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New Materialism, Harm, and Hierarchies in Nature

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Abstract

This article is about an internal contradiction within the ascendant philosophy of new materialism, namely that its ethical opposition to harm clashes with its ontology. In the first part, I summarize new materialists' attention to material entanglements and rejection of hierarchies in nature. In the second section, I argue that diagnosing and addressing harm to ecosystems and individuals (almost) always depend upon a hierarchy of beings within that ecosystem and a set of pre-determined potentials/preferences of how individual entities *should* be, two principles that new materialists explicitly reject. In the conclusion, I suggest that new materialists' contradictions surrounding harms mean that they can either maintain a concern over ongoing damage to ecosystems and beings *or* their opposition to immaterial potentials and a hierarchy among beings—but not both. My preferred option is to retain the former and to accept that we must have some hierarchy among and within beings to address ongoing ecological deterioration around us. I close by outlining how new materialism's key insights might be put in dialogue with other voices on the relation between humans and the rest of the world.

Keywords

new materialism, climate change, harm, hierarchy, nature

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Introduction

In recent decades, few ideas have been more ascendant in intellectual discourse than those of new materialism, which have become prominent in philosophy, political theory, science and technology studies, art, and other disciplines. Bruno Latour, Donna Haraway, Karen Barad and Jane Bennett are only the most prominent of several generations of scholars who have argued that the transformations to the planet caused by human activity—usually called "climate change"—and the integrations between humans and the rest of the world must motivate us to seriously challenge both enlightenment humanism and constructivist/linguistic analyses of reality, and instead refocus us on physical matter.[1] These *new materialists* unite around their rejection of binaries between and hierarchies among subjects/objects, humans/non-humans, and animacy/inanimacy. For new materialists and their fellow travelers, this way of thinking offers a salutary corrective to dominant perspectives that have falsely divided humans from the rest of nature and licensed thoughtless damage to the world. By attending to the ways in which we are bound up in material relations with "other" things, new materialists hope we can build a less destructive future.

Yet not everyone is so enthusiastic about the emergence and ascendancy of new materialism. Even commentators sympathetic to new materialists' critiques of humanistic modernity have lamented that their conclusions could undermine democratic action,[2] attenuate any sense of specific responsibility for environmental degradation,[3] are insufficiently attentive to class and other social inequalities,[4] and are insufficiently circumspect about Indigenous

[1] Donna Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (Routledge, 1991), 149–82; Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (Routledge, 1991); Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press, 2016); Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Harvard University Press, 1993); Jane Bennett, "Thing-Power," in *Political Matter: Technoscience, Democracy, and Public Life*, eds. Bruce Braun and Sarah J. Whatmore (University of Minnesota Press, 2010), 35–62; Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Duke University Press, 2010); Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Duke University Press, 2007).

[2] Sharon R. Krause, "Bodies in Action: Corporeal Agency in Democratic Politics," *Political Theory*, 39, no. 3 (2011): 299–324.

[3] Benjamin Boysen, "The Embarrassment of Being Human: A Critique of New Materialism and Object-Oriented Ontology," *Orbis Litterarum*, 73 (2018): 225–42.

[4] Paul Rekret, "The Head, the Hand, and Matter: New Materialism and the Politics of Knowledge," *Theory, Culture, and Society*, 35, nos. 7–8 (2018): 49–72.

knowledge.[5] Like these critics, I sympathize with some of new materialism's ambitions, but am skeptical of its ultimate success in achieving them—though for slightly different reasons.

In this article, I focus on new materialism's concept of *harm*. Though heretofore overlooked, I argue that the concept of harm plays a key justificatory role in new materialist philosophy. New materialists subtly ground their philosophical intervention on a need to address anew the harm that modern culture and economies are inflicting upon the earth and its occupants. Yet their ethical concern for harm is philosophically underdeveloped and in tension with their rejection of two principles: a hierarchy of beings in nature, and immaterial potentials or purposes that organize a hierarchy of parts toward wholes within specific beings.

The first tension emerges because when new materialists speak of harm to an ecosystem they are referring to events that have negatively affected a bounded set of beings of a particular species—and not other types of beings with different attributes who are differently affected by the same events. The second emerges because harm to a set of members of a specific form of life always implicitly implies a violation or interruption to a being's movement toward its potential or preferred way of being—a pre-emptive directedness that creates an order or hierarchy to its parts. Because new materialists are expressly concerned about harm yet reject a hierarchy among and within beings, their theory contains a fundamental tension.

This paper has two main parts. In the first, I offer an interpretation of key new materialist texts to understand their ontological commitments. Though I am not exhaustive in the range of new materialists I study, I analyze a wide set of thinkers who might be considered "post-humanist" new materialists given their special emphasis on transcending the category of the human.[6] I show that ethical concerns of addressing and avoiding harm are central to new materialism, even if this aspect is often overlooked. In the second section, I argue that diagnosing and addressing harm to ecosystems and individuals depend upon a hierarchy of beings within that ecosystem and a set of pre-determined potentials/preferences of how individual entities *should* be, two principles that new materialists explicitly reject. In the conclusion, I suggest that new materialists' contradictions surrounding harms mean that they

[5] Vanessa Watts, "Indigenous Place-Thought and Agency Amongst Humans and Non-Humans (First Woman and Sky Woman Go on a European World Tour!)," *Decolonization: Indigeneity, Education, and Society*, 2, no. 1 (2013): 20–34.

[6] For a rare commentary that stresses the differences between strands of new materialism, see: Christopher N. Gamble, Joshua S. Hanan, and Thomas Nail, "What Is New Materialism?," *Angelaki*, 24, no. 6 (2019): 111–34.

can either maintain a concern over ongoing damage to ecosystems and beings *or* their opposition to immaterial potentials and a hierarchy among beings—but not both. I close by discussing how new materialism's key insights might be put in dialogue with other voices on the relation between humans and the rest of the world.

New Materialism's Core Commitments

Materialism, Assemblages, Anti-Essentialism. New materialism encompasses a range of thought and is a diverse field, with practitioners interested in drawing upon older thinkers such as Epicurus, Lucretius, Thomas Hobbes, and Baruch Spinoza amongst others to address contemporary philosophic and political problems. But the post-humanist new materialists I study coalesce around a few core ontological convictions.[7] The difference between humans and non-humans, living and non-living things, is not fundamental but one of differing degrees of material affect. There are no ontological binaries (e.g., human/non-human, living/non-living, animate/inanimate) because humans and all other things are always part of assemblages that mean we cannot singularly identify ourselves independent of them. There are no justifiable hierarchies among these assemblages. There are no immaterial essences to humans such as a soul, spirit, or vital life force.

New materialist political theorist Jane Bennett summarizes the first commitment as an interest in "thing-power," or the ability of material things to affect others. It is rooted in a strong sense that most philosophers overemphasize the role that humans play in causing states of affairs. In Bennett's words, she seeks to "lavish attention on specific 'things', noting the distinctive capacities or efficacious powers of particular material configurations."[8] "Thing-power" is simply the ability to enact changes in the world, and for new materialists "these capacities are manifest in varying degrees across different species of being . . . indelibly material in their provenance." As such, "the difference between humans and animals, or even between sentient and nonsentient matter, is a question of degree more than of kind."[9] In her

[7] Figures such as Latour and Barad are equally interested in epistemology and knowledge production, especially in the natural sciences. I focus here on new materialism's ontology because it is its ontology (not epistemology) that is in tension with its ethics. Others choose to break down new materialism's commitments into more categories. See: William E. Connolly, "The 'New Materialism' and the Fragility of Things," *Millenium: Journal of International Studies*, 41, no. 3 (2013): 399–412.

[8] Bennett, *Vibrant Matter*, ix.

[9] Diana Coole and Samantha Frost, "Introducing the New Materialisms," in *New Materialisms: Ontology, Agency, and Politics*, eds. Diana Coole and Samantha Frost (Duke University Press, 2010), 21.

analysis of the 2003 power blackout in Canada and the United States, Bennett does not solely focus on the human subjects who made decisions, and likewise does not disregard the material objects involved as if they behaved as dead matter governed by laws. As she writes, "to the vital materialist, the electrical grid is better understood as a volatile mix of coal, sweat, electromagnetic fields, computer programs, electron streams, profit motives, heat, lifestyles, nuclear fuel, plastic, fantasies of mastery, static, legislation, water, economic theory, wire, and wood—to name just some of the actants."[10] Each of these entities exhibited "thing-power" that contributed to the blackout. New materialists see levels of agentic effects, not fundamentally different sorts of agents.[11]

New materialists' emphasis on a single, distributed agency leads them to avoid making hard distinctions between entities. In their view, traditional ontologies that focus on distinguishing things from one another distort reality by erroneously severing certain entities from others. Instead, new materialists describe the world as groupings of "assemblages," "entanglements," or "phenomena." "Assemblages," in Bennett's description, are "ad-hoc groupings of diverse elements, of vibrant materials of all sorts. Assemblages are living, throbbing confederations" that are uneven within, as "power is not distributed equally across its surface."[12] The power grid, Bennett suggests, is a "good example of an assemblage. It is a material cluster of charged parts that have indeed affiliated, remaining in sufficient proximity and coordination to produce distinctive effects."[13] It is such a helpful instance, for Bennett, because we can clearly observe all the different "parts" of it (the coal, electrons, copper, etc.) are significant as an intermingled assemblage.

Karen Barad's description of assemblages or "phenomena" is even more fundamental. As Barad articulates, "phenomena are constitutive of reality. Reality is composed not of things in-themselves or things-behind-phenomena but of things-in-phenomena." Since "the world is a dynamic process of intra-activity and materialization" freeing ourselves from the fictions of discrete entities pushes us closer to grasping how the world really is.[14] These assemblages or phenomena are dynamic groupings of different sorts of agency that cannot be frozen in a system of classification. If we want to understand any particular event, we must appeal to all elements of an assemblage.

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[10] Bennett, *Vibrant Matter*, 25.

[11] Lars Tønder takes up Bennett's description of the power outage and praises her rejection of "any categorical distinction between the human and the non-human, culture and nature." See: Lars Tønder, *Power in the Anthropocene* (University of Edinburgh Press, 2025), 146–7.

[12] Bennett, *Vibrant Matter*, 23.

[13] Ibid., 25.

[14] Barad, *Meeting the Universe Halfway*, 140.

To use another example beyond the power grid, Bennett describes the process of writing her book *Vibrant Matter* not as the product of her agency as a single human but one emerging

> from the confederate agency of many striving macro- and microactants: from "my" memories, intentions, contentions, intestinal bacteria, eyeglasses, and blood sugar, as well as from the plastic computer keyboard, the bird song from the open window, or the air or particulates in the room, to name only a few of the participants. What is at work here on the page is an animal-vegetable-mineral-sonority cluster with a particular degree and duration of power.[15]

Bennett echoes the acknowledgements in Barad's *Meeting the Universe Halfway*, where Barad first describes the dispersion of agency among purportedly separate entities that comprise "entanglements." "Friends, colleagues, students, and family members, multiple academic institutions, departments, and disciplines, the forests, streams, and beaches of the eastern and western coasts, the awesome peace and clarity of early morning hours, and much more were a part of what helped constitute both this 'book' and its 'author'," writes Barad.[16] Barad describes these "entanglements" as "phenomena," which "are neither individual entities nor mental impressions, but entangled material agencies."[17] Lars Tønder calls these assemblages "delimited—but not hermetically sealed off—multiplicity of modes of power linked to different forms of materiality."[18]

These assemblages cannot be ranked in an ontological hierarchy, according to new materialists, who critique other ontologies for consistently placing humans above other assemblages or for treating matter as "dead" or "instrumentalized."[19] As Bonnie Washick and Elizabeth Wingrove write, new materialism's methods trouble the "human/nonhuman hierarchy of value and power, and, in so doing, enable an appreciation for the newly calibrated power (or lack thereof) of a diverse array of actants and likewise a reassessment of their worth (or perhaps dignity)."[20] Mary-Jane Rubenstein, a new materialist who attacks traditional theologies that defend distinctions between the creator and the world and by extension between humans and non-humans, writes that once we abandon this sort of created hierarchy (first between God

[15] Bennett, *Vibrant Matter*, 23.
[16] Barad, *Meeting the Universe Halfway*, x.
[17] Ibid., 56.
[18] Tønder, *Power in the Anthropocene*, 111.
[19] Bennett, *Vibrant Matter*, 68, 83.
[20] Bonnie Washick and Elizabeth Wingrove, "Politics That Matter: Thinking About Power and Justice with the New Materialists," *Contemporary Political Theory*, 14, no. 1 (2015): 64.

and the world, then among parts of the world) "there is no assurance that human interests are any more significant than bovine, mineral, or bacterial interests."[21] Barad, likewise, sees anthropocentrism as an unfortunate principle that separates agents or entities from one another, and suggests that we cannot "presume the separateness of any-'thing', let alone the alleged spatial, ontological, and epistemological distinction that sets humans apart."[22]

Bennett further asks readers to move beyond anthropocentrism by eliding "the question of the human," and related ones of "what really distinguishes the human from the animal, plant, and thing." Fixating on such questions, in Bennett's view, will inevitably "lead down the anthropocentric garden path, [and] will insinuate a hierarchy of subjects over objects."[23] She praises materiality because it tends to "horizontalize the relations between humans, biota, and abiota . . . drawing human attention sideways, away from an ontologically ranked Great Chain of Being and toward a greater appreciation of the complex entanglements of humans and nonhumans."[24]

New materialists do not outright declare that all entities are equal or ought to be treated the same, but they do critique the ontological distinctions that allow such hierarchies to be constructed in the first place. Karen Barad, for instance, argues that we must be attuned to the ethical ramifications of new materialism's ontological insights that there are no fixed boundaries between entities. "How different ethics looks from the vantage point of constitutive entanglements," Barad writes, asking the reader to wonder "What would it mean to deny one's responsibility to the other once there is a recognition that one's very embodiment is integrally entangled with the other?"[25] What we need, in Barad's words, is "an ethico-onto-epistemology—an appreciation of the intertwining of ethics, knowing, and being"[26] that is consistent with what Barad takes to being ontologically true: that "'others' are never very far from 'us'; 'they' and 'we' are co-constituted and entangled through the very cuts 'we' help to enact."[27]

Finally, new materialists reject any account of beings or entities that involves ascribing to them an immaterial "soul," "purpose," or "teleology." Diane Coole writes that this means "materiality is not causally determining or

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[21] Mary-Jane Rubenstein, *Pantheologies: Gods, Worlds, Monsters* (Columbia University Press, 2018), 179.

[22] Barad, *Meeting the Universe Halfway*, 136.

[23] Bennett, *Vibrant Matter*, 120.

[24] Ibid., 112.

[25] Barad, *Meeting the Universe Halfway*, 158. Bennett appears to be less concrete about the relationship between ontology and ethics. See Bennett, *Vibrant Matter*, 84.

[26] Barad, *Meeting the University Halfway*, 185.

[27] Ibid., 178–9. See also pp. 160, 384, 392, 393, 396.

determined, and nor are its future forms teleologically prefigured."[28] Human cognitive capacities, for instance, are "diffuse, chance products of a self-generative nature."[29] Lars Tønder insists that the absence of hermetic seal means that these assemblages are only "'densities' or 'mountain peaks' that . . . can be more or less difficult to move or otherwise change." But they are resolutely not "natural" meeting points.[30] The idea of an abstract "whole" for beings is misguided, and using the term "parts" is misleading. "Eventually, Tønder writes, "we will have to change the vocabulary altogether in favour of a language organized around modes, intensities, processes, and actants."[31] This is no doubt because the terms "parts" and "wholes" imply that there is a foundational principle in entities that organizes its parts to the end of a whole.

To new materialists, there is no such thing as an essence or purpose to any agent, only the highly contingent agency of which the assemblage is capable. Assemblages, to return to Rubenstein, are involved in "all manner of competing, collaborative, and disjunctive ends—in multiple, ongoing processes of cosmic makings and unravelings."[32] Instead of a species-specific soul, telos, or purpose, new materialists tend to substitute some idea of "entelechy" as a loose organizing principle. To Jane Bennett, entelechy "coordinates parts on behalf of a whole in response to event," but does so "without a rigid plan." According to her, entelechy decides "on the spot and in real time which of the many possible courses of development will in fact happen," constrained by the "materiality it must inhabit."[33] As Coole writes, the development is not "prefigured."[34] For new materialists, only the material of any given assemblage changes, not the principle of entelechy which does not "vary across organisms."[35] This sort of vitalist entelechy, shared across all sorts of beings, links back to new materialism's rejection of a hierarchy of assemblages because it is pacifistic and does not license a preference for certain parts above others.[36]

We have now seen three of the central ontological arguments that new materialists tend to make. First, that the world ought to be analyzed in terms

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[28] Diana Coole, "Agentic Capacities and Capacious Historical Materialism: Thinking with New Materialisms in the Political Sciences," *Millenium: Journal of International Studies*, 41, no. 3 (2013): 453.
[29] Coole and Frost, "Introducing the New Materialisms," 21.
[30] Ibid., 199.
[31] Tønder, *Power in the Anthropocene*, 86.
[32] Rubenstein, *Pantheologies*, 176.
[33] Bennett, *Vibrant Matter*, 75.
[34] Coole, "Agentic Capacities and Capacious Historical Materialism," 453.
[35] Bennett, *Vibrant Matter*, 75.
[36] Ibid., 83.

of the material effects that all things can exercise. Second, that there are no ontological binaries. Humans and all other "things" are always interwoven in assemblages to such a degree that isolating them linguistically or philosophically is inappropriate, as is erecting any hierarchy among assemblages. Finally, new materialists disavow the existence of any immaterial essence such as soul, purpose, or spirit that might organize certain assemblages differently than others and permanently prefigure a hierarchy within them. This is not an exhaustive summary of new materialist thought, but by drawing from a range of thinkers and putting their ideas in context, we have been able to grasp the core of how they understand themselves. In the second part of this section, I turn to another quietly crucial attribute of new materialist thinking that often goes overlooked: their concern for harm to the planet and to specific beings on it.

Harm in New Materialist Thinking. New materialists offer extensive defenses of their ontological positions and explain precisely what they mean and how their understandings of important ontological concepts differ from more conventional accounts. Yet while new materialists devote less attention to the ethical implications of their ontology, ethical concerns remain an important—if largely unexamined—motivation for their theory.

Jane Bennett draws a direct connection between her approach to ethics and her ontological commitment to the interconnection of assemblages. In her words, "the starting point of ethics is less the acceptance of the impossibility of 'reconcilement' and more the recognition of human participation in a shared, vital materiality."[37] She has a hunch that "the image of dead or thoroughly instrumentalized matter," or in other words the binary between living and non-living things, "feeds human hubris and our earth-destroying fantasies of conquest and consumption."[38] Karen Barad likewise implies much the same when asking, rhetorically, "how different ethics looks from the vantage point of constitutive entanglements."[39]

But new materialists are not simply worried about the abstract connection between an ontology of interconnectedness and ethics. They allude to very specific moments of harm or damage that they find ethically reprehensible and which they hope their philosophic intervention will help us avoid. For instance, Bennett approvingly quotes Barbara Kingsolver's lament about "the megatons of waste we dump in our rivers and bays . . . poisoning the

[37] Bennett, *Vibrant Matter*, 14.
[38] Ibid., ix.
[39] Barad, *Meeting the Universe Halfway*, 158.

water, the hydrocarbons we pump into the air are . . . changing the climate . . . we are . . . desperately overdrawn at the environmental bank."[40] Bennett gets even more particular, observing that in the mid-aughts a series of harms re-ignited questions about the relation between humans and the rest of the world:

> including Hurricane Katrina (August 2005), expensive gasoline, tornadoes in months and
>
> places where they had not normally occurred . . . and pathogens in spinach, hot peppers, chicken, and beef produced by long-distance factory farming.[41]

Most mainstream environmental sentiments, Bennett writes, saw these events as threats to human communities. But she insists that vital materialists would consider these issues differently, since "vital materialists are selves who live *as* earth," not simply upon earth, and wonders "What dangers do we risk if we continue to overlook the force of things?"[42] Bennett offers us some idea of the dangers she has in mind when she asks "what difference would it make to public health if eating was understood as an encounter between various and variegated bodies, some of them mine, most of them not, and none of which always gets the upper hand?"[43] Here, Bennett is clearly implying that her materialist approach—that is, one that does not "overlook the force of things"—is a step toward avoiding danger or improving public health.

For Bennett, the regnant idea of "intrinsically inanimate matter may be one of the impediments to the emergence of more ecological . . . modes of production and consumption."[44] In short, harm is being done to humans and non-humans alike by ignoring the vitality of matter, and paying attention to the vitality of things will go a way to address this problem. "In a knotted world of vibrant matter," like the one Bennett theorizes, "to harm one section of the web may very well be to harm oneself."[45]

Bennett is not alone in claiming a motivation to avoid ecological or other harms. Mary-Jane Rubenstein, defending new materialism in a more religious register, argues that we must take up its approach "for the sake of our threatened planet, in the face of waning biodiversity, and in solidarity with all those living and nonliving beings whom" the current order attempts to

[40] Ibid., 50–51.
[41] Ibid., 110.
[42] Ibid., 111.
[43] Ibid., viii. Emphasis mine.
[44] Ibid., ix.
[45] Ibid., 13.

"master, colonize, denigrate, and destroy."[46] Rubenstein wants to abolish a set of "conceptual adherences that keep those . . . hierarchies in place," including those that establish some species as more important than others.[47] Like Bennett, she counsels abandoning a sense of matter as inanimate and replacing it with a sense that matter can be harmed: "it is only because we assume that rivers, soils, mountains, and rocks are not animate . . . that we can even imagine rerouting, poisoning, removing, or fracking them."[48] Rubenstein's language of matter being "poisoned" echoes Bennett's imagery of the harm done by humans to non-human entities. Theologically, she defends her dismissal of a transcendent deity in favor of an embodied materialism by saying that the move "is motivated in part by the need to take responsibility for the messes we make"—or the suffering inflicted on humans and other entities around us.[49]

Political theorist Lars Tønder uses strikingly similar language to Bennett and Rubenstein when giving environmental conditions a moral valence. In *Power in the Anthropocene*, he laments that, at present, "ecological crises rage in mutually amplifying ways," crises that necessitate a "shift in orientation"[50] to "counter the ongoing exploitation of the planet's natural resources."[51] The motivating premise of Tønder's work is that existing philosophies not attuned to the distribution of power in material "are complicit in the climate and biodiversity crises that communities around the globe are facing today."[52] To address such crises, Tønder argues, we should commit to the new materialist idea of undoing "the image of humans as superior and acknowledge the agency and interests embedded in the many other species living in the world," or, in other words, to reduce the harm to the rest of the world that the image of humans as superior purportedly contributes to.[53]

In their introduction to an edited volume on new materialism, Bonnie Washick and Elizabeth Wingrove explain that the appeal of new materialism is partially "fueled by . . . the devastating facts of ecological degradation and disaster." They argue that a "'metaphysical re-partitioning of the world' is in this instance vital to chastening the would-be sovereign" subjects who remain committed to exercising power in such a way that amplifies degradation and disaster.[54] In their introduction to a collection of new materialist essays,

[46] Rubenstein, *Pantheologies*, 12.
[47] Mary-Jane Rubenstein, "Why We Need Pantheism," July 19, 2019, Video, available at: https://www.youtube.com/watch?v=HzK1ejXMOHo.
[48] Rubenstein, *Pantheologies*, 68.
[49] Ibid., 176.
[50] Tønder, *Power in the Anthropocene*, 208.
[51] Ibid, 15.
[52] Ibid, viii.
[53] Ibid, 27.
[54] Washick and Wingrove, "Politics That Matter," 64.

Diana Coole and Samantha Frost repeatedly mention that climate change is one of the challenges that motivates new materialist analyses,[55] and in a monograph Frost repeats this motivation.[56] Jason Edwards, one of the volume's contributors, concludes by defending the search for "a realistic assessment of solutions to the major problems of climate change."[57] In *Meeting the Universe Halfway*, Barad partially justifies the book's philosophic project by a need to learn "how to be alive to each being's suffering."[58]

As we can see, new materialists are explicitly motivated by a sense that there is harm being done to the world in contemporary politics, supported by a philosophic account of the relation between humans and the rest of nature. They argue that renewed attention to the interrelations of "actants" and an aversion to ontological hierarchy are a step toward reducing that existing damage, harm, or suffering. Yet unlike when they reject immaterial essences and ontological hierarchies, or describe their theories of assemblages, new materialists do not explain precisely how they conceive of harm or suffering or how they can identify harmful events.

Rubenstein, for instance, insists that those committed to materialism are outraged "by the presence of suffering in the world" but do not view that suffering "as a philosophical puzzle . . . suffering is always a practical problem, calling for a practical response."[59] Rubenstein is critiquing those for whom the "problem of evil" has become ossified into an abstract binary and who assail thinkers like her for failing to distinguish between good and evil. She repeats that her materialism does not mean an "endorsement of all things as 'good', simply that "all things participate . . . in multiple, ongoing processes of cosmic makings and unravelings."[60] Not all things are equivalent, she repeats, and there can be values, though they "are always situated."[61] But at the moments where Rubenstein most clearly makes value judgments (when she alludes to "poisoning," "suffering," or "messes"), she does not explain which conceptual tools she has used to identify such harms. She assumes the existence of these harms, rather than describing or identifying how she came to diagnose them as such. Tønder's work is no different. He repeatedly uses the phrases "climate" and "biodiversity" "crises," which he considers to be

[55] Coole and Frost, "Introducing the New Materialisms," 5, 16, 28.
[56] Samantha Frost, *Biocultural Creatures: Towards a New Theory of the Human* (Duke University Press, 2016), 1–2.
[57] Jason Edwards, "The Materialism of Historical Materialism," in *New Materialisms: Ontology, Agency, Politics*, eds. Diana Coole and Samantha Frost (Duke University Press, 2010), 297.
[58] Barad, *Meeting the Universe Halfway*, x.
[59] Rubenstein, *Pantheologies*, 15.
[60] Ibid, 176.
[61] Ibid, 179.

the "greatest challenge of our time."[62] But at no point in *Power in the Anthropocene* does he explain how to identify a climate crisis.

At moments, Bennett appears to make moves in the direction of identifying harm. Still, her inquiries turn out to merely identify "sources" of harm rather than the harm itself. In *Vibrant Matter* she insists that "the notion of a confederate agency . . . does not thereby abandon the project of identifying . . . sources of harmful effects."[63] Sources of harm, in this view, extend far beyond malevolent humans or even groups of humans, and can instead extend to "high-consumption social infrastructure, to unstable electron flows, to conative wildfires, to exurban housing pressures, and to the assemblages they form."[64] This more capacious understanding of agency may give a broader account of how events occur, but cannot explain what events are harms and what ones are not. Just like Tønder's "crises" and Rubenstein's "suffering" or "messes," Bennett's "harms" remain unarticulated. They serve an important purpose in justifying the need for new materialism, but the harms themselves are not justified.

Fundamentally, new materialists are not ethically disinterested. To the contrary, they see their project as both a more accurate way of describing the world and less likely to contribute to harmful conditions in it. Yet though they frequently refer to the ethical convictions and the implications of their ontological vision, they do not extend the same attention to the concept of harm with which they are working. In this paper's next section, however, I do linger on the problem of defining harm.

Harm in Nature

In this section, I argue that identifying harm in an ecosystem is to believe that its state at one moment is normatively superior than that same ecosystem at a different point in time. To do so, we need to have a hierarchy or ordering of the beings in it and a sense of what is harmful or beneficial to them—meaning that we also need to be able to identify preferable states of being for individual entities.[65] I make this point conceptually by critically analyzing

[62] Tønder, *Power in the Anthropocene*, 131. See also pp. vii, viii, 5, 13, 14, 17, 32, 35, 44, 49, 54, 76, 77, 81, 88, 103, 105, 120, 137, 138, 139.

[63] Bennett, *Vibrant Matter*, 37.

[64] Ibid.

[65] There is an extensive literature in analytic philosophy on harms. Though this scholarship is rigorous and helpful in discussing very specific questions of harm, I do not engage with it here for two main reasons. First, new materialism is not part of the analytic tradition and I want to engage with new materialists on their own turf, so to speak. Second, the second- and third-order questions that this analytic literature tackles still, in my understanding, depend upon the principle of hierarchical order (among or within beings) that I focus on here. See Michael Rabenberg, "Harm," *Journal of Ethics and Social Philosophy* 8, no. 3 (2015): 1–32.

examples that new materialists themselves use, and by discussing additional empirical cases that illustrate the issues at play.

The Ordering of Ecosystems. New materialists aim to examine the world at the level of assemblages, ecosystems, or phenomena, focusing on the interconnections among entities frequently thought to be independent and refusing a hierarchy among them. But ideas of a harm or damage that new materialists allude to are in fact quietly dependent upon a certain hierarchy—or at least particular set of relations—in an ecosystem.

At the broadest possible level, when new materialists refer to ecological disasters or ecological harm in general terms, they are usually referring to the outcomes of human behavior in recent centuries. This behavior often centers around, as Lars Tønder puts it, "the extraction of fossil fuels, which . . . is increasing the amount of CO_2 in the atmosphere and is already having fatal consequences of temperatures around the world, affecting water levels, land use, biodiversity and much more."[66] This decline in biodiversity, he continues, is seen by many as "the beginning of a new mass extinction event."[67] Such harm is intuitively comprehensible, since the claim is basically that changing temperatures, loss of habitat, and more extreme weather events have made the earth less hospitable (in the long term) to humans and to the many non-human species that have gone—or will go—extinct.

Yet the harms or damage caused by climate change and other ecological "disasters" are only harmful if we assume the interests of certain beings to be more significant than others, or that the relations amongst entities at one point in time are superior to potential future configurations. This much is clear in an example that Tønder himself uses. In Greenland, he explains, warming temperatures have exposed an increasing amount of soil as the ice sheets melt more each summer. The soil permits more plants to grow, and "there is even evidence to suggest that the warming of the waters around Greenland, together with the emergence of new plants, has had a positive effect on the level of biodiversity in the Arctic region." And yet this increased biodiversity is likely to have complex effects. "The growth of new plants is darkening the surface of Greenland, which in turn reduces the reflection of the sun's rays compared to when ice and snow covered it . . . It is most likely that Greenland's new biodiversity will maintain or even accelerate the higher average temperature, contributing to the ice sheet melting even faster."[68]

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[66] Tønder, *Power in the Anthropocene*, 8–10.
[67] Ibid., 9.
[68] Ibid., 84–85.

So, is the melting of ice in Greenland harmful or not? As Tønder's ambiguity indicates, it depends on which entities you value more. The only way that we can make a judgment on whether the configuration of matter in an ecosystem is more harmful at one time than another is if we have a preferred ordering of beings in it. From the perspective of Greenlanders, the melt could be advantageous, making their land more hospitable to human life, more conducive to agriculture, and less dependent upon outside powers. From the perspective of the plants, it is certainly advantageous, since they can grow, expand, and change in ways previously impossible. But from the perspective of Greenland's polar bears, the melting ice is a disaster, since even those less tied to sea ice are "highly unlikely" to "persist far into the future with the warming that is predicted."[69] And since less ice in Greenland could well lead to higher temperatures and ocean levels across the world, humans and certain animals living in other areas are likely to be harmed by those changes in Greenland.

Describing melting ice in Greenland as harmful or an ecological disaster depends upon how we arrange things in an order of importance. Whose perspective do we take? The Greenlanders? A "global humanity"? Greenlandic plant life? Greenlandic polar bears? If Greenland's ice melts, some entities there will have more opportunities to live, grow, change, flourish, and more generally exercise their agency. Others will have fewer. But since new materialists claim a "flat ontology" in which no beings are intrinsically more valuable than others, it is hard to see how these events could be considered harmful at all, because they are only "harms" if we say that one of the negatively affected parties is more worthy of our concern than those positively affected, that the bears matter more than the plants. In a sense, Mary-Jane Rubenstein notes this in passing when she says that the values of good and bad "are always situated."[70] Good and bad in the context of climate change depends on whose situation we are in, or whose flourishing we deem to be more important. And yet Tønder still persists in referring it as a general "climate change crisis," rather than a *crisis for* certain forms of life.

Because he begins by mentioning new plant growth in warmer conditions, the ambiguity of harm in Tønder's example is perhaps more apparent than in others. But the problem of identifying harm holds in real and hypothetical situations of purported ecological damage, including pollution. Jane Bennett,

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[69] Ed Yong, "Will These Be the Last Polar Bears on Earth?," *The Atlantic*, June 16, 2022, available at: https://www.theatlantic.com/science/archive/2022/06/greenland-polar-bear-extinction-climate-change/661300/.

[70] Rubenstein, *Pantheologies*, 179.

as we saw earlier, alludes to waste dumped in rivers and the poisoning of water as human-caused harms. Let us look at a couple of examples of such events. Lakes Erie and Ontario, two of the five "Great" lakes of North America, receive a tremendous amount of phosphorus run-off from the industrial agriculture in their drainage basins. Increased levels of phosphorus lead to elevated levels of the microcystis and botulism bacteria, which produce intense algae blooms further exacerbated by warmer water temperatures. These bacteria are toxic to fish and mammal life, damaging the liver, nervous system, and skin. In 2014, 400,000 residents of Ohio were unable to use their tap water because of microcystis contamination.[71] Yet microcystis is not a concern for all entities around the lakes. The bacteria are not damaging to the quagga and zebra mussels that increasingly occupy the waters—and even advantageous because it kills their predators (round goby) and diminishes competition for nutrients.

Does phosphorus poison the lake? From the perspective of humans, fish, and mammals, the phosphorus in the lakes and their warming waters are certainly harmful, forms of ecological disaster. But for the algae, the microcystis, and the mussels, the phosphorus is not harmful or poisonous at all, but rather a welcome modification to the environment. Calling it "poison" means that we are speaking from the perspective of those beings in the ecosystem who experience phosphorus as a poison, or at least exhibiting a preference for a time before there were elevated levels of phosphorus in it.[72]

There may be some scenarios in which the interests of various beings coalesce, and there is less competition for flourishing. But once we include all types of assemblages (such as bacterial or mineral), it is difficult to imagine such circumstances. Humans have not been able to safely live in the fallout zone from Chernobyl for decades, and we might colloquially refer to the disaster there as harmful. But many other species have not experienced it as such. Today, the zone teems with life, including large animals that had not been observed in that area for generations and a black fungus that seems to thrive in the radioactive environment.[73] Even in the event of a total nuclear annihilation of human and animal life, other assemblages would come into being and flourish, especially new molecules and minerals produced by the reaction. Beyond minerals, the bacterium *Deinococcus radiodurans* thrives

[71] Christina Dierkes, *Algae Through the Ages* (Ohio State University, 2015), available at: https://ohioseagrant.osu.edu/news/2014/17gmc/algae-through-the-ages.

[72] See also Samuel Piccolo, "Plagues and Pantheism," *History of European Ideas*, 51 no. 4 (2025): 933–6.

[73] Chris Baraniuk. "Forty Years on from the Disaster, Why There Are Foxes, Bears and Bison Again Around Chernobyl," *BBC Future*, April 24, 2026, available at: https://www.bbc.com/future/article/20260424-chernobyl-wildlife-forty-years-on.

in radioactive environments. The death of all other life might not be a disaster for it but an opportunity to reproduce and inhabit realms previously hostile to its form.[74] And if we disregard the boundary between living and non-living, as new materialists suggest, then the range of new assemblages that would flourish in such circumstances multiplies even further.

Some new materialists implicitly appear to concede that some kind of ordering in an ecosystem is necessary. Rubenstein writes that "good and evil become as perspectival as anything else: the maggots that are disgusting to most humans are delicious to fish and vultures; they are destructive to certain crops but crucial to the recycling of organic waste upon which the crop cycle depends."[75] Yet she also writes that there is "no assurance that human interests are any more significant than bovine, mineral, or bacterial interests."[76] Rubenstein's equivocation reveals the tension at the heart of new materialism's ethics. On the one hand, their ontological orientation denies—as much as possible—that there is any hierarchical ordering to assemblages in nature. And yet they are also motivated by addressing harm or suffering. As Rubenstein says, for new materialists "suffering is always a practical problem, calling for a practical response."[77]

Suffering is not simply a practical problem. Because events affect different entities differently, for us to even identify suffering or harm we must have a sense of which entities' well-being we value more. What is harmful to some beings is beneficial to others, and in any given circumstance we must know which beings we care about most to decide whether there is harm in the first place. Suffering is always at least partially a theoretical problem because we need to know in advance whose well-being is more important than others in order even to identify the existence of suffering, or which arrangement at which time is superior to arrangements at others.

In practice, then, insofar as they are responding to harm and suffering, new materialists must have a hierarchy of beings. Their ordering does not necessarily have humans at the top, but it does prioritize the beings that have been the most affected by human activity in recent centuries. In other words, new materialists' hierarchy appears to privilege beings that were flourishing at a time prior to specific changes caused by humans. Since Bennett justifies her project in part on its potential to reverse "earth-destroying fantasies of

[74] Peter Aldhous, "Doomsday Bacteria Thrive on Radiation," *New Scientist*, December 9, 1995, available at: https://www.newscientist.com/article/mg14820072-200-doomsday-bacteria-thrive-on-radiation/.

[75] Rubenstein, *Pantheologies*, 179.

[76] Ibid., 178–9.

[77] Ibid., 15.

conquest and consumption," she is clearly partial to the things that have been harmed by, say, deforestation or heightened CO_2 emissions. But to express outrage or distress at the consequences of human action, Bennett and other new materialists must explain why their "flat ontology" permits them to privilege the assemblages that have been harmed by deforestation or CO_2 emissions over the assemblages that have been able to come into being or to multiply because of transformations in the earth's environment.

Bennett even concedes that she "cannot envision any polity so egalitarian that important human needs, such as health or survival, would not take priority,"[78] and notes that her work is motivated by "a self-interested or conative concern for *human* survival and happiness: I want to promote greener forms of human culture."[79] Bennett seems to regret that her "conatus" will not let her "'horizontalize' the world completely."[80] Yet she provides no reason *why* we ought to care more about humans that other beings, or how we should rank non-human beings when diagnosing the harm potentially inflicted upon them.

New materialists' concern for harm to ecosystems is in deep tension with their unwillingness to accept a hierarchy among entities, since all changes in the world produce new states of affairs that benefit some entities and damage others. The antibiotics that save the life of a dog suffering from a severe infection kill the bacteria that were creating a new assemblage within it and prevent the development of a new yet different assemblage with new bacteria if the dog were to become a decomposing corpse. They may allude positively to ideas of "ecohealth"[81] or "biodiversity."[82] But they do not defend these ideal commitments, nor explain how ecohealth or biodiversity can exist without distinct species or a prefigured sense of preferred relations among them.

The Ordering of Individuals. On the surface, new materialists appear to be solely concerned with harm to assemblages, ecosystems, or communities more broadly. At the end of *Vibrant Matter*, Bennett makes clear that one of her hopes is to "reshape the self and its interests" so that we no longer think of ourselves as discrete humans but parts of diverse assemblages.[83] But, subtly, new materialist allusions to harm involve conceptions of damage or flourishing to individual beings too.

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[78] Bennett, *Vibrant Matter*, 104.
[79] Ibid., ix–x.
[80] Ibid., 104.
[81] Bennett, *Vibrant Matter*, 122.
[82] Tønder, *Power in the Anthropocene*, 202, 212, 223; Rubenstein, *Pantheologies*, 12.
[83] Bennett, *Vibrant Matter*, 120.

To begin, the concept of individuals and their critical attributes are occasionally present in new materialists' work. For instance, Bennett asks readers to rethink their interests—and consequently what harms those interests—as no longer their own in isolation, but including the bacteria that make up the crook of our arm or the "parasitic helminth worms" required for the "proper functioning of the human immune system."[84] Even as Bennett wants readers to see themselves as an assemblage of diverse "non-human, alien, outside" entities, she falls back upon the idea of "proper functioning of the human immune system." The purpose of an immune system is to fight off certain bacteria and viruses while permitting others to remain. To what purpose does the immune system work when functioning properly? The answer cannot be anything other than to maintain the health of the human individual.

Even when new materialists such as Tønder describe harm in more general terms of diminished biodiversity, there is an implicit dependence on the concept of the individual. Species suffer as communities, but those communities are still made up of individual members who experience death and damage. For instance, Rachel Carson's classic *Silent Spring* detailed the harm inflicted upon birds by DDT, an insectide widely used in the decades after WWII. The indiscriminate use of the chemical harmed ecosystems writ large, but its negative effects are most clear when we look at how it changed the lives of individual birds who had accumulated enough of the chemical in their system: either poisoning them to death directly, or preventing them from laying healthy eggs in a manner that they otherwise would have.

Since new materialists do, inevitably, make some allusion to harms to individuals, it is highly pertinent that conceiving of harm to individual beings, such as humans, both requires distinguishing them from other entities, *and* having a sense of what the proper, preferred, or natural state of being for the human subject in question is. This proper or preferred state inevitably depends upon some immaterial ideal of what a flourishing human is, conceived of in advance of evaluating any particular human case. It depends upon a hierarchical ordering of an individual's parts toward its whole, and a hierarchical ordering of its total potentials toward its *good* potentials. Such an ideal need not be deeply ontological or transcendent. But nevertheless we must privilege a being's potentials at one point in time so that we might evaluate its actuality or potentials at a later moment.

Bennett and other new materialists effectively communicate the ways in which human subjectivity depends upon other entities that exhibit affects

[84] Ibid. Karen Barad also uses the term "each being's suffering," implying that suffering or harm is something that individual beings experience. See Barad, *Meeting the University Halfway*, x.

upon us. She calls human agency "always an assemblage of microbes, animals, plants, metals, chemicals, word-sounds."[85] Bennett commends, for instance, the slow food movement, which she says "celebrates . . . ecological sustainability, cultural specificity, nutritional economy" among other things.[86] Lars Tønder insists that "humans depend on other species for nutrition."[87] The new materialists are completely right to observe the ways that human agency as it is typically understood is deeply tied up with the materiality of the food we eat and the clothes we wear, among other things. Anyone who has missed meals or been underdressed in winter intuitively understands just how much their agency changes, often in unpredictable ways, when their material co-actants change.

But even in using the term "nutrition," new materialists concede the presence of both a discrete human for whom other coactants are nutritive or not, and sense of potential health for that human against which its actual condition can be judged. As new materialists point out, our guts depend upon swarms of bacteria. But there are other forms of bacteria that, if introduced, produce new assemblages that are harmful to human health. Research has indicated that high-fructose syrups (the opposite of the slow food Bennett praises) alter gut microbiota in a way that does not benefit digestive health as does fructose from real fruits.[88] High-fructose syrups are harmful to human health because they contribute to obesity, diabetes, and other conditions that we implicitly accept *are not* desirable, preferable, natural, or proper states of being for humans. We can praise slow food, as Bennett does, because it is less likely to negatively affect human health in this way and cause us to veer away from a standard of human well-being, even though abandoning a highly processed diet could mean damaging or destroying existing assemblages with a certain sort of agency.

Moving beyond nourishment and nutrition, a similar conceptual story appears when we think of human health and development more generally, especially of children. Children are an illuminating case because the category of child implies prefigured potential capacities against which we can measure their eventual actualization. Not all children are the same, and capacities are no doubt largely historically embedded. But we nevertheless project forward certain innate as-of-yet unrealized potentials upon children. As Joshua Dienstag describes, in a slightly different context,

> The tragedy or misfortune that we attribute to a profoundly disabled child or adult stems from our having *already entered them* into the ranks of the human, such that

[85] Bennett, *Vibrant Matter*, 120.
[86] Bennett, "Thing-Power," 50.
[87] Tønder, *Power in the Anthropocene*, 141.
[88] Julia Beisner et al., "Fructose-Induced Intestinal Microbiota Shift Following Two Types of Short-Term High-Fructose Dietary Phases," *Nutrients*, 12, no. 11 (2020): 3444.

> the absence of what we deem to be the normal human properties constitutes a loss. In this case, nothing about the individual causes us to attribute humanity to them other than that they were born to humans and that we *already* project a human teleology onto the potential narrative of their lives.[89]

Dienstag's description indicates that the projection of "human teleology onto the potential narrative" of the life of a child is what allows us to identify harms done to that child.

With this conceptual structure before us, let us move to a more concrete example that illustrates how we can identify harm. Until the mid-twentieth century, lead paint was commonly used in household interiors. Harmless if undisturbed, the paint is highly toxic if ingested orally or inhaled. Most people do not put their mouths upon painted surfaces, but small children do. Just as new materialists would expect, non-human materiality—such as metals—can "render a disposition more or less liable to ressentiment, depression, hyperactivity, dull-wittedness, or violence."[90] Thousands of American children, most of them from poor families, have experienced this first-hand. As one researcher writes, "chronic exposure can damage the brain and the central nervous system, and can cause symptoms from hearing loss to IQ deterioration to lack of impulse control. Over time, lead gets absorbed into the bones, making them brittle and stunted, and causes teeth to crack and rot."[91]

In new materialist terms, the lead in their bodies created a new sort of human-metal assemblage, altering their own capabilities and agency. Yet if we are to maintain that these children were harmed, then we need to differentiate the human from the assemblage *and* accept that beings have some form of prefigured potential against which we can judge their actualization. We can rank the human-lead assemblage as harmful to children, and a human-slow food assemblage as nutritious to children, if we accept that nutritious food helps children reach their inherent, naturally good, purposeful human potentials, the development of which is interrupted by lead poisoning. For children, a future without learning disorders, attention deficit hyperactivity disorder (ADHD), brittle bones, poor hearing, seizures, and the other symptoms of lead exposure is purely hypothetical. And when we observe these

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[89] Joshua Foa Dienstag, "Dignity, Difference, and the Representation of Nature," *Political Theory* 49, no. 4 (2021): 618.

[90] Bennett, *Vibrant Matter*, 49.

[91] Vann R. Newkirk III, "The Poisoned Generation," *The Atlantic*, May 21, 2017, available at: https://www.theatlantic.com/health/archive/2014/03/the-toxins-that-threaten-our-brains/284466/.

symptoms in actual children, we can describe them as harms because children are unable to develop into fully flourishing adults without them.[92]

But this sort of prefigurement of human capacities, or assumption of purpose to human beings, is precisely what new materialists claim to categorically reject. As Diane Coole insists, "materiality is not causally determining or determined, and nor are its future forms teleologically prefigured."[93] This means that human cognitive capacities, for new materialists, are "diffuse, chance products of a self-generative nature."[94] New materialists such as William Connolly often emphasize their commitment to "situational" decision-making, an ethic of "care" or "cultivation" in a "world in which surprising changes periodically emerge."[95] But in diagnosing the harm done by lead to these children, we are implicitly saying that human cognitive capacities *are not* entirely chance products—they are capacities that we are directed toward, the achievement of which constitutes nutritive health, and the failure to reach them constitutes harm.[96]

We have a standard of flourishing or health that transcends the assemblages in which such children grew up, a standard that allows us to diagnose what happened to them as a "harm." This standard need not be entirely abstract or understood in a wholly transcendent manner outside of history. Our potential and flourishing are clearly deeply contextual. But if we do not have a sense of an unrealized and morally good potential for what humans can become at one time as being better or preferable, we cannot declare alternative outcomes as harmful or damaging—only as a change.

With this discussion before us, we can offer at least one different answer to the question Jane Bennett laments most philosophy is captured by: "Why are we so keen to distinguish the human self from the field?."[97] Bennett muses that it might be a Kantian necessity, or a "quest motivated by a more provincial demand that humans, above all other things on earth, possess souls" that mark us as superior.[98] But these are not the only options. We can instead be keen upon distinguishing the human from the assemblages of

[92] Such cases of lead poisoning of children also demonstrate the way in which individuals need not be able to identify or self-describe the harm done to them for us to say that they have been harmed.

[93] Coole, "Agentic Capacities and Capacious Historical Materialism," 453.

[94] Coole and Frost, "Introducing the New Materialisms," 21.

[95] Connolly, "The 'New Materialism' and the Fragility of Things," 401.

[96] The relation between biological and social teleology is complex, and both factors are highly relevant when we consider human potentials. Certain potentials such as language are as impossible without human social history and community as they are without the human brain or larynx.

[97] Bennett, *Vibrant Matter*, 121.

[98] Ibid.

which we are a part so that we can distinguish good assemblages (such as our bonding with nutritious food) from bad assemblages (such as mixing with lead). To diagnose harmful assemblages, we need to have some idea, however general, about what human agency *should* be like so that we can see in which circumstances there are shortcomings. Especially in the case of children, this *should* be always a prefigured potential, an ideal direction in which the being can go if favorable circumstances hold.

Conclusion

This article has drawn out a central tension within new materialist thinking. New materialists deny that there are fundamental differences between humans and non-humans, and living and non-living things, deny that there are justifiable hierarchies among different entities, and deny that there are immaterial purposes in beings that pre-emptively provide their ideal potential. Yet at the same time, they ground their work in an opposition to harm and suffering in the world at the scale of ecosystems and individuals. This is a problem because diagnosing harm in ecosystems is dependent upon having a hierarchy of the metal, bacterial, animal, and human interests at play, since none of them are affected by events in the same way. Further, identifying harm to an individual depends upon a sense of what a normal, healthy, natural, or ideal state of existence for it is. This is a hierarchical ordering of parts to a whole, as well as among an individual's material potentials, both prefigured ideals that new materialists reject. In short, new materialists' ontology (no hierarchy, no immaterial prefigured potential) does not comport with their ethics (concern for harm to ecosystems and individuals).

Given this unresolved tension, what are we to take from new materialism? We cannot and should not ignore new materialists' contributions entirely. New materialist work is important insofar as it reveals the ways in which human subjectivity is deeply dependent upon other things and beings. New materialists are probably correct that ways of thinking that suggest humans are completely and radically apart from others have licensed an instrumentalist view of the rest of the world that has harmed humans and some elements of nature alike. But if we want to remain concerned by harm done to nature, we must retain some sense of hierarchy in it, preferring the ordering of entities at one time to that of another. Additionally, we must accept that addressing harms to individual humans means having a functioning ideal sense of

what genuine human flourishing looks like, even among people who have never—and may never—actually materially experience it.

For these reasons, it is worth comparing the post-humanist new materialists I have focused on with thinkers adjacent to new materialism who differ in certain ways that allow them to confront the problem of harm. The French philosopher and scientist Georges Canguilhem, for instance, shares with new materialism an emphasis on the interconnections of beings, which he calls the "milieu."[99] Canguilhem argues that milieu are built by the interrelations between organisms and their surroundings, and positive notions of flourishing or negative ones of the pathological emerge from those relations rather than pre-existing in some transcendent manner.[100] Harms such as diseases, for Canguilhem, are not defined by a deviation from a norm but by their constraints upon an organism's ability to engage with milieu. Insofar as Canguilhem resists a firm notion of teleology, attends to the connections between beings, and is interested in situational normative claims, he treads similar terrain to new materialists. But, crucially, Canguilhem maintains the distinction between living organism and non-living matter, and understands those living beings to be the loci of goods/interests.[101] As he writes, "a living being is not reducible to a crossroads of influences."[102] There always remains a living being for whom a milieu matters, and these beings are not the temporary assemblages that new materialists would have it. Thus, while Canguilhem's account of ethics in context does not require an especially transcendent ontology, such as a "great chain of being," it does require the ontological existence of these discrete beings.

Freya Mathews' work shares even more common ground with new materialism. Mathews critiques visions of the world that emphasize hard boundaries between entities and believes that these are both incorrect and have contributed to ecological damage. But Mathews insists that each being has its own telos, and distinguishes between "self-realizing beings" that have such tele, and other entities that do not.[103] These beings "show an objective unity, an objective distinctiveness, which is not based on substantival separateness but on a very special kind of form."[104] Though Mathews entertains a range of

[99] Georges Canguilhem, *Knowledge of Life*, eds. Paola Marrati and Todd Meyers, trans. Stefanos Geroulanos and Daniela Ginsburg (Fordham University Press, 2008), 98, 111.

[100] Georges Canguilhem, *The Normal and the Pathological*, trans. Carolyn R. Fawcett and Robert S. Cohen (Zone Books, 1989).

[101] Canguilhem, *Knowledge of Life*, 113.

[102] Ibid., 120.

[103] Freya Mathews, *The Ecological Self* (Routledge, 1991), 72.

[104] Ibid., 73.

possible beings that might have teleological form, her commitment to the existence of such a form marks a stark divide from new materialists.

Mathews also defends a limited, situational hierarchy among beings, namely that our duty toward ourselves and our own kind is a "metaphysical imperative."[105] Mathews calls this "species loyalty—a limited prejudice in favour of members of one's own species," and believes it to be "unavoidable."[106] This limited prejudice should not "degenerate immediately into the anthropocentrism to which" Mathews is opposed, "but the line that needs to be drawn here is admittedly fine."[107]

Other thinkers influenced by new materialist ideas make similar moves to Mathews. In *Eco-Emancipation*, Sharon Krause praises Bennett for helping us "understand that what we think of as bounded individuals are always assemblages comprising things and forces that exceed the individual."[108] But like Mathews, Krause maintains a preference for human life, writing that she cannot defend any "action that would systematically undermine the survival of our species or make it impossible to meet basic human needs."[109] Krause does not describe her project as a post-human one, and regards "some of the achievements of humanism as a philosophical project . . . to be tremendously valuable," and says that she has "no wish to leave them behind."[110] In *Freedom Beyond Sovereignty*, Krause also remains committed to discrete individuals, writing that "without a personal identity that precedes and endures after any given action, we cannot make sense of the experience of individual agency as action that is one's own."[111]

Even Alyssa Battistoni, who declines to defend human "superiority" in her book on freedom, capitalism, and nature, understands "human beings to have certain distinctive qualities." Because Battistoni concedes that she does not "attempt a definitive account of this distinction" we cannot glimpse precisely how she sees distinction and preference without hierarchy to be possible.[112] But it is nevertheless clear that she, like Canguilhem, Mathews, and Krause,

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[105] Ibid., 89.
[106] Ibid, 90.
[107] Ibid.
[108] Sharon R. Krause, *Eco-Emancipation: An Earthly Politics of Freedom* (Princeton University Press, 2023), 78.
[109] Ibid., 94.
[110] Ibid., 161, 165.
[111] Sharon R. Krause, *Freedom Beyond Sovereignty: Reconstructing Liberal Individualism* (University of Chicago Press, 2015), 13.
[112] Alyssa Battistoni, *Free Gifts: Capitalism and the Politics of Nature* (Princeton University Press, 2025), 27.

accepts the inevitability of drawing at least some boundaries between different beings and in (to some degree) privileging humans in her ethical theory.

These thinkers diverge from core new materialist ideas because they are committed to offering detailed incisive ethical and political commentary of that kind made difficult by new materialism's flat ontology. They have effectively blended the insights of new materialism with other ontological and ethical traditions. For we ought to remember that new materialists are not the only ones who stress the connections between beings and material surroundings and the difficulty in drawing clear lines of distinction. As far back as the fourth century BC, Aristotle observed as much:

> Nature proceeds little by little from things lifeless to animal life in such a way that it is impossible to determine the exact line of demarcation, nor on which side thereof an intermediate form should lie . . . there is observed in plants a continuous scale of ascent towards the animal.[113]

Aristotle was not only attentive to this gradation but also the way in which humans shared a dependency on other humans and the rest of the world. Some contemporary philosophers, such as Alasdair MacIntyre, have been inspired by parts of the Aristotelian tradition to emphasize "dependence as central to the human condition."[114]

Of course, there are other interlocutors in the ethical realm with whom new materialist claims are implicitly in dialogue. The tradition of animal rights inaugurated by Peter Singer also rejects human superiority and distinctiveness, and emphasizes our obligation to reduce suffering and mitigate harm.[115] Unlike new materialism, though, Singer's theory accepts that diagnosing harms means having a hierarchical set of immaterial values that transcend their material instantiation: for Singer, the transcendent principle that allows him to order interests and diagnose harm is the idea that pain is bad

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[113] Aristotle, "History of Animals," in *The Complete Works of Aristotle*, Vol. 1, ed. Julian Barnes, trans. A. W. Thompson (Princeton University Press, 1984), VIII.I.588b4-13.

[114] Alasdair MacIntyre, *Dependent Rational Animals* (Open Court, 1999), 4. See also Lisa Tessman, *Burdened Virtues* (Oxford University Press, 2005); Leah Libresco Sargeant, *The Dignity of Dependence: A Feminist Manifesto* (University of Notre Dame Press, 2025). Tessman argues that marginalized individuals are often "burdened" or "harmed"—Tessman uses both terms—by material and social circumstances and thus unable to reach full flourishing. Sargeant, meanwhile, defends the principle that humans need to exist in webs of mutual dependence, not in isolating, radical autonomy, the fetishization of which she believes to have been particularly harmful to women.

[115] New materialists are obviously aware of Singer's work, but do not engage with it on the question of identifying harm.

and to be avoided. It means privileging the subjectivity of animal consciousnesses and their phenomenological experiences rather than the material assemblages that make up that consciousness.[116] Singer's utilitarian principle is not the only alternative in identifying a moral hierarchy in nature, and some observers go even further in devaluing humans. Biocentric members of the group "EarthFirst!" are much more concerned with preserving beings aside from humans because only humans are capable of such widespread destruction of others. In this approach, it appears as though a being's capacity to affect the biosphere is inversely related to their moral worth. As activist Dave Foreman says, "Our job is to save the building blocks and make sure there are grizzly bears and great blue whales and redwoods somewhere, so that in the final thrashing of the industrial monster, everything else that's good on this planet isn't destroyed."[117] Foreman's position is highly controversial. But it does, at least, involve a clear-eyed acceptance that identifying harms involves a hierarchy of interests.

As all these thinkers indicate, there are ways to recognize human dependency and the connections between forms of life without abandoning all notions of hierarchy among beings and things or a prefigured sense of what flourishing for individuals constitutes so that we can identify when it is not occurring. When pressed, some new materialists appear to concede the point that humans are distinct from at least some assemblages. In an interview from 2006, Donna Haraway repeats that there are no such things as ontologically discrete humans, and that humanity is "relationalities all the way down." But when questioned about the possibility of blending human consciousness with information technologies, Haraway flinches: "Of course there are barriers" between humans and technology, she says. "I can't believe the blissed-out techno-idiocy of people who talk about downloading human consciousness onto a chip . . . It's stupid and silly, and hardly worth commenting on."[118] Yet aside from her affective aversion to such transhumanist ideas, no doubt shared by other new materialists, Haraway offers little philosophic justification for why there are barriers between humans and technologies, which will surely prove to be a defining political problem of our time.[119]

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[116] Peter Singer, *Animal Liberation: A New Ethics for Our Treatment of Animals* (HarperCollins, 1975).

[117] Quoted in: Christopher Manes, *Green Rage: Radical Environmentalism and the Unmaking of Civilization* (Little, Brown, and Company, 1990), 42.

[118] Nicholas Gane and Donna Haraway, "When We Have Never Been Human, What Is to Be Done? Interview with Donna Haraway," *Theory, Culture, and Society*, 23, nos. 7–8 (2006): 147.

[119] Samuel Piccolo, "The Transhumanist Challenge to Liberal Individuals," *Politics & Poetics*, 6 (2025): 82–118.

As technology becomes ever more sophisticated, we must be capable of both recognizing our interdependence and drawing clear distinctions between ourselves and others if we are to maintain an aversion to harms to us and other natural beings in our environment. Haraway may feel that transhumanist visions are not worth commenting upon. But as such visions grow nearer, we will be compelled to define those barriers between humans and our technical creations if we want to live in a political world that serves the human over the cyborg, the organic over the inorganic, reality over simulation.

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