

.....

Luigi Pellizzoni. Teaches Environmental and Political Sociology at the University of Trieste, Italy. His interests are both theoretical and empirical and intersect environmental issues, techno-scientific innovation and new governmental approaches. Recent books include: *Ontological Politics in a Disposable World: The New Mastery of Nature* (Ashgate, 2015) and the editorship of *Neoliberalism and Technoscience: Critical Assessments* (Ashgate, 2012, with M. Ylönen).

Contact: luigi.pellizzoni@dispes.units.it

.....

NEW MATERIALISM AND RUNAWAY CAPITALISM: A CRITICAL ASSESSMENT

Luigi Pellizzoni

Università degli Studi di Trieste

DOI: 1017450/170104

Reception date 30th Genuary 2017; acceptance date 2nd March 2017. This article is the result of research activities held at the Dipartimento di Scienze Politiche e sociali, Università degli Studi di Trieste.

Abstract

The “return to materiality” is a burgeoning phenomenon in philosophy, the social sciences and the humanities. New materialists make a case against cultural constructionism and for a nondualist account of the world as comprised of fluid, ever-changing entities. This would allegedly offer grounds for an embodied, post-humanist emancipatory politics. The article problematizes such claim. By relying on techno-scientific accounts of materiality, new materialism embroils with the analytics of truth, neglecting how nondualist ontologies underpin today intensifying forms of domination over humans and nonhumans. A “critical” humanism is needed, which refrains from ambivalent post-humanist narratives without reverting to dualist thinking. To this purpose Heidegger offers valuable insights.

Keywords

New materialism, ontological turn, neoliberalism, post-humanism, Heidegger.

Resumen

El “regreso a la materialidad” es un fenómeno floreciente en la filosofía, las ciencias sociales y las humanidades. Los nuevos materialistas desarrollan argumentos en contra del construccionismo cultural y a favor de un relato no dualista del mundo, compuesto de entidades fluidas y en constante cambio. Esto presuntamente ofrecería fundamentos para una política emancipatoria de carácter post-humanista. El artículo problematiza tal afirmación. Al confiar en los relatos tecnocientíficos de la materialidad, el nuevo materialismo se ha embrollado con la analítica de la verdad, descuidando cómo las ontologías no dualistas sustentan hoy formas intensificadoras de dominación sobre los humanos y los no humanos. Se necesita un humanismo “crítico”, que se abstenga de las narrativas ambivalentes post-humanistas sin volver al pensamiento dualista. Con este propósito, Heidegger ofrece ideas valiosas.

Palabras clave

Nuevo materialismo, giro ontológico, neoliberalismo, post-humanismo, Heidegger.

Introduction

The “return to materiality” represents a burgeoning phenomenon in philosophy, political theory, science and technology studies (STS), the social sciences and the humanities. The wave begins to rise in the 1990s, taking growing momentum in subsequent years with a variety of labels: ontological turn, continental materialism and realism, new materialism(s), and others.¹ Such labels designate fields and perspectives not completely overlapping. However, for simplicity and since I will focus on shared traits of this intellectual movement, in the following I will use “new materialism” as an encompassing expression.

From a perspective of history of ideas new materialism can be regarded as a reaction to the post-modernist “excessive power granted to language to determine what is real”.² However, the material turn needs to be contextualized, looking at the historical juncture in which it takes place, heavily marked by post-Fordist capitalism and neoliberal rule. Only in this way – that is, taking a genealogical outlook – one may go beyond questions of intellectual fashions or academic disputes, grasping the actual stakes of the issue, namely, how a burgeoning governmentality builds on what would purportedly offer the basis for an effective critique.

I start by considering three key features of new materialism: its core ontological tenet; the case for science and technology as offering solid grounds for such tenet; and its main normative corollary, concerning the emancipatory implications of new ontologies. I proceed with pointing out difficulties regarding the second and third issue. As for the former, I contend, the problem lies in the re-emergence, albeit in a disguised form, of what Foucault calls the “analytics of truth”. As for the latter, the problem lies in how nondualist ontologies can underpin opposite programs, emancipatory and dominant. My conclusion is that only a “critical” humanism, which refrains from ambivalent post-humanist narratives without reverting to dualist thinking, may help work out a theoretical framework robust enough to stand the devastating social and environmental effects of runaway neoliberal capitalism. The last section makes a case for reconsidering in this light the question of humanism, looking at Heidegger as a possible inspiration.

1. See for example D. Coole and S. Frost (eds.), *New Materialisms*, Duke University Press, Durham, NC, 2010; R. Dolphijn and I. van der Tuin, *New Materialism: Interviews and Cartographies*, Open Humanities Press, Ann Arbor, MI, 2012; L. Bryant, N. Srnicek and G. Harman (eds.), *The Speculative Turn. Continental Materialism and Realism*, Re-press, Melbourne, 2011; S. Woolgar and J. Lezaun, “The Wrong Bin Bag: A Turn to Ontology in Science and Technology Studies?”, in *Social Studies of Science*, 43(3), 2013, Sergio Sismondo, Queen’s University, Canada, pp. 321-340. N. Marres, *Material Participation*, Palgrave Macmillan, London, 2015.

2. K. Barad, “Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter”, in *Signs: Journal of Women in Culture and Society*, vol. 28, n. 3, University of Chicago, 2003, p. 803.

New materialism: three key features

Scholarship associated with the material turn includes, as said, a variety of approaches and fields of inquiry. Inspirational sources are equally variegated, from Deleuze to Foucault, from Merleau-Ponty to Whitehead, from Actor-network theory (ANT) to sociologies of practice and Marxian accounts of the relationship between human labour and the material world. That said, the following features are shared enough to be regarded as characterizing new materialism in its whole.

The first one is a basic ontological standpoint: the rejection of the binaries traditional to modern thinking (nature/culture, mind/body, subject/object, matter/language, reality/knowledge, natural/artificial, sensuous/ideal etc.). Karen Barad's "agential realism" provides a good, and influential, example. She regards phenomena as "the ontological inseparability of agentially intra-acting components. That is, phenomena are ontologically primitive relations – relations without preexisting relata".³ Phenomena are not representations of things but things as such. Entities are continually reconstituted through material-discursive "intra-actions", where neither the material nor the cultural aspect takes precedence. For example, the material set up of foetal imaging simultaneously supports and is influenced by a politics of individual autonomy and subjectivity. The foetus that the scientists can see as an object is also the foetus that law defines as an independent subject. Hence, "the foetus is not a pre-existing object of investigation with inherent properties. Rather the foetus is a phenomenon that is constituted and reconstituted out of historically and culturally specific iterative intra-actions of material-discursive apparatuses of bodily production".⁴

Second relevant feature of new materialism, as Barad's example indicates, is the case for science and technology as offering compelling evidence in support of non dualist ontological claims. In physics, life sciences, biomedicine and elsewhere material phenomena are increasingly conceptualized in terms of porous boundaries. Distinctions between inorganic and organic, nature and artefact, matter and cognition, blur. For example, epigenetics challenges the gene/environment and brain/body dichotomies.⁵ The inorganic realm is increasingly depicted as having vital connotations, while life is simultaneously infused with dematerialized characterizations – textuality, informa-

3. Ibid., p. 815.

4. K. Barad, *Meeting the Universe Halfway*, Duke University Press, Durham, NC, 2007, p. 217.

5. D. Papadopoulos, "The Imaginary of Plasticity: Neural Embodiment, Epigenetics and Ectomorphs", in *The Sociological Review*, vol. 59, n. 3, 2011, University of London, pp. 432-456.

tion, codification.⁶ Mining and processing of huge amounts of data generate unforeseen insights where knowledge and production of reality, discovery (of interesting relationships within the data) and invention (of meaningful associations among data), can hardly be distinguished.⁷ The penetration of computational processes “into the construction of reality itself”⁸ challenges the ontological divide between machine and organism. In short, new materialists stress, “new physics and biology make it impossible to understand matter any longer in ways that were inspired by classical science”.⁹ If materiality has been usually depicted as inert, stable, concrete, resistant to socio-historical change, the opposite evidence is emerging. Matter exhibits agency, inventive capacities, generative powers. It is a doing, an incessant becoming. The basic ontological condition is difference, or infinite variation.¹⁰

Third feature of the material turn are the normative implications drawn from its ontological claims. The argument runs as follows. Liveliness of matter means that all entities in the world result from reciprocal “concerns” or “affections”.¹¹ Humans are immersed “within materiality’s productive contingencies”,¹² which imposes a post-humanist outlook on human agency, as disempowered and defective, distributed and assembled with nonhuman entities – hence also modest, careful and responsible. Acknowledging the intimate entanglement with, and the agential powers of, things, their capacity to surprise and disappoint expectations, works as an antidote to human hubris and an invitation to a politics of care and hospitality.¹³ In other words, once materiality is seen as dynamic, active and unpredictably open, it paves the way to “a liberating anti-humanism”¹⁴ – liberating, of course, from the dominative orientation inherent in the dualist thinking of the humanist tradition, where one polarity always ends up claim-

6. E. F. Keller, “Towards a Science of Informed Matter”, in *Studies in History and Philosophy of Biological and Biomedical Sciences*, vol. 42, n. 2, Elsevier, Amsterdam, 2011, pp. 174-179.

7. J. Calvert, “Systems Biology, Synthetic Biology and Data-Driven Research”, in *Studies in History and Philosophy of Biological and Biomedical Sciences*, vol. 43, n. 1, 2012, pp. 81-84.

8. N. K. Hayles, “Unfinished Work. From Cyborg to Cognisphere”, in *Theory, Culture & Society*, vol. 23, n. 7-8, 2006, Goldsmiths, University of London, pp. 159-166.

9. D. Coole, S. Frost, “Introducing the New Materialism”, in D. Coole, S. Frost (eds.), *New Materialisms*, Duke University Press, Durham, NC, 2010, p. 5.

10. Beside Barad see for example M. Hird, “Feminist matters. New Materialist Considerations of Sexual Difference”, in *Feminist Theory*, vol. 5, n. 2, Sage, London, 2004, pp. 223-232; E. Grosz, *Becoming Undone*, Duke University Press, Durham, NC, 2011.

11. I. Stengers, “A Constructivist Reading of *Process and Reality*”, in *Theory, Culture & Society*, vol. 25, n. 4, Goldsmiths, University of London, 2008, pp. 91-110.

12. D. Coole, S. Frost, “Introducing the New Materialism”, cit., p. 7.

13. See N. Clark, *Inhuman Nature*, Sage, London, 2011; J. Bennett, “The Force of Things: Steps Towards an Ecology of Matter”, in *Political Theory*, vol. 32, n. 3, 2004, pp. 347-372.

14. C. Colebrook, “On Not Becoming Man: The Materialist Politics of Unactualized Potential”, in S. Alaimo and S. Hekman (eds.), *Material Feminisms*, Indiana University Press, Bloomington, 2008, p. 74.

ing predominance over the other. From this perspective the flaws of discourse deconstruction emerge neatly. Deconstruction reproduces the separation of body and mind, matter and language. Moreover, the ineffectiveness of many recent struggles shows how discursive criticism is yielding “diminishing returns”.¹⁵ Thus, the approach to critique inherited by the philosophical tradition is to be replaced by affirmative standpoints, building on thingness and corporeality as sites of resistance, creativity, and hope. Political struggles, in this sense, become “ontological”. They are to be approached no longer as human struggles occurring in a material world provided with its own, given features, but as socio-material struggles over the very constitution of what comes into being, as enacted in practices.¹⁶

Emergent issues: the analytics of truth and neoliberal governmentality

To sum up, new materialists claim to react to the excesses of cultural constructionism without returning to traditional forms of realism, which is prevented by burgeoning techno-scientific evidence and by the dominative implications of dualist thinking. The task is to develop emancipatory programs and strategies based on a “post-humanist performativity” (Barad), that is, on human and nonhuman refusals of stable identities and positions, their constant “productive becoming”.¹⁷

Various questions can be raised concerning the narrative above. An obvious one regards the actual novelty of new materialism. Its multifarious inspiration indicates how nondualist ontologies can be retrieved in an array of theoretical positions. Marx, for example, already claims that humans cannot be conceived as separated from nature, though their relation with it is increasingly mediated by technology, as the product of human labour under specific social conditions. But even Descartes and Kant don't go so far as to affirm that mind, as responsible of the technological transformation of materiality, is completely detached from the latter. The issue, however, at least from a genealogical perspective, is not so much to assess how innovative new materialist ontologies

15. S. Clough, *Beyond Epistemology: A Pragmatist Approach to Feminist Science Studies*, Rowman and Littlefield, Lanham, MD, p. 2.

16. See A. Mol, “Ontological Politics. A Word and Some Questions”, in J. Law and J. Hassard (eds.), *Actor Network Theory and After*, Blackwell, London, 1999, pp. 74-89; A. Escobar, “Postconstructivist Political Ecologies”, in M. Redclift and G. Woodgate (eds.), *International Handbook of Environmental Sociology, Second Edition*, Elgar, Cheltenham, pp. 91-105.

17. C. Colebrook, “On Not Becoming Man: The Materialist Politics of Unactualized Potential”, in S. Alaimo and S. Hekman (eds.), *Material Feminisms*, p. 64.

are – indeed, in the history of ideas complete novelty is a rare bird – as to understand the role such ontologies play in the present historical juncture.

This draws attention to the second and third points: namely, the role of scientific and technological advancements in new materialist arguments, and the normative implications drawn from nondualist ontologies. As for the former, such role is often so prominent that it is difficult to maintain, as some commentators do, that new materialism just aims to be a “catalyst to a changed perspective”.¹⁸ Its attack on classic western metaphysics and scientific objectivism does not rule out truth aspirations. These are rather shifted to a meta-ontological level where at stake are not claims about the “whatness of things”,¹⁹ their stable identity, but about their contingency, their endless becoming, their continuous emergence and sinking. From this perspective, new materialism does not look a radical departure, but rather a further iteration of the western metaphysical tradition that Foucault labels the “analytics of truth”: the search for an access to universal truth.

Of course there is nothing wrong in addressing theoretical questions in the light of “a well-informed understanding of new scientific and technological developments”²⁰ – also because this has happened frequently in the past.²¹ However, the risk is of neglecting the social and historical embeddedness of scientific understandings and conceptualizations. For example, in attributing textuality to things and ontology to signs, Vicki Kirby says that she has in mind “the code-cracking and encryption capacities of bacteria as they decipher the chemistry of antibiotic data and reinvent themselves accordingly. Are these not language skills? Is this not a very interesting case of epistemology as ontology?”²² Judith Butler’s reply is significant in that she warns against taking explanatory models as inherent in the phenomena being explained:

I am sure that encryption can be used as a metaphor or model by which to understand biological processes, especially cell reproduction, but do we then make the move to render what is useful as an explanatory model into the ontology of

18. B. Washick and E. Wingrove, “Politics that Matter: Thinking about Power and Justice with the New Materialists”, in *Contemporary Political Theory*, vol. 14, n. 1, Palgrave Macmillan, UK, 2015, p. 65.

19. S. Woolgar and J. Lezaun, “The Wrong Bin Bag”, p. 333.

20. D. Coole, S. Frost, “Introducing the New Materialism”, p. 24.

21. The conceptual traffic (in both directions) between social and natural sciences has a long history, from Marx to Darwin, from immunology (see A. Tauber, *The Immune Self: Theory or Metaphor?*, Cambridge University Press, Cambridge, 1997) to cybernetics (see N.K. Hayles, *How We Became Post-Human*, University of Chicago Press, Chicago, 1999).

22. V. Kirby, “Subject to Natural Law”, in *Australian Feminist Studies*, vol. 23, Routledge, London, 2008, p. 9.

biology itself? [...] What of life exceeds the model? When does the discourse claim to become the very life it purports to explain?²³

Similarly, reviewing Barad's "intra-action" approach, which builds on Bohr's physics, Trevor Pinch notes that

Barad, like Karl Popper, seems to assume the very grounds that much science studies has contested. How is it that scientists can agree that phenomena are the same or agree on what makes an experiment repeatable? Once it is realized that repeatable experiments themselves come from a culture of trust, a shared form of life and shared practices [...], then the orientation is focused once more on humans. [...] I find it deeply puzzling that Barad can call for a more situated account of science and at the same time fail to situate the very part of science she is talking about, while drawing in a realist mode upon experiments to support her position.²⁴

It may seem strange that new materialists underestimate the conventional element in scientific encounters with matter. This could be considered a side effect, perhaps inevitable, of their forceful case against discursive deconstruction. Yet, I believe, the crucial reason lies in "the extraordinary challenges and perceived success of so much scientific and technological research",²⁵ the outcomes of which new materialists feel compelled to take as factual starting points. The problem, however, is that the success of science can hardly provide support to theoretical arguments. As Ian Hacking has argued, the notion of science's success verges on tautology. Even the discovery of "fundamental constants of nature", like the velocity of light, is not immune from tautology. Any difference in observation, to count as a difference, is to be achieved within the same conceptual-experimental framework (same assumptions, equipment and tacit knowledge to use such equipment). Yet, if the framework is the same, no difference can emerge; or, if it emerges, it will likely be interpreted as a measurement error. Similarly, it makes little sense to say that an "alternative" science, to exist, should lead to as good results (for example in terms of yield of foodstuff) as the actual one. If this means that one has to pull off

23. *Ibidem*, p. 10.

24. T. Pinch, "Karen Barad, Quantum Mechanics, and the Paradox of Mutual Exclusivity", in *Social Studies of Science*, vol. 41, n. 3, 2011, p. 439.

25. V. Kirby, "Subject to Natural Law", p. 7.

exactly the same specific material results of actual science, “then the alternative is not going to be an alternative”.²⁶

The point, thus, is that what counts as success can be gauged only according to a set of questions that “make sense”. And they make sense beyond disciplinary frameworks, since such frameworks are affected by, and affect, in many ways the broader social context.²⁷ One cannot talk of success independently of human history and interests, nor can scientific accounts of materiality be taken as (more) veridical just because they represent the cutting-edge of a certain historical moment.²⁸

This remark leads to the third question – the emancipatory implications of nondualist ontologies and post-humanist outlooks. A clue to problems here is evidence of a burgeoning governmentality of science and technology which builds precisely on nondualist standpoints. Two well-known examples: carbon trading and biotech patenting.

Carbon trading builds on the assumption that, once a conversion rate between the “global warming potential” (GWP) of CO₂ and other greenhouse gases is defined (courtesy of the IPCC, and despite a lot of uncertainties and speculative reasoning), reducing one of these gases anywhere in the world can be regarded as materially equivalent to reducing CO₂ here. In this way, the intractable complexity of the real impact of different quantities of diverse gases emitted in opposite parts of the world at different times is transformed into a matter of calculation.²⁹ Yet, what is exactly GWP? It is a conceptual abstraction like money, since it works as an exchange rate. However, for carbon trading to be more than an economic fiction or a mere financial game, it must be also a physical phenomenon, something happening (or prevented from happening) in the atmosphere. So GWP is simultaneously real and virtual, material and symbolic, a concrete thing and a conceptual construction. Premised on the commodification of the atmosphere is precisely this fluid constitution.

26. I. Hacking, “How Inevitable Are the Results of Successful Science?”, in *Philosophy of Science*, vol. 67, 2000, p. 64.

27. On this point the classic reference is L. Fleck, *Genesis and Development of a Scientific Fact*, University of Chicago Press, Chicago, 1979.

28. The enduring attraction of social theory for the analytics of truth in the shape of cutting-edge science and technology manifests itself in the shape of a lack of reflexivity of otherwise outstanding scholars. For example, some contends that Deleuze’s theory is undermined by his reliance on an account of organisms that is alien to the conceptual terrain of current biology (see M. Hansen, “Becoming As Creative Involution? Contextualizing Deleuze and Guattari’s Biophilosophy”, in *Postmodern Culture*, vol. 11, n. 1 The John Hopkins University Press, USA, 2000). In other words, Deleuze would build on biological models that are no longer valid. Then one may ask why current accounts should be granted greater ontological validity, given that there is no reason to think that present views on life will not be superseded by other ones, perhaps completely different. Of course the question applies also to Deleuze himself.

29. D. MacKenzie, “Making Things the Same: Gases, Emission Rights and the Politics of Carbon Markets”, in *Accounting, Organizations and Society*, vol. 34, n. 3-4, Elsevier, Amsterdam, 2009, pp. 440 - 455.

Consider now biotechnology. The fundamental feature of biotech is the combination of biology and informatics. “Life itself” becomes simultaneously matter and information, presence and pattern, “wet” and “dry”, real and virtual, moving fluidly from living cells to test tube, to digital databases.³⁰ Accordingly, biotech patents designate ontologically ambiguous entities, oscillating between materiality and virtuality, thingness and cognition. By regarding a living entity as an artefact if its basic functional parameters can be controlled (thus reproduced), they establish a correspondence between information and matter, so that rights in property over information can be subsumed into rights in property over the organisms incorporating such information, and vice versa.³¹ Moreover, the claim that patented artefacts are indistinguishable from nature for any practical purpose entails a further ambivalence: artefacts are identical to, yet also different (more usable, more valuable), the natural entities. Like carbon trading biotech thrives on ontological fluidity, or indeterminacy.

Governmentality studies have extensively accounted for the genealogy and spread of this outlook. For example, Pat O’Malley has documented how “an extensive and immensely influential managerial literature appearing since the early 1980s [...] celebrates uncertainty as the technique of entrepreneurial creativity, [...] the fluid art of the possible”.³² Proper calculations of risk become here the exception, while reasoned bets over unpredictable futures become the rule. This condition enhances danger and insecurity but is also seen “at the heart of what is positive and constructive”.³³ Nikolas Rose has comparably analysed how, in neoliberal societies, a variety of expert influences increasingly draw people to make sense of their life in terms of self-fulfilment or maximization.³⁴ Other scholars have shown how post-Fordism has developed in reply to the double crisis of the 1970s – energy scarcity and mounting environmental threats on one side; stagflation and declining profits on the other – building on emergent theories of complexity, non-equilibrium and adaptive management, which originally represented “libertarian, environmentalist and often leftist critiques of the ‘command and control’ logistics of Cold War, first-order cybernetics”.³⁵ Neoliberal managerial literature

30. E. Thacker, *The Global Genome*, MIT Press, Cambridge, MA, 2007.

31. J. Calvert, “Patenting Genomic Objects: Genes, Genomes, Function and Information”, in *Science as Culture*, vol. 16, n. 2, 2007, pp. 207-223.

32. P. O’Malley, *Risk, Uncertainty and Governance*, Glasshouse, London, 2004, p. 3.

33. P. O’Malley, “Resilient Subjects: Uncertainty, Warfare and Liberalism”, in *Economy & Society*, vol. 39, n. 4, Routledge, London, 2010, p. 502.

34. See for example N. Rose, *Inventing Our Selves*, Cambridge University Press, Cambridge; *The Politics of Life Itself*, Princeton University Press, Princeton, NJ, 2007.

35. J. Walker, M. Cooper, “Genealogies of Resilience. From Systems Ecology to the Political Economy of Crisis Adaptation”, in *Security Dialogue*, vol. 4, n. 2, Sage Publications, CA, 2011, p. 157. See also S. Nelson, “Beyond the Limits to Growth: Ecol-

contends today how “nonpredictive decision making” makes us able “to do things without understanding them – and to do them well”, becoming in this way “antifragile”, that is able to stand volatility, uncertainty and errors, the practical effects of ignorance and randomness being deemed “completely equivalent”.³⁶

As one can see, the emancipatory implications of nondualist ontologies are far from obvious. Overcoming the subject/object, matter/knowledge, real/virtual and other binaries and claiming the distributed character of liveliness and agency can be conducive to accounting for the human as humble, defective, caring and responsible, but also to opposite claims. If the world is inherently contingent and fluid, including the agent’s own “centre”, then there is no limit to what such an agent, eventually identifiable only as the source point of a will to be(come), can do to the material world, including his or her own physical constitution. This agent is a world-maker in the fullest sense of the expression, as the psychical and corporeal “self” can be moulded and remoulded together with its own framing conditions, in a blurring of internal and external similar to how a big-bang universe deploys simultaneously its material contents and their time and space framework. Needless to say, in this perspective any notion of restraint and responsibility evaporates, replaced by a radical experimentalism, where error is reframed from threat to opportunity.

Nowhere is this more evident than in the debate over “human enhancement”. In spite of careful attempts to distinguish post-humanist and trans-humanist, “humble” and “hubristic”, standpoints,³⁷ telling them apart in regard to a number of emergent techno-human assemblages, from new prosthetics to brain-computer interfaces, is notoriously difficult. Indeed, the difficulty appears already at theoretical level. An example comes from Rosi Braidotti’s recent book on the post-human, the basic argument of which is that the “dynamic, self-organizing, transversal force of life itself [...] conveyed by current technological transformations” – where life transmutes into technology and

ogy and the Neoliberal Counterrevolution”, in *Antipode*, vol. 47, n. 2, 2014, pp. 461-480. The integration of emancipatory programs in capitalist agendas is a common trope of recent critical literature. About post-Fordist capitalism’s appropriation of social oppositions to the Fordist mode of production see L. Boltanski and E. Chiapello, *The New Spirit of Capitalism*, Verso, London, 2005; P. Virno, “Do You Remember Counterrevolution?”, in P. Virno and M. Hardt (eds), *Radical Thought in Italy: A Potential Politics*, University of Minnesota Press, Minneapolis, 1996, pp. 241–259. On a comparable line Nancy Fraser has discussed the “disturbing convergence” of second wave feminism with the demands of the neoliberal state. See “Feminism, Capitalism and the Cunning of History”, in *New Left Review*, vol.56 Mar/Apr., 2009, pp. 97-117. On this issue see also L. Bazzicalupo, “Neoliberalismo e soggettivazioni femminili”, in T. Dini and S. Tarantino (eds.), *Femminismo e Neoliberalismo*, Natan, Roma, 2014, pp. 35-48.

36. N. N. Taleb, *Antifragile. Things that Gain from Disorder*, Penguin, London, p. 4 and p. 12.

37. See for example R. Twine, “Genomic Natures Read through Posthumanism”, in S. Parry and J. Dupré (eds), *Nature After the Genome*, Blackwell, Oxford, 2010, pp. 175-195; C. Wolfe, *What Is Posthumanism?* Minneapolis: University of Minnesota Press, 2010.

technology into life – is capable of “displac[ing] the exploitative and necro-political gravitational pull of advanced capitalism”.³⁸ This claim, it seems to me, fails to consider how such transformations are entrenched in runaway neoliberal capitalism, beginning with the type of subjectivity the former promote and the latter presupposes (or vice versa): entrepreneurial, expansive, decentred, vitalistic.

The amazing success of the notion of Anthropocene is another clue to the hegemonic status of such subjectivity. Implicit in the notion is the idea that humans can – indeed should – become effective “stewards” of the Earth system. This seems to reproduce at its highest classic western objectivism. However, if one looks at narratives provided with considerable traction at academic and policy level, such as the Breakthrough Institute’s *Ecomodernist Manifesto*³⁹, a different picture emerges. According to the Manifesto, humankind has flourished despite growing damage to natural systems, where the damage is itself the consequence of human beings’ use of the biosphere to meet their needs, and desires. To escape pending threats, therefore, the Anthropocene is to be intensified and accelerated. Human societies should increasingly decouple themselves from natural biophysical systems. We can and should do without nature: conservation or preservation of “natural areas” is more a matter of aesthetic and moral commitments than of utilitarian ones. Such an outsized role for technology, as effectively a replacement for nature, implies a total blurring of the human and the nonhuman. The historical record of human transformation of nature is reframed as a testimony that nature is just what we want it to be. Technology replaces nature because it is ultimately indistinguishable from it. Better, technology produces nature as an internal differentiation of society (or capital?) – what is let be, as deliberately unexploited possibilities.

Reassessing humanism

In conclusion, the main problem with new materialism seems to be that no compelling case for care and restraint vis-à-vis a lively materiality can ultimately be drawn from nondualist ontologies. Neglect for the historical conditions in which new accounts and approaches to materiality are deploying does not help to focus and address this point. Taking a “humble” attitude becomes a question of personal ethics or lifestyle choice –

38. R. Braidotti, *The Posthuman*, Polity Press, Cambridge, 2013, p. 61 and p. 141.

39. J. Asafu-Adjaye, L. Blomqvist, S. Brand et al., *An Ecomodernist Manifesto*, <http://www.ecomodernism.org/manifesto> [accessed 30 March 2016].

something of which capitalism is hardly afraid, since it represents a trigger of further market differentiation (think of slow food and other types of frugality). As a result, the case for new, ontological or embodied, struggles seems undermined already at a theoretical level.

The problem eventually lies in human agency and its relationship with the biophysical world. If humanism and dualist ontologies entailed a dominative attitude and if nondualist, modest and caring, post-humanisms are hardly distinguishable from hubristic hyper-humanisms, what should one do? Answering is hard. At the very least, I believe, the question of humanism is to be re-examined – once more. There are, of course, many ways to do that. In the remaining space I would like to suggest a possible direction, represented by a scholar who, no doubt, many consider an unlikely, if not untrustworthy, inspiration: Heidegger.

I have to say, preliminarily, that I have little interest in the debate on Heidegger's sympathies for Nazism and their implications for his philosophy. Even if it would be based on entirely blameworthy premises, I believe one should not consider such philosophy automatically irrelevant or misleading. The point I want to stress here, then, is that in spite of his critique of humanism and how such critique has been in its turn the target of sustained criticisms, his account of the human can be quite valuable for devising a new, "critical" humanism – that is, a humanism based on a reorientation of technology in a non-dominative, self-limiting direction.⁴⁰

Heidegger takes issue with humanism because its various versions build on, or aim to ground, a metaphysics, which in its turn consists in a determination of the essence of the human that already presupposes such essence. In the western tradition, metaphysics begins with the definition of man as the *zoon logon echon*, that is, an animal provided with an additional character. So the essence of man is located in *physis*, nature. The problem, then, is to make sense of this addition: *logos*. According to readings, *logos* corresponds to reason, personhood, soul or else. For Heidegger, *logos* means first of all language. Yet, language is neither the expression of an organism, nor is it a property of humans. Rather, as Heidegger says in the 1957 Freiburg Lectures, to the extent that language belongs to *physis*, nature, or being, that is to the constitutive principle of all entities, it is this principle that manifests itself through human language.⁴¹ Man, Heidegger

40. The relevance of Heidegger's insights to the problems discussed here is more extensively addressed in my *Ontological Politics in a Disposable World: The New Mastery of Nature*, Ashgate, Farnham, 2015, where I also argue how Heidegger is hardly the technophobe he is often depicted.

41. See M. Heidegger, *Bremen and Freiburg Lectures*, Indiana University Press, Bloomington, 2012, p. 122 ff.

stresses elsewhere, does not *have* language; instead, “language is the house of Being. In its home man dwells”.⁴²

Language represents for this reason the fundamental line of division between humans and the nonhuman – within a single ontological reality. In a famous passage of *Fundamental Concepts of Metaphysics*, he says that the stone is “worldless”, being insensitive to the surrounding reality; the animal is “poor in world”, in the sense that it has no possibility to stand out of a specific relation with the environment, as established by its biological features; the human being, instead, is “world-forming”, in the sense that it has no preordained relationship with its surroundings.⁴³ This world-forming capacity entails the openness of humans to the manifestation of being, hence to the endless conflict between concealment and disclosure, *lethe* and *aletheia*. Animals and plants instead are excluded from this experience, having access only to particular entities, specific materializations of being. The indication of such exclusion is their lack of language; or, vice versa, human language is the field where the experience of concealment and disclosure occurs.

This simultaneous critique of humanism and apparent reinstatement of a most traditional type of humanism in the form of an “abyss” separating the human and the non-human world has raised a host of censures.⁴⁴ The anthropological exception, moreover, would be disconfirmed by growing evidence about the evolutionary history of humans, and about the linguistic capacities and non-instinctual behaviour of animals.⁴⁵ However, at a closer examination things look a bit – or a lot – different.

For a start, and without repeating what said already about the problems of building theoretical arguments on contingent scientific evidence, one has to ask whether or not such evidence avoids to be caught in the “anthropological machine” – the mechanism by which any empirical evidence allegedly gathered on the emergence of the human from the animal, on their distinctions or similarities, is already inscribed in metaphysical assumptions about humanity and life. As far as I can see, critics of Heidegger hardly escape the trap. An example comes from Peter Sloterdijk’s intervention in the issue.

42. M. Heidegger, “Letter on Humanism”, in M. Heidegger, *Basic Writings*, Harper Collins, New York, p. 217.

43. See M. Heidegger, *Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, Indiana University Press, Bloomington, 1995, p. 185 ff.

44. Among the most famous are those of Jacques Derrida. See for example “*Geschlecht II. Heidegger’s hand*”, in J. Sallis (ed), *Deconstruction and Philosophy. The Texts of Jacques Derrida*, University of Chicago Press, Chicago, 1989, pp. 161-196; *Of Spirit: Heidegger and the Question*, University of Chicago Press, Chicago, 1991; *The Politics of Friendship*, Verso, London, 2005. See also R. Esposito, “Heidegger e la natura umana”, in *MicroMega*, 4, 2005, pp. 227-238.

45. For these objections, see for example P. Sloterdijk, *Die Domestikation des Seins. Für eine Verdeutlichung der Lichtung* by Peter Sloterdijk, Suhrkamp, Frankfurt am Main, 2000.

M. Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida*, Columbia University Press, New York, 2008.

After stressing how we have never to presuppose ‘man’ to subsequently find it in some way in pre-human stages⁴⁶, he makes his case for anthropogenesis by doing precisely that: presupposing the human according to the features we know (or believe to know) about it, and then deriving these features from evolutionary mechanisms, allegedly evidenced by scientific research, such as insulation against selective pressures, thanks to communal living, and neoteny (that is, the retardation of somatic development which leads to the flourishing of brain and enhanced learning capacities). On the opposite side of the issue, pretending to address the ontology of animal life “on its own terms”⁴⁷ as many scholars in post-human and animal studies do, not only is an impossible task, but it easily leads to taking our outlooks on animality (which are not only human, but also historically and socially contingent) as ontological truths. The result is a reiterated dominative relationship in a disguised (hence potentially more dangerous) form.⁴⁸

Of course, one can rebut that also Heidegger builds his own account of the anthropological exception on some experiential evidence – arguably less reliable than scientific one.⁴⁹ However, if we consider how he describes the human condition as a dynamic of unconcealment and concealment, as the experience of the opening to a closure, of the ontological (rather than contingent) limits of our access to truth, then Heidegger’s empirical basis takes a genealogical, rather than metaphysical, character. Heidegger’s experiential reference is not provided with the veridical pretence of (current) techno-science, with its alleged progressively realized merging of truth and things and the dominative retroaction of such claim onto the present.⁵⁰ Heidegger’s are not assertions about the “real” constitution of humans and animals, or matter in general, but an admission of its ultimate obscurity. Not by chance he does not seek to establish a hierarchy between humanity and the rest of the world. The difference between humans and animals does

46. P. Sloterdijk, *Die Domestikation des Seins. Für eine Verdeutlichung der Lichtung* by Peter Sloterdijk, Suhrkamp, Frankfurt am Main, 2000.

47. M. Calarco, *Zoographies*, Columbia University Press, p. 89.

48. In this sense it has been observed that, contrary to Donna Haraway’s claim, the Oncomouse™ does not embody the fall of the nature/culture dualism, but rather a further commodification of nature (see Z. Weisberg, “The Broken Promises of Monsters: Haraway, Animals and the Humanist Legacy”, in *Journal of Critical Animal Studies*, vol. 7. n. 2, 2009, pp. 22– 62). More in general, it is symptomatic how new materialists talk of matter as text and writing or account for the behaviour of things in terms of concern, affect, desire, elusiveness, in this way anthropomorphizing nature at the very moment in which they seek to eradicate the predominance of the human.

49. For this objection see J. Derrida, “*Geschlecht II. Heidegger’s hand*”, The University of Chicago Press, Chicago and London, p. 173.

50. The increasingly vociferous claim is that we are just about clarifying a host of fundamental things: from the basics of life to the nature of mind and consciousness. What we need just a further bit of research (and money), to get full confirmation of what we basically know already, on the grounds of which we therefore can and have to act *now*. A well-known by-product of this narrative is what Ulrich Beck calls “organized irresponsibility”: technologies are legitimated on the grounds of knowledge deemed reliable, yet liabilities for accidents and “side effects” are rejected on the grounds that scientific knowledge is always limited and perfectible.

not correspond for him to a superiority of the former. As he clearly states in Section 46 of *Fundamental Concepts*, being poor in world does not mean *having less* but *doing without*. The comparison between man and animal does not permit any evaluation in terms of perfection or imperfection, of higher or lower essence. The same applies to differences within the animal kingdom. Moreover, the “poverty” of the animal is a *human* way to describe a condition that, from a different viewpoint, could be regarded as richness, in a relationship with the world that may be precluded to humans (see Section 60). Furthermore, the animal appears to us as open to its own lack; something which entails an “essential shaking”: the suffering and tension of the living beings towards their final liberation of which some poets, or St. Paul, in the *Letter to the Romans*, talk (see Section 63). This constitutes the background against which the essence of being-man stands out, indicating difference together with tight closeness (see Section 67).

In short, for Heidegger, the relationship between human and animal cannot be depicted in terms of hierarchy, but rather of incommensurability. The animal – and by extension the whole nonhuman world – remains for us eventually mysterious, enigmatic. Likewise enigmatic remains the human.

Saying that the essence of man is its being-in-the-world as opened to the dynamics of clearing and obscurity does not lead to deciding anything about God, about the possibility or impossibility of divinity. The point is not theism or atheism. The point is the

*respect of the boundaries that have been set for thinking as such. [...] Insofar as thinking limits itself to its task it directs man [...] into the primordial dimension of his historical abode. [...] Thinking does not overcome metaphysics by climbing still higher, surmounting it, transcending it somehow or other [as new materialists do, I add, with their case for a universal ontology of difference and becoming]; thinking overcomes metaphysics by climbing back down into the nearness of the nearest.*⁵¹

Conclusion

New materialism constitutes a major intellectual shift of recent years. Its import, however, can be fully appreciated only by taking a genealogical perspective and consid-

51. M. Heidegger, “Letter on Humanism”, Routledge, London, p. 254, my emphasis.

ering its relationship with a burgeoning governmentality of the human and nonhuman world. In this light problems emerge regarding the emancipatory implications of non-dualist ontologies. Failing to recognize that the latter may underpin more restrained and respectful encounters with materiality but also intensified dominative thrusts seems no negligible shortcoming.

This conclusion, however, does not necessarily entail going back to old dualisms, but rather avoiding to draw from the acknowledgment that there is no separation between world and (human) sense-making of the world the assumption that there is no remainder between things and words, matter and cognition, the agent and its (self-) establishment or overcoming; that knowledge and life join together in a frictionless dance of encounters and transformations. The value of Heidegger for a reconsideration of the question of humanism in the present historical condition lies first and foremost in his insistence on the fundamental obscurity of the essence of nature and human nature; of humans' constitutive condition of non-correspondence with themselves; of the unbridgeable division between knowledge and world and, with it, between humans and other living beings – a division, however, which does not set different ontological spheres but occurs on a single plane of immanence. Furthermore, this division does not imply, as it has often been concluded, any hierarchy, nor justifies domination but, on the contrary, brings near the world and its inhabitants as companions in a never-ending task of disclosure. So understood, the “anthropological exception” looks completely different – indeed opposed – to “human exceptionalism”, a theme currently re-emerging in the context of the Anthropocene debate as a plea for a “post-natural” sustainability.⁵²

From this viewpoint, and despite well-known political and theoretical frictions, Heidegger is very close to Adorno. Both regard subject and object, thought and world, as enmeshed from the outset.⁵³ Both develop a sustained critique of technology and instrumental reason. Moreover, Heidegger's account of the “thrown” condition of existence, which entails for the subject a structural gap, a lack of self-mastery, an irredeemable non-correspondence to itself or an irreducible moment of negativity, is “fully compatible with Adorno's dialectical understanding of non-identity”.⁵⁴ What Adorno

52. M. Arias-Maldonado, “Rethinking Sustainability in the Anthropocene”, in *Environmental Politics*, vol. 22, n. 3, Routledge, London, 2013, pp. 428 - 446. A rejection of human exceptionalism characterizes, instead, the literature on the commons. See for example O. Marzocca, *Il mondo comune*, Manifestolibri, Roma, 2015.

53. Regarding Adorno this emerges in a number of places. See for example T.W. Adorno, “On Subject and Object”, in T.W. Adorno, *Critical Models*, Columbia University Press, New York, 1998, pp. 245-258.

54. I. Macdonald, “Ethics and Authenticity: Conscience and Non-identity in Heidegger and Adorno, with a Glance at Hegel”, in I. Macdonald and K. Ziarek (eds), *Adorno and Heidegger. Philosophical Questions*, Stanford University Press, Stanford, CA, 2008, p. 15.

calls identity thinking, and Heidegger calls the reduction of being to entities as they present themselves, constitutes a common plea for the difference between the world and its images or concepts; a statement about reality as always something else from what we grasp of it.⁵⁵

This, I believe, is of paramount importance in the present historical juncture. The integration of post-humanist outlooks in runaway neoliberal capitalism is more than a theoretical possibility: it is a concrete, intensifying, governmental practice. In this situation, Heidegger, Adorno and other masters (for example Benjamin) offer the contours of a much-needed critical humanism: *humanism*, because emancipatory programs can hardly build today on post- or anti-humanist standpoints; *critical*, because it does not draw any hierarchical, dominative, implication from the “human condition”. Such condition, on the contrary, urges restraint and respect for the world – beginning with our own bodily and psychical constitution – according to a humbler, historically and biologically embedded, account of humanity.

55. See L. Cortella, *Una dialettica nella finitezza. Adorno e il programma di una dialettica negativa*, Meltemi, Roma, 2006, p. 123 ff.