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Toward an Ecofeminist New Materialism: Agency and Action in a More-Than-Human World

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Abstract

The realities of the Anthropocene, from climate change to pandemics to plastics, necessitate substantially different ways of understanding what it means to act in the world today. In response, feminist scholars within the field of new materialism have attempted to rethink the nature of agency and action. This article focuses on two unresolved challenges with their framework: first, it lacks a way to make distinctions or draw boundaries between different entities and actors and, second, it simplifies the relationship between ontology and ethics, implying that an ontological transformation will lead to more ethical and just relationships with the more-than-human world. I argue that to address these challenges new materialism should look to ecofeminism, particularly the philosophy of Val Plumwood; this pairing is especially pertinent considering the often overlooked or downplayed genealogical connections between them. I also argue, however, that new materialism has something to offer Plumwood: its reconceptualization of agency better responds to contemporary circumstances in ways foreclosed by Plumwood's more limited account. I conclude that a coalition between new materialism and ecofeminism—a new materialism supplemented and modified by aspects of Plumwood's account—provides valuable conceptual tools with which to respond to the Anthropocene condition.

The onset of the Anthropocene and all it brings with it—climate change, geoengineering, pandemics, plastics—poses a number of philosophical challenges, perhaps none more salient than the challenge to conventional paradigms of agency and action.¹ On the one hand, a popular refrain in the dominant Anthropocene imaginary is that humans have become the most powerful agents on the planet; our newfound ability to alter the trajectory of planetary history has made us “*super-agents*” (Hamilton 2017, 101). On the other hand, vast events like climate change complicate the nature of this agency. The sheer spatial and temporal scales of climate change and its non-linear behavior make it difficult to trace specific effects to specific actors, particularly

considering that the distance between the emission of greenhouse gases and their effects exceeds the timespan of many human generations (Jamieson 2014, 164).

At the same time that the agency of the human species supposedly triumphs over nature, developments in Earth system science, biology, and anthropology seem to complicate almost everything typically taken for granted about the centrality of human agency and action in shaping the world. On a planetary scale, Earth system science makes it possible to understand the Earth itself as a functioning system, one that is today agitated and fierce. For some, this new violent state of affairs, one where the Earth system lashes out in the form of fires, droughts, and heatwaves, signifies a new kind of power against which human agency is increasingly powerless—the agency of the Earth itself (Latour 2014, 3).

The paradigm shift at the level of the Earth system is also taking place on a smaller scale. Scientists are beginning to understand the social worlds of fungi, bacteria, plants, and animals; how they forge relationships with humans and other nonhumans, communicate, make decisions, and solve problems in ways that look radically different from human action (Tsing 2017; Sheldrake 2020; Simard 2021; Hathaway 2022). Not only do nonhumans actively shape and interpret the worlds around them, they play a significant role in shaping human lives and cultures—a role previously underestimated. The study of these relationships deeply troubles the agent-as-individual paradigm and the assumption that the basic unit of scientific analysis is the autonomous individual. They reveal that beings are what they are only because of the dynamic relationships within which they are embedded (Sheldrake 2020, 53). Among its many implications, this research troubles assumptions about the location of agency in the human mind and assumptions about whether humans truly possess the kind of autonomy and intentionality typically taken to be its necessary conditions.²

What do agency, action, and responsibility mean under these conditions? And who are the real agents of change? In recent years, the recognition that our contemporary situation demands a substantive reconceptualization of agency has been increasingly vocalized by feminist scholars, particularly within the field of “new materialism.” While new materialism is a broad category applied to an array of distinct, yet related, strands of thought (e.g., speculative realism and object-oriented ontology), the perspective to which I refer is sometimes called “feminist new materialism” or “material feminism.” Instead of an anthropocentric conception of agency associated with the capacity for intentionality and localized within discrete human individuals, this body of work refocuses its attention on materiality, reimagining agency as a relational and diffuse activity emerging from complex human/nonhuman interactions (Barad 2007; Alaimo 2010; Bennett 2010).

Despite appearing to provide important conceptual tools with which to rethink the nature of agency and action in the contemporary world, two substantial difficulties continue to be raised about the viability of new materialism’s philosophical framework, ones that have yet to be sufficiently addressed. First, by theorizing agency in distributed and relational terms, it undermines conceptually the ascription of responsibility and blame to particular agents (Malm 2018; Karera 2019; Soper 2020). That is, it renders us unable, or at the very least lacks guidance on how, to make distinctions or draw boundaries between perpetrators and victims of harm, a vital necessity in the face of ecological crises. Second, while questions of ethics and justice are thematized across new materialism, it tends to take for granted the power of ontology, instead assuming that ethical and just relationships with nonhuman others will inevitably arise from the recognition of our entanglement in an agentic more-than-human world (Wingrove and

Washick 2015; Giraud 2019). Not only does this leave certain ethical and political implications underdeveloped and ambiguous, but it also ignores the very real possibility that such a recognition is entirely compatible with nature's continued exploitation.

In this article, I argue that to substantively respond to these concerns, new materialism should draw upon ecofeminism, particularly on the philosophy of Val Plumwood. I show that Plumwood's analysis of dualism and the "master model" of humanity can provide new materialism with a way to account for the patterns by which harms are created and distributed, making it possible to articulate distinctions between different agents and make determinations about responsibility and blame. Plumwood's ecofeminist insights can also temper new materialism's optimism about the effect the recognition of material agency alone will have on the world. They reveal that, in addition to the reconceptualization of agency on an ontological level, any project concerned with motivating more ethical and reciprocal relationships must also contest the oppressive dualist relations within which beings are entangled. My claim is not just that ecofeminism happens to be a rich source in these regards, but rather, that it is particularly well-suited to being paired with new materialism because they have a shared genealogical and intellectual history, one that is often overlooked or insufficiently acknowledged.³

Having shown that Plumwood's analyses offer a way to supplement the underdeveloped aspects of new materialism, I also argue that the latter has something to offer the former. Whereas Plumwood's understanding of agency reinstates certain boundaries between mind/matter and natural/artificial, new materialism's reconceptualization of agency more accurately reflects reality and has the capacity to analyze our entanglement with kinds of entities foreclosed in her account. It is thus ultimately a partnership between new materialism and ecofeminism that provides us with a needed and ecologically productive account of agency and action. A coalition between them—a new materialism supplemented and modified by aspects of Plumwood's account—can provide valuable conceptual tools with which to understand and respond to the Anthropocene condition.⁴

1. Material agency: new materialism and its complications

Coalescing over the last few decades, new materialism is an interdisciplinary and diverse body of scholarship straddling the humanities, natural sciences, and social sciences. In general, the "new" in new materialism signals a response to certain "old" materialisms, namely, the materialism of the Enlightenment, rooted in Newtonian physics and Cartesian epistemology, and the historical materialism of Marx. The new materialism I focus on here, particularly that associated with feminist thought, can also be characterized as a response to the perceived overemphasis on the power of culture and discourse in postmodern thought. Exemplified by scholars such as Karen Barad, Stacey Alaimo, Jane Bennett, Susan Hekman, and Samantha Frost, it is animated by the belief that this emphasis has come at the cost of an engagement with materiality. Acknowledging that the discursive turn has been enriching in many ways, for example by "critiquing the naturalized and oppressive categories of race, class, gender, sexuality, and ability," new materialists worry that postmodern thought has perhaps gone too far toward the discursive pole, seeing even materiality, nature, and the body exclusively in terms of social construction (Alaimo and Hekman 2008, 2–3; Alaimo 2010, 8). The neglect of materiality, they argue, is particularly consequential for the concept of nature (Alaimo and Hekman 2008, 4). In the context of feminist thought, for example, Alaimo

and Hekman claim that by freeing “woman” from its association with “nature”—the realm of materiality and “the supposed ground of essentialism, reductionism, and stasis”—many feminists inadvertently leave intact that problematic and essentialist conception of nature from which they seek to distance themselves (Alaimo and Hekman 2008, 4). This neglect, that is, leaves nature a perfect canvas for human inscription, development, and production, and inhibits the ability to discuss the materiality of both the body and the more-than-human world (Alaimo and Hekman 2008, 4; Alaimo 2010, 1–2, 5).

The “newness” of new materialism, however, deserves critical examination. As Sara Ahmed explains, appeals to novelty, by suggesting the need for a clean break from all that has come before it, risk dismissing and occluding important historical precedents (Ahmed 2008). To be sure, some new materialists do acknowledge their indebtedness to past traditions, making sure to foreground “their rich materialist heritage” (Coole and Frost 2010, 4). Ahmed’s concern, however, refers particularly to the way new materialism takes for granted the idea that “feminism and poststructuralism have not dealt with the body as a real, living, physical, biological entity or have reduced ‘everything’ to language, signification and culture” (Ahmed 2008, 25). She cites several examples in feminist thought that, although they emphasize the significance of culture and remain critical of biological determinism, do not deny the existence of an independent material world. In doing so, she argues that while new materialists might offer something different and exciting, uncritical gestures toward “the new” rely on a caricature of past scholarship in order to justify their novelty (Ahmed 2008, 36). While not explicitly mentioned by Ahmed, an important overlooked feminist genealogical connection relevant for my purposes is that between new materialism and ecofeminism. Not only has ecofeminism always been concerned with nature, but ecofeminists like Plumwood have explicitly focused on the concept of agency. Yet, with few exceptions, there is little discussion of the ways new materialism and the conceptual tools it develops might be indebted to it (Casselot 2016, 73; MacGregor 2020, 42).

The risk of exaggerating originality notwithstanding, new materialism, using agency as a central conceptual vehicle, attempts to provide a way to reimagine matter’s intrinsic activity and role in shaping the world—to give “matter its due” (Barad 2007, 136). Its goal is not to reject or dismiss the importance of language, culture, and discourse, but to integrate culture with nature, meaning with matter; to make sense of the interplay between them (Oppermann and Iovino 2017, 4). New materialists describe agency in different ways, but generally understand it to be the ability of nature or the material world to produce effects; the power to escape human attempts at control and thwart our plans in surprising and unpredictable ways (Alaimo and Hekman 2008, 7; Bennett 2010, 6). As a “power” or “force,” however, agency is not “a capacity localized” in individual bodies or necessarily tied to a human subject (Bennett 2010, 23). Rather, new materialists theorize agency (i.e., material or nonhuman agency) as an activity that is both distributed and emergent; it is a process in which the entire spectrum of materiality participates.

According to Jane Bennett, the distributed and emergent character of agency is best conveyed through the concept of assemblage, which she defines as “ad hoc groupings of diverse elements . . . living, throbbing confederations that are able to function despite the persistent presence of energies that confound them from within” (Bennett 2010, 23–24). Assemblages are always in flux; their diverse elements exert different powers that are unpredictable and can conflict with each other (Bennett 2010, 24). They can consist of a variety of human, nonhuman, abiotic, organic, inorganic, animate, and

inanimate elements, including but not limited to humans and their linguistic, social, economic, and legal constructions, material objects, organisms, minerals, electrons, microbes, species, lifeways, and histories (Bennett 2010, 24). These elements gather together in ways that make up our world and imply that no individual element acts alone—action always occurs within complex assemblages which cannot be neatly reduced to the sum of their parts. Assemblages are, in other words, the unruly, open-ended, and unpredictable networks through which agency is enacted.

Importantly, Bennett does not take every assemblage or part of an assemblage to manifest agency in exactly the same way or to the same degree. The idea, rather, is that different, and often unexpected, parts sometimes play exceedingly powerful roles in shaping how events unfold (Bennett 2010, 42, 98). Moreover, assemblages, for Bennett, differ in scale and in terms of the effects they produce, all depending on the particular participants in the assemblage and the ways they happen to interact (Bennett 2010, 30–39, 42–43, 96–98). As something diffusely distributed across open-ended and constantly shifting assemblages, Bennett’s conception of agency cuts across the nature/culture divide, foregrounding the animating and transformative potential of nonhumans and inanimate objects to make a difference.

By contrast, Karen Barad, drawing from sources like quantum physics, Whitehead’s process metaphysics, and feminist theories of performativity, conveys the distributed and emergent character of agency through the concept of “intra-action.” By using the term “intra-action” instead of “interaction,” Barad expresses the idea that the world is not composed of determinate things-in-themselves that first exist and then “interact.” Rather, Barad’s view, referred to as “agential realism,” argues that bodies, practices, entities, and meanings—that is, all phenomena—themselves materialize through dynamic agential “intra-actions” that make them what they are (Barad 2008, 135). Against the idea of a “Cartesian cut” between subject and object, Barad argues that the boundaries and differences we see in the world are not inherent. Instead, differences emerge through the specificity of intra-actions—they are made through “agential cuts”—and take place within the context of a larger ontological indeterminacy (Barad 2008, 133).

Agency in this account is “not an attribute” a determinate body applies to intra-actions from the outside, but emerges from them—agency is enacted and signifies the unfolding, becoming, and reconfiguring of phenomena in the world (Barad 2007, 141). Reality, for Barad, is thus shaped by agential intra-actions between humans and nonhumans, matter and discourse, nature and culture at all scales; it is only through particular intra-active relationships that phenomena emerge and boundaries are articulated (Barad 2008, 140). In other words, the boundaries between things or the separability that exists in the world (the “cuts” that mark the differences between things) do not pre-exist their intra-actions. Rather, agency is enacted differently in different intra-actions and things become what they are only through particular intra-active relationships with others.⁵

Bennett and Barad represent, albeit in distinct ways, the manner in which new materialists are developing alternative notions of agency and action in response to the Anthropocene condition. By cutting agency “loose from its traditional humanist orbit” (Barad 2008, 144), they reject the idea that humans act against the backdrop of a passive and pliable nature, and reveal a world of lively, entangled agencies that play a significant role in shaping the course of events. They also imply that the features typically thought to be required for (human) agency, primarily intentionality but also intelligence, creativity, or desire, are themselves phenomena that emerge from the agential interplay

or intra-action between humans and nonhumans. As Bennett explains, “There was never a time when human agency was anything other than an interfolding network of humanity and nonhumanity; today this mingling has become harder to ignore” (Bennett 2010, 31, 36). The restriction of agency and action to humans alone, therefore, is spurious; what humans intend and what they do must be understood within this larger context.

Although new materialism in some ways supplies the kind of rethinking of agency the contemporary situation demands, it nonetheless gives rise to two unresolved difficulties. First, we must ask: how, in an intra-active and assemblage-laden world, do we make distinctions between perpetrators and victims of harm? How do we delineate between different agencies in order to make determinations about blame and responsibility, trace “the exertion of power of one party over another,” or understand the accumulation of agency in some places or actors rather than others (Verlie 2022, 302)? In the absence of guidance or a way to apportion responsibility—some way to articulate these kinds of distinctions—we are left incapacitated in the face of extreme injustice, inequality, and harm against humans and nonhumans alike.

Moreover, without attention to these questions, new materialism’s notion of agency is vulnerable to a particularly malicious form of misuse: using an appeal to material or nonhuman agency as a way to deflect blame away from humans. In *The nutmeg’s curse*, Amitav Ghosh provides an example illustrating the dangers of acknowledging the agency of the nonhuman world without an accompanying way to understand how and why some agents are more culpable than others. Ghosh details how European settler-colonial narratives about the extermination of North American Indigenous peoples appealed to natural agencies—“material forces”—as scapegoats:

English settlers believed they were less cruel than their Spanish counterparts because instead of military violence, they were using “material forces” and “natural processes” to decimate Indigenous peoples. This belief . . . simultaneously acknowledges that nonhuman forces are being used as weapons while also asserting that settlers bear no blame for the impacts because they are unfolding . . . through “material forces.” (Ghosh 2021, 58)

More than asserting that agential differences or imbalances exist—that the world materializes in different ways—new materialism requires a way to explain and account for why the settlers in the preceding example *do* bear responsibility and why it is wrong to think otherwise.

Relatedly, while new materialists acknowledge the importance of recognizing differences between kinds of actors and agencies, these assertions are difficult to reconcile with their overwhelming emphasis on the spontaneous and disruptive character of matter, assemblages, and intra-actions (Wingrove and Washick 2015, 68–71). Emphasizing the ability of the material world to subvert the intentions and plans of humans is an integral part of the new materialist project, showing that “the world’s effervescence, its exuberant creativeness can never be contained” (Barad 2007, 235). But, as Washick and Winegrove assert in the context of examining Barad’s agential realism, such emphasis “make[s] it difficult to name and so hold in view the continuities, durabilities and often monotonous predictabilities that characterize systems of power asymmetry (such as capitalism, patriarchy, racism)” (Wingrove and Washick 2015, 66).⁶ It leaves us, in other words, without a way to register the more stable systematic patterns that determine and structure the world as we know it.

The emphasis on the unpredictable or disruptive potential of matter raises a second difficulty: what reason do we have to think that the mere recognition of nonhuman or material agency—its transgressive and world-shaping potential—is enough to prevent the problem of exploitation? Among new materialists, it has become relatively commonplace to assume that adopting their material ontology will result in more respectful, collaborative, or reciprocal relationships with the material world, giving the impression that the only impediment to the development of “more ecological and more materially sustainable modes of production and consumption” is the mechanistic view of nature (Bennett 2010, ix). That is, they almost universally appear to make an immediate move from the ontological to the ethical (Wingrove and Washick 2015, 72).

Barad, for example, suggests that the ontological acceptance of our agential entanglement with the more-than-human world will inevitably prompt us to take up an ethical stance—to take accountability for our role and participation in the world’s materialization. This is because the ontological *is* the ethical, to be entangled *just is* to be responsible: “we . . . are always already responsible to the others with whom or which we are entangled, not through conscious intent but through the various ontological entanglements that materiality entails” (Barad 2007, 393). The concern, however, involves the assumption that such an ethical stance necessarily follows from the ontological recognition.⁷ Arguably, the recognition of matter or nature’s agency is perfectly compatible with its continued exploitation. As Peterson explains, even when agency is fully recognized in nature or in those humans who have historically been denied it, “the ends or goals of the ‘superior’ class are easily imposed on them” (Peterson 2020, 29). By glossing over these possibilities, new materialists overlook the very real potential of nature’s cooptation and weaponization. Even with the understanding that we are entangled in an intra-active world, what is to stop us from shaping that world in the ways we think it should be shaped, in ways that only benefit certain species or groups (Wingrove and Washick 2015, 73)? There are thus reasons to be skeptical of the assumption that the mere attribution or recognition of material agency will resolve the problem of exploitation.

This line of questioning is increasingly relevant as different proposals for addressing ecological problems are developed and implemented. Planting trees to sequester carbon or farming oysters to address water pollution—acts that seem to acknowledge their agency, at least on the surface—are not necessarily ethical or collaborative. They can be just as exploitative as more explicitly harmful ecological actions.⁸ While the recognition of agency might in some cases promote more ethical relationships, it seems to open up a path inviting more exploitation just as easily. In the next section, I argue that to substantively address and resolve these issues, new materialism should draw upon ecofeminist insights, particularly on Val Plumwood’s analysis of dualism and the “master model.”

2. Ecofeminism, dualism, and Plumwood’s master model

Building on a long tradition of feminist critiques examining the associations between women, nature, and embodiment, ecofeminism emerged in the 1980s as a theoretical framework situated at the intersection of feminist and environmental struggles. A rich and multifaceted field, ecofeminism generally leads with the idea that there are important interconnections—historical, symbolic, conceptual, linguistic, material—between the oppression of women and the domination of nature, connections which serve to legitimize the exploitation and degradation of both (Warren 2003, 282). From

this starting point, however, ecofeminist perspectives diverge in unique, sometimes contrasting, ways. They differ not only in terms of what they consider to be the central source and nature of these interconnections, but also in terms of their thematic focus.⁹ Differences notwithstanding, the historical significance of ecofeminism's synthesis of feminism and ecology is difficult to overstate: it not only made visible interconnections hitherto undertheorized in both feminist and environmentalist circles, but also constituted an important challenge to prominent positions in Western environmental thought (Cuomo 2005). Whereas environmental ethicists frequently cited some form of anthropocentric or human-centered thinking as the root source of ecological destruction, ecofeminists showed that such appeals conceal a gender bias; the problem is not simply anthropocentrism, but *androcentrism*.

Without denying the detrimental effects of anthropocentrism and the human/nature dualism upon which it is grounded, ecofeminists contend that it is only one dimension of a larger network of hierarchical dualisms underlying Western culture, one conditioned by what Karen Warren refers to as a logic of domination (Warren 2003, 282). For example, not only do associations develop between dualisms such as human/nature, man/women, mind/body, and productive/unproductive, but one side ("human," "man," "mind," "productive") is elevated to a higher status while the other side ("nature," "woman," "body," "unproductive") is downgraded and perceived as inferior, in this case revealing the connection between anthropocentrism and patriarchy (Warren 2003, 282–95).¹⁰

Ideas about the exact nature of dualisms, their associations, and the way to overcome them, however, vary widely; there is substantial disagreement about whether to challenge or valorize these dualist linkages and on the extent to which they are material, biological, or fabricated (Mathews 2017, 56–57). An exhaustive account of all disagreements and developments is not possible here, but one of the most consequential points of conflict lies between what Gaard classifies as "the cultural, essentialist, and eurocentric branch" of early ecofeminist thought, which, among other things, problematically defends gendered and racialized associations with nature, and "critical ecofeminism," a contextual approach that refutes essentialism and incorporates into its analyses insights from areas such as poststructuralism, postcolonial thought, queer ecology, environmental justice, critical animal studies, and economic theory (Gaard 2017, xv–xvi).¹¹

Among critical ecofeminist approaches, perhaps none is more representative than that of Val Plumwood, who coined the term in her 1993 *Feminism and the mastery of nature* (Gaard 2017). There, she develops a robust framework that demonstrates the importance of bringing the category of nature into analyses of gender, race, colonial, and class domination. Plumwood describes dualism as an organizing schema or logic that conditions Western culture, shapes identities, and structures relationships; it operates by taking differences and distorting them for the purposes of facilitating domination and exploitation. Dualized pairs¹² are not "free floating systems of ideas" but develop historically; they "are formed by power and correspond to stages of accumulation" (Plumwood 1993, 42–43).

Whereas mere distinctions or dichotomies simply reflect differences between things, dualisms, for Plumwood, are abstractions that construct hierarchical relationships between the dominant "One" over and against a dualized and subordinate "Other." They are construed in terms of radical difference, resulting in a "false dichotomy" and form of exclusion that sets the stage for the inferior treatment of the "Other" (Plumwood 1993, 51; Plumwood 2001). Not only does dualism hyper-separate the dominant "One" from

the “Other,” but it also backgrounds the relationship between them. The former’s dependence on the contribution and agency of the subordinated Other is simultaneously taken for granted and denied or rendered inessential (Plumwood 2001, 13).¹³ In addition to being a key feature of Plumwood’s analysis, this dynamic is particularly salient for ecofeminists who place capitalism, labor, and reproduction at the core of their critiques, such as Ariel Salleh (1997, 2009), Maria Mies and Vandana Shiva (1993), Mary Mellor (2018), and Stefania Barca (2020). It helps disclose, for example, how in a culture marked by global capitalism, reproductive work (i.e., the material, biological, emotional, or domestic work that sustains life, often performed by women, Indigenous communities, and racialized groups) is culturally and politically treated as inessential. It remains the background against which productive work—the “real” work of culture and civilization—happens (typically but not always performed by Western or Eurocentric men) (Plumwood 1993, 48; Plumwood 2002b, 104; Salleh 2009; Barca 2020).

It is through such dynamics and mechanisms that dualisms are configured, creating a network of associations that map onto each other and condition various forms of domination on the basis of gender, class, race, and species (Plumwood 1993, 43; Peterson 2020, 26). The point is not that the experiences of different forms of domination are the same, but rather, that a common dualist logic underlies them; there is a structural interrelation (Pellow 2018, 19; Gruen and Crary 2022, 3). As mutually reinforcing, these linkages serve to uphold relationships of control and subordination.

The repeated associations between dualisms give rise to what Plumwood calls the “master model” of humanity or the “master identity,” referring to the particular ways the concept of the human has been defined in modern Western culture. It is constructed in alignment with the dominant terms of the network of dualisms and in the context of the various kinds of domination they sustain (Plumwood 1993, 5). Although this “master” is historically associated with a certain combination of qualities and characteristics (e.g., “male,” “European,” “civilized,” “mind”), it is nonetheless context-sensitive (Mathews 2017, 59). That is, it does not once-and-for-all identify a particular human group or even species as *the* dominator. Instead, it represents “a power system made up of material and symbolic relations” that is adaptable to different contexts and to which different groups can lay claim at different times (Barca 2020, 5).

Despite its context sensitivity, Plumwood does argue that the reason/nature bifurcation plays a central role in the master model and in the dualist system more generally. The Western intellectual tradition, she argues, has given rise to a dematerialized and over-intellectualized form of rationality fundamentally separate from a passive and inert nature (Plumwood 1993, 69–97; Plumwood 2001, 12; Mathews 2017, 59). As the crux of the master model and dualist system, this conception of reason permeates the privileged sides of different dualisms while subordinated terms are constructed on the basis of its absence, as different forms of “nature” (Plumwood 2002b, 101). For this reason, the category of nature has historically served as a tool of oppression: it is because “*nature’s agency as such is denied*” that “master” groups can deprive others of recognition by including or associating them with nature (Plumwood 2001, 7).

As a system of power that undergirds a “master model” of humanity and structures material and cultural relationships, Plumwood’s analysis of dualism provides new materialism with potential tools to address the unresolved concerns raised in the previous section: it provides direction on the issue of responsibility and an account that explains how certain social and political differences can continue to be reinforced despite the disruptive possibilities generated by material agency. Whereas new

materialism focuses on the agency of the more-than-human world, the way material-semiotic intra-actions or assemblages produce phenomena, and the permeability of bodies, Plumwood provides an account of the patterns that produce inequities and influence the way humans and nonhumans become entangled in particular ways; the well-worn channels through which power flows and accumulates. Her analysis gives shape to the way bodies and subjects, themselves dynamic assemblages or conglomerations, are enacted, organized, and brought into asymmetrical relationships; how agencies are differentially situated and materialized. It thus provides a schema of organization that makes it possible to trace some distinctions of relative stability necessary for judgments about responsibility and blame in an otherwise complex, entangled, and intra-active world.

In the case of climate change, for example, a new materialist analysis draws attention to the way it emerges from complex and fluctuating entanglements between all sorts of natural, cultural, technological, social, political, material, and economic forces, entanglements which are reconfiguring the world in drastic ways. Infusing this analysis with Plumwood's account of dualism and the master model, however, can shed light on the different roles these factors play and the unequal relationships they produce—the workings of power that make some actors or participants more responsible than others. Plumwood affords attention to the otherizing dynamics—or as Barca puts it, the “sex/gender, racial/colonial, class and species relations”—that have given rise to oppressive and ecologically damaging modes of inhabiting the earth and have actively made certain beings or groups of beings more vulnerable than others (Barca 2020, 5). These relations are reflected in ecologically destructive capitalist modes of production and narratives of economic growth, enacting the divisions and value judgments (such as between productive and reproductive work, civilized and uncivilized forms of life) upon which they rest (Barca 2020, 12–13).

From Plumwood's perspective, the climate crisis is rooted in the master model and system of dualism. This does not mean that it cannot be understood as an emergent nature-culture, material-semiotic phenomenon or that the master model is a purely cultural system overlaid upon an inert and dead “nature” which it merely shapes and manipulates. What Plumwood adds, however, is the ability to see how the master model is continually enacted through these complex intra-actions and how through them, some are made victims of ecological harm while others embody the “master position” as perpetrators, even if those distinctions are not entirely clear-cut. Thus, we can identify responsible nations (e.g., the United States and certain European countries) and particular groups (e.g., the class of billionaires and certain elites) who have historically occupied this position and who continue to be invested in its enactment. But we can also account for the way the boundaries between perpetrator and victim can shift—oppressed groups who perhaps bear less historical responsibility for climate change can at the same time today “participate in the master-model process” in relation to other groups or nonhuman nature (Gaard 2014, 92).

By providing an account of the way different agencies can be channeled into the service of the master model, Plumwood's thought can also supply new materialism with a way to address the problem about the potential appeal to nonhuman or material agencies as a way to deflect blame away from humans. Recall Ghosh's example detailing how English settler narratives absolved them of responsibility for the decimation of Indigenous peoples because it was, in fact, the “pathogens, rivers, forests, plants, and animals” that were *really* to blame (Ghosh 2021, 58). Whereas on its own, new materialism lacks a clear way to critique such a blame-deflection strategy, an

interpretation that weaves in Plumwood's ecofeminist analysis would not efface the disproportionate effect or role of human actions. Such an interpretation acknowledges the relationships of domination that can weaponize nonhuman agencies or deploy them in ways that enact and reinforce master and subordinate dynamics. As Plumwood explains:

in anthropocentric culture, attributions tend to overemphasize the human (especially the privileged human) and underemphasize or deny the agency of nature. But they may also underemphasize or hide the social and overemphasize the natural, for example in the interests of making outcomes appear less open to change than they really are, or from some other motive. This opposing dynamic . . . may represent the prioritization in particular contexts of some other form of domination—human domination—over the domination of nature. (Plumwood 2001, 17–18)¹⁴

Although the tendency in Western modernity is to deny agency to nature and those deemed “Other,” the opposite can occur in the service of maintaining relationships of hierarchy and domination.

Thus, within Plumwood's interpretative framework, new materialism can find resources with which to respond to the concern that its reconceptualization of agency automatically serves as a “get out of jail free” card for humans. This is not to deny new materialism's conviction that nonhuman agencies and the entanglements in which they are involved can have surprising or unintended consequences and play important roles in shaping events, as phenomena like climate change so aptly demonstrate. Rather, the point is that, by applying Plumwood's lens, it becomes possible to discern evaluative distinctions and dynamics that explain in part why the world takes shape in the way it does—that can help identify *which* relations and agencies matter and why. Fossil fuels like oil, for example, thwart our attempts to contain them, they exert their agentic powers by breaking through pipelines and interacting with other systems and materials, hurting numerous beings in the process. But this does not justify the judgment that it is the oil that is culpable for the harm instead of certain humans and human institutions. As Zoe Todd remarks in the aftermath of the Husky oil spill in the North Saskatchewan River:

it is not this material drawn from deep in the earth that is violent. It is the machinations of human political-ideological entanglements that deem it appropriate to carry this oil through pipelines running along vital waterways, that make this oily progeny a weapon against fish, humans, water and more-than-human worlds. (Todd 2017, 107)

Moreover, in some cases, the unintended, spontaneous, or disruptive outcomes of material entanglements might be better framed through Plumwood's analysis as the more-than-human world struggling or resisting against the relationships of domination they are made to materialize, albeit not necessarily intentionally or volitionally.

It is this same attention to the mechanisms by which nature is taken up in the service of the master model that also tempers new materialism's tendency to jump from the ontological to the ethical—the tacit assumption that a reorientation toward matter's agentic contribution to the world's becoming will catalyze ethical relationships of care

and reciprocity instead of continued exploitation. Plumwood shows that the realization of alternative ethical and political stances must involve dismantling the relationships that continue to enact the master model. Without doing so, attempts to treat nature better, such as reinscribing it with agency, will “merely be complicit in the existing order” (Gruen and Crary 2022, 127). While it matters how we understand and conceptualize nature (or materiality), new materialism tends to be perhaps overly optimistic about what a reconceptualization of agency can accomplish on its own, whereas ecofeminists like Plumwood recognize that generating more ethical and just relationships is also a political project, one that involves contesting the dominant “master” relations of Western modernity (Barca 2020, 57).¹⁵

Plumwood’s analysis of dualism and the master model, because it provides an account of the relations that can explain, at least in part, why the world materializes in the particular ways it does, is thus a fruitful pairing for new materialism. This partnership, however, should flow both ways. While Plumwood’s thought offers a way to supplement certain ambiguities and issues in new materialism, the latter can also offer something to the former, particularly on the question of how to think about the concept of agency itself. In the next section, I argue that, although Plumwood develops an alternative understanding of nature’s agency, her account remains limited in the face of contemporary scientific, ecological, and technological realities.¹⁶ In this regard, new materialism can offer a more robust and inclusive understanding that ultimately helps to further Plumwood’s own objective of opposing the pervasive denial of nature’s agency.

3. Competing visions of agency

Although present throughout her earlier writings on dualism, agency becomes especially thematic in Plumwood’s later work on the environmental crisis where she argues that moving toward a more sustainable “environmental culture” requires the recognition of nature’s agency (Plumwood 2001, 2002b, 2006). She observes that Western culture today harbors “hegemonic concepts of agency” derived from the pivotal reason/nature dualism that artificially divorces an intentional, intelligent, rational, and creative mind from a mindless and passive nature (Plumwood 2006, 117). Only “real” agents, because they are the drivers, producers, or generators of action, create value and deserve credit for what they do, the contribution of non-agents backgrounded and devalued (Plumwood 2006, 117). The environmental crisis and the collapse of ecological life support systems, she contends, are an outcome of this backgrounding and devaluation; the denial of nature’s agency legitimizes its destruction (Plumwood 2001, 17). For this reason, Plumwood argues that agency must be conceptually reimaged beyond its current confines, ultimately to be incorporated and lived politically.

To counteract hegemonic concepts of agency, Plumwood’s strategy is not to challenge the association of agency with intentionality, reason, and other mindlike qualities, but rather to broaden what terms like intentionality and mind mean in the first place. She advocates for the adoption of what she calls “the intentional recognition stance,” a practice or attitude of openness that aims to undo the “distortion” that agency and mind are only properties of humans (Plumwood 2002b, 177). Adopting such a stance would permit us to recognize “nature both as agent in our joint undertakings and as potentially communicative other,” constituting an important step toward developing an openness toward nature and nonhumans as ethical subjects (Plumwood 2002b, 177–78). Without explicitly defining agency, Plumwood nonetheless takes it to be a concept closely tied to intentionality and mind. She clarifies, however, that the way these

qualities manifest in nature differ from how they manifest in humans. That is, her goal is not to reinscribe nature with the qualities associated specifically with human forms of agency, intentionality, and consciousness, but instead to affirm their existence in many diverse forms (Plumwood 2002b, 180–84).

Despite this clarification, Plumwood's endeavor to rework these hegemonic concepts remains limited. In one sense, her account sometimes implies that agency and mind are properties of individual entities, thereby retaining an element of the paradigm of the individual human agent that current scientific, ecological, and technological realities today place under scrutiny. The point of the intentional recognition stance is to make possible the recognition of (and ideally, ethical response to) nonhuman others as "centers" of agency, ones that have a recognizable degree of organization or direction, in the same way we recognize other humans as separate centers of agency with needs and desires of their own (Plumwood 2001, 16; Peterson 2012, 8–9). Rather than moving beyond the idea that agency and other mindlike qualities are localized capacities attributable to a clearly bounded or organized body, her view appears to be, with some exceptions, attached to it.¹⁷

A conception of agency that remains too centralized and individuated makes it difficult to register a whole host of organisms and entities—for example, ecosystems, soils, and waters—as agents that play important and active roles in what happens in the world, in the formation of bodies, cultures, and histories. These kinds of systems or "large-scale and diffuse agencies," as Peterson describes them, lack clear centers and boundaries; they are not stable or clearly individuated phenomena (Peterson 2012, 9). They are also much more difficult to explain in terms of mind than individual organisms. What is more, the treatment of nonhuman others as centers of agency, and of agency and mind as attributes that inhere within these "centers," risks overlooking the larger matrix of relationships upon which these capacities themselves depend. Ongoing research on cognition, sentience, and the brain is beginning to reveal, not only that properties of the mind are thoroughly bodily, but also that the world at large might play a role in their formation (Abram 2010, 103–10).

By contrast, new materialism, because it explicitly decouples agency from both the mind and its location in an individual body, provides a way to understand complex and diffuse systems as agents in a way that exceeds Plumwood's account. From a new materialist perspective, "something as unlikely a candidate for glory as dirt may be understood as an agent, rather than as (solely) the ground for the action of something else" (Alaimo 2008, 257). The ability to understand them *as agents* (or as intra-active and agentic networks) is particularly important because it captures their active and participatory role in shaping the world, dislodging the anthropocentric belief that only humans act and thus that only they matter ethically and politically. Moreover, it is precisely the performative interplay between humans and their environments to which new materialism attends, reflecting the way agency, intentionality, and other "strictly" human qualities are co-constituted by complex material-semiotic interactions in a way that resists reinstating an overly rigid distinction between mind and matter (Alaimo 2008, 257).

Plumwood's account of agency is also limited in another sense. While it aims to deconstruct the reason/nature dualism, it veers toward replacing it with another one: natural/synthetic. In her defense of the intentional recognition stance, Plumwood conveys that the intentional concepts and mindlike qualities that make nonhuman beings "agents," thereby opening the door to the possibility of affirming crucial relations of interdependency, are most readily applicable to living organisms and "natural" beings (Plumwood 1993, 137–38).¹⁸ Conversely, inanimate, inorganic, and inert objects and

artifacts, because they cannot be framed intentionally, are not considered in agentic terms. This division is reflected in her comments on plastic:

The Coca Cola bottle when individuated as part of a human instrumental context is not . . . framed intentionally, and we can neither hinder nor assist its journey. Unless it is individuated as an artefact, that is, subsumed within a context of human agency and intentionality . . . there is no obvious intentional context to place it in. Unless we can find one, it has no direction of travel, and all outcomes with respect to it are indifferent. (Plumwood 1993, 138)

The plastic bottle appears as an inert object devoid of agency, its meaning and significance confined to its association with human projects.

Admittedly, it is possible that Plumwood's privileging of "natural" or living beings as agents in this context does not represent her conclusive view on the matter, particularly if we take into account her broader assertions that dualisms cannot be overcome by simply reversing their terms or replacing them with new ones (Plumwood 1993, 154–60; Plumwood 2002a, 15–17). Given that nature routinely occupies the devalued position across various dualisms, Plumwood's primary concern is to show how the recognition of nature and "earth others" as intentional agents instead of passive objects makes it possible to reconsider their ethical value. The example of the bottle is thus strategic: by comparison, nature and natural entities are more clearly and easily discernible in terms of agency and intentionality (Plumwood 1993, 138). Nevertheless, the plastic bottle's juxtaposition with natural agents is significant: as an inanimate and synthetic object, it exemplifies something that lacks an agency and intentional context of its own.

Granting that theorizing plastics and their relationship to both humans and nature was not a central focus of Plumwood's work, there nonetheless remains a pressing need to rethink their status as inert objects. In the public imaginary, plastics represent an almost infinite manipulability—a "plasticity"—that can conform to any design invented by humans (Davis 2022, 22). As Heather Davis remarks, it is precisely this plasticity and pliability that gives rise to the "sincere belief that the production of plastic will create a better world" (Davis 2022, 23). Plastics promise ease, convenience, protection, sanitation, prosperity, and above all, the ability to break free from all earthly constraints (Davis 2022, 23), a promise that nonetheless persists despite growing public concern and the environmental movement's attempts to make visible the dangers they pose. But the basic division between the natural and synthetic this imaginary endorses, evident to some extent in Plumwood, is not one that easily holds today; it misses something important about the kinds of relations and interconnections through which bodies and other phenomena are constituted in twenty-first-century life under the conditions of the Anthropocene. From waterways to the air we breathe, the cells in our bodies, the stomachs of wildlife, and the most remote locations on the planet, the world today is saturated with plastics (Davis 2022, 3). New materialism's reconceptualization of agency is capable of reckoning with this reality; it recognizes the depth of this permeation and the extent to which plastics and other synthetics are transforming the world—the way they exceed human design.

From the perspective of new materialism, plastics, toxins, and other synthetics are prime examples of material agency, their entanglements with other entities epitomizing the agentic interplay between natural and cultural forces. By way of contrast with Plumwood's depiction of the plastic bottle, Nancy Tuana illustrates the way new materialism accounts for this agency:¹⁹

When I drink the coke out of a plastic bottle, I have been taught to think of myself as a natural being and the bottle as a cultural artifact, a product of technology. The bottle is made of naturally occurring materials but is constructed by humans to be a different material or structure than what occurs in nature. Now incinerate that bottle and breathe deeply. The components of the bottle have an agency that transforms that naturally occurring flesh of my body into a different material or structure than what occurs in nature. The . . . plastic becomes as much a part of my flesh as parts of the coke that I drank. (Tuana 2008, 202)

For Tuana, the agency of the plastic is not an intentional capacity that belongs singularly to the bottle but “is diffusely enacted” through particular material-semiotic interactions (Tuana 2008, 189). On one level, these interactions are intimate: they occur between toxins and flesh, exemplifying the “viscous porosity of entities” (Tuana 2008, 200). Polyvinyl chloride (PVC), the synthetic polymer out of which plastic bottles are made, reshapes human and nonhuman bodies, defying attempts to contain it—it seeps through skin, with a number of studies linking it to certain cancers, organ damage, and the disruption of the endocrine system (Tuana 2008, 200). But these molecular exchanges are also implicated in larger networks of relations or material-semiotic interactions involving not only toxins and flesh, but also practices of production and disposal, the chemical industry, politicians, and the EPA, ones that render clear divisions between the “natural” and “synthetic” too simplistic (Tuana 2008, 202). The view espoused here is one where the material agency of plastics participates in this complex interplay through which phenomena emerge, shaping and being shaped by them. New materialism’s vision, that is, attends to its co-constitutive role in reconfiguring the world as we know it today.

The reevaluation of plastics and their relations in these terms has broader implications for thinking about waste management strategies and the limitations of mainstream environmental responses to the problems such materials pose. As Samantha Macbride describes in *Recycling reconsidered*, plastic waste management policies in the United States tend to involve some combination of two strategies: *disposal*, for example diverting them to landfills, incinerators, low-income communities, other countries, or *recycling*, separating them into homogeneous streams of materials that can then be reused and recirculated (Macbride 2011, 174). Although the pressure on governments and municipalities to develop more robust recycling programs has grown significantly over the last few decades, the sheer heterogeneity of plastics and the lack of proper infrastructure to handle them often mean that disposal options prevail (Macbride 2011, 177–82).

The crisis that plastics continue to pose speaks to the limitations of both approaches and reveals the need to think of them in the more robust and agentic terms put forward by new materialism. As agentic, new materialism helps us see that plastics can “never really be thrown ‘away’”—they continue to interact and form relationships, “even as a discarded or unwanted commodity” (Bennett 2010, 6). Prevailing solutions premised on a clear delineation between plastics and the bodies and spaces they infiltrate fail to recognize the extent of plastics’ unpredictability and their power to subvert human intentions and designs. They also fail to account for the complex entanglements or assemblages in which they are involved, ones that in their current configurations often enact harmful relations that disproportionately affect certain bodies and communities. In a world where the complete elimination or avoidance of plastics and the toxins of which they are composed is not possible, attention to these agential relations and entanglements is necessary to inform different, and ideally better, modes of ethical and

political response, ones precluded by the view that plastics are passive and inert objects that can be contained and over which humans have control.

The need for such analyses is aptly illustrated by an example from Max Liboiron's *Pollution is colonialism*. Liboiron recounts the experience of going on a plastic assessment survey mission with a group of researchers in the North Atlantic Gyre and encountering a large tangled mass of plastic debris. The mass

acted as a fish aggregator, providing shade for larger fish and a platform for micro-algae and microbes to grow, hosting a small but thriving ecosystem. The fish beneath the plastics were species that usually live close to land, among coral, but the plastics had provided a similar habitat thousands of miles from shore. . . . Tiny plastic pieces are home to plants, algae, and bacteria, the animals that feed on them, the predators that feed on these, and other organisms that establish synergistic relationships. (Liboiron 2021, 104)

As Liboiron explains, the group faced an ethical dilemma: “do we take the tangled plastics out of the water, killing the life on and around it, or do we leave them in as the supporting structure of a functioning ecosystem” (Liboiron 2021, 104)? Ultimately, the researchers (not necessarily in line with Liboiron’s own thinking) saw their mission as one to rid the oceans of contaminants and decided to remove the mass, destroying the thriving ecosystem in the process.

Under the supposition that the natural is separate from the artificial or synthetic, the group’s decision makes sense: they envision nature as something free from plastics, even though the mass they removed will likely end up some other place if not back in the ocean. But the shift in focus toward the inescapable agentic entanglements with such materials afforded by new materialism opens up the possibility for seeing this phenomenon as a human/nonhuman, natural/synthetic assemblage or entanglement that has found a way to persist and flourish, making the decision about how to respond much less clear-cut. Although decisions ultimately must be made in the face of such dilemmas, the perspective new materialism provides, and the difficult questions it raises about what it might mean to live, not only with plastics but also with chemicals, fossil fuels, and other forms of waste and pollution, are important to consider, particularly to avoid reproducing the harm many of these complex relations undoubtedly enact. This is certainly not to advocate for *more* waste or to suggest that the extent of pollution pervading the world today is something to celebrate, only that the framework of new materialism makes it possible to envision different modes of ethical and political response. Moreover, although new materialism goes beyond the limitations inherent in Plumwood’s account of agency, the dynamics and power relations she maps out nonetheless remain an important source to which new materialism can look to understand patterns of differential harm and to understand what the enactment of more just relations must entail.

4. Toward an ecofeminist new materialism

The vision of agency developed out of new materialism presents an emergent and de-centered picture of action that has the capacity to analyze the complex entanglements characteristic of the Anthropocene epoch, ones not easily reducible to familiar categorical divides.²⁰ It recognizes the important ways nonhumans of all kinds

participate in action and contribute to what happens in the world, showing how human agency itself is dependent upon a host of other relationships. Far from a collection of unrelated and inert resources—mere standing-reserve—the material world influences and shapes processes of becoming in ways typically downplayed in predominant narratives. It brings into view the way in which being is a relational process, an enactment that never occurs in isolation. Not only does this vision accord with the dynamic reality of what it means to be in the world today, but it also puts forward an alternative theory of action that accounts for the complex processes and interactions behind phenomena such as climate change.

Although new materialism provides a substantive rethinking of agency, I have argued that it must nonetheless look to ecofeminists like Plumwood in order to address some of the critical questions and implications emerging from its view. Particularly important in the context of climate change, developing a coalition between them makes it possible to understand how the vision of agency advanced by new materialism can retain the ability to make determinations about responsibility and blame. Plumwood's robust analysis of dualism and the master model, as a deeply entrenched power system of material and social relations, provides new materialism with a way to explain how certain actors, particularly certain humans, have accumulated so much power and why agency becomes distributed in the way it does—why existing material, natural, cultural, and technological configurations reflect human dominance. It offers an account of the patterns that dictate the way the world, its boundaries, and its exclusions are enacted; how “human and nonhuman forces shape and are shaped by” these relations (Pellow 2018, 70). It also explains how material agencies are channeled into relations that uphold the “master” position; it helps us map out the hegemonic arrangements that create vulnerability and the divisions between perpetrators and victims. Of course, these divisions are not sharp; a theory of action based on more-than-human assemblages and material-semiotic interactions might preclude the possibility of identifying a clear-cut perpetrator or single cause, but such sharp divisions or singular determinations do not often reflect the complexity of the contemporary world in the first place.

The insights afforded by the blending of new materialism and ecofeminism are also forward-looking: they bear upon the question of how best to respond to the ecological crisis. That is, they have implications for thinking about the kinds of action needed and who or what can be agents of change. In one sense, they reveal the shortcomings of popular proposals for environmental action, such as that exemplified by the ecomodernist agenda and touted by “philanthro-capitalists” like Bill Gates. This approach strives for (and celebrates) more control over nature and sees the solution to the environmental crisis to lie in the “dematerialization of the economy”—the delinking of economic growth from natural resources, accomplished by developing more innovative technologies (Hamilton 2017, 21–25; Barca 2020, 10–11). An ecofeminist new materialist framework makes evident both the failure of this perspective to recognize that nature (or the material world more broadly) exercises an agency of its own that exceeds the human will to mastery and also its failure to question the material and social relations of domination upon which the current world order rests. By validating growth, human innovation, and more planetary management, this narrative, as well as the models of stewardship it upholds, leaves unchallenged the hegemonic dynamics that have given rise to the crisis and that continue to perpetuate injustice. As Barca explains, it recognizes the agency of only a narrow subset of humans (those that occupy the “master” position), endorsing the belief that it is only this kind of agency that

makes the world and is thus capable of solving its problems, despite growing evidence to the contrary (Barca 2020, 5–6).

An understanding of the oppressive relations embedded in the current world order, coupled with the visibility new materialism gives to the more-than-human agencies of all kinds that make the world with us and upon which we depend, motivates a different type of action and response. It makes clear that, if the goal is social and political transformation, the site of such transformation is not the individual or groups of human individuals in the traditional sense. Rather, action is always a more-than-human affair; it is only with others, human and nonhuman, that a different reality can emerge. Moreover, it suggests that, if such a different reality, even one that involves technological and synthetic agencies, is to be more just, collaborative, and reciprocal, it must challenge the hegemonic relations of domination continually enacted today. This is not to say that there is a universal or singular vision of what this reality should look like, or that it will be idyllic and harmonious, rid of all friction and “power differentials” (Battistoni 2017, 23). There is also no one-size-fits-all program for transforming harmful relations, entanglements, or assemblages into more collaborative and reciprocal ones, though certain environmental justice and collective movements can provide examples of what this might look like.²¹ But it nonetheless does position nonhuman agents alongside human ones in this struggle, not as conscious or intentional participants, but as ones that exert their own kinds of powers and make particular contributions—they are ones without which such transformations cannot take place (Battistoni 2017, 22–23).²² When brought together, new materialism and ecofeminism can ground an ecological movement that engages with the broader more-than-human world and attends to the uneven entanglements that cut across the nature/culture divide. It retains the ability to name actors responsible for the ecological crisis but also discloses alternative modes of response. Instead of seeing increased management, control, and mastery as the only legitimate course of action in the face of the Anthropocene, as the only way to take responsibility for the “unfortunate” consequences of “progress,” it suggests that taking responsibility for the world’s becoming is an opportunity to contest the harmful relations of the present and to enact new ones based on more-than-human solidarity and respect for material agency.

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Notes

1 By using the Anthropocene concept, I do not intend to uncritically endorse the label. Rather, I use the concept because it represents a particular narrative about human agency with which scholars are increasingly familiar and because it helps convey the kinds of paradigm shifts and contradictions that motivate the article’s focus on agency and action. The concept, however, remains highly contested. A strong criticism against it is that by centering the “Anthropos” (the “Human,” or more precisely, “Man”) as the most powerful planetary actor, the term unfairly homogenizes all of humanity into a single category and thereby obscures differences in historical responsibility and blame for planetary ecological problems (Crist 2016; Barca 2020). Despite employing it, I acknowledge the need to keep in view the problems with the concept and to recognize why many scholars increasingly criticize it (Crist 2016; Moore 2016; Karera 2019; Barca 2020).

2 It is worth noting that many environmental philosophers and environmentalists have attempted to overcome the “agent as individual” paradigm now under scrutiny in the domain of scientific research on plant, animal, and fungi communication and challenged by new materialists. For example, in his landmark essay “The shallow and deep, long-range ecology movement,” Arne Naess outlines an ecological vision that

rejects autonomous individualism “in favor of the *relational, total-field image*,” which takes entities to be fundamentally constituted by their relations instead of discrete individuals (Naess 1973, 95). See also Val Plumwood (Routley) and Richard Routley’s article “Social theories, self management, and environmental problems,” where they attempt to outline an alternative to both individual reductionist and holist social ontologies. Their third option, the “no-reduction” position, sees individuals as separable but also interdependent (Routley and Routley 1980).

3 Stacey Alaimo and Susan Hekman, however, are exceptions to this claim. See Alaimo and Hekman 2008, 4; Alaimo 2008, 257. Donna Haraway, although not always considered a new materialist, is another example of someone who explicitly draws a connection to ecofeminist thought. See Haraway 2008.

4 The potential of a coalition between ecofeminism and new materialism more broadly has also been explored by Marie-Anne Casselot (2016).

5 An example illustrating Barad’s notion of agency and intra-action is supplied by Anna Tsing. Remarking on the world-making capacities of fungi, Tsing writes: “Fungi *become* mutualists in particular interactions with roots; in other interactions with the same tree’s roots, that same fungal species may become a parasite. (Matsutake is one example of a fungus that can take both these forms.) These are versions of Barad’s ‘agential cut,’ through which worldly form emerges from social relations” (Tsing 2022, xi).

6 See also Peterson 2020, 159.

7 The problem associated with taking for granted a linear relationship between ontology and ethics is not unique to new materialism, nor is it necessarily new. Rather, it can be framed as a particular iteration of a decades-old problem in environmental philosophy stemming from what Keith Peterson refers to as “the worldview clash” model. Proponents of this model often argue that addressing rampant environmental destruction is a matter of adopting a different worldview: e.g., shifting from the mechanist scientific worldview, identified as a major cause of environmental problems, to an “ecological worldview.” The idea is that the right picture or description of the world (i.e., ontology) will automatically lead to social change and better relations with nonhuman beings (i.e., ethics). Peterson demonstrates, however, that the worldview clash model is subject to several tensions and moreover, that the very concept of a “worldview” is steeped in an antirealist anthropocentric epistemology “that implies that our view of the world *makes* the world” (Peterson 2021, 46). Although new materialists do not explicitly use the language of “worldview,” Peterson’s critical analysis of the worldview clash model in the context of environmental philosophy provides a helpful framework through which to understand the broader set of concerns related to new materialism’s assumptions about the relationship between ontology and ethics. See Peterson 2021.

8 Writing of the resurgence of interest in fungi, Michael Hathaway, for example, stresses the need to “challenge the predilection toward turning fungi into the carbon-sequestering, plastic-eating solution to human-made woes” (Hathaway 2022, xxi).

9 For more about the different perspectives on the source and nature of the interconnections between women and nature, see Merchant 1980 and Warren 2005. Some strands of ecofeminism are more invested in political and socioeconomic analysis (Salleh 1997; Sandilands 1999; Mellor 2018); some focus primarily on nonhuman animals and interspecies solidarity (Adams 1990; Curtin 1991; Gruen 2015); and others on the ethical dimensions of ecofeminism (Warren 2003; Cuomo 2005), to name just a few directions in which the field has evolved.

10 Although much emphasis is placed on women’s oppression, ecofeminist critiques of hierarchical dualisms have also from the beginning served as entry points to a wider perspective on the interconnections between the domination of nature and the domination of humans on the basis of race, ethnicity, and class (Mies and Shiva 1993; Plumwood 1993; Salleh 1997; Warren 2000). Further developments in ecofeminism, advanced by scholars such as Greta Gaard, Catriona Sandilands, and Sunaura Taylor, push ecofeminism in the direction of queer ecology and disability studies by considering the associations between concepts of nature, heteronormativity, and ability (Gaard 1997; Sandilands 2002; Taylor 2014).

11 Although the former represents only a small fraction of the diversity of positions in early ecofeminist thought, one forcefully repudiated from within ecofeminism itself, many contemporary scholars continue to misconstrue the part for the whole, unfortunately impeding the possibility of deeper engagement with more recent developments along the lines of critical ecofeminism (Gaard 2011, 2017).

12 Plumwood’s examples of dualized pairs include, but are not limited to, reason/nature, male/female, mind/body, master/slave, civilized/primitive, productive/unproductive. For a more complete list, see Plumwood 1993, 43.

13 For the other characteristics of dualism Plumwood identifies, see Plumwood 1993, 48–54.

14 Plumwood gives a number of examples ranging from overemphasizing certain traits as natural to make inequalities inevitable or seeing certain landscapes as purely natural to erase the labor of otherized groups.

15 Plumwood often references the struggles of Indigenous groups in her home country of Australia as examples of what this ethical and political contestation might entail (Plumwood 2002a), but ecofeminists like Barca also point to the diverse non-exploitative practices of many other subsistence, peasant, and Indigenous communities that continue to struggle against and contest such relations (Barca 2020, 56–57). For example, Barca describes an agro-forestry project in the Brazilian Amazon (Projeto Agro-Extractivista) where inhabitants “reconfigure their livelihood and political existence as members of a forest community”; an “inter-species assemblage” where humans act with more-than-human others to reproduce and regenerate life (Barca 2020, 56–59). For more on Indigenous and kinship-based models of ethics, politics, and human/nature relations, see LaDuke 1999; Kimmerer 2013; Todd 2017; Burkhart 2019; Tallbear 2019; and Whyte 2020.

16 Importantly, Plumwood’s untimely death in 2008 means we do not know how her philosophy might have adapted and responded to these contemporary realities. Any limitations of her account, therefore, must be understood with this in mind.

17 The tendency to conceive agency in a more centralized way is sometimes reflected in the examples Plumwood uses to discuss the intentional recognition stance, such as possums and wombats (Plumwood 2002b, 182). But notably, there are some instances in work published shortly before her death where she explicitly discusses agency and intentionality in less centralized terms, identifying, e.g., natural processes, elements, and species as part of the “multiple collaborative agencies” that can shape a given landscape (Plumwood 2006, 126; 2009). The nature of this more dispersed sense of agency, however, is not entirely fleshed out; the ontological status of such entities and the nature of their interactions are not the primary focus and thus remain underdeveloped.

18 It is possible that Plumwood would count at least some machines as intentional, however this possibility is only suggested in a passing remark whereas her focus remains primarily on “natural” beings. See Plumwood 1993, 135–36.

19 It is important to note that the differences the plastic bottle example helps bring to the fore do not necessarily indicate a failure on the part of Plumwood’s analysis or of ecofeminism in general. They may reflect, rather, broader differences in the kinds of spaces new materialism and ecofeminism each inhabit, the former often occupying more strictly ontological, abstract, and academic spaces and the latter more explicitly concerned with ethical and political decision-making, ethical relations with earth others, and ecological change. In other words, understanding the contrast between them—the reason entities like plastics might be treated differently—requires attention to the overall differences in their approaches and in the strategies they take to be central to them. It is also such differences that I think can make a coalition between them both compelling and valuable.

20 I refer to this coalition as an “ecofeminist new materialism” rather than a “new materialist ecofeminism” for one main reason. Given that the article is animated by a need to reconceptualize the notion of agency, and because new materialism explicitly attempts to undertake this task, I treat it as the more active discourse on this particular topic, one whose further developments should take seriously and engage with ecofeminist insights. That said, both new materialism and ecofeminism contribute something important to the coalition I outline here and ultimately, I am interested in the synthesis between them.

21 See Barca 2020 and Pellow 2018. Robin Wall Kimmerer’s experience of restoring a pond near her home is another example of what this might look like on a smaller scale. See Kimmerer 2013, 94–97.

22 Battistoni specifically speaks to the importance of solidarity. For her, solidarity does not denote a perfectly equal relationship. It is something that must be cultivated; a sensibility or recognition that we are interdependent and need each other (humans and nonhumans) to live and to “recreat[e] our shared world” (Battistoni 2017, 22–23). See also Pellow 2018, 45, 367–68.

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