that the world hasn't seen. Released from the deep-freeze, they begin to assemble genetic futures. Apprehension flushes into the cold water and blends with new matter, intensely communicating with fragile marine systems.

(4) With the melting of the Arctic ice comes the steady release of massive new genetic materials with which humanity is not acquainted. The ice allows microbes to enjoy a sort of immortality, allowing creatures that have long disappeared from the planet to someday return. With the Earth's sixth mass extinction under way, the logic of this evolutionary strategy becomes comprehensible: preserving genetic blueprints by storing them in deep-freeze for a future re-entry. Evolutionary biologists estimate that the total biomass of the microorganisms in and beneath the ice sheet may amount to be a thousand times that of all the humans on Earth. To be posthuman increasingly means to relocate in a new genetic planetary milieu. Rather speculative than predictive, the she-scientist – become diver, videographer and metaphysician – engages in the inevitable transformation of the chemical and genetic composition of the earth by reconfiguring its historical terms, reworking its tempi, resetting its landmarks, and rerouting its premises.

See also Animism (Limulus); Ecosophy; Naturecultures; Hypersea; Planetary; Speculative Posthumanism; Vertigo Sea.

Ursula Biemann

POSTHUMAN CRITICAL THEORY

Posthuman critical theory unfolds at the intersection between post-humanism on the one hand and post-anthropocentrism on the other. The former proposes the philosophical critique of the Western Humanist ideal of 'Man' as the allegedly universal measure of all things, whereas the latter rests on the rejection of species hierarchy and human exceptionalism. They are equally relevant discourses, but they refer to different theoretical and philosophical genealogies and engender different political stances. Their convergence in posthuman critical thought produces a chain of theoretical, social and political effects that is more than the sum of its parts and points to a qualitative leap in new conceptual directions (Braidotti 2013).

The relevance of posthuman critical theory is enhanced by the contextual urgency of the Anthropocene condition, which, read in the light of Felix Guattari's *Three Ecologies* (2000), becomes an environmental, social-economical, as well as affective and psychical phenomenon of unprecedented proportions. The combination of fast technological advances on the one hand and growing economic and social inequalities on the other makes for a conflict-ridden landscape marked by violent and inhumane power relations.

There are many challenges for posthuman critical theory: the first one is to acknowledge that subjectivity is not the exclusive prerogative of *Anthropos*. This means that it is not linked to transcendental reason and that it is unhinged from the dialectics of recognition. Secondly, the challenge is to develop a dynamic and sustainable notion of vitalist materialism that encompasses non-human agents, ranging from plants and animals to technological artefacts. Thirdly, it means to enlarge the frame and scope of ethical accountability along the transversal lines of post-anthropocentric relations. In other words, the challenge is to create assemblages of human and non-human actors.

To meet these manifold challenges posthuman critical theory draws from

two sources: feminist theory and Deleuze and Guattari's neo-materialist philosophy. The combination of feminist and neo-materialist philosophies allows for an anti-humanist and post-anthropocentric stance, which can innovate and invigorate discussions of naturalism, the environment, ecological justice and the shifting status of the human. This results in the rejection of dualism. It is important here to emphasize the feminist notion of embodied and embedded locations, which I take as the original manifestation of the concept of radical immanence. The encounter of feminist theory with neo-materialist philosophy (sometimes called neo-Spinozist materialism) results in the reappraisal of the notion of immanence, as opposed to transcendental universalism (Deleuze 1988b; 1990; Braidotti 1991, 1994; Gatens and Lloyd 1999). Posthuman critical theory can thus be described as vital-materialist, embodied and embedded, and immanent. Elsewhere, I have described this way of thinking as 'nomadic' (Braidotti 2011a, 2011b).

The defining features of posthuman critical theory are then that it rests on a neo-materialist philosophy of immanence, which assumes that all matter is one (monism); that matter is intelligent and self-organizing (autopoiesis); that the subject is not unitary but nomadic; and that subjectivity includes relations to a multitude of non-human 'others'. In this framework 'life' is not only defined as *bios*, but also as a *zoe*-centred, non-human process (Braidotti 2006b). Posthuman critical theory celebrates the diversity of life – as *zoe* – as non-hierarchical matter, which recognizes the respective degrees of intelligence and creativity of all organisms. This implies that thinking is *not* the prerogative of humans alone, which allows for a form of relational and collaborative ethics.

Posthuman critical theory consequently embraces the eco-sophical co-creation of the world – our terrestrial, grounded location – by recognizing the specific abilities and capacities of anthropomorphic and non-anthropomorphic beings alike. The expanded definition of life also allows for the inclusion of and interaction with technological artefacts and thus accounts for technological mediation ('machinic autopoiesis'). This idea discards the nature–culture divide and replaces it with a philosophy of relationality and multiple interconnections. The embrace of the technological realm resists the over-coding of technology by the financial profit principle, which is the axiom of advanced capitalism.

If it is a challenge to acknowledge that subjectivity is not the exclusive prerogative of the human, then a posthuman theory of the subject emerges as an empirical project of experimenting with what contemporary, bio-technologically mediated bodies are capable of 'becoming'. The pursuit of one's freedom to become is framed by a neo-Spinozist ethics of joy or affirmation, which indexes the processes of becoming onto a relational bond to a multiplicity of others whose well-being affect one's own. Posthuman critical theory supports the composition of nomadic subjectivities whose relational capacities are multifold and open to non-anthropomorphic elements. The ethics of the posthuman subject is *zoe*-centred egalitarianism, based on respect for the non-human, as the vital force that cuts across previously segregated species, categories and domains. Neo-materialist immanence requires a collaborative morality in the sense of ethical accountability for the sustainability of these relational assemblages or nomadic compositions of posthuman subjectivity (Braidotti 2002, 2006a). The non-profit experiments with intensive modes of posthuman

subjectivity actualize the virtual possibilities of a nomadic, relational self that functions in a nature–culture continuum and is technologically mediated. Not surprisingly, this non-profit, experimental approach to different practices of subjectivity runs against the spirit of contemporary capitalism, fuelled by a notion of possessive individualism based on quantitative options (Macpherson 1962). The theory of posthuman subjectivity runs precisely in the opposite direction towards non-profit experimentations with intensity.

As a consequence, the task of critical thought is defined as both critical and creative. The *critical* side is operationalized through cartographies of the power (*potestas*) relations at work in the production of discourses and social practices, with special emphasis on their effects upon subject-formation. The *creative* side enlists the resources of the imagination and proposes a new alliance of critique with creativity, philosophy with the arts, for the purpose of learning to think differently, inventing new concepts and actualizing alternatives to the dominant humanistic vision of the subject.

Neo-materialist nomadic thought proposes the parallelism of philosophy, art and the sciences, by arguing that thinking is the counterpart of the embodied subject's ability to enter into multiple modes of relation. 'Thought' is consequently the expression of ontological relationality, that is to say of the power (*potentia*) to affect and be affected (Deleuze and Guattari 1994). Furthermore, thinking is about the creation of new concepts in that it pursues the actualization of intensive or virtual relations. Posthuman critical thought can thus be understood as a multi-directional philosophy of relational ethics. In other words, posthuman critical theory foregrounds a relational ethics of joy and a politics of affirmation.

Methodologically, posthuman critical theory rejects any form of nostalgia for humanism, that is to say the vision of the human as the enlightened 'Man of reason' (Lloyd 1984). Both in Deleuze's philosophy and in feminist epistemology, the non-nostalgic approach is cultivated through the method and the pedagogical tactic of anti-oedipal de-familiarization. This entails un-learning old habits of thought, and the forms of masculinist and Eurocentric representations they sustain. Such a methodological process goes hand-in-hand with the analysis of power relations, through the cartographic politics of location mentioned above. The point of cartographies is to account for and learn to relinquish unearned privileges and implicit power privileges. The method of dis-identification from the familiar is one of the most productive points of contact between neo-materialism and feminist theory (Braidotti 2016a). Keeping firmly in mind the nomadic aim of speaking truth to power and of de-territorializing philosophy from the despotic machine that has coded it over time, posthuman critical theory emphasizes the importance of learning to think differently about what we are in the process of becoming.

The meta-methodological angle is crucial to posthuman critical theory which, being a practical philosophy, pays special attention to the criteria needed to set up experiments with both virtual and concrete applications. The general concepts get operationalized in a series of methodological guidelines. The first guideline is a practical, problem-oriented approach to philosophical thinking, which is open to non-human agents and factors, including technological mediation. Secondly, we need non-linearity or nomadic thinking which entails both putting the creative powers of the imagination to work and the strategy of de-familiarization (Braidotti 2013). Thirdly, a trans- and

supra-disciplinary approach to the production of knowledge is necessary. Such an approach is nomadic in relation to disciplinary power and devoted to experimentation rather than the repetition of tradition. Fourth comes cartographic accuracy, with the corollary of ethical accountability. Finally, posthuman critical theory embraces the combination of critique with creativity, including a flair for paradoxes and the recognition of the specificity of art practices.

Politically speaking, posthuman critical theory is a practical philosophy that aims at composing a 'missing people', that is to say it creates a plane of encounter for subjects who share concerns and desires. Critical thinking needs to construct its community around the shared affects and concepts of collectively drawn cartographies of power. The plane of composition of 'we' – a community of nomadic and accountable scholars – constitutes the shareable workbench of critical posthuman scholars. It expresses the affirmative, ethical dimension of becoming-posthuman as a gesture of collective self-styling. It actualizes a community that is not bound negatively by shared vulnerability, the guilt of ancestral communal violence, or the melancholia of unpayable ontological debts, but rather by a collaborative ethics of becoming. Posthuman critical thinkers are bonded by the compassionate acknowledgment of their interdependence with multiple, human and non-human, others.

See also Critical Posthumanism; Anthropocene; Transhumanism/Posthumanism; Insurgent Posthumanism Feminist Posthumanities; In-human; the Joy; Monster/the Unhuman; Neo/New Materialism; Process Ontologies.

Rosi Braidotti

POSTHUMAN DISABILITY AND DISHUMAN STUDIES

In a recent paper by Goodley, Lawthom and Runswick-Cole (2014) we asked: what does it mean to be human in the twenty-first century and in what ways does disability enhance these meanings? In addressing these questions we found ourselves working through the entanglements of nature, society, technology, medicine, biopower and culture, particularly inspired by Rosi Braidotti's work on the posthuman condition (Braidotti 2003, 2006b, 2013). But how does disability speak to the posthuman (and vice versa)? We understand disability as a political category, an identity and a moment of relational ethics. Our community of scholars and activists – critical disability studies – are, we believe, perfectly at ease with the posthuman because disability has *always* contravened the traditional classical humanist conception of what it means to be human (see Goodley, Lawthom and Runswick-Cole 2014). But, we argue, disability also invites a critical analysis of the posthuman (and for that matter humanism). We draw on one of Braidotti's posthuman themes developed in her 2013 text: *life beyond the self*. We illustrate the ways in which disability epitomizes a posthuman enhancement of the self while, simultaneously, demanding recognition of the self in the humanist register. This leads us neatly to our recent work in which we have started to develop a theory of *DisHuman Studies* (see Goodley et al. 2014; Goodley, Runswick-Cole and Liddiard, 2016) which, we contend, simultaneously acknowledges the possibilities offered by disability to trouble, reshape and re-fashion the human (crip and posthuman ambitions) while at the same time asserting disabled people's humanity (normative and humanistic desires).