

# Posthumanism

Stefan Herbrechter and Ivan Callus

Posthumanism is arguably brasher about its connections with futurity than other concepts explored in this Companion. The term's morphological partitivity into *post-humanism* and *post-human-ism* bears this out. It handily foregrounds the paradigm's readiness to contemplate rupture with the complex and diverse traditions of humanism and also the supersedence and/or obsolescence of the human itself. Consequently posthumanism can come across as distinctly attitudinizing in its outlooks. This is particularly so when it is characterized by a radical futurology that celebrates the provisionality of the human in the seemingly steady and irreversible tending towards evolved and enhanced versions of humanity. The term *transhumanism*, which suggests a going beyond and exceeding of the human, is sometimes used to refer to such positions and outlooks. They are exemplified, for instance, in the work of Ray Kurzweil, notably in *The Singularity Is Near*. Reserving the term *singularity* for that point in the future when humanity will recognise itself as anachronistic and out of step with self-replicating and self-optimizing technologies of Artificial Intelligence and Artificial Life, Kurzweil argues that humanity's centrality is only a function of "our ability to create models—virtual realities ... to usher in another form of evolution: technology" (2005: 487). Joel Garreau, in *Radical Evolution*, further explains: 'Transhumanists are keen on the enhancement of human intellectual, physical, and emotional capabilities, the elimination of disease and unnecessary suffering, and the dramatic extension of life span' (2005: 231-2). Additionally, Hans Moravec's speculation that it will become possible to download human consciousness

into a computer is emblematic and is quoted towards the beginning of N. Katherine Hayles's *How We Became Posthuman*, which remains one of the most influential introductions to posthumanist thought (Moravec 1988: 9-10; Hayles 1999: 1).

Hayles's work (about which more will be said below) tends to be appreciably more nuanced and measured than many transhumanist statements, which are probably best approached as manifesto-like declarations. Transhumanist expression, through its extravagance and politics of shock, is intent on securing notice and discussion of ideas and possibilities which cannot be comfortably dismissed or derided even if they seem overstated or *outré*. In this respect, transhumanist manifestoes recall the strategies and tactics of the great declarations of the twentieth-century avant-garde emerging from movements like Dada, Surrealism or Situationism. The equivalent position, here, is the idea that technology and 'the prosthetic impulse' (see Smith and Morra) will be naturalized rather than supplementary to, or facilitative of, human life and action. After all, it is hardly seismic to think of a different operationality of the human or of exceeding humanity's reach and transgressing the circumstancing of its thrownness [*Geworfenheit*], as Heidegger would have it, after Nietzsche announced (for all the problematising of this statement that subsequently occurred), that 'God is dead'. Transhumanism, whose closest 20<sup>th</sup>-century analogue is perhaps Futurism and its rhapsodies about 'the internal glow of electric hearts', about 'eternal, omnipresent speed' and about 'our insolent challenge to the stars', is encouraged in such thoughts through the pervasiveness of bioengineering and of the technocultural lifescapes of the 21<sup>st</sup>-century, when what might previously have seemed science-fictional is immediate and has in fact become all too mundane and *mondaine*. The world no longer marvels but grows increasingly blasé about hi-tech devices and solutions, or about technoscientific breakthroughs which in one year—take 2012, for instance, when we are writing this—can bring about some telling corroboration of the probable existence of the Higgs boson particle, or the landing of the Curiosity rover on Mars, or extend

mapping of the human genome, or provide further confirmation that the Denisovians, an obscure group of ancient humans, were genetically different from both Neanderthals and modern humans, thereby further countering presuppositions about human exceptionalism. It is not too fanciful to speculate that all that might be needed to render a posthumanist paradigm orthodox and indeed itself passé is the discovery of extraterrestrial life: possibly the only event that could focus minds on what would then be an all too post-humanist circumstancing.

In the midst of all the above, resistance to posthumanist culture, tropes and ideas is not surprising. Posthumanism is perceivable to some observers as a rather jejune futurology that recharges a residual Luddism and technophobia in the most hyperconnected individuals. It can prompt fear that the authenticity and integrity of human experience and interaction are distanced in a world of relays and avatars. Posthumanism's momentum can seem driven towards a contracting of individual autonomy in favour of overarching, all-embracing systems that are panopticon-like in their omnipresence. Through their autopoietic potentialities such systems decentre the self further in an age of network cultures, where it can become more apt to speak of posthumanist nodality rather than posthumanist subjectivity. The extremes of this unease could suggest that Terence's "*Homo sum, humani nihil a me alienum puto*" [I am a human being, I consider nothing that is human alien to me] risks being overridden by the consideration that what is nonhuman or less or more than human is less extraneous to posthumanism than humanity and the human.

The work of Hayles calibrates itself more sensitively to the fear and dismay that can arise in response to that. It approaches posthumanism—which can be thought of here as the cultural condition occasioned by 21<sup>st</sup>-century biopolitics, technoculture, lifescapes and all the desires and anxieties arising therein, *as well as* the discourse that studies all that—with some of the circumspection that might be expected from someone who followed up formal training in chemistry with formal training in literary studies. Even so, however, the sense of revised

urgency in response to what is already imminent and immanent is distinctive. In an article called ‘Traumas of Code’, for instance, Hayles suggests that the pre-eminence of conceptualizations of language in late 20<sup>th</sup>-century thought might give way to the more cogent priority of investigating the intrinsicality of code within contemporaneity:

In computer-mediated communication, including cell phone conversations, email, chat room dialogues, blogs, and all documents written on a computer, the language we learned at mother’s knee is generated by computer code. Though computer-mediated language may appear to flow as effortlessly as speaking face-to-face or scribbling words on paper, complicated processes of encoding and decoding race up and down the computer’s tower of languages as letters are coupled with programming commands, commands are compiled or interpreted, and source code is correlated with the object code of binary symbols, transformed in turn into voltage differences. Most of this code is inaccessible to most people. At the level of binary code, few are equipped to understand it with fluency, and even fewer can reverse engineer object code to arrive at the higher-level languages with which it correlates. As a result, contemporary computer-mediated communication consists of two categories of dynamically interacting languages: so-called natural language, which is addressed to humans (and which I will accordingly call human-only language); and computer codes, which (although readable by some humans) can be executed only by intelligent machines. (2008: 136)

This long quotation is included here because it demonstrates how homely or familiar tropes (‘mother’s knee’; ‘tower of languages’) can be deployed in posthumanist writing to demonstrate the insidious naturalization of posthumanist operationality. Posthumanist retooling of human thought and action is facilitated by that naturalization. In the process, assumptions about what is integral to the human are transformed, even if the sense of alterity cannot be dispelled:

No longer natural, human-only language increasingly finds itself in a position analogous to the conscious mind that, faced with disturbing dreams, is forced to acknowledge it is not the whole of mind. Code, performing as the interface between humans and programmable media, functions in the contemporary cultural Imaginary as the shadowy double of the human-only language inflected and infected by its hidden presence. (2008: 157)

This is a more nuanced restatement, then, of the four shaping tenets that were foundational in *How We Became Posthuman* and in posthumanism itself:

First, the posthuman view privileges informational pattern over material instantiation, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life. Second, the posthuman considers consciousness [...] as an evolutionary upstart trying to claim that it is the whole show when in actuality it is only a minor sideshow. Third, the posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born. Fourth, and most important, by these and other means, the posthuman view configures the human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals. (1999: 2-3)

Key to this form of posthumanism, therefore, is the idea of dynamic emergence, of the ‘complex mutuality of the interactions’ between ‘the embodied human subject’ and ‘intelligent machines’, so that “[w]hat we make’ and “what (we think) we are” coevolve together’, such that ‘emergence can operate as an ethical dynamic as well as a technological one’ (Hayles 2005: 243).

But is this all there is to posthumanism, then: a technoutopic will impelled toward ‘*homo technologicus*, a symbiotic creature in which biology and technology intimately interact’, leading to ‘homo sapiens transformed by technology’ into ‘a new evolutionary unit, undergoing a new kind of evolution in a new environment’ (Longo 2002: 23)? Not at all. There are other forms of posthumanism which are reviewed briefly below. Some look at posthumanism’s genealogies and alternative histories, as well as posthumanism’s interdisciplinary and transdisciplinary temptations and affiliations. Some are more contained and others more political. There are also, then, dissident positions which, without denying the importance of posthumanism as a cultural moment and as a field of discourse, pursue its conflicted relationship with paradigms that preceded it, like postmodernism or poststructuralism, and critique its technological overdeterminism. But in all this, what remains consistent across these different posthumanisms is the view—and its critique—that humanity’s centrality in the horizons of time and space are anything but self-evident. Added to that are the idea that contemporary epistemology must renew itself and respond to diminished attunement to humanism’s orientations, among them entrenchments in the *studia humanitatis* and their legacies, and to uncritical acceptance of the values of *humanitas*, which are not above being totalizing. There is, additionally, the reluctance to accept that there must be limits to human reach and self-(re)design, and the conceit that humanity can be re-engineered beyond the constrictions of biology. Some aspects of these points, all of which turn on the idea that ‘human technologies have produced a hypercomplex environment for which humanist distinctions between the natural, the human, and the technological are increasingly non-functional’, as Bruce Clarke puts it (2008: 195), are considered below.

Let us consider some genealogical considerations first. Within posthumanist contexts Dante’s pioneering use of *transumanar* in the first Canto of the *Paradiso* could perhaps be better known. It captures the sense of a transitioning beyond the human, though in his case the

transcendence, not to say transmogrification, defeats description and occupies a more spiritual dimension. What Dante's use of *transumanar* forces upon our recollection is posthumanism's prefigurations within canonical depictions of the enduring challenges surrounding human existence. In particular, posthumanism might be seen as the most contemporary variation of humanity's mutinous resentments against its own inexorable finitude. Dante's persona achieves some serenity in the transhuman state it accedes to, but posthumanism is better typified by Prometheus or Faustus or Victor Frankenstein, both of whom transgressed the allotted limits of the human and ended up punished for it. Posthumanism, especially its transhumanist strains, speculates on a reengineered humanity that would not be punitive in its effects but, rather, emancipating of the containments placed upon the human condition. As a result, posthumanism can seem happy to be guilty of that most original of sins, hubris. There is much in art, literature, religion, philosophy, theology, theory, anthropology and other familiar discourses that can be invoked to suggest the inevitability and direness of the comeuppance when humanity overreaches its containments. At the same time, however, it is possible to encounter in all those discourses the respect for human inquiry, endeavour and questing that find an apotheosis in posthumanism, which is, in this sense at least, the ultimate beneficiary of the humanist thrust towards the dignification of the human, as well as the paradigm least resigned to accepting an absurdist view of the human condition.

The difficulty, of course, is that there appears to be an immemorial sanction against the overreacher, one mythologized in countless narratives from the Bible to Ovid, from Dante to Shakespeare, from H. G. Wells to Philip K. Dick. Picking up on these cues, the trope of metamorphosis that is so compellingly yet disturbingly developed in Ovid, where human desires are thwarted and the human often transformed to a reduced form of organicity—with the tale sometimes poised on that concentrated and agonising moment of the transformation—is central to posthumanist thought. It is taken further by Rosi Braidotti, who acknowledges the

'meta/morphic' extensions of the trope in 'becoming-machine' scenarios (2002: 212-63), such that the figures of the cyborg and the android acquire the pertinence that is long established as a staple of popular culture (see Hables Gray 1995), and by Bruce Clarke, who remarks that 'post-human metamorphs couple the media systems that enact them to the social systems communicating them to the psychic systems of readers or viewers variously comprehending them' (Clarke 2008: 195). Meanwhile Shakespeare, who according to Harold Bloom (1999) can be credited with the invention of the human, becomes an important site for understanding the coinciding 'understanding of the inhuman, the non-human, the more-than-human, the less-than-human' (Herbrechter 2012: 7) and for literary prefigurations of the posthuman and its alterities. And in Wells and in Dick, to cite just two major figures from the rich heritage of science fiction in this area, the dystopian consequences of meddlesomeness with human reach and range are clear, suggesting that even in this genre 'the archaeologies of the future', as Fredric Jameson (2005) refers to them in his major study of the genre, are subliminally apprehensive of the posthumanist dream. In *The Time Machine* (first published in 1895), for instance, in the contrast between the feckless airiness of the Eloi and the tenebrous industry of the Morlocks, we find one of the first narratives to explore a different and not edifying emergence of the human, one that is pursued more radically still in Dick's stories of a humanity that moves to seamless articulations with technology but which cannot be seen to have optimised its condition in the world (see Wells 2005 and Dick 1968). Cinema, of course, has found Dick's fictions fertile ground for newly mythologizing adaptations, Ridley Scott's *Blade Runner* being a particularly iconic movie in the posthuman canon and complementing other influences in that pantheon, among them Fritz Lang's *Metropolis* and the Wachowski brothers' *The Matrix*.

Elaine Graham (2002) provides a useful study of these genealogies of the posthuman and Clarke, too, remarks that 'current posthuman figures of systemic hybridity have long been

anticipated by mythic and literary narratives in which human figures are formally coupled with the nonhuman, transforming them into something beyond the human' (2008: 3). This has given rise to a distinct strain of posthumanist scholarship, in studies which revisit and critique canonical and popular prefigurations or depictions of the posthuman and then try to assess how the posthumanist paradigm can be 'read back' by those texts and representations (see, for instance, Joy and Dionne 2010). There are, however, other studies of prefigurations of posthumanism that extend to discourses like philosophy and theory. In *Posthumanism: A Reader*, for instance, Neil Badmington (2000) interestingly places prominence on a range of texts from figures like Roland Barthes, Louis Althusser, Michel Foucault and Jean Baudrillard whose affiliations in structuralism, poststructuralism and postmodernity leave little doubt that posthumanism's antecedents are more motley than a technologically overdetermined vision of the paradigm might anticipate. Analogous investments in feminism and post-Marxism mark one of posthumanism's most central documents, Donna Haraway's 'A Cyborg Manifesto' (first published in 1985), where the sense of opportunity that posthumanism represents, but also the programmatism that can accompany it, are apparent. For if a brave new world that has so many post-people in it is truly to emerge then the challenge, quite clearly, is to engineer it to be more equitable than what it replaces. The cyborg, 'a creature in a post-gender world' with 'no origin story ... in the Western, humanist sense' has a pertinence that resonates now because '[b]y the late twentieth century ... we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are all cyborgs' (Haraway 1991: 150-1). Cyborg imagery, then, like much of posthumanism, is inescapably political, for it 'can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves' and is generative of 'a powerful infidel heteroglossia' (181). There will be more to say on posthumanist politics towards the end of this article.

Graham's, Haraway's and Badmington's approaches to the posthuman, embedded as they are in negotiating the connection between the tradition and posthumanism's individual talent, makes apparent the enduring relevance of a preceding and indeed coinciding generation of theorists even within this new paradigm. While figures like Lacan, Lyotard or Derrida, for instance, might not intuitively be cast as posthumanist, the relevance of their explorations of, say, the 'hommelette' (Lacan 1998), 'the inhuman' (see Lyotard 1991) or 'the ends of man' (see Derrida 1982) will be clear, while Deleuze and Guattari's references to 'bodies without organs' (Deleuze and Guattari 1990 and 2008) are routinely referenced within posthumanist writing. In poststructuralism, particularly, posthumanism finds intriguing challenges. As the paradigm which invested closely in 'the linguistic turn', poststructuralism can seem particularly at odds with posthumanism's affinities with the digital. At the same time, however, posthumanism risks some rootlessness if it overlooks poststructuralism's explorations of ideas that shape it too. There are, indeed, ample indications that this is *not* happening, and perhaps nowhere is this more evident than in the area of Animal Studies or in the poststructuralism-toned posthumanist probing of the themes of life and death. The following paragraphs seek to demonstrate this and to establish the connections with two other significant strains within posthumanist thought: the irrepressibility of the post-apocalyptic and the attention to systems theory.

There are at least two ways in which posthumanism and 'the question of the animal', vital at least since Derrida's *The Animal That Therefore I Am* was published, are connected (see Derrida 2008 and Wolfe 2003a and 2003b). One is the need for a new ecology in the era of the posthuman, where agency under postanthropocentric conditions is becoming more complex and varied. The intensified networking between humans through new media is paralleled by other form of cyborgization and entanglement at physical, biological or bodily levels, as demonstrated in Haraway's use of the term 'nature-cultures'. These developments require new

(posthumanist) forms of ecocriticism that challenge views of human ‘dominion’ over the world and instead acknowledges the multitude of interactions and mutual interdependencies between humans, nonhumans and their environment. The other way in which nonhuman animals are an essential part of posthumanist thinking finds expression in the problem of (human) advocacy. In many respects, turning towards animals is the logical outcome of political advocacy—i.e. speaking up for the equality of the ‘other’ and creating a space for articulating his, her, or indeed, its difference. In this sense, the animal or non-human other, is the latest other in a long line of others who have ‘voiced’ their rights towards just treatment, equality and respect, by ‘articulating’ their difference. So, after gender, sex, race, age ... now, species, or ‘speciesism’ has become the ultimate and most fundamental form of inequality or prejudice to be redressed. This is, in the main, a radicalization of the ‘politics of representation’, in which the ‘nonhuman’ in all its forms is now implicated. A major problem, of course, is that the nonhuman in general, and animals in particular, really (i.e. physically) cannot speak for themselves, which raises the tricky question of anthropomorphism. Can humans really speak on behalf of nonhuman animal others? Even the term “nonhuman”, in fact, poses a problem because it tends to presuppose a human norm, essence or truth from which all nonhuman forms differ.

The context in which posthumanism helps to reposition the ‘animal question’ is the following. On the one hand, there is the ongoing and maybe even accelerated physical disappearance of animals under the conditions of modernity. The erosion of so-called natural habitats, looming global environmental crises, the radical segregation between pets and, differently, animals as meat products or exotic attractions: these are all part of this disappearing process. On the other hand, in times of genetic breeding, the boundaries between human, animal and machine are being eroded, questioning traditional ‘purities’ and provoking new utopias of hybridity and anxieties of purification as a result. This has been Donna Haraway’s

argument ever since her 'Cyborg Manifesto' (1985), right up to her 'Companion Species Manifesto' (2003) and *When Species Meet* (2008).

Advocacy for nonhuman others usually runs into the standard criticism of anthropomorphism. However, it seems that all too often the fact that humans cannot possibly know what it is like to be a bat (cf. Thomas Nagel's famous argument, 1974) has been used to foreclose the potentiality of a true encounter between humans and others, an encounter which nevertheless may do justice to the respective 'singularities' and peculiar abilities and characteristics of the two parties involved. A statement like Randy Malamud's (in Tyler and Rossini 2009: 79) can be seen as quite representative of a stance in posthumanist or postanthropocentric animal or animality studies: 'am ecologically offended by the pervasive failure of human culture... to acknowledge with any serious engagement the integrity, the consciousness, the real presence, of other animals in our world'. Instead Malamud invokes 'a posthumanist rejection of the fantasy of human omniscience with regard to animals' (95).

The context of accelerated technocultural change in which human nature is challenged also has an influence on redefining 'animality' and our relationship with nonhuman animals and our own partaking in animality, i.e. our animal bodies. Donna Haraway in her recent work attempts to show that human and nonhuman animals, as well as machines, are woven together in an instrumental economy in which 'we' live in and through the use of one another's bodies. This buttresses the argument against human exceptionalism. Haraway uses the idea of 'responsibility' in human/animal interaction and argues for animal response-ability, i.e. the ability of animals in all their worlds to respond and to interact ('responsibility is a relationship crafted in *intra-action* through which entities, subjects and objects, come into being'). With regard to acknowledging and doing justice to animal response-ability, instrumentality is, in fact, not the real (or only) problem as long as there is what Haraway calls a 'responsible sharing of suffering'. She follows both Bentham's famous argument against animal cruelty on the basis of

sentience and Derrida's and Levinas's radicalised notion of 'responsibility' as, in principle, 'incalculable', to critique the logic of sacrifice that underlies most humanist notions of the relation between humans and animals (i.e. sacrifice as 'legitimised killing', to be differentiated from murder and the commandment 'Thou shalt not kill', which is only applicable to humans). Instead, Haraway puts forward an alternative 'commandment', namely 'Thou shalt not make killable', to highlight the inevitability of killing (under certain circumstances) and the necessity of 'learning to share other animals' pain non-mimetically'. Haraway's notion of animal response-ability is thus instrumental to her political aim of achieving 'multi-species flourishing': 'we are face-to-face; we are in the company of significant others; we are companion species to each other. That is not romantic or idealist, but mundane and consequential in the little things that make lives', she claims (Haraway 2008: 69ff.).

What animal studies, certain materialist forms of feminism and posthumanism in general therefore share is a political and ethical desire to offer a 'radical alternative to the dominant cultural imaginary' in the form of Haraway's notion of 'nature-cultures', multiplicities or Deleuzian 'assemblages' and networks, rather than identities (Rossini in Tyler and Rossini, 2009: 244). What posthumanism and feminism share, Manuela Rossini argues, is an attempt to take animal encounters seriously and to think beyond binary oppositions (e.g. human-machine, human-animal, nature-culture, man-woman, heterosexual-homosexual). This opposes 'cybernetic' or 'popular' posthumanism and emphasizes the necessarily 'messy' materiality and embodiedness that arises out of the gradual dissolution of these boundaries. Rossini expresses her confidence in the future of the 'humanities morphing into the posthumanities before long', which will be dealing with 'the complex entanglements between human and nonhuman actors, things and institutions' and the 'subjectivities and new life forms emerging from these encounters' (246).

In this current posthumanist context, with its turn away from anthropocentrism, there is not only a return of or to the question of what separates humans from nonhuman and other others, but also a focus on what exactly distinguishes the living from the non-living. An accessible form of that is posthumanist interest in popular culture's figuring of the zombie and/or the vampire, liminally situated in life and death. In conjunction, and following the advent of 'life sciences' and the almost complete transparency of living organism due to scientific advances in genetics and biotechnology, the question of 'life' is at the centre of current thinking in general and posthumanist theory in particular. Given that the humanist universal agreement on the 'sanctity' of (preeminently human) life is no longer sustainable, the power over life (and death) of the sovereign (whether we are dealing with a democracy or a tyranny) is increasingly subject to more complex power struggles between politics, ethics, economics and science. Who has the right to give or take life, to produce new life forms or change existing ones? What is a 'good' life? What is the meaning of life? Where and when does life start, where and when and how does it end? Does death's finality give meaning to life or is life without death thinkable, never mind achievable? All these questions regain their urgency under posthuman and posthumanist conditions. They are being asked in the political and economic context of neoliberal globalization and radically dehumanized conditions for a great number of living beings. This is why Giorgio Agamben in his rereading of Foucault's texts on biopower, biopolitics and modernity reaches the conclusion that we are living the times of a proliferation of the production of 'bare life' in conjunction with generalized 'thanatopolitics' (a politics of death). Ethically speaking, the biological continuism that posthumanist animal(ity) studies advocate—i.e. the continuity between human and non-human animal lives and the new bioethical challenges this brings—makes visible that modern biopower with its reliance on technologies of the self and docile bodies (Foucault) increasingly sees the *bios* in biopower, biopolitics and biotechnology as a commodifiable 'bare life', a life to be 'taken'.

Accordingly, Agamben uses the (Aristotelian) distinction between *bíos* and *zoē* to illustrate the contemporary shift from bio- to thanatopolitics. In Agamben's model, *bíos* is reserved for the 'proper' social life of the individual human being, while *zoē* ('animal life') is the 'improper' dehumanized, animalized and depoliticized form of 'bare life', which Agamben sees at work in the generalized trend towards the *homo sacer* (the silent, desubjectified, singular human life 'at the disposal' or mercy of bio/thanatopolitics, across the ages, but increasingly so, today). What characterizes the proliferation of bare and exposed forms of life under the neoliberal, globalized, contemporary condition is the accumulation of '*dispositifs*' (apparatuses, devices, stratagems, mechanisms...). Originally a Foucauldian term used to explain how modern society uses political 'mechanisms' in response to perceived emergencies (most famously, the 'panopticon' as a surveillance *dispositif*), the *dispositif* appears as the main (technological) force which sends biopolitics onto the slippery slope towards the disposal over life, desubjectification, depoliticization and, hence, thanatopolitics.

Given the exponential growth of neoliberal *dispositifs* aimed at controlling and securing populations, on the one hand, and promoting marketized forms of exchange to more and more generalized areas of life, on the other hand, Timothy Campbell asks, following on from the work of the Italian thinker Roberto Esposito: 'Is securing populations the only possibility for biopolitics in a technologized milieu, its increasing inscription as only biopower, with only a toxic mix of *dispositifs* and media to look forward to?' (Campbell 2011: 126). At stake in a critically posthumanist evaluation of biopolitics is thus, on the one hand, an analysis of the potential for resistance within contemporary biopolitical thinking to current global techno-thanato-political developments, and, on the other hand, a need for a bioethics that sees humans, nonhumans and the living as an ecological community in complex interaction with their environments. The second aspect of the critique of thanatopolitics is found in forms of materialist feminist posthumanist work by authors like Rosi Braidotti, Karen Barad or Vicki

Kirby, who through a critical rereading of Deleuze and the vitalist tradition argue for a more affirmative and inclusive notion of life, but who do so by insisting on the experience of a materialist notion of difference. Both angles of posthumanist critique of bio-thanato-politics focus on the broad issue of posthumanist subjectivity and the role of technology in discussions of human/social evolution. Their project is to start questioning the rampant technological determinism that persists in contemporary, 'postanthropocentric' perspectives on bio-thanato-politics.

That postanthropocentric aspect of the posthuman is viewable also in different contexts featuring apocalyptic and postapocalyptic scenarios. It is ironic that posthumanism's projections occur at a time when recent millennialism and the fictional and nonfictional 'writing of the disaster' remain rife, when the sensibility is that of one of 'living in the end times', as Slavoj Žižek puts it (2010). Alan Weisman's *The World without Us*, which speculates on Earth's changing appearance over time if the human race were wiped out, is just one of the many texts from across a range of genres that responds to this more than subliminal fear, which is apparent with particularly harrowing force in the various 'Last Man' narratives in literature, cinema and television that follow upon such texts as a pioneering work in this genre, Jean-Baptiste François Xavier Cousin de Grainville's *The Last Man*, first published in 1805 and therefore predating Mary Shelley's work of the same name, and more recently Cormac McCarthy's *The Road* (cf. also Callus's work on 'autothanatography' in this context; Callus 2005). Indeed, the most straightforward and literal-minded interpretations of the posthuman would position it squarely and coextensively with death. It is worth noting, therefore, that it is in the work of figures like Derrida and Maurice Blanchot and Philippe Lacoue-Labarthe that the scarcely conceivable posthumanist state of a consciousness that would endure and continue in death, in 'autobioheterothenatographical' relation (see Derrida 1993: 213), that one finds

what are probably the most unnerving dimensions of the posthuman (see Blanchot 1987; Blanchot/Derrida 2000; Lacoue-Labarthe 2011).

What emerges from this is the complexity and diversity of posthumanism's affiliations. Posthumanism, a secular paradigm if ever there was one, is the broadest of churches. It subsumes approaches variously informed by transhumanism, literary studies, cultural studies and the study of popular culture, postmodernism, poststructuralism, philosophy, political theory, the life sciences in all their biotechnological guises, cybernetics, Artificial Intelligence, Artificial Life and a lot more. In that 'more' religion itself, for instance, is hardly marginal to the debate (see Bradley 2011 and Bradley and Tate 2010), while the work of Cary Wolfe on the relations between posthumanism and systems theory, particularly as this develops from work on cybernetics and the work of the late German social scientist, Niklas Luhmann, establishes another important strand of posthumanist scholarship, not least through his influential study, *What Is Posthumanism?* Bernard Stiegler, meanwhile, has sought to map the field of 'technics' as 'a process of exteriorization' in a fundamental relation with memory, temporality, technogenesis, technocracy and 'the pursuit of life by means other than life' (1994: 17). Potentially and cumulatively, therefore, posthumanism is the most interdisciplinary and transdisciplinary paradigm of recent times, and inescapably so in 'the excess of measure' it brings to 'this exceptional phrase inscribed on the wall of time: *no future*' (276).

In the light of all of the above, what are the stakes for posthumanist critique and scholarship more broadly? What is the future of posthumanism, this concept that turns so intimately to the future which is obscure at best and absent at worst? The question is strategically important for the humanities. Posthumanism may conceivably become to the present moment what postmodernism was to the period between 1970-1990 (we take as the demarcating dates, here, those established by the V&A's *Postmodernism: Style and Subversion* exhibition of 2012, though we know that the debate on more appropriate dates will be inexhaustible; see Adamson

and Pavitt 2011). Posthumanism can thereby be a discourse which critiques the cultural condition and the art and narratives born out of the ubiquity of technoculture, of digital information at a time when code supposedly displaces the linguistic turn, of the prosthetic aesthetic and the idea of seamless articulations with machines, of a reoriented emphasis within philosophy and related disciplines on the imponderables of consciousness and cognition as much as of mind, of biotechnology and the inescapable and tyrannical dynamics of life and death, of what will happen in global politics and our human and nonhuman ecologies when 'crisis' has become one of the most tired words of our time. Indeed as we write this the sense of almost boundless possibility that is opened up by that list is tempered by the contrary realism prompted by a global economic crisis that only serves to reconfirm that the posthuman remains contingent on all too human foibles and failures. And whereas one of the most appealing aspects of posthumanism, compared with the sometimes dyspeptic tendency of postmodernism to lament the present, is its generally more sanguine outlook on human desires and human questing and, arguably, a greater tendency to celebrate or at least savour the present and its potentialities rather than to mount jeremiads, its politics—when it is not informed by the kind of perspectives held up by Haraway, for instance—is suspect in its assumptions and less than equitable in its orientations and privilegings. Indeed, as a cultural condition posthumanism sheds none of postmodernism's complicity with the cultural logic of late capitalism analysed by Fredric Jameson (1990). Postmodernism's tendency towards commodification, waning of affect and depthlessness are, if anything heightened in the present moment. In this respect despite Francis Fukuyama having been ill-advised and insensitive when speaking of capitalism's ineluctable historical prevailing (1993), it is not difficult to see the coextensiveness between hypercapitalism and technoculture, for instance, or to appreciate that Niall Ferguson's view (2011) of the West's pre-eminence even as (and because) Eastern expansionism imitates it is an affirmation of facilitating conditions to posthumanism's investments in technoscientific

progress. Consequently a certain breeziness in theorization among some (by no means all) posthumanist writing is an opportunity for the more measured expression and cadences of the humanities to act as a corrective that is refining rather than adversarial. An example of that is provided by David Wills's book *Prosthesis*, which provides an alternative, personal and poststructuralism-informed exploration and critique of the prosthetic sensibility in Western writing.

It would be useful, too, to approach posthumanism in the light of Michael Hardt and Antonio Negri's work on 'empire', 'multitude' and 'commonwealth', these three eponymous words that pithily capture contemporaneity's political driftings (2001; 2004; 2009). Additionally, a posthumanism that is more mindful of the exciting work that does not get routinely quoted in its contexts would be a less narrow posthumanism. It is not too difficult, for instance, to see how Peter Sloterdijk's thoughts on anthropotechnics (2009) or Quentin Meillassoux's thoughts on the ancestral and finitude (2010) could connect with this field.

For the humanities, the dangers are that they might turn inward against the creep and sweep of the posthuman condition. Already in 1998, George Steiner had expressed concerns about the encroachments of an increasingly more numerate rather than literate age (1998: 114). The sentiment is understandable and captures the unease others will feel, across diverse fields, in the face of processes and ways of working that overwhelm protocols of thought, inquiry and research whose values and methodologies might have seemed time-proof. What is certain is that the posthuman condition is too important for the humanities to neglect. Dismissing or marginalising the urgencies of posthumanism or the intimacy of its relation with contemporaneity would be blinkered. Nor is it necessarily rigorous to respond to posthumanism by recuperating it within theory's repertoires, so that it simply becomes one more paradigm for undergraduates and postgraduates to cover in any fairly comprehensive course on post-1945 epistemologies and cultures. This is not to say that an approach that does that is not vital. It

leads to important and fascinating work, especially when it details more closely the genealogies of the posthuman or brings to bear upon representations of the posthuman condition approaches that give rise to intriguing interfaces with, for instance, poststructuralism or the phenomenological tradition. But in doing so it risks abdicating the responsibility of investigating the *specificities* of the posthuman and their inscrutability and irreducibility to the humanities' protocols and pieties. For instance it no longer quite works as well as it once did to tame 'the question of technology', as Heidegger termed it, by resisting 'the instrumental and anthropological definition of technology' and conceiving it instead as a special case of *poiēsis*, of bringing-forth [*Her-vor-bringen*] (1997: 5, 10). That kind of move, both disingenuous and ingenious, helps when nuancing technodeterministic strains of posthumanism but it does not demonstrate a sensitive conception of technoculture's occasional intractability to scrutiny by established paradigms within the humanities. It represses, rather, the question of whether the engagement of the humanities with the posthuman is a process of discovery of their own precariousness or of their capacity for self-renewal. For there remains the sneaking suspicion that the posthuman condition reads and holds the humanities to account as much as that process operates in the reverse direction. The engagement of the humanities and the posthuman must therefore be one that is reciprocal, non-judgemental and as open as posthumanism's most exciting affordances allow. There are already ample and generous examples of this happening: in the work of Eugene Thacker on biomedica, network culture and the 'after life' problematic (2004; 2007; 2010), for instance, or in recent critical collections that are exemplary in their interdisciplinary ethic (see as examples, Franchi and Güzeldere 2005; Savulescu and Bostrom 2009; Bartscherer and Coover 2011). Whether, in the process of that engagement, it will be discovered that the humanities will have turned into the post-humanities is something that is probably best assessed in a later edition of this Companion.