

Speculative *Before* the Turn

Reintroducing Feminist Materialist Performativity

CECILIA ÅSBERG

LINKÖPING UNIVERSITY

KATHRIN THIELE

UTRECHT UNIVERSITY

IRIS VAN DER TUIN

UTRECHT UNIVERSITY

This is a moment for new conversations and new synergies. While a wealth of contemporary speculative materialisms is currently circulating in academia, art and activism, in this article we would like to focus upon a few ethico-political *stakes* in the different, loosely affiliated conceptions of ontologies of immanence. These ontologies all prioritise a horizontal plane on which, or from which, differences are made. These differences are made afresh in every instance, and they come about in conversation with sedimented capital-D Differences or in some variation of these two extremes.¹

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More specifically, we are concerned here with the very meaning of speculation itself after the many new headings of immanent ontologies, such as object-oriented ontology (OOO), speculative realism or the (feminist) new materialisms. This concern is a feminist concern, as some of the immanent ontologies seem to actively *connect* with the varied feminist archive of speculative thought while others seem to actively *disconnect* from the very same archive. What does this imply for the feminist scholar who is in want of tools for navigating the contemporary landscape of ontologies of immanence? In this essay we strive to highlight some important overlapping as well as poignant clashes between various feminist materialist genealogies and OOO/speculative realism.² No one is easily classifiable as a ‘bad guy’ or a ‘good feminist gal’. Both feminist new materialisms and OOO/speculative realism are writing their own zig-zagging histories and hence each burgeoning tradition is implicated in the affinities-and-differences game. In fact, in our discussion we would like to underline the importance of relationality and affinity—and the possibility for rewiring relations—amid a plethora of existing and emergent post-disciplinary movements and world-makings.

—CLASHING CONFERENCES

While we draft some of these lines in May 2013,³ a conference takes place in Rotterdam, the Netherlands. The conference theme—‘Speculative Art Histories’—resembles the theme of the conference we are writing for—‘Movement, Aesthetics, Ontology’. The latter conference is scheduled to take place two weeks later in Turku, Finland. In both cases speakers are drawn from all corners of academia and the world, most of them young scholars, interested in contemporary cultural theories of the immanent kind. One of us receives a text message from a colleague:

Can you please provide me with a quick and dirty definition of Haraway’s god trick? I am at the conference in Rotterdam and all speakers proclaim to have left the subject behind and move to the object instead. I am going nuts!

Eyebrows are raised. What does the move from the subject to the object entail? And how is it possible that Donna Haraway’s god trick needs summarising? Isn’t Haraway’s work on situated knowledges and material-semiotic agents precisely one of those pleas for slow unpacking and thick plotting of subject–object

entanglements? Hasn't this work landed well in contemporary academic landscapes? Isn't Haraway anthologised by now, well read and equally well received? Apparently there is room still for old and new connections within and beyond Haraway's oeuvre, some of which we hope to provide in the following.

It has to be said that the Rotterdam and Turku conferences claim a different legacy and as such they illustrate the conundrum with which this article occupies itself. Besides affirming the transversalities mentioned earlier, the organisers of 'Speculative Art Histories' write in their call for conference papers:

Following the recent 'speculative turn' in Continental philosophy, prepared by Quentin Meillassoux, Brian Massumi, Graham Harman, Isabelle Stengers and Reza Negarestani among many others, the aim of this conference is to propose a counter-discourse of speculative approaches to art and, especially, to art history ... The guiding intuition of this conference is that both the modern gap between philosophy and art history and the postmodern call for more interdisciplinarity are inspired by a consensual abhorrence of more speculative approaches to art ... What brings [the above mentioned scholars] together is that they seek access to some speculative absolute (e.g. Will, Life, Experience) in defiance of the Kantian correlationism between the thing in itself (the object) and its enjoyment by us (the subject) ...⁴

This fragment is simultaneously as seductive as it is frightening. It brings together what we might reasonably regard as quite diverse scholars in the field of contemporary philosophy, yet it summons them under the common umbrella term of a 'speculative realism'. As feminist materialist scholars we too would endorse the necessity for the theoretically inclined to develop diverse new ways of foregrounding materialities and ontologies of immanence. As such they would radically question modern-postmodern splits or the academic division of labour according to which 'raw material' nature is the task of science and existential speculation is for the humanities. Importantly, however, we cannot then support the corollary move made in the abstract of the Rotterdam conference. This is the wish to endorse a 'speculative *absolute*' by turning away from any (Kantian) remainder and propose to do away with *any correlation* 'between the thing in itself (the object) and its enjoyment by us (the subject)'. Whereas the tone suggests something radical or a

revolutionary 'turn', our colleague has laid out the outcome in his message: a renewed split between subject and object, and the reference made to capitalised 'Absolutes' that led to the set-up of the new conceptual landscape of object-oriented ontologies, or OOO and, therefore, an immanence that is not so immanent anymore but strives again for its very own transcendence.

Object-oriented ontologies have reached us through the blogging, conferencing, publications and socially skilled philosophies of theorists such as Levi Bryant, Graham Harman and Quentin Meillassoux, and books such as *The Speculative Turn* (2011) and Ian Bogost's *Alien Phenomenology, or What It's Like to Be A Thing* (2012). All OOOs share, it seems to us, a contemplative approach to a 'flat' world where objects are all that matter and these objects might assume subjective properties. That is, in Jane Bennett's terms, their 'thing-power': 'I will try, impossibly, to name the moment of independence (from subjectivity) possessed by things, a moment that must be there, since things do in fact affect other bodies, enhancing or weakening their power'.⁵ Object-oriented ontologists argue that it is thing-power that we have to attend to in philosophising and blame, as the Rotterdam call for papers made clear, philosophers' belief in 'Kantian correlationism' for acting in ignorance of this thing-power. This, since they have prioritised subjective perception or perspective. Of course, there is a degree to which feminist theorists agree with such critique: first, feminists have also blamed a subject (the Subject as Universal Man) and, second, freedom from the chains of intersectionally gendered objectification has historically been their agenda. However, in the proposed 'equality between objects' of OOO, we do not find a substantive distinction made between, say, a hair dryer and a farmed mink in a cage.⁶ This focus on an ontology of objects takes neither the 'orientation' nor the human power-relational aspect in any process of knowledge production into account; that is, orientation as something that is both embodied and embedded, and includes the power/knowledge dimension of 'the Orient' as we know from, for instance, Sara Ahmed's *Queer Phenomenology* (2006). So, did 'flat' become the new 'Absolute'?

For materialist feminist scholars, trained with a political pathos that taps into sexual difference, feminist science studies, anti-colonial, environmental, animal and social justice movements, we certainly can agree with the need to acknowledge the nonhuman (poor term, of course) agentiality. Yet we cannot help but wonder what

happened to connectivity, power-imbued codependencies and what, for example, feminist environmental scholar Stacy Alaimo calls the ‘trans-corporeal’—describing the movement across human embodiment and nonhuman nature—and other similar concepts for the formative topologies of force and power that cause us to materialise.⁷

In her discussion of OOO, Stacy Alaimo claims that OOO is missing the mark with posthumanist and feminist new materialisms. These are, as she points out, movements that do not start from bound, absolute and discrete objects as separated from a human subjecthood. Instead they begin from ‘a material feminist sense of the subject as already part of the substances, systems, and becomings of the world’.⁸ Simply by ignoring the works of posthumanist feminist scholars within science studies, environmental humanities or human animal studies, says Alaimo, Bogost can claim that ‘posthuman approaches still preserve humanity as a primary actor’.⁹ Together with Alaimo and other feminist critics asking friendly questions to OOO, we want to underline and strongly acknowledge that systematic theorisations (or ‘worldings’, as we will later on explain) that no longer privilege the humanist human have already been set in motion. We trace this in all kinds of sources.¹⁰ To mention a few long-standing names from the feminist scholarly archive, we might have to sketch a meandering itinerary. Since so many connections and linked genealogies could be discerned, such an itinerary would in fact un-end, spiralling into endless regressions of artists, activists, scholars, authors, practitioners and other world-making agents. We therefore decided for this article to stick with only a few. Or perhaps a few stuck with us.

Now, let us turn once more to the conference scene with which we ‘dramatise’ our argument here, and hence to the call for papers of the Turku conference, so that we might sketch the direction we will be proposing in this article. In the abstract for this conference the following is expressed as the aim of the discussion:

Variations of [movement, aesthetics, and ontology] seem to inform much of the research done in the name of new materialisms or [are] linkable with these approaches. Far from suggesting them as prescriptive closures to what new materialisms involve, we wanted to offer the concepts as condensation points of concerns that incarnate very differently depending on the context in which they are engaged.¹¹

What we see here is a call for conference papers with a similar interest in ontologies of immanence as the first one, but a different approach: the understanding of the need to move away from prescriptive closure (a wish to *question* speculative absolutes) and the commitment to remain invested in the question of *context*. Context, however, comes out transformed. It is no longer a flat or smooth surrounding, but spiky and interfering in different ways, constituted by multiple relational and competitive agentialities. When taken as 'context', environment, spatiotemporality, territory, bodies of literature and transcorporeal bodies as fleshy, leaky, unbounded and involuntary assemblages, home, public sphere, cell, petri dish and so on, achieve a multiplicity of prominences. So, whereas the conference organisers here are also convinced of the need to work for alternatives to dualistic splits in epistemology, their attempt is precisely to *rework* our engagement with those forms of science, artistic production and philosophy that have been overcoded by all too easy definitions of positivism/objectivism and hermeneutics/subjectivism. There is certainly no felt necessity to *abandon* either of the approaches. Context, which has of course been a key term in the postmodern and poststructuralist humanities, sometimes leading to relativism and the segregation of science by ascribing a pejorative and conflated positivism/objectivism to it, in the call for papers becomes a 'context in which [concepts as condensation points of concerns] are engaged'. This is a complex thought, referencing Gilles Deleuze and Félix Guattari's 'the concept as philosophical reality',¹² but also Jacques Derrida, whose *différance*, in Vicki Kirby's interpretation proposed in *Quantum Anthropologies*, is all about 'different expressions of the same phenomenon'.¹³ It is a thought that expresses its claim to immanence as a precise engagement with the world unfolding *from within*; a key notion for any feminist materialist of the posthumanities doing theory-practice work within situated, (also) empirical contexts. Dualistic splits are traversed by a call for immanent scholarship that 'orients', to speak now explicitly with Ahmed:

The starting point for orientation is the point from which the world unfolds: the 'here' of the body and the 'where' of its dwelling.

Orientations, then, are about the intimacy of bodies and their dwelling places ... Bodies may become orientated in this responsiveness to the world around them ... In turn, given the histories of such responses, which

accumulate as impressions on the skin, bodies do not dwell in spaces that are exterior but rather are shaped by their dwellings and take shape by dwelling.¹⁴

Our question is: how do we engage (in) our feminist scholarship and orient (our transcorporeal selves) through, or with, this scholarly landscape of emergent speculative materialisms? Our answer is to stand speculative *before* a finite turn.

—SPECULATIVE BEFORE NARCISSISTIC HALL OF MIRRORS OR POSTHUMANIST PERFORMATIVITY

Thinking in a more-than-human world certainly needs our urgent attention. And as pointed out by Cary Wolfe, the very ‘nature of thought itself must change if it is to be posthumanist’.¹⁵ Indeed, so many things remind us today of the extent of our precariously contextualised situation, from pollen allergy (the environment in the human) to climate change (the human in the environment), epigenetics and the microbiome—to mention only a few recent insights that highlight the formative power of context. Such diverse examples need critical and creative speculative interventions, but they also change how we see ourselves both in and *of* the world.¹⁶ While flourishing is central to our ethical vision here, the ways in which we inhabit the world and the world inhabits us, implies to us that we cannot do away with feminist criticality and contextualised, embedded and embodied perspectives. And to be clear, this is a key point of contention. The feminist insistence on *a* feminism—an embodied, perspectival way of knowing and being in the world—is the nuance that keeps feminist claims of immanence situated, agnostic of what lies beyond its limits, differentiated and differentiating in relations of co-becoming. Where speculative realists strive for an unmediated, wholly a-subjective real, feminist immanence ontology (in the singular plural) insists on the co-constitutive role of the embedded observer, the perspective and the rich agentiality (multi-subjectivity) of context itself. To paraphrase Karen Barad, formative relations precede stated existence, this is ‘essential’ to feminist claims of immanence as we want to engage them here. Yet, before we turn to the explication of what we mean by the feminist ‘speculative *before* a finite turn’, a few thoughts on the etymology of speculation itself.

The very word speculation stands ripe with multiple associations. One etymological root shoots off into the Old French ‘speculacion’ as rapt attention and

close observation, another into Latin's 'speculationem' as in contemplation and observation.¹⁷ It retains a range of modern and pre-modern meanings around the process and nature of thinking (not to mention unsavoury contemporary capitalist associations to stock-markets and housing bubbles). In their volume *Speculative Medievalisms* (2013), the Retropunk Collective of editors Eileen Joy, Anna Klosowska, Nicola Masciandaro and Michael O'Rourke delineate an interesting genealogy to the form of speculation that they would want to see, as *playful enjoyment*. Most commonly, 'speculation' describes the general operations of the intellect, imagination and reflection. However, in a very helpful way the retropunk medievalists trace this notion more towards pre-modern understandings of the process of thinking wherein anything speculated upon—the world, books or a mind—itsself doubles as a 'specula', or mirror.¹⁸ Now, from this narcissistic humanist tradition we recognise the epitaphs of the humanities, to understand identity as forged in the house of mirrors consisting of self-knowledge on the one hand, and world-knowledge on the other. Drawing on OOO-scholar Graham Harman, the Retropunk Collective wishes, however, to retain a specific meaning of speculation. They seek an understanding of speculation where discourse stands open for daring and pleasurable exegesis instead of it being locked in the house of mirrors.¹⁹ They wish to affirm the creative leaps of mind and in this affirmation there is potentially significant feminist affinity. It therefore describes a form of knowledge-making that has no truck with ownership, possession or mastery (Val Plumwood), god-tricks of the mind (Donna Haraway), but instead affirms (Rosi Braidotti) that world-making *is a diffractive process* (Isabelle Stengers, Karen Barad), both in the making and in un-making (Deborah Bird Rose, Judith Butler, Elizabeth Grosz). The difference is that these feminist scholars were not at all referenced or mentioned by the Retropunk Collective and others could, of course, also have been sourced.

If we affirm that we are fully in Latourian and Harawayian naturecultures and naturecultures are fully in us, and if we can no longer assume the epistemological view point of 'Universal Man',²⁰ we need to re-think everything, *even thinking itself* as embedded, embodied and even (in a more object-oriented way) as the very 'stuff of the world'.²¹ Thinking together, things and/or (non)humans, demands a diverse form of scholarly accountability. And speculation, in turn, becomes a very material process, a performative process of the world, a form of worlding itself. In Haraway's

vocabulary, speculation as worlding would express how '[r]eality is an active verb'.²² This situated and materialising speculation implies both the envisioning of a different world and a challenge to taken-for-granted knowledges by way of situating them in specific historical, sociocultural, material and bodily contexts.

—SPECULATIVE FEMINISMS AVANT LA LETTRE

Why are we so concerned with a *genealogical* reorientation of feminist thought and practice in the posthumanities? For us, the question of speculation, the entwined dimensions of both the speculative and the visionary play a constitutive role in *any* feminist thought, art and activism. In order to answer this question we turn first to strange bedfellows: the seemingly otherworldly but highly common microscopic species of *Bdelloid Rotifera* (small wheel-animals that swim around and multiply wherever there is any form of water or moist soil on this earth), and the award-winning Black feminist science fiction literature of Octavia Butler in her *Xenogenesis* trilogy (*Dawn*, *Adulthood Rites* and *Imago*). The stories the trilogy tells are about the near destruction of humankind through nuclear war and gene-swapping extraterrestrials that arrive with the intention of changing the self-destructive hierarchical ways of humans. Rotifers, or 'wheel animalcules', in science discourse date back nearly three centuries to their first description by Antonie van Leeuwenhoek in 1703.²³ So far rotifers have barely entered feminist discourse—probably because they are, like bacteria, not 'big like us' and not so responsive to anthropogenic ways of apprehending them²⁴—but they provide a strange lesson of speculative feminisms (before the contemporary term).²⁵ In particular, they orient us to the limits of the humanist imagination and require, thus, wild speculation. The species of *Bdelloid* rotifers, ubiquitous in the world, is also educating to think with in how they grabbed the attention of confounded science communities (experts and amateur biologists alike) throughout the nineteenth and twentieth centuries through to the present.²⁶

In spite of massive efforts, no male has ever been discovered among these rotifers. Troubling the heteronormativity of new-Darwinian theory, these watery creatures have reproduced 'asexually' for about eighty million years by females cloning themselves. This has truly bothered science. And to add insult to injury (to the theory of the diversity advantages of hetero-sexual reproduction), these rotifers

are great adaptive survivors. Rotifers can endure extreme amounts of radiation, and at any point in their lives they can withstand being completely dried-out—they simply return from their dormancy after being rehydrated. It is at the point of extinction, dehydration for rotifers, that they, like the alien species of Oankali in Butler's science fiction trilogy *Xenogenesis*, prove their unexpected resourcefulness in bringing things together. Instead of shuffling genes through the mix and match of *meiosis* (egg meets sperm), *they come alive with the context and diversify with their environment*. What we know now is true for bacteria, was very recently understood in rotifers. The science-baffling rotifers shun sex (as we used to know it) but not desire; they survive, proliferate and diversify as *horizontal gene-traders*. Rotifers import genes from their encounters with other life forms, just like the space-travelling Oankali of Butler's feminist fiction. A new study shows that their genomes are rife with multitudes of foreign DNA, transferred from bacteria, fungi and even plants.²⁷ Now, this is partly true for the human genome as well, where ancient genes from infectious agents still dwell, and very few genes in fact are particular to humans. Each rotifer is, however, a genetic mosaic, whose DNA spans almost all the major kingdoms of life. Rotifers and their gene-swapping bring a whole new scope to Butler's alien survival stories, to Alaimo's notion of transcorporeal bodies (becoming with environmental context) and to Haraway's understanding of companion species. They diversify sexual difference too.

Rotifers open up the majoritarian philosophical canon with the feminist legacy of sexual difference and prove to science the value of a feminist theory of affirmative difference and collaborative exchanges within context. Rotifers, if read through Butler's science fiction, link sexual difference feminisms, a bioethics of flourishing, fiction and science into an unholy alliance of speculative, feminist posthumanities. The opportunism of rotifers stands also in its own right as speculative feminism *avant la lettre*. As a science-bewildering all-female species, their 'feminism' was coined originally in the derogatory sense of eighteenth-century biology, as medical textbook anatomical deformation or lack of male characteristics. However, their speculative 'feminism' and intense desire for difference remain for us to reclaim and reassign for an affirmative, more-than-human, genealogical reorientation of feminist thought and practice in terms of exchange, speculative sharing and diversification. Sexual difference feminisms—that is, feminist critique and continental philosophy

combined—along with this seemingly quirky case of rotifera feminism, provide signposts out of determinist, universalist and essentialist ontologies. They address ‘the speculative’ such as we see it at the heart of a thinking and acting that in the most feminist way we can think of ‘wants to make a difference’. Rotifers remain lateral exchangers of genetic codes, snippets of chemical (inter-)textuality, encoded and decoded messages of sexual difference beyond dualism. They convey to us too, if we think with them, a form of bio-curious speculative feminism *avant la lettre* that certainly affirms difference and differentiation.

So, however broadly we may refer to ‘feminism’ in past, present and future, it cannot be characterised without reference to speculative dimensions and visionary elements. As the prominent definition of feminist practices in Joan Scott’s *Only Paradoxes to Offer*, which is firmly based in Olympe de Gouges’ eighteenth-century thought, already implies: in order to be able to imagine different (feminist) futures, we need to postulate and think through the stifled sexually differentiated (in as much racially differentiated, (post)colonialist and ethnocentric) present from which a qualitative shift and political breakthrough can be formulated and hopefully achieved.²⁸ The question of the speculative and the methodology of speculation act therefore at the very core of feminism: feminism (in such strong sense) must open a *terrain*, from which it then jumps or leaps into the future, and from which—we would want to go that far—a different future becomes thinkable/imaginable, one in which responsibility, justice and equality play a major role. As we know, this can be done without blindfolding the always also necessary acknowledgment of ‘non-innocence’ in such an envisioning.²⁹

To concretise further what we mean here, let us quickly refer to the classic example of this ‘speculative paradox’ at the heart of feminist thought-practices. Feminism wants to end sexual difference as a pejorative affair (and an essentialist division in ‘two’); however, to do so, sexual difference first has to be posited as the *differential grounding* on or with which epistemological and ethico-political transformation can and will take place.³⁰ This is, of course, also the reason we started our piece with references to a structure in contemporary continental philosophy and critical theory more broadly, and why we continue to leap in and out of such structures throughout this article as a whole. As feminists with an investment into questions of epistemology and ontology, *that* is our (worm holing)

terrain. And just as much as this opening-up of a terrain for feminist onto-epistemological work is of the ‘embodied and embedded’ kind, so is our leap into new ethico-political horizons.³¹ When we say that we also strive for a different future to become thinkable, when we speak of ‘leaps’ and ‘jumps’, we stress that we do not leap from somewhere (a constraining sexually differentiated present) to arrive at a nowhere as the fully unknown. Feminism can pride itself on a canon in which the speculative thought on the one hand, and the methodology of speculation on the other, are presented as intertwined. It is thus that the speculative paradox—a paradox of continual ‘troubledness’ in every speculation—remains alive and doesn’t become prescriptive in a dogmatic sense.

So, let us look at this feminist legacy—let us ‘go back to its futures’ to see what speculation we can build on.³² It is by drawing out such a horizon of speculative feminism that we can also productively engage with the current threads of speculation in a broader philosophical context.

—SPECULATION IN SO-CALLED SECOND- AND THIRD-WAVE FEMINISM

Simone de Beauvoir’s *The Second Sex* is in fact a paradigmatic case of feminist speculation. In spite of de Beauvoir’s denigratory function in contemporary feminism, the structure of her classical book is thoroughly speculative.³³ Diving into *The Second Sex*, it is important to look at the conclusion. After the chapter ‘The Independent Woman’, which deals with the present just like the earlier parts dealt with the past and the disciplines in order to convincingly posit the dialectics of sex, de Beauvoir starts speculating. First, de Beauvoir has to secure the terrain:

today’s woman is torn between the past and the present; most often, she appears as a ‘real woman’ disguised as a man, and she feels as awkward in her woman’s body as in her masculine garb. She has to shed her old skin and cut her own clothes. She will only be able to do this if there is a collective change.³⁴

Then she secures the situated leaping:

tomorrow’s humankind will live the future in its flesh and in its freedom ... new carnal and affective relations of which we cannot conceive will be born between the sexes: friendships, rivalries, complicities, chaste or sexual companionships that past centuries would not have dreamed of are

already appearing ... certain differences between man and woman will always exist ... it is institutions that create monotony ... *Within this given world*, it is up to man to make the reign of freedom triumph; to carry off this supreme victory, men and women must, among other things and beyond their natural differentiation, unequivocally affirm their brotherhood.³⁵

When we allow these fragments to be speculative, what we find is an immanent speculation; a leaping into the thought of a future of sexual *differing* ('new carnal and affective relations ... between the sexes') from a sexually differentiated terrain (they are '*are already appearing* ... [*w*]ithin this given world'). It reminds us of Virginia Woolf's *A Room of One's Own*, published twenty years earlier, with its thesis on the androgynous mind that also picks up on 'a signal pointing to a force in things which one had overlooked'.³⁶

We believe that the speculative mode of interwar and second-wave feminist theory is also to be encountered in important sections of contemporary gender studies and feminist theory. *The Second Sex* was translated into English only a few years after its initial publication in France and at this time travelled to the United States, in particular. The concept of 'gender', even explicitly in Judith Butler's early texts, has been built on de Beauvoir's famous slogan that one is not born, but rather becomes, woman. Other important early texts such as Genevieve Lloyd's 1984 *The Man of Reason* also rely on it for their future-oriented perspectives. Gender can thus from here be regarded as something generative, and can work as an engine of discovery rather than as an exceptional analytical category. The curious dis/connection between the body and representation that we can find in de Beauvoir has for decades served, on both sides of the Atlantic, as a foundational aspect of our field. The terrain that de Beauvoir opened up for us was one of diagnosing processes of naturalisation along sexually differentiated lines and enabling a situated leap towards futures of transversal connections.

If we now jump ahead, it is rather more difficult to pick exemplars. Especially in the last 'wave' of incredibly proliferate and multiverse feminist engagements, to speak in a representative manner of what has found expression as the speculative in feminism or how speculation has found its way in feminist engagements is almost an impossible undertaking. To present the specifically feminist speculative concern

with existing power relations and frames of thought we could probably stay with simply referencing exemplary titles such as Judith Butler's *Gender Trouble* (1990) and *Bodies that Matter* (1993), Rosi Braidotti's *Nomadic Subjects* ([1994] 2011), Gayatri Spivak's *The Postcolonial Critic* (1990), Moira Gatens's *Imaginary Bodies* (1996), Elizabeth Grosz's *Volatile Bodies* (1994), bell hooks's *Yearning: Race, Gender and Cultural Politics* (1990) and, of course, Donna Haraway's *The Cyborg Manifesto* (1985)—to name only some 'classics'.³⁷ All these works effectively deconstruct wrong-ing universalisms, essentialisms and structural exclusions, envisioning exchanges and other modes of being and becoming. Given, however, that we want to trace significant dimensions of the speculative—we want to trace them in specificity in order to also find out where in feminist engagements something significantly differs from current 'labelled' projects of speculative thinking—we want to share a specific take on that question that to us characterises feminist speculative work. It is what we want to call here *speculative 'difference-thinking'*, and we will endeavour to explicate this specificity via the works of Elizabeth Grosz and Donna Haraway.³⁸

Both Grosz and Haraway are exemplary 'thought-practitioners' of difference who embody and remain embedded within (sexual) difference feminisms and instigate something 'new' through pushing these differential grounds to 'speculative' horizons. Nowhere is this perhaps more present than in the long-standing and multivalent works of Donna Haraway, and the attentive reader may have noticed that Haraway's work functions as our shared playground for this article. In more recent years Haraway has insisted, with reference to Marilyn Strathern, that 'it matters what stories tell stories. It matters what thoughts think thoughts. It matters what worlds make worlds.'³⁹ Key to this insistence has been her take on *SF*, as string figures (ontology-connecting methodology of relationships), science fact, science fiction, speculative fabulation and speculative feminism. Speculation, for its performative role (as in a kind of 'careful what you speculate about, it might come true') in the double registers of both *potentia* (pleasurable world-makings) and *potestas* (suppressing, un-making), is thus deserving of a feminist historiography of its own. It is in this Harawayian vein we want to re-orient (historiographies of) speculation with feminist historiographies (of speculation) and mingle together the 'biological' and the feminist as in the case of the rotifers. However, we connect also

with a larger rich and lively archive of speculative difference feminism thought traditions.

In choosing Grosz and Haraway in this short journey through the feminist archive, we also explicitly name two very different modes of contemporary engagements to face up to the task '*to imagine difference differently so as to make a difference*': feminist speculation(s) need(s) to proceed in the plural. Grosz and Haraway do not have the same projects. Yet both of them start with difference(s) as all there is and they in this sense continue *and* twist in new directions both Woolf's thought on the speculative powers of the androgynous mind that unhinges the sexual dialectics and de Beauvoir's image of thought of 'becoming-woman' that enables us to start from a differential grounding, paving the way towards a 'different difference'. To quickly show further what we mean by this, let us also turn shortly to Grosz's recent 'dreams of new knowledges' in and for feminist theory.⁴⁰ There, she exemplifies how speculation in the feminist mode is to be affirmed as a push of our very own comfort zones. Under the heading of 'The New' in the chapter she states:

*At its best, feminist theory is about the invention of the new ... It is clear that it must understand and address the old, what is and have been, and the force of the past and present in attempting to pre-apprehend and control the new, and to that extent feminist theory is committed to 'critique', the process of demonstrating the contingency and transformability of what is given.*⁴¹

What we find here is a double approach. Addressing the continuous (feminist) need to produce alternatives to 'patriarchal, (racist, colonialist and ethnocentric) knowledges', her speculative impetus is nonetheless provocative. It also urges current feminist engagements to:

a freedom to address concepts, *to make concepts*, to transform existing concepts by *exploring their limits of toleration*, so that we may invent new ways of addressing and *opening up the real*, new types of subjectivity, and new relations between subjects and objects.⁴²

It is this *multi-directional task* of speculative feminisms that can be matched with Haraway's seminal feminist 'worlding' projects, of doing things 'in the SF mode'.⁴³ Her onto-epistemologies of multispecies-becoming-with, in which she efficiently un-works the (not so) hidden structures of human exceptionalism/anthropocentrism

underlying our practices and conceptualisation of difference(s), we find precisely that without ‘reducing everything to a soup of post- (or pre-)modern complexity in which anything ends up permitted’,⁴⁴ worlding or speculative engagements show:

a great deal is at stake in [multi-species] meetings, and *outcomes are not guaranteed*. There is *no teleological warrant* here, no assured happy and unhappy ending, socially, ecologically, or scientifically. There is only the chance for *getting on together with some grace*. The Great Divides of animal/human, nature/culture, organic/technical, and wild/domestic flatten into mundane differences.⁴⁵

To summarise this short itinerary of ‘SF’ from multi-generational feminisms, in the commitment to envision a different difference from *within* (and not jumping to a safe ‘outside’), it is essential to take on this *difficult* dimension of differential—speculative—thinking and stay aware that ‘SF must also mean “so far”, opening up what is yet-to-come in protean time’s pasts, presents, and futures’.⁴⁶

—‘THE SPECULATIVE TURN’ AS SPECULATIVE RETURN

Having established in a vignette-like manner where speculation is to be found cartographically in different corners of feminist worlding, we wish to substantiate our analysis and evaluation of *what it is* that we witness right now around the conceptual tool of ‘speculation’ in the realms of continental philosophy and continental-philosophical theory still a little further, in order to also further explicate the different engagements with ontologies of immanence within the current theory debates. So, what are the major issues that we see right now emerging for an above-developed speculative feminist engagement? What is their *context*?

The most widely cited philosopher in speculative realism, and in our opinion also a most significant point of reference, is Quentin Meillassoux. Meillassoux’s philosophical essay ‘After Finitude’ asks what it is to think something that existed before and beyond human life on earth—that is, the possibility of thinking the absolute. His two main propositions are 1) Being is of an a-subjective nature, and 2) Thought (mathematics) can think Being. In his contribution to *The Speculative Turn* Meillassoux argues:

If we maintain that becoming is not only capable of bringing forth cases on the basis of a pre-given universe of cases, we must then understand that it follows that such cases irrupt, properly speaking, *from nothing*, since no structure contains them as eternal potentialities before their emergence: *we thus make irruption ex nihilo the very concept of a temporality delivered to its pure immanence.*⁴⁷

Pertaining to the first proposition—Being is of a-subjective nature—the *ex nihilo* is concerning. For the invocation of the '*ex nihilo*' uncovers the here proposed politics or simply the (non-)situatedness of the speculative realists. We would like to remark how curious it is that according to the quotation, if there is not a human brain involved, then it is *ex nihilo*. From a less Human Subject-centred perspective, this link cannot at all be substantiated. Seriously, where does this qualification come from? In 'After Finitude', Meillassoux reflects upon the problem he sees with *both* the 'metaphysics of Life' (Deleuze and so on) and the 'metaphysics of Mind' (Hegel). It is that there is 'an underlying agreement which both have inherited from transcendentalism—*anything that is totally a-subjective cannot be*'.⁴⁸ For Meillassoux it is important to be able to think a-subjective reality and, in his second proposition, to confirm the truth of rationalist thoughts, because it is both and at the same time relativism and religious faith that he wants to counter. His argument is that we have stayed confined to a certain religiosity in continental philosophy (of science), because of the impossibility of de-linking thought and thinker (of which we have indeed affirmed the *necessity*: situated knowledges). But when Meillassoux affirms in relation to the a-subjective reality and to rationalism that 'under the enemy of reason, he always knows how to detect the priest. He also knows that no one has more desire to be right—without allowing one to argue against him—than the opponent of reason', we cannot but ask after both the chosen pronoun used in this statement and the very subject position of Meillassoux himself.⁴⁹ Which or even *whose* thought can think being-as-a-subjective?

The 'from nothing' (with its problematic but maybe not coincidental re-emergence of a very pronounced language) precisely *does away with* the very terrain that we have affirmed as being of the greatest importance for (feminist) speculation: context. Further, it is significant that the dualist reasoning of Meillassoux allows him to move from 'a pre-given universe of cases' (valued

negatively) to ‘cases irrupt[ing] *from nothing*’ (the alternative proposed), whereas the feminists we have referenced are *in agreement* about the need to move away from pre-giveness (see de Beauvoir’s case against biological determinism or Grosz’s case on the invention of new concepts) not towards an empty container, but rather towards a fuller, more complex and surprising world (such as Woolf’s androgynous mind or Haraway’s and the rotifers’ ‘thick’ multispecies becoming).

While surely a more exact philosophical tracing is needed to fully encompass the problematic areas of the speculative in this ‘speculative turn’, three issues are critically diverging from SF such as we see it as a force for ‘*a future*’:

1. Given the vision of speculative realism to reach ‘reality itself’, *beyond* a thinking thought and as a-subjective reality in which non-subjective thought and a-subjective being become categorically separated, when we ask what we are witnessing currently in continental philosophy we might have to say that it is ultimately nothing but the very common philosophical return of a rigorous opposition between what once was called subject (Thought) and object (Being). A new dualist distribution of the world is happening, which—we claim—remains translatable into the ‘old’ subject-object divide that we know already from transcendental philosophies—only now on a different, if you will, exponential level. Jon Roffe spells it out very well when he argues that ‘while documenting some of the lamentable consequences of correlationism ... Meillassoux’s main goal is to directly *refute it* ... [and] the pursuit of this inconsistency shows the crack in the correlation that gives us direct access to what he [Meillassoux] calls the Great Outdoors, being as it is in itself.’⁵⁰ In such a move ‘beyond’, taken in the most ‘realist’ manner in which one supposedly can ‘refute’ once and for all and thereby gain ‘direct access’, we find both the ‘speculation’ for a *tabula rasa*—being as it is in itself; pure, undisturbed reality—and the irruption of *creatio ex nihilo*, both for being and thought—that throughout this article we have signalled as worrisome. This approach to immanence starts from an established field of stated existences rather than inquiring into their very making from within a situation of ontological entanglement.
2. It is from here that we come to the second problematic issue, which is both Meillassoux’s as well as all speculative realisms’ wish to overcome ‘the

critical turn' in philosophy by substituting it with the speculative turn, to be understood in the *absolute* sense that we have just presented. If we think back to that which we presented as feminist speculation—that is, the unmistakable need of feminist engagement to work through existing questions (in new ways) and critique 'what is' to maybe, *at best*, move somewhere else—our very critical stance towards the overcoming of criticality in any approach to 'reality' is clear. A non-critical philosophy, that is a thought-practice of direct (or neutral) access, is unthinkable when we engage with conceptual and sociopolitical realities in a feminist (in as much as anti-colonial, anti-racist, queer or more-than-human) vein. By artificially limiting the notion of critique to the most orthodox Kantian criticality, instead of acknowledging alliances and affinities, speculative realism cuts apart (and precisely not 'together-apart' as Barad in a 'new' ethico-onto-epistemological way would have it).⁵¹ To us, speculative realism in that sense risks throwing out the baby with the bathwater, and *necessarily* has to end up again, if we write ourselves affirmatively into the history of critical (twentieth-century) thinking, where 'we' have actually begun: at a 'beginning' where something called 'reality' is presented as non-negotiable.

3. This makes us finally suggest that speculation, such as it is used in speculative realisms, is used as a signifier for *a-historicity*, for the 'in itself', and not for the specific and historic practices that critical theory and feminism alike have claimed in the last decades. It does not follow the current re-emergence of a feminist (Whiteheadian) philosophical urge to speculate, taking up Isabelle Stengers's and Donna Haraway's legacy here again and arguing that thought is not speculative:

because of its particular objects (e.g. reaching for 'the absolute' or 'things in themselves') ... Rather it is speculative by virtue of the particular mode of functioning and efficacy of its *practice* and its always situated character.⁵²

Thus, instead of following such a methodological line of flight that emphasises practice and situatedness, speculative realism's use of speculation returns to a notion of speculation as the mechanism of grasping or reaching toward the absolute in itself.

Starting our discussion from the question ‘what if we stand speculative for a moment before the speculative turn and check our feminist itinerary again?’, this present essay, a transversal conversation with many feminist genealogies, has tried to address and perhaps redress the current rise of ‘speculative’ approaches in critical and cultural theories, and continental philosophy alike. Such an undertaking would prove impossible if we had proceeded with the intention of mapping the whole terrain. We didn’t. Rather, we have wished to use a few feminist vignettes and key concepts, and to hold up some examples of where we see the thinking possibilities available in a manifolded vegetation of theories and practices we connect with feminist materialisms’ investment in *becoming-with-context*, *situated knowledges* and *speculative alter-worlding*. We take our starting points from overlapping and yet differentiating strands of classical, queer or even (possibly) nonhuman feminism. Admittedly, sometimes we appropriate things that didn’t have any such label in the first place (like rotifers) and make it the condensed concern for the always relevant question feminist science scholar Susan Leigh Star insisted on: ‘*qui bono?*’ And at this point in time, open as it is for new conversations and synergies, thriving on speculative turns and twists, we ask (in a rhetorical way) who benefits from new absolutes?

The curious return of the god-trick, in approaches that call themselves ‘speculative’ today is the starting point of our collective intervention. Because whereas the speculative thinkers of OOO and ‘speculative realism’ or ‘speculative materialism’ claim they are a ‘new breed of thinker’ where ‘no dominant hero now strides along the beach’,⁵³ in the reception of ‘the speculative turn’ and OOO, we precisely *do* see that happening. The move to the object is, we claim, not a move away from but rather a renewed move towards the Subject (with a capital S). We have proposed instead that the feminist instinct asks us now, more urgently than ever, to 1) reassess and take stock of our skills in reading *context*, and ‘reading out of context’,⁵⁴ and 2) situate our speculative worldings without referral to god-tricks.

With Haraway we realise that to avoid reproducing the modern god-trick of relativism *and* universalism (transcendence) we have to count ourselves in and stay accountable to our situatedness (immanence). In a jungle-like garden of attempts to rearticulate—perhaps domesticate?—nature(s) or naturecultures, to put a name on

and control the uncontrollable liveliness of 'life at large',⁵⁵ we find a multiplicity of philosophical labels and theoretical neo-nominations, among them somatechnics, crip theory, posthuman, inhuman or ahuman feminism, agential realism, older and newer forms of vitalism—to name just a few strands in circulation at present. So how then, situated in a wild and thriving academic landscape, do we navigate and negotiate all these slightly related yet distinctly different movements? What we propose is to continue the SF mode and turn towards an occasionally academically *improper*⁵⁶ historiography of feminist materialist thought, one that includes biophilia as much as bio-critique, art, activism, fiction, poetry and rigorous theorising mixed—with a careful attention to our own scholarly practices and legacies, informed often by an affirmative ethics of the transformative encounter.

We need to engage in this multispecies, multitheory debate for our alternative worlding practices as fellow speculative feminists. 'Worlding' is a SF mode term we find in both philosophy (in the phenomenological Heideggerian tradition) and in science fiction. If we turn to the latter we find a lot of food for feminist thought in regard to (de)contextualising the familiar and otherworldliness at large. We learn skills in thinking otherworldly without a 'beyond', thinking out of context, *refolding feminist historiographies*, and ask the what-if? questions. Worlding in a feminist sense asks what kind of material-semiotic world-making practices are at stake and for whom would such a symbiosis of bodies and meanings matter. It is with these hard-earned skills that feminist pioneers of material-semiotics have exhibited effectively realist and forcefully speculative critique and creativity: it's just contextualised differently.

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Cecilia Åsberg, professor in Gender Studies at Linköping University, Sweden, heads the Posthumanities Hub and the new Swedish research program in environmental humanities, The Seed Box. She has published transdisciplinary feminist research on nature, culture, science, medicine and envired bodies, including *A Feminist Companion to the Posthumanities* (with Rosi Braidotti, forthcoming in 2016).

Kathrin Thiele, is an assistant professor in Gender Studies at Utrecht University, the Netherlands. Her research in contemporary (feminist) philosophies and posthuman(ist) studies has been published in, among other journals, *Parallax*, *Women: A Cultural Review*, *Interventions* and *Rhizomes*. She is also co-founder of *Terra Critica: Interdisciplinary Network for the Critical Humanities*.

Iris van der Tuin, is an associate professor of Liberal Arts and Sciences at Utrecht University, the Netherlands. Her work on the new materialisms has been published by, among others, *Open Humanities Press*, *Australian Feminist Studies*, *Hypatia: A Journal of Feminist Philosophy* and *Women's Studies International Forum*. She also chairs the COST Action *New Materialism: Networking European Scholarship on 'How Matter Comes to Matter'* (2014–18).

—NOTES

¹ Horizontal ontologies of immanence are themselves one extreme of a continuum. The other extreme is occupied by vertical ontologies of transcendence. This transcendence may be assumed on many different grounds, including God, Language, the Symbolic Order and so on. Many immanent ontologies have precisely engaged with these grounds and have asked how they 'come to matter'. See Vicki Kirby, *Telling Flesh: The Substance of the Corporeal*, Routledge, 1997, New York and London, p. 72 and Karen Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs: Journal of Women in Culture and Society*, vol. 28, no. 3, 2003, pp. 801–31.

² Very few conversations on the affinities and differences between OOO and feminist materialisms have so far reached print. Posthumanist feminist environmental scholar Stacy Alaimo has made an important and to us inspiring critique of, for example, Ian Bogost and iconic men of OOO for not being posthumanist enough (and she does not even mean in the ironic sense of how we in scholarship, feminist or not, tend to selectively forget about importance of the death of the Author to collectivist movements). We will discuss Alaimo's argument in the next section. See Stacy Alaimo, 'Thinking as the Stuff of the World', *O-Zone: A Journal of Object-Oriented Studies*, vol. 1, no. 1, 2014, pp. 13–21.

³ This article uses two papers as its stepping stones: Kathrin Thiele and Iris van der Tuin's 'Feminist Envisionings of the Speculative: Genealogy, Epistemology, Ontology', which was originally delivered on 13 March 2013 as a public lecture in the Department of Gender & Women's Studies, University of California, Berkeley, USA and Cecelia Åsberg and Iris van der Tuin's 'Thinking (about) Possibilities: Feminist Sources of Speculation', which was delivered as a key note lecture at the conference

Movement, Aesthetics, Ontology: 4th Annual Conference on the New Materialisms at the University of Turku, Finland, 16–17 May 2013.

⁴ See <<http://www.caponline.org/speculative-art-histories>>; accessed 24 January 2015.

⁵ Jane Bennett, *Vibrant Matter: A Political Ecology of Things*, Duke University Press, Durham, NC and London, 2010, p. 3.

⁶ Cf. Ian Bogost, *Alien Phenomenology, or What It's Like to Be A Thing*, University of Minnesota Press, Minneapolis and London, 2012.

⁷ Stacy Alaimo, 'Trans-Corporeal Feminisms and the Ethical Space of Nature', in Stacy Alaimo and Susan Hekman (eds), *Material Feminisms*, Indiana University Press, Bloomington, 2009, pp. 237–64; Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self*, Indiana University Press, 2010.

⁸ Alaimo, 'Thinking as the Stuff of the World', p. 14.

⁹ Bogost cited in Alaimo, 'Thinking as the Stuff of the World', p. 14.

¹⁰ In this article we will only work with some of the sources that are currently known to us. But it is in the nature of genealogical work to extend beyond the known. After all, a new category or school of thought always brings with it an innovative tracing through the history of academic thought and beyond its circumscribed borders.

¹¹ See <<https://movementaestheticsontology.wordpress.com>>; accessed 8 February 2015.

¹² Gilles Deleuze and Felix Guattari, *What Is Philosophy?*, Columbia University Press, New York, 1994 (1991), p. 11.

¹³ Vicki Kirby, *Quantum Anthropologies: Life at Large*, Duke University Press, Durham, NC and London, 2011, p. viii.

¹⁴ Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others*, Duke University Press, Durham, 2006, pp. 8–9.

¹⁵ Cary Wolfe, *What is Posthumanism?*, University of Minnesota Press, Minneapolis and London, 2010, p. xvi.

¹⁶ Karen Barad, *Meeting the Universe Halfway*, Duke University Press, 2007, Durham, p. 185.

¹⁷ We thank our reviewers for the many helpful comments, and we are indebted to one of them for pointing these specific roots out to us, which indeed point to our specific interest in speculation, vision, demonstration and worlding. Thanks!

¹⁸ Retropunk Collective, *Speculative Medievalisms: Discography*, punctum books, Brooklyn, NY, 2013, p. iii.

¹⁹ Ibid.

²⁰ Mette Bryld and Nina Lykke, *Cosmodolphins: Feminist Cultural Studies of Technology, Animals and the Sacred*, Zed Books, London and New York, 2000.

²¹ Alaimo, 'Thinking as the Stuff of the World'.

²² Donna Haraway, *The Companion Species Manifesto: Dogs, People and Significant Otherness*, Prickly Paradigm Press, Chicago, 2003, p. 6.

- ²³ Antonie van Leeuwenhoek, a Dutch merchant, wrote letters to the newly founded Royal Society in the early eighteenth century (at the beginning of modern science) and shared his observations and radical speculations on the existence of microscopic entities, for instance rotifers and sperms. He is often credited with the invention of the microscope, and was a crucial amateur voice in the raging science debate on sexual reproduction. Looking at (his own) sperm through his hand-made optics made him speculate on the essence of man existent within the sole sperm and declare the female reproductive system mere ornamentation. This was before the discovery of the egg. See Emily Martin, 'The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles', *Signs: Journal of Women in Culture and Society*, vol. 16, no. 3, 1991.
- ²⁴ Myra J. Hird, *The Origins of Sociable Life: Evolution after Science Studies*, Palgrave Macmillan, New York, 2009, p. 21.
- ²⁵ Kirsten Smilla Ebeling, 'Sexing the Rotifer: Reading Nonhuman Animals' Sex and Reproduction in 19th-Century Biology', *Society and Animals*, vol. 19, no. 3, 2011, pp. 305–15; Cecilia Åsberg, 'Sexual Difference, Gender and (Microscopic) Animals', *Society & Animals*, vol. 19, no. 3, 2011, pp. 316–22.
- ²⁶ Ebeling, 'Sexing the Rotifer'.
- ²⁷ Eugene Gladyshev, Matthew Meselson and Irina Arkhipova, 'Massive Horizontal Gene Transfer in Bdelloid Rotifers', *Science*, vol. 320, no. 5880, 2008, pp. 1210–13.
- ²⁸ Joan W. Scott, *Only Paradoxes to Offer: French Feminists and the Rights of Man*, Cambridge and London, Harvard University Press, 1996, pp. 3–4.
- ²⁹ Donna Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, vol. 14, no. 3, 1988, pp. 575–99.
- ³⁰ Cf. Elizabeth Grosz, *Becoming Undone*, Duke University Press, Durham, 2011 and Kathrin Thiele, 'Pushing Dualisms and Differences: From "Equality vs. Difference" To "Non-Mimetic Sharing" and "Staying with the Trouble"', *Women: A Cultural Review*, vol. 25, no. 1, 2014, pp. 9–26.
- ³¹ Cf. Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming*, Polity Press, Cambridge, 2002.
- ³² Cf. Iris van der Tuin, *Generational Feminism: New Materialist Introduction to a Generative Approach*, Rowman and Littlefield, Lexington Books, Lanham, MD, 2015.
- ³³ The analysis here is indebted to Chapter 7 of Rick Dolphijn and Iris van der Tuin, *New Materialism: Interviews and Cartographies*, Open Humanities Press, Ann Arbor, 2012. Proof of this speculative character can also be found in de Beauvoir's feminist canonisation beyond existentialist confines; a special issue of the *Journal of Speculative Philosophy* was dedicated to her work (Shannon Sullivan (ed.), *Journal of Speculative Philosophy*, vol. 14, no. 2, 'The Work of Simone de Beauvoir', 2000).
- ³⁴ Simone de Beauvoir, *The Second Sex*, trans. C. Borde and S. Malovany-Chevallier, Alfred A. Knopf, New York, 2010 [1949], p. 761.
- ³⁵ *Ibid.*, p. 765–6; emphasis added
- ³⁶ Virginia Woolf, *A Room of One's Own and Three Guineas*, Vintage, London, 2001 (1929), p. 83.

- ³⁷ Claire Colebrook calls most of the feminist scholars listed here ‘third-wave feminists’. See Claire Colebrook, *Gender*, Palgrave, Macmillan Press, New York, 2004.
- ³⁸ This presentation is indebted to Kathrin Thiele’s 2010 and 2014 analyses of the force of feminist and Thiele, ‘Pushing Dualisms and Differences’.
- ³⁹ Donna Haraway, ‘Anthropocene, Capitalocene, Chthulucene: Staying with the Trouble’, online video lecture, <<http://vimeo.com/97663518>>; accessed 6 February 2015.
- ⁴⁰ Grosz, *Becoming Undone*.
- ⁴¹ *Ibid.*, p. 83; emphasis added.
- ⁴² *Ibid.*; emphasis added.
- ⁴³ Donna Haraway, *SF: Speculative Fabulation and String Figures* (DOCUMENTA 13 – 100 Notes), Hatje Cantz, Ostfildern, 2012.
- ⁴⁴ Donna Haraway, *When Species Meet*, University of Minnesota Press, Minneapolis, 2008, p. 88.
- ⁴⁵ *Ibid.*, p. 15; emphasis added.
- ⁴⁶ Haraway, *SF*, p. 4.
- ⁴⁷ Quentin Meillassoux, ‘Potentiality and Virtuality’, in Levi Bryant, Nick Srnicek and Graham Harman (eds), *The Speculative Turn: Continental Materialism and Realism*, re.press, Melbourne, 2011, p. 232.
- ⁴⁸ Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans R. Brassier, Continuum, New York, 2008 (2006), p. 38; emphasis added.
- ⁴⁹ Meillassoux in Dolphijn and Van der Tuin, *New Materialism*, pp. 79–80.
- ⁵⁰ Jon Roffe, ‘Time and Ground: A Critique of Meillassoux’s Speculative Realism’, *Angelaki: Journal of the Theoretical Humanities*, vol. 17, no. 1, 2012, p. 58; emphasis added.
- ⁵¹ Karen Barad, ‘Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come’, *Derrida Today*, vol. 3, no. 2, 2010, pp. 240–68.
- ⁵² Melanie Sehgal, ‘A Situated Metaphysics: Things, History and Pragmatic Speculation in A.N. Whitehead’, in Roland Faber and Andrew Goffey (eds), *The Allure of Things: Process and Object in Contemporary Philosophy*, Continuum, London, 2014, p. 164.
- ⁵³ Levi Bryant, Nick Srnicek and Graham Harman (eds), *The Speculative Turn: Continental Materialism and Realism*, re.press, Melbourne, 2011, pp. 1, 3.
- ⁵⁴ Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science*, Routledge, New York, 1989.
- ⁵⁵ Kirby, *Quantum Anthropologies*.
- ⁵⁶ Judith Butler, ‘Against Proper Objects. Introduction’, *differences: A Journal of Feminist Cultural Studies*, vol. 6, nos 2–3, 1994, pp. 1–26.

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