

Object-Oriented Ontology and Its Critics

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The Obstinate Real: Barad, Escobar, and Object-Oriented Ontology

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Abstract: Relational ontologies that postulate the primacy of relations over their relata may seem like a contrary and incompatible approach to object-oriented ontology (OOO). Therefore, this paper aims to clarify the relationship between Barad’s and Escobar’s relational ontologies and Harman’s OOO by comparing and contrasting the relative coherences between them. After outlining the central assumptions of the different accounts, I discuss the problems of relational ontologies with regard to several ethical, political, and posthumanist issues. I argue that OOO is able to avoid their pitfalls without rejecting the major benefits of relational ontologies. After a critique of the pluralization of worlds within relational ontologies, I argue for the rejection of the concept of world(s) in favor of understanding space and time as emerging from polar tensions within the quadruple objects. Consequently, this highlights the potential of OOO to encounter the Anthropocene beyond scientific realism and to account for the plurality of reality without granting any hegemonic access to it. This paper, therefore, argues for a conceptualization of ontological difference without one or many worlds.

Keywords: speculative realism; new materialism; Barad; One-World World; Harman; Escobar; critical posthumanism; Meillassoux; postcolonial studies; Anthropocene

1 Reconsidering ontology

In the last few years, there has been an increasing tendency within the humanities and cultural sciences to proceed beyond thinking and shed light onto the realm of being, which was dark and beyond our grasp since Kant. The ontological turn in the field of social and cultural anthropology, for example, aims to overcome a dualistic representationalism and logocentrism.¹ This ontological turn includes “the attention to a host of factors that deeply shape what we come to know as reality but that social theory has rarely tackled—factors like objects and things, non-humans, matter and materiality [...], emotions, spirituality, feelings, and so forth.”² In particular, relational ontologies have been preferred for conceptualizing the plurality of the world without postmodern constructivism through epistemic systems, and for conceptualizing reality without the hegemonic demand of scientific realism. In this respect, one can describe the theoretical developments of Karen Barad’s and Arturo Escobar’s relational ontologies as departing from the critique of epistemology and, instead, starting with the critique and overcoming of a specific sort of non-relational ontology. A radical implication of these relational ontologies consists in the multiplication of worlds,³ thereby suspending a classical global perspective.

1 Cf. Hollbrand et al., *The Ontological Turn*, 284.

2 Escobar, *Designs for the Pluriverse*, 63.

3 Cf. Escobar, “Thinking-feeling with the Earth,” 15.

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At the same time as the ontological turn within social and cultural anthropology, there is another realist movement happening within continental philosophy. The founding of heterogeneous positions that might be subsumed under the label of “speculative realism” dates back to 2007. Graham Harman’s object-oriented ontology (OOO), with its new conceptualization of objects, is still the most discussed strand of speculative realism. Despite many differences, there is one common feature in all these philosophies: namely, the encounter with correlationism. This is a term coined by Quentin Meillassoux that describes the basic assumption of post-Kantian continental philosophy “according to which we only ever have access to the correlation between thinking and being.”⁴ The consequences of correlationism are that thinking and being cannot be considered independent or identical. Furthermore, it is impossible to overcome an anthropocentric perspective within the correlationist framework. As I will show, the relational ontologies of Barad and Escobar aim, at least implicitly, also to break with correlationism.

The prevailing narrative in the Anthropocene discourse is still one that Christophe Bonneuil called the “naturalist narrative,”⁵ which is strongly connected with the idea that “humanity” will fix the world with scientific progress. Within Bonneuil’s classification, relational ontologies and OOO can be described as being part of the “post-nature grand narrative”⁶ that “proclaims the inescapable immersion of human destiny in the great natural cycles of the Earth.”⁷ Nevertheless, relational ontologies are much more dominant within this narrative. By contrast, I will argue for the benefits of an OOO in the encounters of the Anthropocene.

After outlining the central assumptions of Escobar and Barad’s relational ontologies and Harman’s OOO, I will discuss the problems of relational ontologies with regard to several ethical, political, and posthumanist issues that are entangled with these problems. The importance of discussing these relational ontologies within such a framework becomes clear if one acknowledges the emphasis of Barad and Escobar on the inseparability of thinking, acting, and being. Barad, therefore, uses the concept of “ethico-ontopistem-ology”⁸ to stress that these fields of study cannot be separated. Yet I will argue that OOO is able to avoid the pitfalls of relational ontologies without rejecting their major benefits. A critique of the world or pluriverse within relational ontologies will show that this concept forecloses a perspective that is necessary to encounter the upcoming challenges of the Anthropocene. Therefore, I will further discuss Harman’s notions of space and time as emergent properties of objects that allow us to discuss problems classically denoted as “global.” with global warming being an obvious example, without reintroducing a “One-World World.”⁹ In summary, this paper compares and contrasts the relative coherences of Escobar, Barad, and OOO, and highlights the potential of a OOO account to encounter the Anthropocene beyond scientific realism or scientism, and argues for a conceptualization of ontological difference with neither one nor many worlds.

2 The real in Barad, Escobar, and Harman

The concept of the real or realism is frequently neglected due to its connotation with hegemonic claims. This may result from the common association of realism with scientific realism or scientism. Hilary Putnam’s infamous characterization of such realism consists of three basic claims:

1. The world consists of a fixed totality of mind-independent objects.
2. There is exactly one true and complete description of how the world looks.
3. Truth means the corresponding relation between words or thought-signs and external things.¹⁰

⁴ Meillassoux, *After Finitude*, 5.

⁵ Bonneuil, “The geological turn,” 18.

⁶ *Ibid.*, 23.

⁷ *Ibid.*, 24.

⁸ Barad, *Meeting the Universe Halfway*, 90.

⁹ Law, “What’s Wrong with a One-World World,” 2.

¹⁰ Cf. Putnam, *Reason, Truth and History*, 49.

Furthermore, the resulting problem consists of the assumption of scientific realism or scientism that only empirical sciences yield true and complete descriptions of the world. The set of real entities is thereby tremendously reduced to a small number of entities that are not directly relevant to our daily practice. Also, the only legitimate knowing subject is considered to be the one embedded in Western scientific practice. In addition, this definition of realism is deeply embedded in a post-Kantian framework that stresses an implicit distinction between noumena and phenomena. Therefore, a realist account in the vein of a process that Enrique Dussel calls “philosophical decolonization”¹¹ demands a counter-hegemonic concept of the real that on the one hand conceptualizes the real in a way that allows no exclusive hegemonic access, and on the other is able to explain the plurality of the real. Relational ontologies and OOO choose two divergent post-Kantian solutions to attain such a real.

In line with the tradition of the usual anti-realist solutions, Escobar and Barad reject the noumena behind the phenomena. As compared to accounts that refute realism with this claim, Barad and Escobar posit the phenomena as the real. Both thinkers argue for a similar account in different ways, which I will outline in the following paragraphs.

Barad’s agential realism, as proposed in *Meeting the Universe Halfway*, is a “move toward performative alternatives to representationalism [that] shifts the focus from questions of correspondence between descriptions and reality [...] to matters of practice, doings, and actions.”¹² Therefore, Barad acknowledges the material-discursive practices that are enacted at the heart of Western epistemology: namely, scientific research. According to her agential realism, “knowing, thinking, measuring, theorizing, and observing are material practices of intra-acting within and as part of the world.”¹³ Intra-action has to be clearly distinguished from interaction, as the latter always presupposes relata that interact. Intra-action, in comparison, presupposes a relation that is ontologically primary to its relata, and therefore produces the difference between them.¹⁴

The crucial point with regard to matter is that Barad does not assume that matter is something passive and mind-independent without any real dynamism, as often represented by scientific inquiry. Instead, she proposes that empirical research is always a specific material engagement that “participate[s] in (re)configuring the world.”¹⁵ Therefore, matter is agentic and not a fixed essence or property of things. “Mattering is differentiating, and which differences come to matter, matter in the iterative production of different differences.”¹⁶ The foundation for Barad’s argumentation is Niels Bohr’s interpretation of the double-slit experiment.

This experiment is a demonstration that light and matter can display characteristics of classically defined waves as well as particles. Depending on the experimental setup, electrons exhibit characteristic particle or wave interference patterns at the detector.¹⁷ Therefore, the paradoxical nature of electrons in the double-slit experiment challenges the assumption that each part of nature has a distinct identity. For Bohr, the crucial point is the fact that “wave and particle behaviors are exhibited under *complementary*—that is, *mutually exclusive*—circumstances.”¹⁸ In comparison with Heisenberg’s uncertainty that only claims an epistemological indeterminacy of a particle’s velocity and position at the same time, Bohr’s complementarity proposes an ontological indeterminacy. Thus, an electron is not a wave and a particle at the same time, but “the nature of the observed phenomenon changes with corresponding changes in the apparatus.”¹⁹ The ontological status of electrons is indeterminate until it gets determined through specific material-discursive practices. Thereby, Bohr called into question two fundamental assumptions:

¹¹ Cf. Dussel, *Der Gegendiskurs der Moderne*, 95.

¹² Barad, *Meeting the Universe Halfway*, 135.

¹³ *Ibid.*, 90.

¹⁴ Cf. *ibid.*, 175.

¹⁵ *Ibid.*, 91.

¹⁶ *Ibid.*, 137.

¹⁷ Cf. Bertet et al., “A complementarity experiment with an interferometer at the quantum-classical boundary,” 167.

¹⁸ Barad, *Meeting the Universe Halfway*, 106.

¹⁹ *Ibid.*

(1) that the world is composed of individual objects with individually determinate boundaries and properties [...] (2) that measurements involve continuous determinable interaction such that the values of the properties obtained can be properly assigned to the premeasurement properties of objects as separate from the agencies of observation.²⁰

Bohr subsumes the agencies of observation in the concept of the apparatus that thereby still refers to the experimenter's equipment. Barad generalizes Bohr's concept of the apparatus to refer to discursive-material practices that lead to phenomena.

Before I discuss Barad's notion of the apparatus or material-discursive practices, her definition of phenomena has to be characterized further. Barad uses this term, adopted from Bohr, in a non-Kantian and non-phenomenological fashion. According to Barad, phenomena are the constitutive parts of reality which, in principle, do not presuppose any conscious subjectivity that perceives them in a passive way. "Reality is composed not of things-in-themselves or things-behind-phenomena but of things-in-phenomena."²¹ Therefore, phenomena are the ontologically smallest unit and there are no noumena at all.²²

Phenomena, therefore, only exist within apparatuses. An apparatus is not a fixed assemblage of heterogeneous elements within a Newtonian space-time-box. "Rather, apparatuses are specific material reconfigurings of the world that do not merely emerge in time but iteratively reconfigure spacetime as part of the ongoing dynamism of becoming."²³ An apparatus is a set of material-discursive practices that are iteratively performed. Barad supplements the Foucauldian notion of discursive practices with the material prefix as a critique of Michel Foucault and, in addition, of Judith Butler. According to Foucault, discursive practices are the local sociohistorical material conditions that enable and constrain knowledge practices. Nevertheless, Foucault assumes, as opposed to Barad, that matter is something passive that is reconfigured through discursive practices. Therefore, Foucault denies the dynamism of matter that becomes obvious with Bohr's concept of complementarity. This deficiency of Foucault, which is merely reproduced in Butler's performative account of gender constitution, is symptomatic of an incomplete assessment of the causal factors of materialization.²⁴

In an agential realist account that takes into consideration the insights gained from Bohr's physics-philosophy and his interpretation of the double-slit experiment, material-discursive practices are "ongoing agential intra-actions of the world through which specific determinacies (along with complementary indeterminacies) are enacted within the phenomena produced."²⁵ Apparatuses are, therefore, "specific material configurations, or rather, dynamic (re)configurings of the world through which bodies are intra-actively materialized."²⁶ Finally, it is important to note that in Barad's posthumanist account, agency is not what someone or something has, but is a matter of intra-acting.²⁷ Escobar developed an account that is conceptually very close to Barad's but his relational ontology is based on the so-called "Epistemologies of the South framework (ES)."²⁸

According to Escobar, the demand for a new ontology is the result of an ontological crisis of modernity. This "crisis is the crisis of a particular world or set of world-making practices, the world that we usually refer to as the dominant form of Euro-modernity."²⁹ The notion of world-making in Escobar's account already highlights the proximity to Barad's focus on the performative enactment of phenomena or the world. A central premise of ES is that the diversity of the world is infinite.³⁰ The ES, thereby, fulfills one of the demands for a new kind of realism mentioned in the beginning; namely, the plurality of the real that has been discussed extensively within analytic philosophy's still unresolved debate between common sense realism

²⁰ Ibid., 107.

²¹ Ibid., 140.

²² Cf. *ibid.*, 429.

²³ Ibid., 142.

²⁴ Cf. *ibid.*, 151.

²⁵ Ibid., 149.

²⁶ Ibid., 169–170.

²⁷ Cf. *ibid.*, 178.

²⁸ Escobar, "Thinking-feeling with the Earth," 13.

²⁹ Ibid., 15.

³⁰ Cf. *Ibid.*

and scientific realism.³¹ Using the example of a father and daughter of the Afro-descendant community on the Yurumanguí river in Colombia's Southern Pacific rainforest, Escobar illustrates that ES is not just another epistemic access to the Eurocentric 'real' world but another way of ontological world-making. Escobar argues for the inability of a classical Eurocentric perspective to account for the interconnectivity and enactment of the mangrove-world. Therefore, a relational ontological account described by him in the following way is necessary:

The mangrove-world [...] is enacted minute by minute, day by day, through an infinite set of practices carried out by all kinds of beings and life form, involving a complex organic and inorganic materiality of water, minerals, degrees of salinity, forms of energy (sun, tides, moon, relations of force), and so forth. There is a rhizome 'logic' to these entanglements, a 'logic' that is impossible to follow in any simple way, and very difficult to map and measure, if at all; it reveals an altogether different way of being and becoming in territory and place. These experiences constitute relational worlds or ontologies. To put it abstractly, a relational ontology of this sort can be defined as one in which *nothing preexist the relations that constitute it*. Said otherwise, things and beings are their relations, they do not exist prior to them.³²

Escobar, therefore, highlights the deficiency of any idea of things preexisting their relational context. The mangrove-world in Colombia can only be understood within the performativity of its enactment, in which the being of things is a result of primary relationships. Father and daughter are not performing a distanced reflection in opposition to a preformed world but are inseparably entangled with the performative enactment of the mangrove-world. The phenomena are, therefore, not just a perspective expression of a deeper noumenal reality. The presence or facticity of phenomena within the mangrove-world is simultaneously their final ontological horizon. Similar to Barad, Escobar acknowledges the necessity of overcoming an anthropocentric perspective to account for matter's dynamism.

Barad refers to Bohr's concept of the apparatus to describe a set of material-discursive practices that enact *relata* inside of a relational assemblage. Escobar's equivalent of Barad's "apparatus" is that of "worlds." Whereas the concept of the apparatus might imply that a plurality of apparatuses exists within one world, Escobar's pluriverse leaves no doubt that these accounts imply a fractalization of "the world." John Law's concept of the One-World World (OWW) highlights strong reasons for postulating a pluriverse. The OWW concept refers to a common Western imperial world view according to which there is only one world that describes itself as the "true" world and declares all other worlds as subordinate or nonexistent.³³

The central problem of the OWW project comprises the introduction of the double ontological rift. It implies "a particular way of separating humans from nature (the nature/culture divide); and the distinction and boundary policing between those who function within the OWW from those who insist on other ways of worlding (the colonial divide)."³⁴ The relational ontologies of Barad and Escobar avoid this inability of the OWW to account for ontological differences by insisting on the performative enactment of worlds and the inseparability of natureculture. Therefore, it has to be shown how OOO avoids this element of the OWW metaphysics that has a catastrophic impact on postcolonial questions,³⁵ and how OOO avoids introducing another OWW, or something similar to it.

In contrast with Barad and Escobar, Harman chooses a post-Kantian approach that does not reject the thing-in-itself but embraces its necessity. The central assumption of Harman that real objects are always withdrawn and do not have any direct contact with each other³⁶ results from a specific reading of Martin Heidegger's tool-analysis.

In his first major work, *Being and Time*, Heidegger revolts against his former teacher Edmund Husserl by shifting attention away from the phenomenal content of consciousness to the reality that exists behind these conscious phenomena. As opposed to the assumption that the world is filled with objects which are

³¹ Cf. Caro, "Zwei Spielarten des Realismus," 31–32.

³² Escobar, "Thinking-feeling with the Earth," 18.

³³ Cf. Law, "What's Wrong with a One-World World," 1–3.

³⁴ Escobar, "Thinking-feeling with the Earth," 21.

³⁵ Cf. Law, "What's Wrong with a One-World World," 9.

³⁶ Cf. Harman, *The Quadruple Object*, 28.

supplemented later on with values and psychological projections, Heidegger insists on the “equipmental character”³⁷ [*Zeugcharakter*] of Being. This means that we encounter tools like a hammer primarily as “ready-to-hand”³⁸ [*Zuhandenes*]. The conscious perception of specific properties of this hammer or, in Heidegger’s terminology, the encounter of the hammer as “present-at-hand”³⁹ [*Vorhandenes*] only makes up a very small portion of our lives. The hammer disappears in its common application behind the purpose it serves; namely, the hammering. Heidegger describes this phenomenological instance as follows:

The ready-to-hand is not grasped theoretically at all, nor is it itself the sort of thing that circumspection takes proximally as a circumspective theme. The peculiarity of what is proximally ready-to-hand is that, in its readiness-to-hand, it must, as it were, withdraw [*zurückziehen*] in order to be ready-to-hand quite authentically. That with which our everyday dealings proximally dwell is not the tools themselves [*die Werkzeuge selbst*]. On the contrary, that with which we concern ourselves primarily is the work—that which is to be produced at the time; and this is accordingly ready-to-hand too. The work bears with it that referential totality within which the equipment is encountered.⁴⁰

This short quote of Heidegger contains the central element of Harman’s account, according to which objects always have to withdraw in order to access them. In contrast with Heidegger, Harman extends the necessary withdrawal of the object beyond the practical usage of hammering. The hammer also withdraws in theoretical access or in our encounter with the hammer as present-at-hand. Harman thereby dissolves the strict separation between theoretical description and practical usage, similar to the relational ontologies described above. Both ways of approaching the hammer are just sensual profiles of the real object.⁴¹ Paraphrasing “The Third Table,” Harman’s contribution to the 2012 *documenta* art show catalog, one might claim that Harman is neither interested in the hammer that Heidegger needs in order to maintain his cabin in Todtnauberg nor in the hammer that is scientifically reduced to quantum fields or strings. Instead, Harman is interested in a third hammer—the real withdrawn object.⁴² Nevertheless, this real object is just one of the four poles of the quadruple object.

As the reference to the third hammer should have made clear already, objects in the OOO framework are not just things in a spacetime box that can be reduced to the smallest particles. A ten-dimensional superstring is an object for OOO just like a hammer, a human being, or the University of Vienna. “To be an object does not mean to be physical material without dignity, but simply to be a unified entity irreducible to its component pieces or to its effects on the surrounding environment.”⁴³ OOO also breaks with the strange special status of the human subject and extends Heidegger’s anthropocentric withdrawal of the hammer to all interactions between objects. The nail withdraws from the hammer just as the hammer withdraws from the human. Objects appear at all orders of magnitude and timescales. Therefore, every object might contain a multitude of further objects. Similar to Leibnizian monads, objects in OOO combine unity and diversity within themselves.⁴⁴

The central point in understanding objects in Harman’s OOO is their quadruple structure.⁴⁵ According to Harman, four poles of objects can be distinguished; namely, the real object, the real qualities, the sensual object, and the sensual qualities. This kind of weird structure of objects results from “the strange autonomy and lack of autonomy of real and sensual objects with respect to their real and sensual traits.”⁴⁶ The tension between the real object and its sensual qualities has been made plausible by the discussion on Heidegger’s tool analysis as mentioned above. The characterization of the sensual object and its sensual qualities is

³⁷ Heidegger, *Being and Time*, 412.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*, 99.

⁴¹ Harman, *The Quadruple Object*, 42.

⁴² Cf. Harman, *The Third Table*, 7.

⁴³ Harman, *Bells and Whistles*, 39.

⁴⁴ Cf. Morton, *Humankind*, 112–113.

⁴⁵ I would like to stress that this characteristic is unique in Harman’s account and not mentioned at all or conceptualized differently in other accounts of OOO. Nevertheless, I will show that this is a crucial feature for problems discussed above.

⁴⁶ Harman, *The Quadruple Object*, 95.

Husserl's major achievement.⁴⁷ Husserl broached the issue of the tension “between the watermelon as an enduring unit and the multitude of profiles that it exhibits at various times.”⁴⁸ In this case, the sensual qualities of the watermelon appear as manifold in the sensual profiles of the sensual object. Finally, the real qualities are the qualities that the object needs “in order to be what it is.”⁴⁹ Furthermore, space, time, and essence emerge as the result of specific interactions between the four poles of the object.⁵⁰ I will discuss this in more detail in the following sections and tackle it with a focus on applicability to ethical, political and posthumanist issues.

3 More than the sum of their relations

Afer clarifying the basic assumption of the various theoretical frameworks, I will discuss the problems and achievements of relational ontologies, and argue that these problems can be solved by using the OOO framework without suspending the achievements. It will become clear that most problems of relational ontologies are a result of the “overmining”⁵¹ of objects by relational ontologies. Harman defines overmining as the property of theories to “reduce things to their impact on us or on each other, denying them any excess or surplus beyond such impact.”⁵² A central motivation for Escobar and Barad to practice this overmining is their attempt to overcome essentialism. Nevertheless, one might ask how we can think of *relata* without any essence that are only a result of a primary relation or intra-action.

A relation that exists prior to its *relata* has to be a relation between nothing, or between the same kinds of being. Already the smallest difference between the *relata* that preexists the relation would reintroduce proto-*relata*. Therefore, one might ask what initiates the establishment of such a relation if there is nothing beyond the phenomena that are a result of the relation. It seems as if Barad and Escobar face a kind of “establishing problem” of relations. As a result, in order to explain how concrete things-in-phenomena can exist, one has to have an essentialist understanding of relation itself is. Also, how could there ever be any concrete *relata* within the worlds?

There are well-known reasons for rejecting essentialism; nevertheless, in daily life we have to proceed in an essentialist way to be capable of acting. Gayatri Chakravorty Spivak stressed the importance that one has at least to adopt a *strategic* essentialism.⁵³ Nevertheless, Spivak's endeavor is still very close to an anthropocentric social constructivism that the accounts discussed here try to avoid. Furthermore, Barad and Escobar are not very specific about what kind of essentialism they reject. It seems as if they want to overcome a concept of essence that is permanent, unchangeable, and can be identified and known. However, such a concept of essence is also rejected by OOO. “Essence for object-oriented philosophy means nothing more than the tension between a real object and its real properties in a single instant, not some timeless nature that each thing must possess from the dawn of the world.”⁵⁴ Therefore, in OOO terms, essence is contingent and has a historical genesis. Essence is just an emergent feature of a relation between the real object and its real qualities, which explains how different sensual objects can refer to the same real object. Since objects have no necessity to exist, essence too does not. A change of essence might just change the object. The need of something like essence is made clear through an example.

Escobar's example of the march by 22 women on November 18, 2014 from La Toma to Bogotá as a protest against the illegal and environmentally destructive gold mining in Colombia⁵⁵ could only achieve an impact because the gold in question had some irreducible, real qualities for members of “both worlds.”

⁴⁷ Harman uses the concept of sensual object to describe Husserl's intentional object.

⁴⁸ *Ibid.*, 97.

⁴⁹ *Ibid.*, 104.

⁵⁰ Cf. *ibid.*, 99.

⁵¹ Harman, *Object-Oriented Ontology*, 47.

⁵² *Ibid.*, 49.

⁵³ Cf. Spivak, *In Other Worlds*, 205.

⁵⁴ Harman, *Bells and Whistles*, 27.

⁵⁵ Cf. Escobar, “Thinking-feeling with the Earth,” 29.

There seems to be a shared real object that enables communication between parties and is the object under consideration. From the perspective of OOO, it would be absurd to claim that one of the parties has an aesthetic privilege for their appearance of their sensual gold as the real object is withdrawn for everyone. Nevertheless, there has to exist an essence as a withdrawn real that unifies the sensual objects. Otherwise, it would be hard to explain how two different relational worlds might enact a similar *relatum*.

Before proceeding with the discussion of another issue of relational ontologies, it may be interesting to have a small excursus on ontic structural realism (OSR). OSR is another recent ontological account that argues for the ontological primacy of relations⁵⁶ but manages to deal with the “establishing problem.” In the first paper introducing the OSR framework, James Ladyman claims that according to findings in quantum physics one should not take objects or *relata* as the fundamental building blocks of reality, but should “shift to a different ontological basis altogether.”⁵⁷ Therefore, Ladyman argues, in a similar manner as Barad, for the ontological primacy of relations in the light of quantum physical insights. The way OSR overcomes the establishing problem consist in kind of essentializing these relations with a certain mathematical structure. The underlying mathematical properties of the relations grant certain arrangements of *relata*. Nevertheless, one can easily spot the incongruence of this assumption with the aim of the relational ontologies of Barad and Escobar to overcome the OWW metaphysics. The world, in the OSR framework, is the result of a single and fixed “structure [that] is ontologically basic.”⁵⁸ Therefore, OSR cannot account for the plurality of the real and, in addition, grants a hegemonic access to the real.

Ignoring the aforementioned “establishing problem,” it is still an open question as to how there should be any change in the current phenomena within a world at all. “The problem with overmining theories is that they are unable to explain change. If everything that exists were exhaustively deployed in its current effects, there would be no reason for anything ever to shift from its current state.”⁵⁹ As performance of the *relata* can only be considered within the performance of the worlds, one cannot consider any contrafactual scenarios anymore as a change in the relational world enables, in principle, an infinite (or even transfinite) number of possible new worlds. Barad may have had something similar in mind when she discusses responsibility in the context of her framework: “Responsibility is not a calculation to be performed. It is a relation always already integral to the world’s ongoing intra-active becoming and not becoming.”⁶⁰ From this perspective, one has to ask what remains of responsibility as an ethical imperative if it is just an integral feature of the relational world. Either the concept of responsibility dissolves into something paradoxical, which only consists of accepting that the current *relata* are effects of relations in which one cannot actively intervene, since agency is also only an effect of the relational system, or else Barad cannot fulfill her posthumanist claims by reintroducing responsibility as a classical humanistic duty. Nevertheless, this is not the only problem with Escobar’s and Barad’s attempts to overcome an anthropocentric perspective.

Barad refers to her own theory as “posthumanist performative approach”⁶¹ and Escobar insists on the inclusion of non-human performance. These attempts, thereby, include the rejection of the classical dichotomy between nature and culture, and, furthermore, the Kantian rift between thinking and being. Nevertheless, within the framework of these relational ontologies, it seems like you cannot even think about worlds that do not contain a human subject as one of its *relata*, since one has to assume that they might be completely different without such a human *relatum*. Therefore, Barad and Escobar seem unable to explain the existence of Meillassoux’s *arche-fossil*. Meillassoux introduces the concept of the *arche-fossil* to demonstrate the inability of correlationist philosophies to explain so-called “ancestral statements”⁶² about the *arche-fossil*. Meillassoux defines the latter as follows:

⁵⁶ One can make a more fine-grained distinction between different accounts of OSR (cf. Ainsworth, “What is ontic structural realism?” 51) but they all have in common that relations are ontological primitives. For the sake of my argument I, therefore, focus only on that kind of OSR that takes relations as the only ontological primitives.

⁵⁷ Ladyman, “What is structural realism?” 420.

⁵⁸ French & Ladyman, “Remodelling structural realism,” 46.

⁵⁹ Harman, *Bells and Whistles*, 36.

⁶⁰ Barad, “Diffracting Diffraction,” 183.

⁶¹ Barad, *Meeting the Universe Halfway*, 135.

⁶² Meillassoux, *After Finitude*, 10.

I will call ‘arche-fossil’ [...] not just materials indicating the traces of past life, according to the familiar sense of the term ‘fossil,’ but materials indicating the existence of an ancestral reality or event; one that is anterior to terrestrial life. An arche-fossil thus designates the material support on the basis of which the experiments that yield estimates of ancestral phenomena proceed—for example, an isotope whose rate of radioactive decay we know, or the luminous emission of a star that informs us as to the date of its formation.⁶³

Meillassoux’s argument is directed at the problem that correlationist philosophies cannot explain scientific statements; for example, the origin of the universe or the Earth. Nevertheless, the notion of the arche-fossil can be extended to various cosmologies that claim a pre-human origin of the world. Ancestral statements, thereby, refer to a world prior to any thinking being and, therefore, prior to any human or non-human lifeform. Such statements cannot be explained within a correlationist framework that postulates that thinking and being are always already correlated. The existence of the arche-fossil is, therefore, illegitimate from the viewpoint of a strict correlationism.⁶⁴

A similar problem seems to emerge within the framework of the relational ontologies of Barad and Escobar. As the arche-fossil preexists any kind of consciousness or living relatum, one cannot have any knowledge about these non-human worlds or, at least, one has to assume that they are indeterminate within these accounts. The problem, therefore, is that if everything is determined by the actual relations, one cannot claim anything about a world that existed prior to the emergence of human and non-human lifeforms. So even within the assumption that one has a more extensive concept of the human, it is impossible to explain the existence of the arche-fossil with these relational ontologies. OOO, in comparison, has no problem at all with assuming the existence of the arche-fossil independent of any lifeform. Harman even accuses Husserl of idealism, since his “intentional object” does not possess any independence.⁶⁵ A similar case seems to be at hand with respect to the arche-fossil within the framework of relational ontologies. It does not have any independence as relatum outside of human worlds. In the same vein as Harman calling his own account a “weird realism,”⁶⁶ I would recommend that the relational ontologies presented here are a kind of weird *idealism*. Ultimately, relational ontologies do not really overcome the anthropocentric correlationism as all worlds that can be considered are worlds with humans in them. Barad and Escobar successfully get rid of the primacy of thinking over being but, in the end, cannot fully break with correlationism. This might be due to the basic assumption of a plurality of worlds, which I will discuss in the following section, and confront with Harman’s concept of space and time as emerging from polar tensions in the object that herald the end of the world(s).

4 One or many worlds?

The pluralization of worlds is a major concern of relational ontologies. So far, it might have already become clear that OOO can explain the plurality of the real without installing a pluriverse. The world concept contested by Barad and Escobar is one of a unifying, all-including horizon within which each being has a distinct identity that can be fully grasped and known. As an example of the drastic outcome of such a concept of the world, one can consider one of the cases Elizabeth Povinelli discusses in *Geontologies*. There, Povinelli deals with the conflict between the Australian indigenous group (Karrabing) and the Australian government on the stone formation called *Two Women Sitting Down*. Similar to the aforementioned example of gold mining, an underlying OWW ontology would judge the stone formation as an accumulation of inorganic molecules, which can be fully grasped and whose destruction in favor of mineral resources would depict no problem. Nevertheless, *Two Women Sitting Down* is sacred for the Karrabing.⁶⁷ Again, it seems wrong to talk about several *Two Women Sitting Down* formations enacted by different worlds, as this would preclude any political discourse by foreclosing the possibility of a common ground for deliberation. One

⁶³ Ibid.

⁶⁴ Cf. *ibid.*, 11.

⁶⁵ Harman, *Bells and Whistles*, 25.

⁶⁶ Harman, “On Vicarious Causation,” 171.

⁶⁷ Cf. Povinelli, *Geontologies*, 30–31.

has to presuppose some common and withdrawn real object to explain how there can be different sensual objects with different sensual qualities. Furthermore, there is an even more fundamental flaw with the pluriverse.

One can spot the problem postulating, on the one hand, that there is no world in the sense of the OWW and, on the other hand, the existence of a plurality of worlds if one considers the two extreme scenarios of a narrow or loose concept of world in this context. A narrow concept of world would imply an infinite number of worlds that have no connection at all, completely independent from each other. I have already shown the major issues with assuming the pluriverse as consisting of such isolated worlds. Furthermore, within such a concept of world, one is not able to explain how the OWW can subsume other worlds beyond one hegemonic world.

The loose concept of worlds leaves several possibilities to think about. One can think of worlds in the sense of Leibnizian monads. Every world would then contain a multiplicity of other worlds and, therefore, all these worlds would be quasi-connected. Nevertheless, this assumption does not entail that there is one world that is the world of all worlds. Even if every world of all worlds has to contain itself, leading to an infinite regress, there might in principle be one world that contains all the others, and that is exactly the option that Escobar and Barad seem to refute. With regard to the most plausible scenario (that there exists some loose connection between all the worlds) one might ask whether this is, in the end, not just one world, or whether there exists some meta-world as a connector of worlds. Again, such a meta-world sounds like a weird version of the OWW. The only plausible solution, therefore, consists in rejecting the notion of worlds altogether as they have no necessity within the OOO framework.

The plausible reason for Barad and Escobar to assume the existence of many worlds (all enacting their “spacetime-matter”⁶⁸) is to explain the ontological difference of diverse concepts of space and time. Nevertheless, any contemporary philosophy has to get rid of the classical Newtonian fixed space-time-box, and deal with the findings of relativity and quantum theory that challenge this view of space and time. If space and time are just emergent features of quantum fields or different worlds (for example), then a classical concept of the world as an all-containing horizon with a certain space that stays stable over time has to be rejected. In principle, such a concept of the world still functions like a stage that serves as a venue for different performances. Barad and Escobar have pluralized the number of stages, and the stage itself is produced by the performances.

OOO conceptualizes space and time, or spacetime, as emergent phenomena as well. As mentioned above, space and time emerge from specific relations between the four poles of quadruple objects. In Harman’s account, time is the result of the tension between the sensual object and the sensual qualities. Therefore, “[w]hat gives us [or any other object] the sensation of time passing is that the things around us neither stand still nor participate in some sort of rhapsodic flux in which one instant has no connection with the next.”⁶⁹ So, time emerges from the stable sensual object possessing changing sensual qualities. This doesn’t mean that time is purely subjective in the human sense, but that time is the effect of the interaction or relation of objects.⁷⁰ Space, on the other hand, emerges from the tension between the withdrawn real object and the sensual qualities of this object. Consequently, space is not only an effect of relation, “but rather of relation and non-relation.”⁷¹ Harman gives the following example to understand what is meant by this:

Sitting at the moment in Cairo, I am not entirely without relation to the Japanese city of Osaka, since in principle I could travel there on any given day. But this relation can never be total, since I do not currently touch the city, and even when I travel to stand in the exact center of Osaka I will not exhaust its reality.⁷²

Nevertheless, this instance of a space that one would describe as quite large can be considered for any object interaction. The interaction of two atoms that only “sense” the outer electron shell of each other exhibit

⁶⁸ Barad, *Meeting the Universe Halfway*, 142.

⁶⁹ DeLanda & Harman, *The Rise of Realism*, 122.

⁷⁰ Cf. *ibid.*, 131.

⁷¹ Harman, *The Quadruple Object*, 100.

⁷² *Ibid.*

the same effect of relation and non-relation. What leads to the emergence of space is just the inability of exhausting the full reality of the withdrawn real object. Nevertheless, this does not lead to the emergence of a single space, but of a plurality of spaces.

In summary, both space and time are dependent on at least one sensual pole of the object.⁷³ OOO can therefore explain the ontological difference between the plurality of different conceptions of space and time; for example, cyclical and linear conceptions of time can exist at the “same time.” Furthermore, the apparent change in the past through the present in the quantum eraser experiment, utilized by Barad to argue for her relational ontology and the dawn of the classical western concept of time,⁷⁴ can be explained within the OOO framework. There is no absolute time or “arrow of time,” in OOO as such a concept always assumes that “time is some extra-objectual force.”⁷⁵ The difference between the relational ontologies and OOO consists, therefore, in the fact that Barad and Escobar explain space and time as being part of a final ontological horizon that is enacted by a certain web of relations, whereas for Harman’s OOO space and time are only “derivative of a more basic reality.”⁷⁶ In summary, the ability of OOO to explain ontological difference without any notion of the world (since this difference exists within objects instead of between worlds which, in principle, are just reloaded versions of the postmodern epistemic system) should reject the problematic concept of world(s) altogether. Ontological difference is therefore not an effect of different practices of world-making or spacetime-mattering, but is already inscribed into a more basic level of reality; namely, the real objects. Therefore, there can be many spaces and times without any concept of world(s).

Consequently, the rejection of the concept of world(s) opens the possibility to explain how objects can exist that affect many (or all) worlds. Global warming, for example, seems to be something that appears within all these ontologically different worlds. This seems to contradict the assumptions of the discussed relational ontologies. One would have to claim that global warming exists only within those worlds that enact it. However, global warming does not await its performative enactment within worlds, but haunts them all. If one now rejects the concept of the world(s) and thinks of space and time as emergent properties of objects, then one can discuss such “big problems” again without reintroducing a new OWW. Problems like global warming are out there, and affect the daily life and the future of human and non-human beings. Therefore, they should be conceptualizable within an ontological framework as one and the same withdrawn problematic object, but in their full plurality, and without any hegemonic form of *access* to these objects.

5 Object-Oriented Ontology and the Anthropocene

In the course of my argument, I have shown that OOO can assert its position within a counter-hegemonic discourse of the real. OOO can deal with the emerging problems of Barad’s and Escobar’s relational ontologies without rejecting the major benefits I have discussed. Escobar argues that the concept of the Anthropocene, as employed in modernist narratives, is itself an expression of the OWW.⁷⁷ However, this geochronological epoch is already here, and we therefore have to rework the concept in order to encounter future challenges without losing sight of the achievements of critical posthumanist and postcolonial theory. OOO offers this ontological framework to conceptualize a counter-hegemonic real that enables us, at the same time, to discuss problems classically denoted as “global” ones in a postcolonial world without any Eurocentric supremacy of scientific conceptualization. We have to integrate different strategies employed by humans and non-humans for dealing with these objects into practical encounters with the Anthropocene to face a future where many different futures can fit.

In conclusion, one can assert that the benefit of the conception of the real in OOO is that no hegemonic claims can be raised for knowing the true nature of objects. Objects within the OOO framework repel such

⁷³ Cf. *ibid.*, 114.

⁷⁴ Cf. Barad, *Meeting the Universe Halfway*, 314.

⁷⁵ DeLanda & Harman, *The Rise of Realism*, 123.

⁷⁶ Harman, *The Quadruple Object*, 99.

⁷⁷ Cf. Escobar, “Thinking-feeling with the Earth,” 24.

claims, and even prevent them. As real objects are always withdrawn, they refuse any final insight, and therefore any ultimate foresight of the future. However, the real also refuses sheer ignorance, and demands that we respond and take action. There is no escape from the “obstinate reality”⁷⁸ of objects after the end of the world(s).

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⁷⁸ Harman, “On the Horror of Phenomenology: Lovecraft and Husserl,” 349.