknowledged. Part of the interspecies emancipatory project is re-enchanting and re-animating the earth and its inhabitants. But Hird takes the vitalist or materialist perspective to the point of flattening ethics beyond recognition. Ethics is purged of meaning if we start calling for rights

for bacteria, and in the meantime abandon systematic efforts to boycott the torture of animals for human use and consumption. It is unacceptable from an ethical point of view to derail CAS and animal liberation's current focus on the creatures ensnared in the animal industrial complex (and those ravaged by human hubris in the form of habitat destruction, environmental devastation, and so on) in order to account for the existence and ethical claims of bacteria.

Overall, Hird's micro-ontology amounts to a form of intellectual "pornography" inasmuch as it is ethically obscene. It seeks cheap intellectual thrills through a farcical simulation and mockery of genuine and meaningful ethical analysis. Like baroque theory, it reduces concepts to fetishized commodities. It tries to start the latest trend, to compete in the "marketplace of ideas" by being as aesthetically outrageous and gimmicky as possible, by indulging in the extreme, but offering little of substance (Sanbonmatsu, 2004, p. 91). In attempting to simultaneously shock, excite, and seduce its readers into displacing living animal subjects with micro-organisms, and in challenging the validity of animal rights and veganism on this basis, it, like pornography, humiliates and degrades its object and perpetuates an ideology and practice of violence.

CAS Beyond Posthumanism

Given the dangers that posthumanism poses to the integrity of ethical, political, and critical theory and practice, CAS should unambiguously distance itself from posthumanism. If we continue to defer to posthumanism as the progressive discourse by which to automatically define all work being done in CAS, we risk cancelling the political, ethical, and intellectual commitments according to which CAS has been and should continue to be defined. That "posthumanism" and the "posthuman" represent so many different philosophical, epistemological, and methodological positions and approaches is itself cause for concern. As noted, posthumanism represents multiple viewpoints, many of which are not conducive to rethinking or radicalizing human-animal relations, namely because they attack humanism without attacking anthropocentrism. Pederson observes that, in education, posthumanism ignores interspecies subjectivities and is more interested in the figure of the posthuman as a "symbolic decentering of the human subject," while posthumanist thought within environmental studies has disappointingly and inappropriately remained preoccupied with "human concerns" (2010, p. 243-44). Filling a concept with multiple, often contradictory meanings, and throwing it about carelessly here and there as a "catch-all" concept, risks emptying it of meaning altogether (Horkheimer, 2004, pp. 16-17).

Unlike posthumanism and its theoretical parent, poststructuralism, critical theory provides a better framework for a comprehensive analysis of the fascistic tendencies of our current technocratic order. Not least among their virtues, the critical theorists of the early Frankfurt School—Theodor W. Adorno, Max Horkheimer, and Herbert Marcuse—present a healthy suspicion towards technoscientific "development" and its contribution to the enslavement and degradation of human and non-human animal life. At the same time, they by no means dismiss the liberatory potential of technology. Indeed, Marcuse praises (certain applications of) technology throughout his work as a potential vehicle for emancipation, especially as a means for the elimination of toil and the "pacification of the struggle for existence" (1964, pp. 220, 235). But, crucially,

he does so without ignoring the undeniable fact that technology in its current form is inherently repressive—not least because of its role in facilitating the collapse between former ontological and epistemological "areas of contradiction" (p. 66). At a historical juncture when technology—including biotechnologies, digital technologies, social networking technologies, and many others—are increasingly mobilized by the corporate-state apparatus in ever-sophisticated ways, not only to torture and kill animals en masse, but to quell dissent by way of surveillance and so on, Marcuse, as well as other allied critics of technology-as-technique of the early mid-twentieth century, such as Jacques Ellul (1964) and Lewis Mumford (2010), are crucial resources for our urgent task of developing a substantive CAS critique of technological totalitarianism.

Although it is important to allow CAS to evolve organically, it is also helpful to "go back to the sources" of CAS and revisit its original mandate. For a start, CAS, unlike posthumanism, is and ought to remain unabashedly abolitionist, opposed to all forms of instrumentalization, commodification, and exploitation of both non-human and human animals (Best et al., 2007). While Best's conflation of his own work in CAS with posthumanism in some writings is troubling, his other writings militate against such a move. For example, he explains that "CAS avows its explicit ethical and practical commitment to the freedom [and] well-being of all animals and to a flourishing planet. It opposes all forms of discrimination, hierarchy, and oppression as a complex of problems to be extirpated from the root, not sliced off at the branch" (Best, 2009c). Posthumanists' unwillingness to advocate veganism, for example, automatically positions the two branches of thought in irreconcilable opposition.

For CAS to remain a properly critical discourse, it should develop the critical theory of the early Frankfurt School. As Best explains,

Like the Frankfurt School, CAS synthesizes social theory, politics and the critique of capitalist domination in a revolutionary project to transform society and psychology alike. CAS must stay relentlessly negative and uncompromising in its critique of the current social order, as it remains affirmative in the sense of validating possibilities of resistance and envisioning an alternative future.... Just as in the 1930s and beyond Adorno, Horkheimer, Marcuse, Fromm, and others confronted a situation of growing totalitarianism, the domination of nature, the defeat of revolutionary movements, rampant consumerism and conformism, the co-optation of dissent, and the occlusion of emancipatory alternatives and possibilities, the same situations prevail today, only in more advanced form, and they all form the context, background, and motivation for CAS. (2009c)

By and large, the critical theory of the early Frankfurt School is mutually exclusive with posthumanism. Whereas Adorno, Horkheimer, and Marcuse sought to rehabilitate the internally coherent, rational, and embodied subject, posthumanists embrace the subject's evaporation into an ontologically indeterminate hybrid; whereas Adorno, Horkheimer, and Marcuse were critical of the technologization of life and consciousness in late modernity, posthumanists regard both as at least potentially emancipatory; whereas critical theory is grounded in humanism, posthumanism is resoundingly anti-humanist; and whereas critical theorists oppose domination in all forms, posthumanists are not averse to the instrumentalization, exploitation, and even killing of animals.

Repositioning CAS within the critical theory of the early Frankfurt School and the radical Left tradition more generally would complicate the assumption that humanism is irredeemably reactionary and ought to be discarded. To be sure, some posthumanists are more circumspect on the status of humanism. Wolfe, for example, openly admits to certain ideological affinities between humanism and posthumanism. While it opposes the human supremacism espoused by humanism, he notes that posthumanism upholds certain fundamental humanist "values," especially its delegitimization of revealed truth and religious hierarchy and authority (2010, p. xvi). Similarly, according to Twine, many critical posthumanists are inspired by the progressive and emancipatory elements of traditional philosophical humanism while at the same time rejecting its repressive ontology. Twine, citing Tony Davies's observation that humanism is at once regarded as the "philosophical champion of human freedom and dignity" and also as "an ideological smokescreen for the oppressive mystifications of modern society," rightly insists that "it is misleading to posit posthumanism simplistically as a radical break from humanism" (2010, p. 178-79). Although posthumanists condemn humanism for the violence it has brought about, the prefix "post" indicates that posthumanism stands in an ambiguous and tenuous relationship with humanism—in short, it recognizes that, in spite of itself, it cannot entirely abandon humanism. Pointing to Jacques Derrida's contention that a total break with humanism is impossible, largely because Western philosophy is so informed by humanist thought, Badmington explains that "all systems are self-contradictory, forever deconstructing themselves from within" and that every attempt to escape humanism will be at least partially orchestrated by humanism itself (2000, p. 9). He adds that not only must we not characterize posthumanism as wholly antihumanist but, echoing Derrida contra Foucault, also argues that we must be cautious about premature jubilation about the alleged death of "Man" (2003, p. 11, 13). Despite admitting to difficulty effecting a total break with humanism, and frustration with traditional antihumanists' perpetuation of an all-too-humanist anthropocentrism, our brief foray into critical posthumanist literature indicates that it clearly seeks to disassociate itself from humanism as much as possible and is in fact vociferously and explicitly antihumanist most of the time. The inability to escape humanism is regarded, at least as articulated by Badmington, as more of a nuisance and an obstacle than anything else. Badmington himself admits that while humanism is always lurking, he is "not for one moment interested in preserving humanism" (2003, p. 10).

Against this tendency, I propose, following Sanbonmatsu's call for a "metahumanism" (2007), that we recuperate and revise Left humanisms—and some aspects of other humanisms—to develop a new interspecies humanism that aspires towards joint human and non-human animal emancipation. Certainly, Left humanisms uphold some unattractive elements of other forms of humanism, but they are distinct from earlier forms inasmuch as they are grounded in historical materialism, and social and environmental justice. Posthumanists typically fail to engage with a historically fluid and conceptually nuanced movement and set of ideas that, when examined more closely, are especially conducive to advancing the interspecies emancipatory struggle.

Though it may be counterintuitive to suggest as much, humanism can easily be purged of its human supremacist biases. As Ted Benton (1998, p. 11) has shown, Marx's naturalism potentially militates against the anthropocentrism of his humanism, even if Marx himself stubbornly

reasserted human mastery over other creatures. Moreover, socialist humanism, as interpreted by Erich Fromm, for example, can be understood simply as "a protest against man's [sic] alienation, his loss of himself and his transformation into a thing" under capitalism (2004, p. v). Fromm explains that Marx's humanism is "a movement against the dehumanization and automatization of man [sic] inherent in the development of Western industrialism" (p. v). Although many think such a movement is obsolete given how deeply enmeshed in the technical apparatus we are, the increasing colonization of human and non-human life by technological rationality makes revitalization of this socialist humanist movement more crucial than ever before.

Another ingredient in reorienting socialist humanism away from anthropocentrism is simply re-evaluating human alienation as co-constitutive with non-human animal alienation, a project for which Barbara Noske (1997) laid the groundwork. Once this revised analysis of alienation is established, it is illogical to imagine human emancipation as occurring independently of animal liberation. If human and non-human animals are mutually alienated under technocapitalism, both must be mutually disalienated, from each other and from themselves. Against posthumanists' claims, part of this process involves the rehumanization, not the posthumanization, if you will, of humans. In the context of twenty-first-century technological totalitarianism, the human subject is rehumanized by reinventing both itself and other animal subjects as at once mutually embodied and interrelated, and autonomous, unified, and ontologically distinct from each other and from the machinery of production (/destruction).

Left humanisms are integral to the interspecies emancipatory project because of their recognition of the (1) possibility of self-creation and social and historical transformation of the subject from a repressed to a non-repressed being; (2) importance of balancing individual freedom with ethical and political responsibility to others; (3) need to mobilize critical and dialectical rationality; (4) importance of affirming and seeking objective but nontotalizing truth, and relatedly, of articulating normative ethical and political principles (albeit outside of a liberal framework); and (5) importance of humanizing, i.e., de-instrumentalizing, education so that it serves to develop the individual as a well-rounded, and intellectually, ethically, and politically active subject. Given how fragmented and ineffectual the animal advocacy movement has become, today more than ever those struggling for a framework for interspecies solidarity and a strategy for action could benefit from a reinvention of humanism beyond the human. As Steiner cautions, "the goal of contemporary reflections on the problem of oppression should not be to move toward some ill-conceived 'posthumanist' future but instead to revise traditional humanist conceptions so that they better reflect the lives and needs of sentient beings" (2013, p. 4-5).

Note

1 My colleague David Redmalm was the first to describe Hird's use of numbers as "pornographic" during a seminar focusing on her work. I have borrowed this idea but expanded it into a more general critique of pornographic theory.

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