**On the Dubious Merit of Ontologizing Bohr: Reading Barad (Diffractively) with Merleau-Ponty**

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**Abstract:** Despite thinking that an appropriately nonanthropocentric approach to the more-than-human world requires understanding phenomena to be ontologically basic, Karen Barad engages with phenomenology only fleetingly. Here, I suggest that Barad ought to take Maurice Merleau-Ponty’s phenomenology more seriously for two reasons. First, Barad’s objections to his prospects for a suitably nonanthropocentric phenomenology rely upon a misdirected charge of representationalism. Second, Merleau-Ponty offers theoretical and methodological tools corrective to our tendencies toward metaphysical and behavioral colonialism which align with Barad’s project, yet, insofar as her agential realism remains committed to a very strong metaphysical naturalism, appear unavailable to her.

Keywords: Maurice Merleau-Ponty, phenomenology, Karen Barad, agential realism, anthropocentrism, colonialism

# **Introduction**

The quantum physicist-cum-metaphysician Karen Barad’s work is enjoying a boom. Her influence is apparent among feminist and postcolonial philosophers, but Barad’s biggest impact has been in the social sciences where a heightened focus on the political and agential aspects of material phenomena is increasingly strong.[[1]](#footnote-1) And, given the backdrop of the anthropogenic crisis situation popularly designated the Anthropocene, it is not difficult to see why. In Barad’s work lies the promise of addressing the more-than-human world on its own, dynamic, terms and thereby developing much-needed anticolonial means of encountering and relating to it. I take this to be a timely and important task, and largely welcome Barad’s contribution. Here, however, I draw upon some untapped phenomenological resources to question the wisdom of some aspects of Barad’s agential realist approach via a closer look at its underpinning metaphysical commitments.

Emphasizing fruitful parallels in Maurice Merleau-Ponty’s work, I firstly (§2) address Barad’s arguments against the representationalist bifurcation of subject and object which, she thinks, underpins our commonplace colonial mindset. I then (§3) highlight some concerns about Barad’s misidentification of representationalism within Merleau-Ponty’s phenomenology. Next (§4), I explore agential realism’s performative corrective to the representationalist paradigm, before (§5) problematizing Barad’s idiosyncratic approach. Insofar as she preserves a metaphysically purified or unduly partisan objectivity for the quantum phenomena which underwrite her process metaphysics, I argue, Barad remains problematically limited in her openness to genuinely *non*human things. Since Barad’s shortcomings seemingly result from her commitment to a very strong metaphysical naturalism which phenomenologists need not share, I end (§6) by highlighting promising features of a Merleau-Pontian approach which, as the arguments in section two and three attest, Barad may have rejected out of hand.

# **The Representationalist’s Dilemma**

Agential realism begins from a place of suspicion about our commonplace adherence to “metaphysical individualism:” the “view that the world is composed of individuals and that each individual has its own roster of nonrelational properties.”[[2]](#footnote-2) Quantum physics has suffered under its presumption, giving rise to the wave-particle duality paradox and “measurement problem.”[[3]](#footnote-3) However, metaphysical individualism’s most pernicious effects apparently transcend its empirical falsehood. Barad thinks it is the surreptitious influence of the individualist purview which typically leads us to bifurcate the universe into individual subject and object orders, demanding an unpalatable anthropocentrism via the false dilemma created regarding *our* means of access to *it*.[[4]](#footnote-4) This is because, once one cleaves subject (a human observer) from object (roughly, a nonhuman or material thing) as ontologically primitive entities, a dilemma arises as to the epistemic relation between them. How does a human subject or scientist discern and encounter phenomena like hyraxes, coal deposits, or the biosphere?

## **2.1 Pre-Critical Realism**

The first horn of the dilemma is to permit immediate or mediate (i.e., representationalist) access to the purified metaphysical objectivity of mind-independent “things-in-themselves.” However, doing so implicates one in the pre-critical scientific realism problematized by Immanuel Kant and the classical phenomenologists, as well as their poststructuralist descendants in the critical tradition upon whom Barad focuses. One need only think of Edmund Husserl, for instance, who aims, via the phenomenological reduction, to suspend uncritical adherence to the “big-O-Objects” of the natural attitude.[[5]](#footnote-5) These Objects may aid the predictive power of the empirical sciences. Nonetheless, Husserl thinks, they cannot be straightforwardly identified with or within the pre-theoretical, “raw,” data, which, Thomas Kuhn reminds us, could show up for scientists only via their “eyes and instruments.”[[6]](#footnote-6)

More pertinent for those who, like Barad, are rightly skeptical of any such presuppositionless scienceis Merleau-Ponty’s rejection of “objective thought” in *Phenomenology of Perception.*[[7]](#footnote-7)Merleau-Ponty’s arguments revolve primarily around the lack of evidence of alleged sensations, qualia, or any other non-intentional “pure quality,” somehow imminent to consciousness, which would otherwise ground belief in an external world comprised of independent objects or determinate properties, thereby represented via “point-by-point correspondence.”[[8]](#footnote-8) Drawing upon findings in Gestalt psychology, Merleau-Ponty argues that even the specific redness of a rug requires essential reference to our experience of certain normative lighting conditions, shadows that fall across it, and the texture we anticipate it to have. In these respects, the relational background against which a discrete object or property emerges is inseparable from the qualities perceived, which is why the rug’s “woolly” redness would change if our backgrounded embodied expectations were frustrated and it turned out to be coarse.[[9]](#footnote-9) Thus, Merleau-Ponty argues, our “eyes and instruments” do not license belief in causal phenomena more mereologically simple than Gestalt-objects and, as Barad briefly (but positively) acknowledges, for Merleau-Ponty, the perceiving body cannot merely be a mere “conductor” or “transmitter” relaying data about an object’s nonrelational properties to its scientific subject.[[10]](#footnote-10)

Instead, Merleau-Ponty argues that the perceived determinacy of material phenomena (so-called mind-independent objects) is the product of a whole “phenomenal field,” diacritically structured according to one’s physiological capabilities and motor intentions; one’s intersubjective commitments and sedimented intentional heritage; the sexual, economic and political histories one takes up; and so on.[[11]](#footnote-11) Providing support for these more contentious aspects of the intentional arc which delineates objects perceived, Merleau-Ponty emphasizes that “consciousness is originarily not an ‘I think that’, but rather an ‘I can’.” [[12]](#footnote-12) Thus, the operative phenomenal meanings (including colors) that emerge for us and partly structure our subsequent experiences are sedimented into unreflective motor habits as schematic means of navigating and grasping the world. In the most general sense, since the multifaceted meanings constitutive of phenomena do not simply disambiguate themselves for disengaged and desituated subjects, one must learn to perceive a somewhat common, intersubjective world in which “perspectives intersect, perceptions confirm each other, and a sense appears.”[[13]](#footnote-13) This means that in each act of perception, however unreflective, one “has an historical thickness, he takes up a perceptual tradition, and he is confronted with a present.”[[14]](#footnote-14) As Linda Martín Alcoff has argued, such sediment will not be epistemically or axiologically innocent. Drawing together a Merleau-Pontian account with Lawrence Hirschfield’s psychological research, she argues that children learn to unreflectively grasp and objectify contested (e.g., racialized) meanings in others’ physiological features, as antecedent intersubjective norms about “natural kinds” dictate.[[15]](#footnote-15)

For Merleau-Ponty, as Alia Al-Saji observes, backgrounded aspects of perception like the above remain in the form what Judith Butler calls objectifying vision’s “constitutive outside.”[[16]](#footnote-16) However, objective thought works by transposing the reflectively purified character of objects perceived (e.g., “a red rug”) into perceptual consciousness, thereby licensing an erroneous and apparently value-neutral belief in the corresponding ontological determinacy of the things deemed responsible for our perceptions. The substantive problem is that we “build perception out of the perceived. And since the perceived is obviously only accessible through perception, in the end we understand neither.”[[17]](#footnote-17) Thus, as Barad also claims, albeit via a compatible Foucauldian-Butlerian route, insofar as the mainstream scientific realist intends to accurately represent mind-independent material objects, she is mistaken in her task.[[18]](#footnote-18) Not only does she lack the possibility of wholly pre-theoretical or reflectively purifiable contact with those phenomena, she must rather uncritically import a host of suspicious theoretical baggage to take the “things themselves” to *be* mind-independentobjects in the first place.

But the mere metaphysical implausibility of the pre-critical realist’s subject/object binary is not Barad’s main target. More problematic, for Barad, is the undisclosed *dualism* which plausibly both licenses and draws warrant from it. Although I take her contentions to be compatible with Merleau-Ponty’s aforementioned account of the intentional arc, Barad focuses on Butler’s arguments emphasizing the co-constitutive roles of juridical systems of power, and androcentric and heteronormative discourse in producingspecific “subjects” and “objects,” demarcating “nature” (e.g., “sex”) and “culture” (e.g., “gender”), and so on, through the value-laden exclusions performed.[[19]](#footnote-19) Barad’s aim in doing so is not only to foreground the impossibility of pre-discursive naïveté about material “objects” (scientific or otherwise), nor the impossibility of successfully rethinking marginalized or pejoratively objectified more-than-human things without reconfiguring the asymmetric terms in which they are couched. Barad intends to emphasize that our ordinary ways of carving the universe into (cultural) subjects and (natural) objects matter; they have concrete and equally value-laden effects for the material-discursive relata established.

Barad’s focus is on the phenomena marked as nonhuman, and we need not look far to see how naturalized ontological presuppositions like the above infiltrate mainstream science and license anthropocentric exploitation. Barad, for example, observes that contemporary scientific discourse emerges largely against a background commitment to extensional realism where, motivated by a pursuit of things-in-themselves which eschews the “supernatural,” “nature” is taken to consist entirely of extensional properties within a causal matrix. Extensional realist metaphysics may help scientists to secure nature’s “objectivity.”[[20]](#footnote-20) However, as the Merleau-Pontian ecophenomenologist Bryan Bannon also argues, it typically does so only through a totalizing conception of the natural world as wholly determinate, ideally knowable and controllable, and which is therefore set up to invite its anthropogenic instrumentalization or mastery.[[21]](#footnote-21) Merleau-Ponty makes a related point when he contends that “normal” science “is and always has been that admirably active, ingenious and bold way of thinking whose fundamental bias is to treat everything as though it were an object-in-general—as though it meant nothing to us and yet was predestined for our use.”[[22]](#footnote-22)

It is only a short step from here to the allegedly apolitical standard narrative of the Anthropocene promulgated by the influential atmospheric chemist Paul Crutzen. Crutzen holds that the Anthropocene was straightforwardly inaugurated by specifically irresponsible “resource consumption” (i.e., *mis*use of the useful physico-chemical properties which fossilized carbon, for example, allegedly is) by an undifferentiated *Anthropos.*[[23]](#footnote-23)This hierarchical act of ontological purification also permits Crutzen to claim that the Anthropocene’s problematic conditions merely call for better resource use (e.g., by eating less meat and pursuing “greener” geoengineering strategies), rather than embracing less exploitative and more responsible (i.e., less totalizing and utilitarian) means of encountering and thinking the more-than-human world.

## **2.2 Correlationism**

The majority of Barad’s energies are focused on problematizing the second horn of the dilemma, which takes the aforementioned post-Kantian insights to imply that subjectivity and objectivity cannot be configured independently of our discursive situations or intentional horizons. Adherents to this view, Barad contends, remain wedded to representationalism; they just admit that mind-independent objects or “nature-in-itself” *cannot* be accurately represented.[[24]](#footnote-24)

Proponents of this position—which, in Barad’s view, includes unnamed “structuralists” and “phenomenologists”—apparently inherit two related problems.[[25]](#footnote-25) The first is an inward-facing focus akin to what Quentin Meillassoux calls “correlationism:” “the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other,” which results necessarily from the chasm separating situated human subjects and nonhuman things-in-themselves.[[26]](#footnote-26) Second, she inherits the tendency to anthropocentrically overplay discursively constructed aspects of experience such that the material world lacks any real dynamism or impact on epistemic processes (or at least any that we may claim “objective” access to).[[27]](#footnote-27)

Within the context of representationalism, the second problem is supposed to derive primarily from the first. Barad herself, however, says little about how they play out within specific phenomenological or structuralist frameworks, limiting herself to enigmatic contentions like the following:

If words are untethered from the material world, how do representations gain a foothold? If we no longer believe that the world is teeming with inherent resemblances whose signatures are inscribed on the face of the world, things already emblazoned with signs, words lying in wait like so many pebbles of sand on a beach there to be discovered, but rather that the knowing subject is enmeshed in a thick web of representations such that the mind cannot see its way to objects that are now forever out of reach and all that is visible is the sticky problem of humanity’s own captivity within language, then it becomes apparent that representationalism is a prisoner of the problematic metaphysics it postulates. Like the frustrated would-be runner in Zeno’s paradox, representationalism never seems to get any closer to solving the problem it poses because it is caught in the impossibility of stepping outward from its metaphysical starting place.[[28]](#footnote-28)

Graham Harman elaborates, however, on how Merleau-Ponty’s alleged correlationism might foreclose his prospects for a nonanthropocentric phenomenology.[[29]](#footnote-29) Harman contends that if nonhuman things cannot be grasped without the caveat “*for-us,*” as Merleau-Ponty concedes, then we sacrifice any possibility of epistemic access to them on their own terms.[[30]](#footnote-30) Worse, Harman claims, by effectively thereby reducing material things to their manifestations within perspectives *like mine—*“leaving nothing there hidden,” as Merleau-Ponty says—phenomenology results in a *de facto* metaphysical idealism.[[31]](#footnote-31) Phenomenology, for Harman, is thus condemned “to operate only as a reflexive meta-critique of the conditions of knowledge,” perhaps attentive to the intentional sediment or reflective distortions of *our* epistemological or ontological contentions, but problematically blind to the dynamic reality of genuinely *non*human things, even in principle.[[32]](#footnote-32) And other correlationisms fare equally badly. Whether they be phenomenologists, structuralists, or proponents of the neo-positivism courted by Barad’s forerunner Niels Bohr, the argument goes, the phenomena correlationists investigate emerge only within a similarly irredeemable “humanist orbit” as mainstream scientific realism.[[33]](#footnote-33) In Bohr’s case, as Barad notes, in lieu of real correspondence between ontologically (read: spatially) separable entities, objectivity becomes tantamount to agreement amongst situated scientists with human visual and conceptual systems, and who must share a range of historically-situated prejudices.[[34]](#footnote-34)

Given their common metaphysical presuppositions, Barad suggests, mainstream scientific realism and correlationism perpetuate the same specifically *colonial* mindset with respect to the more-than-human world. To fully appreciate the nature of the charge, however, it is important to emphasize that colonialism is not straightforwardly synonymous with anthropocentric reductionism or instrumentalism. Doubtless, the normalization of their common use-relationship orientation is partly what Barad has in mind. But what makes a “worldview” specifically colonial, for Barad, is that it also “gets to speak for the ‘natives,’ those radically Other beings that refuse to be good modernist subjects, and are at the same time inanimate and lacking in agency.”[[35]](#footnote-35) Colonialism so understood involves aspects of both anthropogenic exploitation *and* the erasure of other valuable, nonhuman, ways of seeing or being in the world. Understood as such, Barad’s charge parallels other environmental philosophers’ charges of settler colonialism whereby totalizing socio-ecological barriers are erected, with respect to universal private property rights, for example, which instrumentalize and thereby license the increased pollution of waterways integral to indigenous peoples’ (more sustainable) fishing practices. In such cases, both the guiding socio-economic purview (neoliberalism) and its attendant effects (pollution) effectively prevent indigenous peoples like the Mowhawk from experiencing or participating in the traditional, and less ontologically and ethically anthropocentric, “fabric of relationships that connects people, nonhumans (e.g., fish) and places (e.g., rivers, lakes) through mutual responsibilities.” [[36]](#footnote-36)

Representationalism, in its realist and correlationist guises, for Barad, is thus colonial in both promulgating the growth of an anthropocentric subject/object dualism aligned with Eurocentric science *and* (mis-)taking itself to exhaustively address the more-than-human world. For the representationalist, either the (“objective”) reality of the universe-in-itself *can* be exhausted by its observer (“subject”), or that universe *is* effectively exhausted by discourse: reduced to its configurations within certain intentional horizons and the like.[[37]](#footnote-37) The material universe appears no less unduly subjugated. There also appears little residual room for the recognition of nature’s dynamicity or alterity, which for Barad, is anathema to more responsible means of doing science and reconfiguring our problematic relationships within the more-than-human world. Nonanthropocentrism, she contends, requires dispensing with the representationalist framework and the correspondence theory of truth which comes with it.[[38]](#footnote-38)

# **Interrogating Representationalism**

Before addressing Barad’s solution, we should acknowledge that most phenomenologists would struggle to recognize themselves within Barad’s characterization. Her charge of representationalism might be levelled at Kant who reifies the transcendental subject and (noumenal) metaphysical reality of the thing-in-itself.[[39]](#footnote-39) However, we should problematize Barad’s allegation that “philosophical phenomenologists” reduce things-in-themselves to their subjective “appearances” in the same manner.[[40]](#footnote-40) Indeed, as Ray Brassier observes,post-Kantian Continental philosophy is united largely by its rejection of the “‘antiquated’ Cartesian vocabulary of ‘representationalism’” and the subject/object ontology that vocabulary tracks.[[41]](#footnote-41)

Whilst one might have reservations about the universality of Brassier’s claim, it is accurate in Merleau-Ponty’s case. Starting with his rejection of the subject/object ontology, we saw above that Merleau-Ponty rejects objective thought and the act of metaphysical purification which demands the totalizing presumption of determinate, mind-independent objects as ontologically primitive. Likewise, Merleau-Ponty resists the ontological primacy of any free-floating or ready-made transcendental subject, commitment to which might otherwise support Barad’s contention (which parallels Harman’s) that Merleau-Ponty’s phenomenology’s dualism lies partly in “the idea that reality is an internal product of human consciousness.”[[42]](#footnote-42) Merleau-Ponty uses the process of rolling a marble between one’s fingers to illustrate how the relative integrity of one’s bodily-subjectivity (the two cannot be separated, since—as Barad briefly but approvingly notes—for Merleau-Ponty, the body is simultaneously both *Leib* and *Körper*) becomes possible only through the ambiguous subject-object context of the body schema which subtends the aforementioned intentional arc.[[43]](#footnote-43) For Merleau-Ponty, the “synthesis of the object is thus accomplished here through the synthesis of one’s own body—the former being the response or the correlative to the latter. To perceive a single marble and to have two fingers available as a single organ are, literally, the same thing.”[[44]](#footnote-44) For Merleau-Ponty, bodily-subjectivity only becomes itself through immediate immersion within a more-than-human reality with which it is always already involved. It is, he says, only the distorting “reflective analysis” associated with the “recently developed superstructure” of objective thought’s individualistic subject/object ontology which makes the possibility of the former’s cleavage from, and “construction” of, the latter appear tenable.[[45]](#footnote-45)

Furthermore, in “The Child’s Relation With Others,” Merleau-Ponty offers empirical support for his claim that the “self-contained” subject of reflective consciousness arises in relation to the acquired (largely linguistic) capacity to distinguish one’s body from the multifaceted “anonymous collectivity” or “undifferentiated group life” against which it is thematized.[[46]](#footnote-46) Indeed, for Merleau-Ponty, given that meaningful phenomena emerge only within an intersubjective context, one never escapes the sediment of one’s intentional ancestors partly constitutive of one’s subjectivity.[[47]](#footnote-47) But reality does not thereby become the mere product or reflection of multiple human consciousnesses. Why? Because if*,* as Barad contends, “consciousness constituted the world that it perceives at this moment, there would be no distance between it and that world and no interval would be possible;” the alterity and limited penetrability of other things would be lost, which, Merleau-Ponty observes, is obviously incompatible with the phenomenological data.[[48]](#footnote-48) Merleau-Ponty goes so far as to claim that, reflective distortions notwithstanding, as a matter of intractable “originary faith,” available to us all, part of what identifies something phenomenologically as a *more-than-*human “thing” in the first place is that it resists subsumption into consciousness: “the thing is much less a pole of attraction than a pole of repulsion. We do not see ourselves in it and this is precisely what makes it a thing.”[[49]](#footnote-49) “The world,” Merleau-Ponty concludes:

is not an object whose laws of constitution I have in my possession; it is the natural milieu and the field of all my thoughts and of all my explicit perceptions. Truth does not merely dwell in the ‘inner man;’ or rather there is no ‘inner man,’ man is in and toward the world, and it is in the world that he knows himself.[[50]](#footnote-50)

Relatedly, as Brassier again acknowledges, since Merleau-Ponty eschews representationalism’s underpinning subject/object binary, there need be no obvious “problem about how we are able to adequately represent reality, since we are ‘always already’ outside ourselves and immersed in or engaging with the world.”[[51]](#footnote-51) For Merleau-Ponty, the representationalist rhetoric, which motivates the question of the accuracy of any “appearances” arising from *our* epistemic access to *it,* misconstrues the intimacy of the prereflective engagement which must underwrite any ontological or epistemological claims: “The world is not what I think, but what I live; I am open to the world, I unquestionably communicate with it, but I do not possess it, it is inexhaustible.”[[52]](#footnote-52) As body-subjects who are always both subject *and* object, we remain somewhat ontologically continuous with the rest of the world, thus, “the setting of our own life must in fact be all of nature; nature must be our interlocutor in a sort of dialogue.”[[53]](#footnote-53)

Moreover, partly due to his hostility to objective thought, Merleau-Ponty rejects the correspondence theory of truth which does much of the heavy lifting in Barad’s accusations of representationalism.[[54]](#footnote-54) But Merleau-Ponty never thereby reduces dynamic material things to the empirical in the mold of Kant’s transcendental idealism. For Merleau-Ponty, there remain normative success conditions immanent to the perceptual acts through which more-than-human phenomena co-express themselves,by which they rightly become things-in-themselves-for-us. In order to respond to Barad’s apparent concerns about the threat of a *de facto* idealism, however, it is important to stress the qualifier “rightly” in the preceding sentence, which simply cannot be determined without reference to the more-than-human world’s own epistemic powers. In Merleau-Ponty’s famous shipwreck example, for instance, the phenomena were determined when, once the whole ship-object was instituted, each of its elements could impose themselves upon him in a manner that truly satisfied his operative expectations.[[55]](#footnote-55) This is not just a matter of Merleau-Ponty being able to navigate the scene without fuzziness or to project meanings onto it without contradiction; the point is rather that material things like rugs, wrecks and rainforests delimit and delineate the meanings it is possible for us to locate in or with them, because they somewhat self-evidently participate in the collective institution of intentional meanings, which Merleau-Ponty calls the “miracle of expression.”[[56]](#footnote-56) Merleau-Ponty makes a similar point about the “prereflective sense”—a “norm inscribed in the facts themselves”—by which biologists like Jakob von Uexküll are rightly limited in describing the worlds of ticks, in which we are surely partly “englobed,” but which would become inaccessible from within the confines of the Kantian schema where *we* lack representationalist access to *them*.[[57]](#footnote-57) However, we perhaps best see Merleau-Ponty’s openness to the more-than-human world’s epistemic powers through his paradigmatic remark phenomenologically differentiating “sensuous consciousness” from “intellectual consciousness:”

Every perception takes place within an atmosphere of generality and is presented to us as anonymous. I cannot say that *I* see the blue of the sky in the same sense that I say I understand a book, or again that I decide to dedicate my life to mathematics. My perception, even seen from within, expresses a given situation: I see blue because I am *sensitive* to colors; whereas personal acts create a situation: I am a mathematician because I decided to be one. As a result, if I wanted to express perceptual experience with precision, I would have to say that *one* perceives in me, and not that I perceive.[[58]](#footnote-58)

What, then, to make of Barad’s charges? If Merleau-Ponty’s phenomenology is irredeemably anthropocentric or colonial, these problems cannot derive from his representationalism because that charge is clearly misdirected. Nor, in lieu of further argumentation, can Merleau-Ponty’s “problems” straightforwardly result from his doctrine of expressive truth. Like Barad, Merleau-Ponty emphasizes the epistemic and agentic powers that more-than-human entities (otherwise lacking their own fully-fledged, determinate properties or meanings) really have in differentially co-configuring material-discursive phenomena (which are thus ontologically primary), without obviously prioritizing the efficacy of either of its intertwined multifaceted aspects (i.e., matter or discourse). Neither, on pain of contradiction, can Barad intend to echo Meillassoux or Brassier’s accusations of anthropocentrism via correlationism, since their concern is that Merleau-Ponty precludes access to entirely nondiscursive things-in-themselves (i.e., ontologically primitive objects).[[59]](#footnote-59) Similarly, if Barad’s objection is akin to Harman’s in problematizing not the differential configuration of material-discursive phenomena (which are integral to agential realism), but Merleau-Ponty’s alleged recognition of only the phenomenaaccessed by humans, then that too is flawed.[[60]](#footnote-60) As his preoccupation with the miracle of expression in general and Uexküll’s ticks in particular attests, Merleau-Ponty makes space for differentially configured phenomena that extend well beyond their human manifestations.[[61]](#footnote-61) Furthermore, the ontological continuity and epistemic intimacy that Merleau-Ponty emphasizes between differently situated parties undermines Harman’s (and, on the face of things, Barad’s) claim that nonhuman entities become entirely inaccessible and, consequently, that his phenomenology is a narrowly *self-*reflexive pursuit.[[62]](#footnote-62)

If Barad’s concerns are to be appropriately directed, then, contrary to appearances situating them within the context of representationalism and metaphysical individualism, it seems to me that they must actually relate to concerns about an apparent undisclosed dualism in the distinctive phenomenological ways that subjects and objects emerge for Merleau-Ponty. Drawing upon her account of colonialism, a modified version of Barad’s objection would hold that, in virtue of its reliance upon a situated (albeit intrinsically relational) human locus of understanding in distilling the world’s meanings, Merleau-Ponty’s phenomenology is somehow set up to erase other, more positive, ways of being, perceiving and engaging with, more-than-human others on their own terms. Related concerns relating to Merleau-Ponty’s attention to human alterity have previously been raised with mixed success.[[63]](#footnote-63) However, given the engagement with quantum physics which undergirds her account, I suspect that Barad’s real grievance in this respect must principally target his phenomenology’s inability to access “nature” wholly *beyond* or *without* us.[[64]](#footnote-64)For Barad, as we shall see in the following section, a non-representationalist science is pivotal to correcting our anthropocentrism insofar as it may reveal matter’s dynamism, without essential reference to the situated phenomenal field(s) in which those revelations arise. As Jack Reynolds notes, however, whilst Merleau-Ponty’s work is consistent with “weak methodological naturalism,” whereby “philosophical results ought to be broadly continuous with those of the sciences, at least in the long haul” (hence his engagement with Gestalt psychology’s critique of previous phenomenologies’ Cartesian assumptions), as an existential phenomenologist, science remains “the second-order expression of experience.”[[65]](#footnote-65) Consequently, misplaced accusations of representationalism notwithstanding, for Merleau-Ponty, “perception is not presumed to be true, but rather that perception is defined as our access to the truth.”[[66]](#footnote-66) Thus, for Merleau-Ponty, while his ontology is not straightforwardly limited to them, the diffuse phenomena that humans co-express retain a certain epistemic priority of which Barad remains suspicious.[[67]](#footnote-67)

According to this line of argument, by reinstating the epistemic centrality of human body-subjects, Merleau-Ponty’s phenomenology remains anthropocentric, albeit in the weak ontological sense that more-than-human phenomena cannot be *entirely* disentangled from their emergence within situated human expressions. Conversely, for Barad, “the acknowledgment that humans are part of nature entails the simultaneous recognition that our understanding of nature as that which is disclosed through scientific practices entails an appreciation of the fact that scientific practices are natural processes rather than external impositions on the natural world.”[[68]](#footnote-68) For her, a thoroughgoing and liberatory nonanthropocentrism demands that the dynamic reality of matter (“nature”) which science uncovers ought to ground and delimit our metaphysical contentions. And since quantum mechanics is the only science whose findings seemingly hold at all spatio-temporal levels, the “delineation of observer and observed [should] be determined by the physics, not by philosophical preconceptions.”[[69]](#footnote-69) This is a naturalism to which Merleau-Ponty cannot commit.

# **Agential Realism**

Barad unpacks her agential realism, however, not primarily in sustained dialogue with the issues above, but in contradistinction to the representationalism she diagnoses elsewhere. Taking her cue from quantum physics, Barad argues that “phenomena are ontologically primitive relations—relations without pre-existing relata.”[[70]](#footnote-70) Barad’s evidence for this claim focuses on the canonical two-slit experiment, which “has in it the heart of quantum mechanics. In reality, it contains the only mystery.”[[71]](#footnote-71) Recent such experiments show that, under certain conditions, light may behave as a wave or as a particle, and so may matter. More strangely, wavelike diffraction patterns may be produced by single electrons, which disappear when we know which slit the electrons passed through. Perversely, as recent “quantum eraser” experiments attest, there even appears to be the possibility of “backward causation:” altering existing diffraction patterns—and, by implication (according to the individualistic identity stipulations of classical physics), light or matter in-themselves—by erasing the “which-slit” information after the fact.[[72]](#footnote-72)

Barad attempts to dissolve the apparent wave/particle duality paradox by abandoning representationalist presuppositions and radicalizing Bohr’s earlier quantum framework. For Barad, quantum phenomena show experimental apparatuses not to be neutral devices which track a “Cartesian cut” among things-in-themselves.[[73]](#footnote-73) For her, apparatuses are co-constitutive material-discursive aspects of the entities which emerge for observation (here: “wave” or “particle”). Her claim is not, as Bohr’s rival physicists contended (and against whom he argued on empirical grounds), that measurement apparatuses disturb objects measured.[[74]](#footnote-74) Bohr’s insight, on Barad’s reading, was that the very ontological determination of “apparatus” and “object”requires essential reference to the whole phenomenon, understood as the entire experimental arrangement.[[75]](#footnote-75) Altering the experiment changes the otherwise indeterminate agencies involved in locally determining “object” and “agencies of observation.”[[76]](#footnote-76) Thus, although, for Barad, the two-slit experiments really do show wavelike or particular diffraction patterns, neither exposes *the* determinate nature of light or matter. The experimental apparatuses—which include the scientists’ presumptions and the influences of their multifaceted material equipment—are dynamic aspects of that state of affairs becoming objective. Since there is no absolute distinction between object and agencies of observation, there is no paradox.[[77]](#footnote-77)

Barad’s metaphysics thus intends to overcome representationalism by becoming performative in much the same way as Butler’s. The difference is that, on Barad’s account, Butler retains a problematic plasticity for the material world by underappreciating matter’s agential contribution to its own becoming.[[78]](#footnote-78) In the two-slit experiments, Barad notes, the phenomena observed cannot be attributed to discourse or the imposition of theoretical frameworks. The paradoxes would be easier to resolve if they could! They require reference to matter’s own irreducible dynamicity, even if that dynamicity may show itself only through inseparably material-discursive phenomena. For Barad, this is an insight to which Butler’s anthropocentric and ultimately colonial privileging of the *psyche* appears to render her inattentive.

Barad diagnoses a related problem in Bohr’s “proto-performative account of scientific practices.”[[79]](#footnote-79) Bohr’s problem is rooted in the apparent incompatibility of his observations about quantum phenomena—which he says are true—and his rejection of the representationalist correspondence theory of truth which would license those claims. Bohr and Barad agree that objectivity must be bound to the possibility for unambiguous intersubjective communication permitted by “permanent marks—such as a spot on a photographic plate, caused by the impact of an electron—left on the bodies which define the experimental conditions.”[[80]](#footnote-80) However, as previously noted, Bohr was led to limit objectivity tothose intersubjective communications, without any further commitment that scientific observations track reality itself. According to Barad, Bohr thereby cleaves epistemology (“*our* knowledge”) from ontology (“nature”) in a manner incompatible with his quantum mechanics, where “human observers” emerge—ontologically—only within phenomena and cannot, without contradiction, be understood as external commentators.[[81]](#footnote-81) Worse, by limiting objectivity to laboratory phenomena, Barad accuses Bohr of a representationalist correlationism which forecloses the potential for radical nonanthropocentrism made possible by rejecting Newton’s reductive determinism about matter.[[82]](#footnote-82)

Barad, on the other hand, takes quantum physics to show that scientific practices are natural processes like everything else. And therein lies its potential for nonanthropocentrism. If, as the two-slit experiments attest, “subject” and “object” emerge only within the performative configuration of whole phenomena, then “there is no ‘I’ separate from the intra-active becoming of the world,” and there can be no correlational intermediary between them.[[83]](#footnote-83) There is, therefore, no need to reduce worldly things to anthropocentric objects-for-us in the manner affirmed by Bohr and, allegedly, Merleau-Ponty.

A wholly consistent Bohrian account, Barad argues, becomes posthumanist—and thereby nonanthropocentric—by radicalizing its findings and decentering the human perspective. If phenomena are “specific material performances of the world,” then subject and object, culture and nature cannot be dualistically cleaved from one another, nor from the dynamic processes in which they emerge and to which they contribute.[[84]](#footnote-84) Neither, on the agential realist line, is “nature” susceptible to mastery from outside via totalizing metaphysical frameworks of any sort. Matter, rather, “is substance in its intra-active becoming—not a thing but a doing, a congealing of agency… Materiality and discursivity are mutually implicated in the dynamics of intra-activity.”[[85]](#footnote-85) Agential realism’s performative means of overcoming representationalism is thus also its alleged means of overcoming anthropocentrism.

Barad’s reclamation of ontological (rather than merely epistemological) objectivity does mean that all phenomena are metaphysically real aspects of the world’s differential becoming.[[86]](#footnote-86) However, the moral of Barad’s realism is meantto be that being attuned to differences that matter requires attention to the exclusionary role of apparatuses in establishing phenomena. Mainstream scientific realism is inattentive to the totalizing apparatuses which license its reductive, utilitarian and, frankly violent, ontologies. “Objectivity,” for Barad, “means being accountable to the specific materializations of which we are a part.”[[87]](#footnote-87) Thus, for her, the problem with enframing the biosphere as a collection of latent causal properties (“natural resources”) is not that doing so misrepresents some “biosphere-in-itself.” Rather, by uncritically reifying it in this manner, we fail to acknowledge our transformative role in licensing a colonial approach towards (the rest of) it.

# **Naturalism and Noumena**

However, it is in entirely decentering the human that difficult questions about Barad’s own anthropocentrism arise. Recall that, for Barad, “human” and “nonhuman” beings are equally natural phenomena, which is why *we* can address *them* on their own, dynamic terms (or at least provide a universal metaphysical framework—elucidated by our best physics—by which nonhuman disambiguations occur). Barad goes on to claim that:

“Observer” and “observed” are nothing more than two physical systems intra-acting in the marking of the “effect” by the “cause;” no human observers are required (though “humans” may emerge as being part of practices). And objectivity is not defined in reference to a human observer.[[88]](#footnote-88)

While Barad thinks that agential realism’s nonanthropocentric credentials hinge on its capacity to make good on this claim, however, it can only partly satisfy the requirements it sets itself. To explain why, we should emphasize that, through her commitment to a radically Bohrian objectivity, Barad does not do away with the correspondence theory of truth altogether. The remaining “‘correspondence’ in question,” rather, “is between theories and phenomena, not an observation-independent reality,” which is why Barad may still understand objectivity as being bound to the possibility for intersubjective agreement about the marks left on bodies.[[89]](#footnote-89) It is this revised correspondence theory of truth which permits Barad to think her theoretical framework superior to Newton and Bohr’s: hers is consistent with a wider range of scientific phenomena.[[90]](#footnote-90) It also allows us to better understand Barad’s objection to the extensional realism behind much mainstream scientific realism: we mistake its correspondence with only a limited and contingent range of phenomena for universal truth in a manner aligned with anthropocentric colonialism.

But this revised correspondence theory of truth also gives Barad a problem insofar as the specifically posthumanist objectivity of her theoretical contentions remains beholden to the phenomena disambiguated by nonhuman entities when humans are not on the scene. And, following Barad’s logic, it looks like, as embodied, emergent human agencies of observation, *we* may never access *those* phenomena because, through our worldly engagements, we performatively reconfigure the entire experimental arrangement. This is the upshot of Barad’s interpretation of the two-slit experiments. Since, for Barad, knowing is no matter of representationalist correspondence, what one accesses or theorizes is—at the ontological level—always some aspect of an altogether different phenomenon.[[91]](#footnote-91)

So, while the agential realist might never be divorced from the world in the mode of correlationist representationalism—which was Barad’s official objection to Merleau-Ponty’s phenomenology—this admission alone does not afford access to nonhuman entities in their alterity because, as a situated human participant (or apparatus), one is party to only a narrow range of the world’s performances. There is, therefore, an important sense in which agential realism succumbs to a *de facto* correlationism, under which science and philosophy are entirely limited to the kinds of phenomena that emerge *for* or *with* *us*, rather than as they are independent of the material-discursive agencies at play when situated humans are involved (i.e., *beyond* or *without* us). While Barad may make commendable leaps forward in acknowledging material agency, there does not seem to be much she can say about that agency independent of an essentially humanistic context, which is problematic by her own lights.

Barad may thereby inadvertently provide what Merleau-Ponty calls an “autocritique” of agential realism, closely resembling the one Barad locates in Bohr’s proto-performative account, whereby the outcome of the scientific investigation problematizes its own philosophical presumptions or contentions.[[92]](#footnote-92) In Barad’s agential realist account, a combination of her idiosyncratic account of ontological relationalism and a residual commitment to the correspondence theory of truth becomes incompatible with the possibility of engagement with genuinely other ways of seeing, being, or disambiguating things, openness to which partly motivated her pursuit of anticolonial theory in the first place. Of course, quantum mechanics might just show that nonhuman phenomena really are entirely inaccessible. But this conclusion does not sit easily with what Barad says about metaphysical individualism and representationalism’s insidious roles in establishing a theoretical background against which live anticolonial avenues of encountering and understanding the more-than-human world become reflectively foreclosed. Barad’s autocritique, so understood, also mirrors the one that Merleau-Ponty elicits from classical Gestalt psychology, where, despite their insistence that relational Gestalt-objects are irreducible and must, therefore, be described in perceptual terms, Gestalt psychologists continue to describe them as if ontologically determinate objects with correlational subjects (some of whom, like ticks, are nonhuman), which, paradoxically, we might allegedly accurately describe from outside.[[93]](#footnote-93) For Merleau-Ponty, as we shall see in the following section, doing justice to both the irreducibility of meaningful material-discursive phenomena and our unshakable conviction that we may really be open to something of the genuinely more-than-human world beyond the narrowly human purview was exactly what motivated his shift from a narrowly scientific methodology to an existential phenomenological one.

Of course, since Merleau-Ponty remains beholden to the phenomenal fields in which more-than-human phenomena are expressed, he too appears somewhat bound to the human purview (albeit, as we shall see, without any obvious contradiction). However, in her eagerness to evade correlationism, Barad may put herself in a less appealing position because of her resultant commitment to a very strong (albeit “critical”) metaphysical naturalism. To elaborate, consider the contradictory role that Barad claims for science. Barad wants to contextualize science and scientific objectivity as emerging through only a contingent range of value-laden material-discursive (e.g., ideological, technological and militaristic) apparatuses which are co-constitutive of phenomena configured. Moreover, since Barad’s project is partly an attempt to resist colonial hegemony, quantum physics appears particularly ripe for critical scrutiny, given that:

quantum physics underlies the workings of the A-bomb, that particle physics (which relies on quantum theory) is the ultimate manifestation of the tendency toward scientific reductionism, and that quantum theory in all its applications continues to be the purview of a small group of primarily Western-trained males. It is not my intention to contribute to the romanticizing or mysticizing of quantum theory.[[94]](#footnote-94)

So, if, as Barad claims, “[m]atter is the sedimenting historiality of practices/agencies *and* an agentive force in the world’s differential becoming,” then, in seeking to establish more responsible means of encountering and relating to the more-than-human world, we should see this critical scrutiny through to the material-discursive phenomena uncovered and relied upon by quantum physicists.[[95]](#footnote-95) “There is,” after all, “no spatial-temporal domain that is excluded from the ethicality of what matters.”[[96]](#footnote-96)

However, this is not what happens. When Barad employs quantum physics to ground her metaphysical contentions, she does not situate it. But this is no mere oversight. It is only by basing her metaphysics on Bohrian quantum physics that Barad may attribute the requisite mind-independent character to ontology-in-general to license her claims about how the (nonhuman) world disambiguates phenomena, and thus flatten her ontology and the dynamism therein in a radically posthumanist sense. However, without extending some sort of (on her account) implausible nonperspectival objectivity to the basic quantum phenomena upon which Barad relies, agential realism effectively precludes engagement with nonhuman things independent of the (scientistic, discursive and historically-situated) apparatuses which co-constitute them. Both the totalizing metaphysics Barad advances and the more specific claims she makes about nonhuman entities are, therefore, seemingly delegitimated outside of the anthropocentric and historically-situated contexts which provide their ultimate justification.

Thus, Barad’s biggest problem may not be her *de facto* correlationism, but that she ultimately commits something like the error she identifies in mainstream scientific realism. Despite her commitment to ontological relationalism and resistance to epistemological apriorism, Barad attempts to purify (at least some fundamental aspects of) quantum physics of human epistemic engagement to give matter its due. But Barad thereby universalizes the characteristics of phenomena which are intimately related to non-innocent and specifically human entanglements, rather than engendering openness to the more-than-human universe on its own, potentially different, terms. A certain scientistic humanism appears essential to Barad’s attempt to rethink nonhuman things, yet this humanism is incompatible with the posthumanist metaphysics Barad seeks. Moreover, in Barad’s attempts to escape this humanism, she risks uncritically and inconsistently naturalizing the basic “objects” of a situated and totalizing purview—those of Bohrian quantum theory­—under the guise of a “radically nonanthropocentric,” flat ontology, which may obfuscate its situated origins via the claim that this is all a matter of nature somehow “exploring itself.”[[97]](#footnote-97)

This may all appear too quick. As Barad emphasizes in her reply to Trevor Pinch, she is no “straight realist,” and does not straightforwardly pursue what John McDowell calls “bald naturalism:” the attempt “to explain mind, meaning and morality from the outside.”[[98]](#footnote-98) Nonetheless, Barad subscribes to a very strong metaphysical naturalism whereby, although insights from philosophy, science studies and quantum physics may inform one another, these “diffractive readings” are asymmetrical; the ontological and epistemological buck stops with the science. Barad tells us, for instance, that agential realism should “be understood as a legitimate interpretation of quantum mechanics” and that “that she would be ‘happy for her work in science studies to stand or fall alongside the best work in physics.’”[[99]](#footnote-99) Likewise, for Barad, “knowing is to be understood naturalistically, that is, in terms of our best scientific theories” and she repeatedly charges quantum physics with the fundamental ontological task of telling “us the nature of existence.”[[100]](#footnote-100) Hence, agential realism is wholly “vulnerable to empirical results, as it should be. It has to cohere with what we know” (making her approach “more faithful to naturalism than Bohr’s”).[[101]](#footnote-101) While philosophy might be useful in enriching our understanding of quantum phenomena, Barad nonetheless takes it to be speculative and thus dispensable in a manner which the privileged insights of quantum mechanics are not. Which is why, despite her fundamental reliance upon phenomena, where its findings clash with those of quantum physics, it is always the phenomenology which must make way.

Thus, one might conclude, a residual threat of anthropocentric colonialism remains in Barad’s agential realism insofar as, despite its “very existence” being “entangled with war, militarism, racism, colonialism, capitalism and imperialism,” in lieu of serious internal contradictions within its own experimental findings which serve to definitively falsify them, at a fundamental onto-epistemological level, Bohrian quantum mechanics gets to speak universally for the nonhuman “natives.”[[102]](#footnote-102) Moreover, given that her commitment to metaphysical naturalism appears to result in a purified foundationalism about Bohrian quantum ontology which renders evidence from phenomenology, science studies, psychology, and other disciplines entirely subordinate, it seems that agential realism might encourage less—and not greater—openness to alternative avenues through which nonhuman or more-than-human others might differentially dissent to their characterization.

# **Hegel is the Museum**

Barad’s problems appear intimately related to her attempts to think the more-than-human universe entirely beyond or without us, which seemingly result in an undue limiting of critical self-reflexivity about the exclusive and value-laden background of quantum phenomena, that, for all of its “anti-realism,” is correlationism’s hallmark.[[103]](#footnote-103) But perhaps a thoroughgoing realism about genuinely more-than-human phenomena and critical self-reflexivity need not come apart.

To explain, recall Uexküll’s observations about ticks which play a related role to the two-slit experiments in Merleau-Ponty’s attempt to understand more-than-human entities. For Uexküll, tick behaviors like remaining dormant for years suggest that they institute radically different spatio-temporal phenomena to human beings.[[104]](#footnote-104) The “objects” constitutive of a tick’s *Umwelt* (“environment” or “Gestalt”) must be reduced, Uexküll contends, to three, of which one—the “odor” of butyric acid—is entirely absent from the human’s, just as our “raisin-objects” or “electrons” are absent from the tick’s. The upshot of Uexküll’s empirical work is his contention that a tick’s world—somewhat like, but irreducible to, its human observer’s—is a situated interrelation of irreducibly meaningful signs, intimately and diacritically related to its biomechanical and functional orientation, and so on.[[105]](#footnote-105) For him, as Merleau-Ponty concurs, it is therefore impossible to uncritically establish or universally extend metaphysically purified meanings, objects, or theoretical concepts—at any level—without privileging the norms of our biosemiotic or intentional horizons (whether anthropocentrically or arachnocentrically). This is, to reiterate, a concession arising necessarily from the irreducibility of Gestalt-objects which also generates an autocritique of classical Gestalt psychology. So far so good. Uexküll encourages radical critical self-reflexivity about our objectivating tendencies that takes seriously the material-discursive powers of differentially and irreducibly situated and embodied agents.[[106]](#footnote-106)

However, Uexküll also courts Bohr’s error. As Merleau-Ponty notes, insofar as he remains a Kantian who subscribes to the reification of the representationalist relata, Uexküll remains caught between the stools of a pre-critical scientific realism and correlationism. The tick’s world must be either available to us from some implausible God’s-eye perspective or effectively reducible to projections of our own.[[107]](#footnote-107) Neither would prove particularly attractive for our pursuit of anticolonial engagement. Likewise, neither would accommodate the grounding “prereflective sense” which cannot be individuated as a discernible thing-in-itself, yet, as Uexküll admits, rightly and almost irresistibly delimits our contentions about nonhuman animals (e.g., when discerning a tick’s operative goal in descending from the tree to a mammal’s body) and the meaningful universe we share. Uexküll describes the “unfurling of an *Umwelt* as a melody that is singing itself,” however, “the melody sings in us much more than we sing it.” [[108]](#footnote-108) This is a contention about the simultaneous intelligibility and alterity of nonhuman others like ticks that is demanded by an unshakeable “originary faith” in our experience of them *as other*, but which remains unintelligible within the Kantian worldview. Note, however, that Barad too does not entirely escape Uexküll’s bind, since the binary nature of her theoretical correspondence with nonhuman phenomena does not appear to be compatible with partial access in the requisite sense.

Merleau-Ponty’s solution to Uexküll’s dilemma is not to radically ontologize scientific phenomena in the manner that, for their misplaced and inconsistent representationalism, Bohr and Uexküll had already acknowledged to be problematically humanistic—and, arguably, colonial—as a universal account of how the nonhuman world functions in our absence. As an existential phenomenologist cognizant of our Gestalt-situatedness in establishing and circumscribing any such “objects,” Merleau-Ponty was acutely aware of the impossibility of metaphysical purification in this sense, just as he was aware that to flatten an ontology is, in itself, not enough to overcome a pejorative anthropocentrism unless that ontology is amenable to what is distinctly *non*human within it. Merleau-Ponty’s approach takes seriously that it matters who flattens the ontology and under what terms. And I am unsure that, despite Barad’s commitment to a similar mantra, she is fully able to do justice to that thought within the confines of metaphysical naturalism.[[109]](#footnote-109)

As we have seen, Merleau-Ponty instead advocates for an expressive account of phenomena which refuses to either bifurcate “subject” and “object” or level them down to instances of the world’s own becoming. For him, they are rather *chiasmic*—defined by their incomplete and partial crossover—yet only discernible *as* those phenomena through dynamic instances of expression.[[110]](#footnote-110) This onto-epistemological shift in Merleau-Ponty’s thought is important. It emerges in *Phenomenology of Perception* in response to the “problem of perception,” which also vexed Uexküll, and which Merleau-Ponty first identifies in his first book, *Structure of Behavior,* as a problem for the more straightforwardly scientific methodology he courts there under the influence of Gestalt psychology.[[111]](#footnote-111)

The problem of perception, in its complete form, has two aspects. The first concerns how to understand the “originary” self-evidence of one’s access to meaningful worldly phenomena beyond oneself (of which Barad also appears convinced), given that they emerge only against a structural background by which, despite the pervasive influence of the multifaceted intentional arc, we grasp them in their ecceity (at least in part), almost paradoxically, as other. The second concerns how to square the fact that our reflective (e.g., scientific and philosophical) investigations of phenomena rely upon and thematize pre-reflective contact with the world, the structure of which they consequently change, but which nonetheless we rely upon and aim to recover.[[112]](#footnote-112)

Merleau-Ponty’s response to the problem of perception is to problematize the binary philosophical presumptions of both aspects, attempting to return, as far as the unpurifiable phenomena allow, to where “scientific being links up with prescientific being.” [[113]](#footnote-113) When we attempt to loosen “the intentional threads that connect us to the world in order to make them appear,” in this way, Merleau-Ponty argues, a chiasmic ontology shows itself.[[114]](#footnote-114) Merleau-Ponty’s paradigm phenomenological chiasm comes through the experience of one’s hands “touching” and being “touched,” which refuses to assimilate orhyper-separate “subject” from “object” and which, he thinks provides an “*exemplar sensible*” for our basic phenomenological experience of more-than-human others, albeit to a lesser degree of familiarity.[[115]](#footnote-115) After all, the tick’s situated perspective cannot be wholly reduced to the same “anonymous” perspective as one’s own sensuous consciousness without collapsing their alterity in a manner hostile to the grounding phenomenology.[[116]](#footnote-116) But neither can that perspective and its associated disambiguations become entirely alien to us without it (implausibly) becoming a mere object.[[117]](#footnote-117) Note, for Merleau-Ponty, however, this change of onto-epistemological presumptions is necessitated by the “certainty of the natural attitude,” to which any worldly investigation (philosophical, scientific, or otherwise) must be beholden.[[118]](#footnote-118)

How might any of this get Merleau-Ponty any closer to a genuinely more-than*-*human world than Uexküll or Barad? There are two salient implications of a chiasmic ontology. One is more straightforwardly onto-epistemological, the other more methodological. Beginning with the former, for Merleau-Ponty, while one’s situated and embodied grasp delineates the worldly phenomena we express, we are never wholly “human subjects;” we remain ontologically continuous with the rest of the world in manifold material and discursive senses and thus may expect partial, gradated, crossover with the ways that others differentially express it. Our coincidence is neither complete nor absent, and this is the ontological ground of the miracle of expression. Truly heterogenous worlds may, therefore, partially englobe, as Uexküll put it, although he (like Barad) struggled to find the requisite metaphysical grounding for that claim. Furthermore, if experience involves “communion” between differential but ontologically continuous parties, each of which is co-constitutive of the objectivity of our true worldly expressions, Merleau-Ponty simply does not promote the anthropocentric dualism which seemingly dispels Barad’s interest in his phenomenology.[[119]](#footnote-119) The more-than-human world is not off-limits, nor does it simply yield to our advances. Importantly, however, this openness to nonhuman alterity can be consistently facilitated without recourse to a totalizing quantum ontology, which, I have argued, might serve to explicitly or implicitly curtail openness to nonhuman heterogeneity.

Methodologically speaking, however, this refusal to hierarchize or cleave ontological orders can provide no easy means of access to more-than-human phenomena. For Merleau-Ponty, bodies really do *matter*; they permit and delimit our implication in other worlds in virtue of our bodily similarities, material-discursive situations, and so on. But coincidence is nevertotal.[[120]](#footnote-120) Moreover, as the problem of perception attests, our reflective attempts to grasp others in their alterity always begin from situated intentional purviews, the marginal background assumptions and expectations of which we carry with us as a means of having a world. Thus, they do not show up within our everyday experience, and so we can never wholly transcend them, even in critical reflection (which is destined to bring with it “all the living relations of experience, like the net that draws up both quivering fish and seaweed from the seabed”).[[121]](#footnote-121) In response to the problem of perception, Merleau-Ponty therefore demands radical critical self-reflexivity about the objects and concepts we establish in an all-encompassing sense that agential realism—in virtue of its very strong metaphysical naturalism—may not. Chiasmic connaturality provides the possibility of communication with (the worlds of) other more-than-human things, but it is no shortcut to them. As Sonia Kruks emphasizes, the ontological continuity provided by one’s embodiment is the ground on which dialogue may begin, not a point of easy access to the universe at large.[[122]](#footnote-122) Given our intractable situatedness, our observations are liable to reflect our own bodily norms, or our sedimented and value-laden heritages, as much as the world’s own “melody.” Which is why, for Merleau-Ponty, insofar as we hope to limit our tendencies towards reflective distortion and pernicious anthropocentric projectionism, the “center of philosophy must be… the perpetual beginning of reflection at that point when an individual life begins to reflect upon itself.”[[123]](#footnote-123) Nonetheless, as Reynolds notes, for Merleau-Ponty, it is the inevitable failure of our attempts to wholly overcome the tension between our immanence and desire for transcendent objectivity that “wakens us to wonder;” it forces a shift in mindset and praxis towards the productive sort of humility sought by Barad.[[124]](#footnote-124) There can be no hope of synthesis without undermining the productive tension between them.

It would be a mistake, however, to take the methodological moral of the above to require a merely abstract change of mindset. There are more concrete implications that speak directly to our reservations about a residual colonialism licensed by Barad’s foundationalism about quantum physics. For Merleau-Ponty, the insoluble tensions between one’s immanence and transcendence in any attempt to express the more-than-human world make “learning to see the world anew” a “violent act whose truth is confirmed [only] through its being performed.”[[125]](#footnote-125) Likewise, “the most important lesson of the reduction is the impossibility of a complete reduction,” hence one cannot simply shift from a scientific foundationalism to a phenomenological foundationalism in pursuit of this task.[[126]](#footnote-126) Thus, as Reynolds argues, by making phenomenology a fallibilist endeavor, Merleau-Ponty facilitates openness to the possibility of correction from other phenomenological (e.g., indigenous) perspectives in discerning the worlds of more-than-human others and the phenomena they differentially disambiguate, but also (as Merleau-Ponty’s engagement with Gestalt psychology and biosemiotics attests) non-hierarchical multidirectional dialogue with empirical sciences, which might inform and mutually shape one another. On Reynolds’ account, understanding Merleau-Ponty’s “methodological naturalism in terms of results continuity… allows for distinct methods at play across all of the sciences (including philosophy) but holds them to constrain one another in a non-hierarchical manner.”[[127]](#footnote-127) Whilst Reynolds’ concern is solely with Merleau-Ponty’s phenomenology’s orientation to empirical science, there are important ramifications for the anticolonial promise of Merleau-Ponty’s phenomenology since, insofar as it attempts to address the heterogeneous more-than-human world on its own terms, Merleau-Ponty’s phenomenology can draw—non-hierarchically—upon findings from a range of disciplines which might serve to better attune it to correction by the world’s own epistemic agency. In these respects, Merleau-Ponty’s radically reflective phenomenology, albeit always situated, might closer approximate a genuine dialogue with the more-than-human world than other attempts, Barad’s included, which might unduly limit our openness to more-then-human heterogeneity and dialectical dissent through their foundationalist presuppositions.

# **Conclusion**

To recap, Barad’s official objection to the possibility of a nonanthropocentric phenomenology is predicated on a charge of representationalism which is misdirected in Merleau-Ponty’s case. It is possible to elicit from Barad’s work an alternative form of the objection which targets Merleau-Pontian phenomenology’s inability to grasp nonhuman phenomena *beyond* or *without* us. However, as the foregoing shortcomings with Barad’s own agential realism attest, the attempt to do so from within the confines of a strong metaphysical naturalism appears to render those phenomena further inaccessible to us humans, and/or level down the more-than-human world to the totalizing purview of a desituated science in a manner inconsistent with Barad’s (and Merleau-Ponty’s) rejection of mainstream scientific realism and her broader anticolonial project.

Reconsidering or resituating some of Barad’s insights within a Merleau-Pontian phenomenological framework, however, might prove fruitful insofar as such an approach might both permit partial and gradated access to more-than-human phenomena on their own terms and foster a more radical critical-self reflexivity about our anthropocentric and colonial tendencies, particularly at the metaphysical level. Moreover, if, as Reynolds argues, Merleau-Pontian phenomenology is methodologically consistent with (but its phenomena not ontologically reducible to those identified by) the quantum physics upon which Barad relies, then the grounds for potential collaboration in this important project appear reasonably fertile.

Such a move would not, however, be without its casualties. An explicitly phenomenological agential realism would plausibly admit of sensitivity to similar kinds of nonhuman agency to those Barad takes to be essential in the avoidance of anthropocentric colonialism (albeit in a less totalizing and more critically self-reflexive manner). However, this would come at the cost of taking the science to be, in some epistemic sense, secondary to the situated phenomena materially-discursively revealed. As I have intimated above, however, it strikes me both that this need not necessitate a problematic hierarchism between disciplines and that there are very good reasons for making the recommended concession for those, like Barad, in pursuit of a less colonial action-guiding purview.

Now, I do not mean to suggest that Merleau-Ponty’s work is a panacea for the issue of pernicious anthropocentrism. But, since Merleau-Ponty’s phenomenological framework may do a better job of encouraging critical self-reflexivity about the extent of our colonialism than Barad’s metaphysically naturalist one, and may do so without obviously succumbing to the subject/object dualism (representationalist or otherwise) that she thinks is anathema to the possibility of nonanthropocentrism, I think Barad owes him more than a few lines.

1. For an overview, see: Gregory Hollin et al., “(Dis-)Entangling Barad: Materialisms and Ethics,” *Social Studies of Science* 47 no. 6 (2017): 918-941. [↑](#footnote-ref-1)
2. Karen Barad, *Meeting the Universe Halfway Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2006),48; 333. [↑](#footnote-ref-2)
3. Ibid.*,* 343-4. For the wave-particle duality paradox, see §4. The measurement problem concerns how to square quantum indeterminacy with the determinacy of phenomena observed. [↑](#footnote-ref-3)
4. Ibid., 46-7. [↑](#footnote-ref-4)
5. Edmund Husserl, “Pure Phenomenology, its Method, and its Field of Investigation,” *The Phenomenology Reader,* ed. Dermot Moran and Timothy Mooney, 124-133 (London: Routledge, 2002), 127. [↑](#footnote-ref-5)
6. Thomas Kuhn, *The Structure of Scientific Revolutions* (2nd Edition) (Chicago: University of Chicago Press, 1970), 114. [↑](#footnote-ref-6)
7. Maurice Merleau-Ponty, *Phenomenology of Perception,* trans. Donald Landes (London: Routledge, 2012), 50. [↑](#footnote-ref-7)
8. Ibid.*,* 5; 8. [↑](#footnote-ref-8)
9. Ibid., 5. [↑](#footnote-ref-9)
10. Ibid., 10; Barad, *MTUH,* 157. [↑](#footnote-ref-10)
11. Merleau-Ponty, *PP,* 60; 137; 156-178. While Barad is hesitant to attribute intentionality to human individuals, narrowly conceived, she is open to a more diffuse phenomenon entirely consistent with Merleau-Ponty’s use of the term (Barad, *MTUH,* 23; 177). [↑](#footnote-ref-11)
12. Merleau-Ponty, *PP,* 139. [↑](#footnote-ref-12)
13. Ibid. lxxxiv. [↑](#footnote-ref-13)
14. Ibid., 248. [↑](#footnote-ref-14)
15. Linda Martín Alcoff, *Visible Identities: Race, Gender and the Self* (Oxford: Oxford University Press, 2006)*,* 202-3. [↑](#footnote-ref-15)
16. Alia, Al-Saji, “A Phenomenology of Critical-Ethical Vision: Merleau-Ponty, Bergson, and the Question of Seeing Differently,” *Chiasmi International* 11 (2009): 389, echoed in Barad, *MTUH,* 64. [↑](#footnote-ref-16)
17. Merleau-Ponty, *PP,* 5. [↑](#footnote-ref-17)
18. On Butler and Merleau-Ponty’s compatibility, see: Johanna Oksala, “Female Freedom: Can the Lived Body be Emancipated?” in *Feminist Interpretations of Maurice Merleau-Ponty*, ed. Dorothea Olkowski and Gail Weiss, 210-228 (University Park: Pennsylvania State University Press, 2006); or Anna Foultier, “Language and the Gendered Body: Butler's Early Reading of Merleau-Ponty,” *Hypatia* 28 no. 4 (2013): 767-783. [↑](#footnote-ref-18)
19. Merleau-Ponty, *PP,* 137; Barad, *MTUH,* 59-62. [↑](#footnote-ref-19)
20. Barad, *MTUH,* 67. However, as quantum paradoxes attest, it may not. [↑](#footnote-ref-20)
21. Ibid.,Ch.1; Bryan E. Bannon, *From Mastery to Mystery: A Phenomenological Foundation for an Environmental Ethic* (Athens: Ohio University Press, 2014), 68. [↑](#footnote-ref-21)
22. Maurice Merleau-Ponty, *The Primacy of Perception and Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, edited and translated by J.M. Edie (Evanston: Northwestern University Press, 1964)*,* 159. [↑](#footnote-ref-22)
23. Will Steffen, Paul Crutzen, and John R. McNeill, “The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?” *Ambio* 36 no. 8 (2007): 614-621. [↑](#footnote-ref-23)
24. Barad, *MTUH,* 137. [↑](#footnote-ref-24)
25. Ibid.*,* 61-3; 133. [↑](#footnote-ref-25)
26. Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency,* trans. Ray Brassier (London: Continuum, 2008), 5; Barad, *MTUH,* 137. [↑](#footnote-ref-26)
27. Barad, *MTUH,* 133-7. [↑](#footnote-ref-27)
28. Ibid., 137. For Barad, discourse “is not what is said; it is that which constrains and enables that which can be said. [Discursive practices] are actually historically situated social conditions.” (Ibid.) [↑](#footnote-ref-28)
29. Note that I unpack Harman’s more precisely targeted correlationist charge merely as a tool to distil what Barad’s objection to Merleau-Ponty’s philosophy must consist in, if it is to be consistent and well directed. As will become clear in the following section, although closely related, I do not think Harman and Barad’s charges are necessarily equivalent. [↑](#footnote-ref-29)
30. Graham Harman, *Guerrilla Metaphysics, Phenomenology and the Carpentry of Things* (Chicago: Open Court Press, 2005), 50-1; Merleau-Ponty, *PP,* 336. [↑](#footnote-ref-30)
31. Merleau-Ponty, *PP*, 71. [↑](#footnote-ref-31)
32. Harman, *Guerrilla Metaphysics,* 42; 50-1. [↑](#footnote-ref-32)
33. Barad, *MTUH*, 177. [↑](#footnote-ref-33)
34. Ibid. 107; 330. [↑](#footnote-ref-34)
35. Karen Barad, ‘Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable,” *New Formations* 2017 no. 92 (2017): 62. [↑](#footnote-ref-35)
36. Kyle Powys White, “Indigenous Experience, Environmental Justice and Settler Colonialism,” in, *Nature and Experience: Phenomenology and the Environment,* edited by Bryan E. Bannon, 157-174 (London: Rowman and Littlefield, 2016), 164. See Tim Hayward’s distinction between ontological and ethical anthropocentrism (“Anthropocentrism: A Misunderstood Problem.” Environmental Values 6 no. 1 [1997]: 49-63). Only the latter need be pernicious. [↑](#footnote-ref-36)
37. Barad, *MTUH*, 62; Karen Barad, “Erasers and Erasures: Pinch’s Unfortunate ‘Uncertainty Principle,’” *Social Studies of Science* 41 no. 3 (2011): 449. [↑](#footnote-ref-37)
38. Barad, *MTUH*, 125. [↑](#footnote-ref-38)
39. Immanuel Kant, *Critique of Pure Reason* (Unified Edition)*,* trans. W. Pluhar (Indianapolis: Hackett, 1996)*,* 193-4 (B75/A51). [↑](#footnote-ref-39)
40. Barad, *MTUH,* 413n30. [↑](#footnote-ref-40)
41. Ray Brassier, *Nihil Unbound: Enlightenment and Extinction* (Basingstoke: Palgrave Macmillan, 2007)*,* 50. Some (e.g., Komarine Romdenh-Romluc, *Routledge Guidebook to Merleau-Ponty and Phenomenology of Perception* [London: Routledge, 2010]*,* 216-7) consider Merleau-Ponty a representationalist due to an erroneous belief that perceptual truth conditions are possible only within that framework. [↑](#footnote-ref-41)
42. Barad, *MTUH*, 62; Merleau-Ponty, *PP,* xxvii. [↑](#footnote-ref-42)
43. Barad, *MTUH,* 157. [↑](#footnote-ref-43)
44. Merleau-Ponty, *PP,* 211-212. I emphasize *relative* integrity due to concerns about the illusory, exceptional bodily integrity in some passages of Merleau-Ponty’s work. [↑](#footnote-ref-44)
45. Ibid., 11; 211. [↑](#footnote-ref-45)
46. Merleau-Ponty, *PrP,* 119. For concerns about pushing this collectivity too far, see: Shaun Gallagher and Andrew Meltzoff, “The Earliest Sense of the Self and Others: Merleau-Ponty and Recent Developmental Studies,” *Philosophical Psychology* 9 no. 2 (1996): 211-233; or Sara Heinämaa, “Anonymity and Personhood: Merleau-Ponty’s Account of the Subject of Perception,” *Continental Philosophy Review* 48 (2015): 123-142. [↑](#footnote-ref-46)
47. Merleau-Ponty, *PP,* lxxxiv; Heinämaa, “Anonymity,” 132-6. [↑](#footnote-ref-47)
48. Merleau-Ponty, *PP,* 247. [↑](#footnote-ref-48)
49. Ibid., 338. [↑](#footnote-ref-49)
50. Ibid., lxxiv. [↑](#footnote-ref-50)
51. Brassier, *Nihil Unbound,* 51. [↑](#footnote-ref-51)
52. Merleau-Ponty, *PP*, lxxxi. [↑](#footnote-ref-52)
53. Ibid., 334. [↑](#footnote-ref-53)
54. Ibid., 6. [↑](#footnote-ref-54)
55. Ibid., 17-8. [↑](#footnote-ref-55)
56. Ibid., 203. [↑](#footnote-ref-56)
57. Maurice Merleau-Ponty, *Structure of Behavior,* trans. Alden L. Fisher (Boston: Beacon Press, 1963)*,* 123; Maurice Merleau-Ponty, *Nature:* *Course Notes from the Collège de France,* trans. Robert Vallier (Evanston: Northwestern University Press, 2003), 169; 177. [↑](#footnote-ref-57)
58. Merleau-Ponty, *PP,* 223. [↑](#footnote-ref-58)
59. The terms of Meillassoux and Brassier’s charges derive from their preoccupation (which Barad does not share) with “ancestral” phenomena which must predate consciousness for it to emerge. I explore them here only to discern what Barad cannot mean to imply in her objection to Merleau-Ponty’s phenomenology. [↑](#footnote-ref-59)
60. Barad, *MTUH*, 323. [↑](#footnote-ref-60)
61. Merleau-Ponty, *SB,* 40; 96; *Nature,* 216-7. [↑](#footnote-ref-61)
62. For a detailed response, see my *Becoming a Place of Unrest: Environmental Crisis and Ecophenomenological Praxis* (Athens: Ohio University Press, 2021), 146-9. [↑](#footnote-ref-62)
63. See: Judith Butler, “Sexual Ideology and Phenomenological Description,” in *The Thinking Muse: Feminism and Modern French Philosophy,* ed. Jeffner Allen and Iris Marion Young, 85-100 (Indianapolis: Indiana University Press, 1989); Shannon Sullivan, “Domination and Dialogue in Merleau-Ponty’s Phenomenology of Perception,” *Hypatia* 12 no. 1 (1997): 1-19. In response, see Booth, *BAPOU,* Ch. 5. [↑](#footnote-ref-63)
64. Harman’s (non-naturalistic) “litmus test” for nonanthropocentrism requires that theory has something “to tell us about the impact of inanimate objects upon one another, apart from any human awareness of this fact” (*Guerrilla Metaphysics,* 42). [↑](#footnote-ref-64)
65. Jack Reynolds, “Merleau-Ponty’s Gordian Knot: Transcendental Phenomenology, Science, and Naturalism.” *Continental Philosophy Review* 50 (2017): 83; Merleau-Ponty, *PP,* lxxii. [↑](#footnote-ref-65)
66. Maurice Merleau-Ponty, *The Visible and the Invisible,* trans. Alphonso Lingis (Evanston: Northwestern University Press, 1968)*,* 200; *PP,* lxxx. [↑](#footnote-ref-66)
67. Barad*, MTUH,* 323. [↑](#footnote-ref-67)
68. Barad, *MTUH,* 332. [↑](#footnote-ref-68)
69. Ibid., 350; 320. [↑](#footnote-ref-69)
70. Ibid., 133. [↑](#footnote-ref-70)
71. Richard Feynman, quoted in Barad, *MTUH*, 294. [↑](#footnote-ref-71)
72. Barad, *MTUH,* Ch.7. [↑](#footnote-ref-72)
73. Ibid., 140. [↑](#footnote-ref-73)
74. Ibid., 269-75. [↑](#footnote-ref-74)
75. Note pervasive similarities between Barad’s and Merleau-Ponty’s “phenomena,” despite their supposed incompatibility (Ibid., 155). [↑](#footnote-ref-75)
76. Ibid., 274. [↑](#footnote-ref-76)
77. Ibid., 316. [↑](#footnote-ref-77)
78. Ibid., 60-4; 192. [↑](#footnote-ref-78)
79. Ibid.*,* 195. [↑](#footnote-ref-79)
80. Ibid., 197. [↑](#footnote-ref-80)
81. Ibid., 323; 330-2; 341. [↑](#footnote-ref-81)
82. Ibid., 197-8; 343. [↑](#footnote-ref-82)
83. Ibid., 394. [↑](#footnote-ref-83)
84. Ibid., 335. [↑](#footnote-ref-84)
85. Ibid., 336. [↑](#footnote-ref-85)
86. Ibid., 338. [↑](#footnote-ref-86)
87. Ibid., 91. [↑](#footnote-ref-87)
88. Ibid., 340. [↑](#footnote-ref-88)
89. Ibid., 129. [↑](#footnote-ref-89)
90. Ibid., 110; 252; 262. [↑](#footnote-ref-90)
91. Ibid., 347. [↑](#footnote-ref-91)
92. Merleau-Ponty, *Nature,* 232. [↑](#footnote-ref-92)
93. Merleau-Ponty, *SB,* 224. [↑](#footnote-ref-93)
94. Merleau-Ponty, *PP,* 68. [↑](#footnote-ref-94)
95. Ibid., 180. [↑](#footnote-ref-95)
96. Ibid., 352. [↑](#footnote-ref-96)
97. Note that Barad (*MTUH,* 54) understands concepts to be irreducibly material. I have elsewhere (Booth, *BAPOU,* Ch.7) argued that Merleau-Ponty’s later ontological shift licenses a similar short-circuiting of critical self-reflexivity, hence the lack of references to his later works, despite their closer affinity with Barad’s. ­­ [↑](#footnote-ref-97)
98. Barad, “Erasers and Erasures,” 447; Reynolds, “Gordian Knot,” 90. [↑](#footnote-ref-98)
99. Barad, *MTUH,* 94; Trevor Pinch, “Karen Barad, Quantum Mechanics, and the Paradox of Mutual Exclusivity,” *Social Studies of Science* 41 no. 3 (2011): 432. [↑](#footnote-ref-99)
100. Barad, *MTUH,* 334; 341. [↑](#footnote-ref-100)
101. Barad, “Erasers and Erasures,” 447; Barad, *MTUH,* 248. [↑](#footnote-ref-101)
102. Barad, “Troubling Time,” 62. I am not sure that the foregoing autocritique would meet this threshold for falsification, since our convictions about access to nonhuman alterity are fundamentally phenomenological. [↑](#footnote-ref-102)
103. Like Harman, Barad links critical self-reflexivity to the problematic “optics of the same” which governs representationalism (*MTUH,* 71-2; 86-8). However, critical self-reflexivity appears here to be what prevents it. [↑](#footnote-ref-103)
104. Jakob von Uexküll, “A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds,” trans. Claire H. Schiller, *Semiotica* 89 no. 4 (1992): 326-7; Merleau-Ponty, *SB,* 159; *Nature,* 173-7. [↑](#footnote-ref-104)
105. Barad (*MTUH,* 369-381) makes similar contentions about brittlestars. [↑](#footnote-ref-105)
106. Given the irreducibility of meaning in the worlds of “primitive” beings, “culture” must extend far beyond the human realm (Merleau-Ponty, *Nature,* 176). [↑](#footnote-ref-106)
107. Ibid.,177; *SB,* 224. [↑](#footnote-ref-107)
108. Merleau-Ponty, *Nature,* 173-4. [↑](#footnote-ref-108)
109. Speaking of the culture/nature binary, Barad’s emphasizes “not only *that* it matters, but *how* it

     matters and for *whom*” (*MTUH,* 87). [↑](#footnote-ref-109)
110. An optic chiasm is where optic nerves (which are not themselves photosensitive) partially crossover in the brain to permit binocular vision. [↑](#footnote-ref-110)
111. Merleau-Ponty, *SB,* 224. [↑](#footnote-ref-111)
112. Merleau-Ponty, *PP,* 63. [↑](#footnote-ref-112)
113. Merleau-Ponty, *Nature,* 125. [↑](#footnote-ref-113)
114. Merleau-Ponty, *PP,* lxxvii. [↑](#footnote-ref-114)
115. Merleau-Ponty, *PP,* 93-4; VI*,* 7-9; 123; 135). [↑](#footnote-ref-115)
116. Merleau-Ponty, *PP,* 372. [↑](#footnote-ref-116)
117. Ibid., 333. [↑](#footnote-ref-117)
118. Ibid., lxxvii. [↑](#footnote-ref-118)
119. Ibid., 334. [↑](#footnote-ref-119)
120. As a white woman addressing the racially-motivated assault of a Black colleague, Kruks writes that “I cannot share my colleague’s experience fully, but neither is it entirely closed to me” (“Merleau-Ponty and the Problem of Difference in Feminism,” in *Feminist Interpretations of Maurice Merleau-Ponty,* ed. Dorothea Olkowski and Gail Weiss, 25-48 [University Park: Pennsylvania State University Press, 2006], 44. Likewise, given that a tick’s material-discursive situation is more alien to Merleau-Ponty’s, greater caution must imbue his approach to a tick’s world. [↑](#footnote-ref-120)
121. Merleau-Ponty, *PP,* lxxix. [↑](#footnote-ref-121)
122. Ibid., 35-7. Kruks responds to critics like Sullivan (“Domination”) who fail to appreciate that dialogues are typically sustaining and denying. [↑](#footnote-ref-122)
123. Merleau-Ponty, *PP,* 63. [↑](#footnote-ref-123)
124. Reynolds, “Gordian Knot,*”* 85. [↑](#footnote-ref-124)
125. Merleau-Ponty, *PP,* lxxxv. [↑](#footnote-ref-125)
126. Ibid., lxxvii. [↑](#footnote-ref-126)
127. Reynolds, “Gordian Knot,” 98. [↑](#footnote-ref-127)