

Graham Harman, *Immaterialism: Objects and Social Theory*

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Abstract

The philosopher Graham Harman argues that contemporary debates about the nature of reality as such, and about the nature of objects in particular, can be meaningfully applied to social theory and practice. With *Immaterialism*, he has recently provided a case-based demonstration of how this could happen. But social theorists have compelling reasons to oppose object-oriented social theory's 15 principles. Fidelity to Harman's aesthetic foundationalism, and his particular use of serial endosymbiosis theory as a mechanism of social change, constrain the very practices which it is supposed to enable. However, social theory stands to benefit from object-oriented philosophy through what we call posthuman relationism – characterised as a commitment to the reality of the nonhuman, but not divorced from the human. The emphasis in object-oriented social theory on how objects withdraw from cognitive or affective capture and representation needs to be tempered by an equal focus on how objects appeal.

Keywords

Graham Harman, object-oriented social theory, posthuman relationism, symbiosis

Immaterialism: Objects and Social Theory

Graham Harman

London: Polity Press, 2016.

Introducing Object-Oriented Ontology

Graham Harman is the creator and most prolific advocate of object-oriented ontology's (OOO's) dissemination. On his telling, its proponents share two basic commitments:

1. Individual entities of various scales (not just tiny quarks and electrons) are the ultimate stuff of the cosmos;
2. These entities are never exhausted by any of their relations, or even by their sum of all possible relations. Objects withdraw from any relation. (Harman, 2016a: 7)

This philosophy of objects has recently been brought to bear upon social theory. Harman claims that his *Immaterialism*, an intellectual manifesto of sorts, provides sustenance to 'even the most grizzled OOO veteran' (2016a: 7). This paper assesses the relevance of object-oriented ontology to contemporary social theory and practice, especially given Harman's view that 'other disciplines should not be subordinated to philosophy', as different domains of knowledge necessarily compose their objects differently (2012: 183). We begin with an overview of object-oriented social theory's philosophical assumptions. Specifically, we account for its innovative adaptation of phenomenology, its critique of how objects have been failed by philosophy (by under-, over-, and duo-mining), and its insistence upon an aesthetic attitude of investigation. We then explain how *Immaterialism* establishes 15 axioms of object-oriented social theory and propose problems with them. Finally, we argue that object-oriented social theory lacks the rigor and imaginative potential to envision the ontology of the social, and point to another form that better understands the abyssal point between the non-human and the human.

Some of OOO's intellectual and most of its sociological offshoots come from the 'Speculative Realism' conference held at Goldsmiths College in 2007. The event featured the philosopher Quentin Meillassoux, who provided this disparate collective of thinkers with a term crystallising an epistemological tendency – 'correlationism' – which they unitedly opposed. *After Finitude*, the signature speculative realist text, defines correlationism as:

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. (Meillassoux, 2008: 5)

Engaging in idiosyncratic forms of realism under the banner of continental philosophy (Ennis, 2011), the conference's participants shared few positive philosophical and metaphysical commitments. But they did share an antipathy to 'human-centred' intellectual traditions, most

especially phenomenology, postmodernism and vitalism (apart from Iain Hamilton Grant's work, which is vitalist in nature). The Goldsmiths' conference participants opposed the dominant anti-realism of Continental philosophy, beholden, as they held it to be, to the correlationist mode of regarding objects as meaningful only in relation to human concerns. Harman distinguishes his own brand of speculative realism by paradoxically characterising others as *excessively* materialist, regularly claiming that materialism obscures the true nature of objects. His 'realism without materialism' (Harman, 2011a; DeLanda and Harman, 2016: 3) holds it to be the case that objects can only ever be captured obliquely. It is worth foregrounding three of that system's idiosyncrasies.

Post-Phenomenological Realism

Firstly, object-oriented ontology is conscientiously post-phenomenological. For Harman, it was Heidegger who came closest to understanding that objects could not be adequately accessed through a human mode of understanding. Thus, *Tool-Being: Heidegger and the Metaphysics of Objects* (Harman, 2002) is part critique of anti-realist readings of Heidegger and part revelation of Harman's own metaphysics of objects. Aligned with Heidegger's opposition to *reductive* materialism, Harman nevertheless believes that Heidegger misunderstood the implications of one of his own core insights. In imagining that a broken tool reveals that objects are more than how we can possibly represent them, Heidegger is said to fall prey to a distortion best captured in the phrase: 'We distort [objects] when we see, and distort [objects] when we use' (2007a: 177).

The metaphysics of objects developed in *Guerrilla Metaphysics: Phenomenology and the Carpentry of Things* (Harman, 2005) argues that objects withdraw from all forms of human access and representation (2007b: 163). On this point, Harman agrees with Quentin Meillassoux (2008: 1), for whom the metaphysical language of an object's primary and secondary qualities decisively marks the limits of human inquiry (Harman, 2011a, 2011b). Secondary qualities, for Meillassoux, are those various affective or perceptual effects given by a subject to an object. Primary qualities, by contrast, exist apart from the subject (e.g. size, location, motion, shape); they are 'indifferent to thought' (Meillassoux, 2008: 117). Most of object-oriented ontology's development is characterised by a consistent lament for how post-Kantian philosophy in general, and Continental philosophy in particular, has abandoned hope of describing objects as objects. That objects *really* withdraw from subjects justifies neither our disbelief in them nor our disavowal of their inaccessibility. It rather requires a new appreciation of realism itself – a speculative appreciation, which we will discuss later.

The Enigma of Objects

Object-oriented ontology's most emphatic statements are reserved for the absolute autonomy of objects: 'the real', Harman writes, 'must be conceived as made up of autonomous individual entities' (2011a: 59). And yet this essential nature of objects is regularly obfuscated, according to Harman, by the prevalent strategies of under- and over-mining. To undermine objects means to reduce them (most often) to material components, such that their true nature is regarded as some underlying substratum or primordial flux, or what Harman simply names a 'monolithic lump', existing apart from human hypostatisation (Harman, 2011a: 59 – though it is not clear why the 'object' is not Harman's own monolithic lump). Harman's problem with undermining is that it 'cannot account for the relative independence of objects from their constituent pieces or histories', as when, for example, an entity shifts its atoms, but nonetheless remains recognisable as the same entity (2016a: 9). Over-mining, on the other hand, occurs when an object becomes conflated with qualities or effects that 'allow objects no surplus of reality beyond whatever they modify, transform, perturb, or create' (Harman, 2016a: 10). The problem with over-mining is that the reduction of an object to what it is *doing* makes it difficult to account for how it can change. What all over-mining approaches discount, therefore, is the surplus which can arise from (in)actions beyond the current configuration of events. Both errors of mining can also occur simultaneously, in what Harman terms duo-mining. Materialism's tendency to reduce objects to a primary substratum, while also rendering them susceptible to mathematical capture (Harman, 2016a: 11), is, for Harman, the primary culprit of duo-mining. Such opposition to mathematical determination leads Harman to prefer the excess of the aesthetic over the reduction by the scientific: a theme consistent throughout his work.

Aesthetic Foundationalism

Finally, it is object-oriented ontology's persistent opposition to mathematical determination which leads Harman to privilege the excess permitted in aesthetic appreciation above the reduction of the phenomenon achieved by science. So, while Levinas opposed Heidegger through his argument that ethics was primary in philosophy, rather than ontology (Levinas, 1999), Harman suggests that it is actually *aesthetics* that is first philosophy (2007a: 221). For Harman, the real object is never the object encountered, whether through thinking it or using it, because it is always in excess of these modes. He believes that art, and specifically art criticism, is a style that gets us closer to the nature of objects than reductive forms of materialism. Harman's exemplar is the now unfashionable art critic Clement Greenberg and his opposition to overly-conscious artworks. Greenberg, as Harman puts it, was interested

in ‘making the invisible deep conditions of any medium somehow visible in the content of the art’ (2014: 260). This leads Harman to prioritise allusive style above literal description (Harman, 2016b). This mode of apperception should not replace science, of course, where precision is an imperative. To make the invisible deep conditions of objects perceivable, allusive language is necessary. Style, in this sense, is not merely a colour for otherwise staid philosophical debates, but an essential tool in drawing out the metaphysical traits of objecthood (Harman, 2016b). In one prominent case, Harman demarcates the aesthetic effect of allure. Allure is not the name of an aesthetic atmosphere we sense between objects, but a metaphysical occurrence warranting serious philosophical attention (Harman, 2005: 143–5).

Thus ‘objects’, Harman writes, ‘are sleeping giants holding their forces in reserve’ (2016a: 7). Much like it was with Heidegger, Harman is not attempting to put aesthetic knowledge on an equal footing with the sciences. He is instead formulating a mode of contemplating objects which retains their essential capacity to always *be* more than our concepts, terminologies and representations permit us to *say* of them. Such aesthetic foundationalism necessarily engenders an *attitudinal* response to objects, a point to which we will return. Before this we will overview *Immaterialism*’s formation of an object-oriented social theory (OOST).

What is Object-Oriented Social Theory?

Immaterialism makes a redacted case for object-oriented ontology’s distinctiveness as a social theory by differentiating it from three competing metaphysical frameworks – phenomenology, new materialism, and actor network theory. With the emergence and proliferation of phenomenology, Harman argues, Western philosophy breaks decisively with ‘the old empiricist notion that an object is nothing more than a “bundle of qualities”’ (2016a: 102). The book asserts the grounds for object-oriented ontology’s claims to post-phenomenological sovereignty, giving the name of OOST (object-oriented social theory) to this new movement. The post-phenomenological assertions Harman makes here are consistent with what his earlier work, overviewed above, had already established.

Immaterialism then loosely casts ‘New Materialism’ as a rival to OOST, and its named proponents (most often Karen Barad, Ann-Marie Mol and Jane Bennett) provide a series of philosophical axioms against which the exact opposites are asserted. Thus, Harman holds it to be axiomatic for the new materialist that everything is constantly changing whereas for the immaterialist stability is the norm; that, for the new materialist, all is contingent whereas for the immaterialist it is non-contingency that prevails; or that, for the new materialist, what a thing *does* is more interesting than what it is, whereas in contrast the immaterialist is primarily interested in what a thing *is* and what it holds

in reserve. In all, Harman provides nine such oppositions (2016a: 14–16). ‘New Materialism’ also stands in as an example of what Harman calls the error of undermining, that is, the error of explaining what an object is ‘in terms of its smaller constituents’ (2016a: 8).

Most of *Immaterialism*’s remaining space is devoted to object-oriented ontology’s self-demarcation from actor network theory, which Harman regards as ‘the most important philosophical method to emerge since phenomenology in 1900’ (2016a: 1; see also Harman, 2009b, 2014). Whereas phenomenology’s break with empiricism provides the basis for the mistaken undermining which Harman holds new materialism guilty of, it also provides the basis for the mistaken mode of over-mining, of which he accuses ANT practitioners in general and Bruno Latour in particular. The problem with any over-mining approach to knowledge production, according to Harman, ‘is that it allows objects no surplus of reality beyond whatever they modify, transform, perturb, or create’ (2016a: 10).

Rather than focusing upon an object’s effects, in the manner of ANT, Harman advocates a methodological approach which encounters objects *as* objects (2016a: 97–107). *Immaterialism*’s demarcation of object-oriented social theory from ANT deems objects to be entities which essentially withdraw, in keeping with his aesthetic foundationalism. Withdrawal, in such a reading, is not a reflexive capacity that humans have, nor a pessimistic capitulation to our solipsistic affliction, but a feature of all objects (e.g. Harman, 2010b: 36, 2011c; see Dunne, 2009). For the immaterialist, social theories which oppose some aspect of human subjectivity (e.g. consciousness, freedom, reason) inadvertently champion another, for example vitalism. With these distinctions made, Harman proceeds to affirm OOST’s relevance to contemporary social practice by asserting 15 principles. Table 1 lists the 15 principles of OOST and presents the justifications underpinning them.

Practising OOST

The second part of *Immaterialism* takes the Dutch East India Company as its case study to demonstrate how an object-oriented social theory can handle objects differently, emblematising its axioms. The Dutch East India Company’s early contractual arrangements and political imperatives trigger strong ties that are stable throughout periods of change. These grounding events are major – they are ‘symbiotic moments’, where the object forms a connection that sets it out on a path-dependent course. This allows Harman to claim that other materialist approaches are ‘gradualist’, thus always in danger of infinite regress of connections, without the ability to differentiate the major ones from the minor ones. Finally, it is the *excessive* strength of the object’s ties that can lead to the

Table 1. Fifteen Principles of OOST.

Principle	Grounds
1 Objects, not actors	The contradistinction from ANT
2 Immaterialism, not materialism	The contradistinction from New Materialism
3 An object is better known by its non-relations than its relations	The contradistinction from ANT
4 An object is better known by its proximate failures than by its successes	The contradistinction from ANT
5 The key to understanding social objects is to hunt for their symbioses	The received account of symbiosis
6 Symbioses will occur relatively early in the life of an object	The received account of symbiosis
7 Symbiosis is not infinitely flexible once an object's character is established	The received account of symbiosis
8 Symbioses are weak ties that mature into strong ones	The received account of symbiosis
9 Symbioses are non-reciprocal	The received account of symbiosis
10 Symbioses are asymmetrical	The received account of symbiosis
11 Objects as events are echoes of objects as objects	The contradistinction from ANT
12 The birth of an object is both reciprocal and symmetrical	The derived account of birth and decay
13 The death of an object arises from the excessive strength of its ties	The derived account of birth and decay
14 The ripening of an object comes from the expansion of its symbioses	The received account of symbiosis
15 The decadence of an object comes from the literalisation of its symbioses	The received account of symbiosis

object's demise. However, the analysis of the VOC through the principles of object-oriented social theory produces a rudimentary narrative with no discernible innovation on the level of objects (i.e. the actors are recognisable companies, personalities, infrastructures); relations (i.e. the major symbiotic moments are legal contracts, infrastructure and formative moments in a human's life); and time (i.e. there is standard chronology from birth to death, with emphasis on human-centric causes and effects). In what follows, we propose that the philosophically innovative insights of object-orientation fall quite flat when they are mechanically applied to the social, and that a different type of posthuman relationism, emerging in social theory, can offer better innovation on these three levels.

OOST's Self-Limitations

Introducing Posthuman Relations

Posthuman relationists are realists who draw on contemporary advances in disciplines like geology, biology, mathematics and neurology to make the case that non-human reality is not a sub-set of human reality. So, like Harman, they share a commitment to an object-oriented realism, but, unlike Harman, posthuman relationists occupy an *anthropic event horizon*: their social analyses occur in the shifting, impossible ground *between* the human and the nonhuman. This perspective, as we will show, constitutes social objects differently – though not deficiently – in comparison with object-oriented social theory. But such work, we continue, recognises not just a dynamic of object withdrawal but a dialectic of object withdrawal and appeal. This, we claim, requires a social theoretical ethics of objects alongside OOO's metaphysics of objects.

One of the reasons why contemporary social theorists are turning towards objects is because they produce a 'gestalt shift' (Bennett, 2007: 107) in perception. This amounts to a political act because it requires us to re-divide the world, to re-prioritise matter(s), to create different causalities, to follow new agencies, to produce new spacetimes, and to interrupt the 'mind-lulling presence of common sense' (Tsing, 2015: 223). While authors such as Tsing and Bennett acknowledge the importance of traditional social theory in identifying gross inequalities, they also advocate a posthuman relationism that moves from critique to production by, in Bennett's words, 'formulat[ing] new and surprising connections between modes of existence' (2007: 107).

She continues:

We might then entertain a set of crazy and not-so-crazy questions: Did the typical American diet play any role in engendering the widespread susceptibility to the propaganda leading up to the invasion of Iraq? Do sand storms make a difference to the spread of so-called sectarian violence? Does mercury help enact autism?

Donna Haraway's vision of a non-natal kinship similarly speculates upon the modes of sociality that a specifically posthumanist relationism can produce:

What if serious adoption practices for and by the elderly became common? What if nations that are worried about low birth rates (Denmark, Germany, Japan, Russia, white America, more) acknowledged that fear of immigrants is a big problem, and that racial purity projects and fantasies drive resurgent pronatalism? (2015: 164, footnote 17)

Such questions might strike the OOST theorist as stubbornly anthropocentric, mistakenly correlationist, even. But they need not. Posthuman relationism is a mode of listening for the nonhuman while simultaneously acknowledging the impossibility of fully hearing it. It is precisely this *impossible position* of the posthuman relationist that expands our range of socialities, causalities, temporalities and ethics because it contains the stubborn anthropomorphic residual within any ‘new’ theory of society. A difference, then, between Harman’s project of putting ‘object-object relations on exactly the same footing as subject-object relations’ (2010b: 140) and the posthuman relationist project is the level of innovation each position adopts in *operationalising* its philosophy in the social sphere. In its tendency to claim the diametrical opposite to all other materialisms, object-oriented social theory is forced to swing the analytic pendulum in the opposite direction; *Immaterialism*’s readers are subjected to an account of the Dutch East India Company object with all the human and ecological exploitation spirited away in the name of realism. Posthuman relationism, by contrast, recognises an interaction between objective withdrawal and subjective appeal. Donald Moss’s (2016) work on climate change, for example, characterises the earth as making an appeal, following Freud, in the form of ‘a demand for work’:

When the attention of an experienced person is drawn to the child’s state by this path of discharge, [the path of discharge] . . . acquires a secondary function of the highest importance, that of communication, and the initial helplessness of human beings is the primal source of all *moral motives*. (Freud, 2001 [1895]: 318, in Moss, 2016: 192, emphasis in original)

Like the child ‘screaming and kicking about’, the appeal made by the earth is a combination of demand and accusation which places us all in a complex moral position:

We have been there before. With the help of others, obviously, we escaped from our own moments of abject helplessness. We are all of us, of course, deeply reluctant to return. (Moss, 2016: 192)

But what are we reluctant to return to? For Harman, it is the return to the relation as the sole modality of knowing the world – a ‘philosophy of access’ (2011c: 3, 2005: 255) from which correlationism draws its power. Thus, object-oriented social theory must privilege the essential withdrawal of all objects at the very centre of social theory. But because social theory is a mode of knowledge production, rather than a decontextualised reflection of the world, withdrawal is a psychological alibi. In other words, at the very moment when humans have caused a state shift in the earth’s biosphere and are presiding over a mass extinction, we are

witness to the ascendancy of a social theory that massively redistributes agency to the nonhuman and promotes withdrawal as the primary mode of being. Withdrawal is not (just) a cognitive concept; it is, in line with object-oriented ontology's commitment to aesthetic foundationalism, an aesthetic, and as such it stimulates an *attitudinal* response: one of, yes, humility in the face of overwhelming non-human existence, but also passivity, or, as Haraway might put it, a refusal to stay with the trouble (see Haraway, 2016). Appeal does not necessarily have to produce a paternalistic-arrogant-instrumentalist attitude to the nonhuman. It could foster a normativity that withdrawal cannot: responsibility.

Posthuman relationism recognises the co-constitution of the social and the extra-social, between, as Latour (2006) puts it, vaccines and markets, planetary systems and telescopes, catastrophes and laws. But this is not a wild, infinite connectionism where everything gets linked with everything else, as *Immaterialism* depicts it. All object-making must reach for a filter that makes certain objects and connections. Feminist science studies demand a normative responsibility towards ontological inclusivity and humility. If in Harman's philosophy everything gets determined as an object (including subjects), then the 'who, how, what, when and where' of object-making gets glided over. These interrogatives are object-makers, since there is no objective way to make a 'cut' in the universe and divide objects out in a way that is separate from the apparatus that observe-creates them (see Barad, 2007). Nothing precedes its *relating* to something else, and this makes any study of the *socius* a *prima facie* ethical obligation: 'all that is, is the fruit of becoming with . . . the worlding game on earth, and that game must be one of response and respect' (Haraway, 2008: 17–19). In posthuman relationism, the strangeness of nonhuman life acts for the former as a guide to think differently about the social by mobilising new *prepositions* of connection ('with', 'alongside', 'between' life), working to produce new conceptions of society as planetmate, messmate, natureculture, mindbody, thing–power, oddkin, and so on. It is in this vein that 'relation' (in all its variants) becomes 'the smallest possible pattern for analysis' – an observation that is 'extremely prosaic, relentlessly mundane, and exactly how worlds come into being' (Haraway, 2008: 26).

Symbiosis as Social Theory

Powerful parallels have been drawn between theories of evolution and theories of social change, from Stephen J. Gould's concept of punctuated equilibrium (Gersick, 1991) to Serres's ontology of the social as parasitism (2007), to the translation of epigenesis and technogenesis in the work of Katherine Hayles (2012). In the search for accounts of how change and creativity originate, social theorists often turn to the natural sciences for clues, and the phenomenon of serial endosymbiosis theory has often

been deployed for this very purpose. Harman rightly recognises the debt biologists owe to Lynn Margulis for bringing this still quite controversial theory of evolution to the attention of non-biologists. Nevertheless, in contrast to its deployment in *Immaterialism* as a ‘realist’ account of change, symbiosis has long been recognised as a theory which demonstrates the co-constitution of the social and the biological (e.g. Hird, 2009, 2010b; Haraway, 1995). Since over half of OOST’s 15 axioms are grounded in its account of symbiosis, the remainder of this section foregrounds the importance of its bio-economic context.

Symbiosis scholarship, most prevalent in feminist science studies, provides an account of change that undermines the dominant Darwinian story of small variations, random mutation, long time scales, natural selection, fitness and incremental development. This is because evidence in bacteriology increasingly found that that new organisms were often not discrete, but rather stemmed from profound and prolonged symbiotic relationships that have proven difficult to analyse (Parisi, 2007). In such instances traits were inherited outside of sexual dissemination (i.e. through digestion, infection, donation, other complex forms of partnering) – processes which called forth vast, amorphous and phylogenetically-mixed symbiotic complexes, or ‘consortia’, as opposed to anatomically bounded objects or ‘organisms’. These biotic meshes are metabolic, energetic networks rather than systems of information and exchange (Jablonka and Lamb, 2005: 386–9; O’Malley, 2014: 10270; Margulis, 1995: 139; Haraway, 1995). Rather than thinking of organisms as anatomical or physiological individuals, we might instead describe a world composed of ‘holobionts’ (Gilbert et al., 2012: 325) – vast and contagious superorganisms, like immune systems, coral reefs or bacterial gut biomes – that force a focus on how perceptual, political, social and scientific conditions precede objects: to see objects *as* boundary-work.

SET continues to provide new ways to think about biological change since novelty, on its account, can occur relatively suddenly (Hird, 2009: 65). Combining the sudden and the unlikely with the slow and the gradual, SET complicates the *unit* of change in order to enrich our understanding of it. It opens new ways to think about change because it promotes the idea that organisms can change through horizontal inheritance – pairing with unlikely contemporaries to create large changes over short time periods with the adaptive advantage of generating novelty (Hird, 2009: 65). This is very much against the grain of evolutionary theory proper, where evolutionary theorists term ‘non-Darwinian’ any complexity derived from sources other than ‘by brute mechanical . . . climbing from the base already built by the efforts of earlier climbing’ (Dawkins, 1986: 319, in Hird, 2009: 65). Serial endosymbiosis theory is thus important as it proposes differential *speeds* of change – both sudden and unlikely mixes with slow and causal.

The other thing it offers biology, and thus social science, is a new *unit* of change. Darwinian evolutionary theory takes the gene, or individual organism, as the unit of change – the zoocentric, ‘big like us’ epistemic culture of both science and social science, in contrast to the ‘weird world-ings of protists, archea, eukaryotes’ (Wertheim, 2007). This deconstruction of individuality is the central concept of serial endosymbiosis (Margulis, 1991: 13). What we see here is the absolute collapse of organismic boundedness in symbiogenesis; the complexity of the assimilation makes it impossible to distinguish borders and autonomous regulatory systems without the arbitration of the social – in direct opposition to Harman’s case for an ‘immaterialism’ that ‘recognises entities at every scale of existence without dissolving them into some ultimate constitutive layer’ (Harman, 2016a: 16).

Biological accounts of symbiosis tend to begin with the difficulty in defining what exactly this new idea of change was – the unit was unclear, as was the process. The intellectual development of symbiosis theory and socio-political theory has been co-constitutive – namely, an ideological contest between individualism and collectivism in political economy. Contests about what symbiosis really was developed deeply within a bio-economic–political–social context, ranging from the development of a socialist and anarchist concept of *mutuellisme* in the mid 1800s to mutual interactions in natural theology, where ‘nature’s balance’ contrasted with the Hobbesian–Malthusian–Darwinian bio-economic concept of struggle for existence in zero-sum games of all-against-all (see Sapp, 1994). Perhaps the most famous exponent of this is Peter Kropotkin, whose *Mutual Aid: A Factor of Evolution* (1972 [1902]) cited symbiosis as evidence for the benefit of global cooperation towards the common good, the division of labour, protection of elements and interdependent organisation. This stood in contrast with the ways in which evolutionary theory was similarly used to champion individualism and the social policies of *laissez faire*.

Thus, the biological and social history of symbiosis argues for the indistinct enmeshment of objects that undermines their objecthood in the first place – in this dominant account, symbiosis looks more like a turbo-charged synthesis. What Harman misses is the elementary starting point for sociologies of science: that social science *translates* science, just as science *translates* ‘reality’. There are two reasons for this: it is difficult for biology to speak of evolution without relying on socially-loaded concepts, and evolutionary processes reciprocally validate social models for living and being together. Social theories of change have tended to take the prevalence of cost-benefit relations in the natural world as evidence for its naturalisation in the social world. But, as Margulis reflects, ‘[t]he benefit/cost people have perverted the science with invidious economic analogies’ (Margulis, 1995: 135). It is really no different in symbiosis. With the exception of object-oriented social theory, social theories of

symbiosis have recognised this normative dimension to how it is deployed: describing symbiosis to analogise different modes of living socially. Harman uses symbiosis to provide a way to distinguish the ‘significant’ moments of an object’s life (in his case the Dutch East India Company) from the ‘insignificant’ ones. But this strategy unintentionally masks the fact that any observation of the history of the company-object is the selection process of ‘significances’ according value-based criteria.

Serial endosymbiosis theory thus leaves us with four object lessons. The first is that no theory of social change, even object-oriented social theory, is going to be value-free; endosymbiosis is a process that is always already highly charged with rich metaphor, entailing a ‘host’ that is in an ‘exchange’, ‘relation’ or ‘merger’ with a ‘guest’ – a form of ‘living together’ that becomes ‘close’ over time. Second, the extraordinary range and nature of these relations can act as strategies for other worldings, other ways of being with each other in the cataclysmic endings that we now face, and thus have an important normative function for the work of social theory. Third, endosymbiosis is a way to think about temporalities far beyond the VOC-object. It is a social arrangement that began and continues from a single event, when a bacterium nestled into a simple cell, creating an intimacy that has lasted four billion years (Lane, 2015). Fourth, endosymbiosis is a template for unlikely intimacies. The bacteria in the gut of a mealybug synthesises amino acids for proteins, but it only generates the first two, waiting for the mealybug to do the next three, and so on. The luminescence of the Hawaiian bobtail squid is a gift of its bacterial guest, and gives it a glow that matches the moonlight out in the shallow reefs of its home. This glow matching cancels out its shadow, making it invisible to predators. These are strange intimacies. In contrast, what object-oriented social theory strongly retains are the ‘invidious economic analogies’ of individualism, discreteness, human timescales and a flattened concept of stability that offers no innovation beyond received humanist accounts.

Conclusion

In the final book of the *Dark Forest* trilogy, the science fiction writer Cixin Liu (2016) asks the reader how humans could even begin to describe the experience of existing in four dimensions. He paints a world of infinite openness, a non-object world where nothing has an edge. It would appear from cosmological evidence that the vast majority of the universe – a full 85 per cent – comprises non-baryonic matter that might be very different to standard concepts of the stuff of the universe. Seen in this light, the object would seem to be a three-dimensional, anthropomorphic phenomenon, and there might be far fewer objects in the universe than we imagine.

Bearing this in mind, it is impossible to make the claim, as Harman does, that the universe is made up of objects. We are not cosmologists, and thus we are not so much concerned with this metaphysical fallacy, but rather, we wish to use it to demonstrate the way object-oriented ontology is stuck in a no-man's-land of *not-quite-nonhuman-not-quite-human*. The result is that the avenues that it can open, and the analysis of existing phenomena it can provide, are limited for both metaphysics and for social theory. As it enters social theory, it commits a performative fallacy. Social theory is fundamentally predicated on the *socius*. As Latour points out, the fundamental Latin root of the social – the *socius* – ought to remind us that social theory is not about homogenous ‘things’, but the *association* between things. Translating object-oriented ontology into social theory misses that fundamental starting point of social theory: objects come into the *social* world as expressions of value. This value is negotiated, perceptual, political and agentic. This shortcoming is a product of Harman’s philosophical monologue on social theoretical practice which might yet be remedied by actual dialogue with social theorists.

So why has object-oriented ontology become such a popular force in other disciplines? Object-oriented ontology’s proliferation is the product of the complex interplay between sociological and logical factors, including the rise of the philosophical blogosphere and para-academia. Tensions within speculative realism’s small world have emerged, and so Harman remains the only figure from the original tetrad who continues to advocate for it. Harman, that is to say, is the only one of the original speculative realists who retained an anti-realist sense of finitude, where knowledge can never capture the thing-in-itself

Despite this, the case for a speculative social theory is still compelling. Speculation has a history that extends beyond the regular use of the term, and involves a closer attention to rationality as the basis of judgement (though this rationality is different from what we heretofore knew). However, it seems to have lost many of its original technical characteristics, turning it – as Ray Brassier rather drily puts it – into ‘the alibi for a doctrine that wishes to spare itself the trouble of justification’ (Brassier, 2014: 416; see also Brown, 2013). While we believe the case for speculative social theory can be made, Harman’s version does not offer enough innovation to social theory. In order to persuade, Harman needs to attend to the work of theorists like Latimer, Haraway, Hird, Puig de la Bellacasa and Bennett, who, informed by bacteriology, mycology and pedology, stretch relations to their rational outposts, without ignoring their appeals.

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