#### Research Article

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# Object, Reduction, and Emergence: An Object-Oriented View

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**Abstract:** Object-Oriented Ontology (OOO) is a contemporary form of realism concerned with the investigation of "objects" broadly construed. It may be characterised in terms of a metaphysical pluralism to the extent that it recognises infinitely many different kinds of *emergent* entities, and this fact in turn leads to a number of questions concerning the nature of objects and emergence in OOO: what is the precise meaning of an emergent entity in OOO? How has emergence been denied throughout the history of Western thought? Is there a specific object-oriented account of emergence? What is the causal mechanism which provides the conditions of possibility for the generation of emergent entities? In this article, I aim to answer all these questions by constructing the first extensive account of real emergence in the context of Object-Oriented Ontology, and I also seek to tie this analysis to the notion of "vicarious" or indirect causation.

Keywords: Object-Oriented Ontology, emergence, reductionism, vicarious causation

Object-Oriented Ontology (OOO) may be described as a thriving contemporary and innovative form of "Speculative Realism" dedicated to the investigation of "objects" broadly construed. It maintains that "objects are the root of all philosophy," and is therefore a form of "neutral monism" to the extent that it recognises one and only one reality, namely that of objects. Yet OOO is also committed to a "flat" - rather than "hierarchical" - ontology, namely the view that all objects are equally objects,2 such that one cannot create an a-priori "onto-taxonomical" distinction based on different classes of entities. By way of an example, both an individual car and each of its parts would each be considered objects within this particular framework, thereby resisting the claim of an ontological ascendency of the car qua emergent whole over the manifold components which compose it. For this reason, it is also a pluralism insofar as it recognises infinitely many different kinds of emergent entities; atoms, molecules, a bean pod, a bean, a fairy-tale book, Pinocchio, a virus, its host, a laptop computer, its screen, keyboard, and CPU, a citizen of the Mediterranean island of Gozo, and a Gozitan inhabitant may all be said to be "objects" in the specific sense outlined by this particular philosophical approach. As can be seen from this extensive list of entities, Harman is therefore critical of any philosophical approach which starts with the a-priori assumption that anything that may be said to exist must be physical ("physicalism"), simple ("smallism"), real ("antifictionalism"), or reducible to a literal proposition ("literalism").4 Yet this extremely broad and liberal list of objects would necessarily raise the following questions: first, how is the term "object" being used

<sup>1</sup> Harman, "Objects are the Root of All Philosophy."

<sup>2</sup> Harman, Quadruple Object, 5.

<sup>3</sup> See Young, "Only Two Peas in a Pod."

<sup>4</sup> See Harman, Object-Oriented Ontology, 38-47.

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in the specific context? Second, and more crucially for the task of the present study, if the world is said to be composed of a multiplicity of emergent entities, then what might the term emergence mean in OOO?

To date, Graham Harman – who is the founder of OOO – has not given an in-depth account emergence, nor has there been – at least to my knowledge – any serious attempt to reconstruct a careful analysis of the meaning of this philosophically loaded notion in OOO, and this is in spite of the fact that Harman considers emergence to be of paramount importance to his specific form of OOO more specifically and to ontology more generally. To be sure, in *Realist Magic*, fellow Object-Oriented Ontologist Timothy Morton does provide some discussion centred around the phenomenon of emergence. Nevertheless, he seems to treat the latter as a *sensual* occurrence when he claims, for instance, that "emergent things are manifestations of appearance-as or appearance-for," and therefore only exist – at least *qua* emergent entities – as *relational* phenomena.<sup>5</sup> While this may be true of Morton's account specifically, I claim that it does not hold for Harman's specific version of OOO, since he consistently treats emergence as pertaining to the *real* object initself.

In this article, I shall focus on Harman's specific view of emergence, and I shall seek to accomplish three tasks. Firstly, I will show that the notion of emergence is central to his specific version of OOO by constructing a systematic "object-oriented" account of emergence. This will in turn show that Harman offers an often neglected dynamic, forceful, yet implicit account of emergence. Secondly, I will also show how this account of emergence is connected with his account of indirect or "vicarious" causation. Thirdly, I shall also extend Harman's three theses on vicarious causation – namely the claim that causation is vicarious, buffered, and asymmetrical – by claiming that this model of causation is also alluring, binary, and aesthetic. In order to fulfil these goals, I shall proceed as follows: first, I shall briefly consider the specific and nonstandard use of the term "object" in this specific framework. In following, I shall analyse some of the ways in which objects have been rejected throughout the history of Western thought. I will then proceed to focus specifically on the meaning of emergence in object-oriented thought, before finally linking the notion of emergence in OOO to Harman's dynamic view of causal relations.

## 1 On the objects of OOO

As the very name suggests, "Object-Oriented Ontology" is a form of contemporary realism whose focus is on specific objects. In this way, Harman adopts what I have elsewhere called an "ontologically democratic" view which stresses on the existence of a rich multitude of haecceities, with each commanding equal dignity *qua* "object." This onto-democratic ontology therefore resists any tiered distinction between categories of entities. OOO is of course not the first philosophy to grant importance to individual entities. One may for instance think of Aristotle's notion of individual substances (*prote ousia*), Leibniz's indestructible monads, or Husserl's intentional object (*noema*) as historical examples of such attention to individual entities. Nevertheless, Harman has good reason to think that each of these philosophies is limited, in that thinkers such as Aristotle and Leibniz think of substances or monads as simple entities, thereby undermining the ontological status of *emergent* objects such as armies, cities, the Dutch East India Company, two diamonds glued together, and circles of men holding hands. For Harman, such entities must also be considered as objects in their own right, and that his objects are not only the correlate of an all-too-human intentional act. Furthermore, Husserl sees objects as the correlate of an intentional act, and therefore adopts a methodological quietism towards the status of real entities.

Such claims would in turn necessitate an inquiry into the meaning of the specific use of the term "object" in OOO, since Harman seems to use this term in an especially broad manner. In the first instance, the term is used in a specific and technical sense to refer to anything that is ontologically irreducible,

<sup>5</sup> See Morton, Realist Magic, 137 ff.

<sup>6</sup> See Young, "Two Peas in a Pod."

namely anything which cannot be reduced downward (or, in Harman's terms, "undermined") into its constituent pieces, upward into its relations and effects on other entities ("overmining"), or both of these simultaneously ("duomining"). In other words, for Harman, anything would count as an object as long as it is not "exhausted by undermining or overmining methods, though of course these methods often yield fruits of their own." Harman's version of OOO also fundamentally distinguishes between two kinds of object, namely the real object (RO) and the sensual one (SO). I shall consider each of these briefly.

It is my view that the real object is given both a negative and positive characterisation in Harman's work. Negatively stated, a real object may be defined as that which exists in excess of its relations to other entities. In his earlier work, he tended to articulate this claim in terms of a term borrowed from the work of Martin Heidegger, namely the notion of "withdrawal." This expression in OOO serves to emphasise that any given object has its own interiority independently of its relations to other entities or its engagement with them in various contexts. It is this specific aspect of the object that is most often associated with OOO. Crucially, this particular term also serves to highlight Harman's insistence that an object is incapable of direct interaction with another entity, and I shall later show that this assertion has important implications for an object-oriented study of emergence. In what follows, it may however be noted that OOO also provides a positive definition of the object, even if this has not been given much attention in the literature. In more positive terms, Harman claims that any real object must essentially "[unify] its pieces into an emergent reality that has genuine qualities of its own." This short citation is important insofar as it illustrates that all real objects have the following fundamental features: first, a real object is a unified entity, insofar as it cannot be reduced to its parts. Second, the object is also an emergent entity by virtue of sustaining relations between its component parts. Finally, a real object must necessarily always be composed of pieces, which are in turn also to be considered objects in their own right.

In contrast to the real objects, sensual ones do not exist autonomously, but rather may only be said to "exist on the interior" or "experience" of some real object, 10 with the caveat being that a real object need not necessarily be human or even "living." Furthermore, each of the aforementioned real and sensual objects may be said to have their own respective real quality (RQ) and sensual quality (SQ). Harman argues that a real object must necessarily possess real qualities. Drawing inspiration from Leibniz's Monadology, 11 he claims that if a specific real object were lacking specific qualities, it would be entirely indistinguishable from every other object. From this fact, Harman deduces that there must exist a "tension" between an object's withdrawn unity (RO) and equally withdrawn qualities (RQ) which are nevertheless "shaped by the object to which they belong" rather than being "mobile universals" bestowed upon it relationally.<sup>12</sup> Furthermore, Harman asserts that a sensual object also possesses its own respective sensual qualities, namely the shifting qualities or profiles which surround an "experienced" object at any given point in time. The focus of this article shall be on the notions of "undermining" and "real objects," since I am of the view that these are crucial for the articulation and assessment of Harman's view of emergence.

# 2 On the nature of undermining

Harman applies the term "undermining" to any sort of philosophy which maintains that objects do not constitute the definitive basis of all reality, since they are ultimately nothing more than an epiphenomenal figment of some deeper underlying Reality. In an essay entitled "On the Undermining of Objects," Harman gives an extensive list of philosophical approaches which may be said to undermine objects:

<sup>7</sup> Harman, Immaterialism, 41.

<sup>8</sup> See Harman, Tool-Being.

<sup>9</sup> Harman, "Time, Space, Essence, and Eidos," 15, emphasis added.

<sup>10</sup> Harman, Prince of Networks, 215.

<sup>11</sup> Leibniz, "Monadology," 252-3.

<sup>12</sup> Harman, Quadruple Object, 101.

Undermining occurs if we say that "at bottom, all is one" (holism) and that individual objects are derivative of this deeper primal whole. It happens if we say that the process of individuation matters more than the autonomy of fully formed individuals. It also happens when we say that the nature of reality is "becoming" rather than being, with individuals just a transient consolidation of wilder energies that have already moved elsewhere as soon as we focus on specific entities. There is undermining if we appeal to a pre-objective topology deeper than actuality, or if we insist that the object is reducible to a long history that must be reconstructed from the masses of archival documents.<sup>13</sup>

From the citation above, it may then be noted that "undermining" is the name Harman gives to all types of philosophical approaches which maintain that objects do not constitute the fundamental feature of all reality, but are rather a mere "surface effect of some deeper force," understood as some "primal whole," "emergent *process*," "flux and becoming," or "historical genesis." Harman contends that every undermining philosophy adopts a critical attitude towards objects, maintaining instead that they are nothing but a fictitious *aggregatum* or epiphenomenon subservient to some deeper stratum, process, or fundamental reality which constitutes them.

For Harman, undermining philosophies are as old as the discipline of philosophy itself, with their philosophical roots planted firmly in the varied theories of the ancient pre-Socratics. As is well known, the activity of the first philosophers consisted in the attempt to organise and explain the universe by appeal to some more fundamental layer. In this context, Harman points out that the idea of a governing principle was in turn understood in one of two possible ways: either as a foundation made up of discrete fundamental units, or as a monistic, unarticulated mass.

The first way in which the pre-Socratics approached the idea of a governing principle was by understanding reality as fundamentally made up of some fundamental physical element; pre-Socratic philosophers such as Thales, Anaximenes, Heraclitus, and the Atomists (Leucippus and Democritus) disagreed over which element – water, air, fire, or atoms, respectively – should be taken to be the root of all reality. Nevertheless, all these thinkers essentially agreed that their preferred fundamental element was responsible for all the seemingly diverse entities which populate the universe. For Harman, all such philosophers are exemplary of underminers, insofar as they hold objects to be *nothing more than*<sup>16</sup> a constituent root physical element, and therefore ultimately dissolvable at best – or eliminable at worst – into their constituent parts. Harman further insists that the undermining spirit of the pre-Socratics still lies at the heart of contemporary scientific and philosophical forms of reductionism and eliminativism.<sup>17</sup> In Harman's view, this form of undermining remains a *sine qua non* condition for the practice of physics as well as that of philosophies inspired by the sciences.

Following De Sanctis and Santarcangelo, it would also be interesting to note that even classical metaphysical and modern scientific forms of realism count as underminers for Harman, insofar as the former may be said to believe that "there is one true reality beyond the specificity of objects" whereas the latter claims that "only what is basic is real." Even if many would intuitively assume scientific and metaphysical realism to support the standard realist clause of mind-independence, Harman argues that their position is not quite realist enough. This is due to the fact that, in Harman's view, both reduce objects to nothing other than their aforementioned "real qualities," and further view such qualities to be commensurate with their empirical and/or mathematical modelling.

<sup>13</sup> Harman, "On the Undermining of Objects," 25.

<sup>14</sup> Harman, Quadruple Object, 6.

<sup>15</sup> Harman, Bells and Whistles, 86.

<sup>16</sup> It seems as though Harman holds the phrase "nothing more than" to be the formulaic assertion of all forms of radical philosophies.

<sup>17</sup> It would be interesting to note that Harman does not seem to distinguish between ontological reductionism and eliminativism, insofar as he ultimately sees both as underminers of objects in favour of their constituent parts.

<sup>18</sup> DeSanctis and Santarcangelo, "Afterword," 104.

<sup>19</sup> Harman, "On the Undermining of Objects," 39.

<sup>20</sup> Harman, Quadruple Object, 141.

In addition to the aforementioned form of undermining, Harman identifies a second pre-Socratic form of undermining consisting of a "monism of a single lump universe" (2009a, p. 159). This form of undermining is held by Harman to be more extreme in that it treats even the above-mentioned notion of a discrete root element (or elements) as too shallow, insisting instead on some unarticulated "unified mass from which all things emerged."21 The ancients said to champion this view are Anaximander, Anaxagoras, Parmenides, and Pythagoras. Anaximander, for instance, believed that everything was originally gathered within a single unarticulated lump he called "the unbounded" (apeiron). He held that apeiron produced a generative source which separated itself from the unbounded and produced the four opposites – namely hot and cold, and dry and wet - which in turn shaped the whole of reality. Harman rightly asserts that Anaximander saw apeiron as "belonging to the future," insofar as he maintained that "Justice" would eventually return all opposites back to apeiron.<sup>22</sup> It may further be noted that Harman holds this second "holistic" form of undermining to be more insidious, insofar as he deems contemporary philosophy to be "riddled with such theories."<sup>23</sup> In many of his works, Harman names philosophers such as Heidegger, Levinas, Bergson, Nancy, Deleuze, Simondon, and Badiou as contemporary heirs to such an undermining form. By way of an example, Harman often praises Heidegger's rejection of ontotheology, which is said to "overmine" Being by reducing it to what is given. Harman nevertheless also argues that the latter sometimes lapses into a "monotheology of depths"<sup>24</sup> to the extent that he characterises "Being" as one, and as "deeper than any specific entity."25

On the basis of what has been specified up to this point, it may then be summarily stated that undermining positions come in two basic forms; thinkers have essentially undermined objects either by treating them as derivative of a more primal unarticulated whole, or as derivative of an identifiable substrate made up of discrete units. It is perhaps seldom noticed that Harman does not dismiss undermining at an epistemological level and instead often insists that they perform an important epistemological function. For instance, if someone were to eventually develop a theory which unifies relativity and quantum theory, then the difference between them would most certainly be undermined for the better, since it would lead to progress in physics. Nevertheless, he argues that all undermining philosophies are ontologically problematic, and this is for two main reasons: First, he claims that all undermining philosophies are "depressingly two-layered"26 insofar as they insist on a lone gap between a deeper ground and the eliminable surface layer of discrete entities. Further to this, and perhaps most importantly, all forms of undermining are essentially unable to explain the phenomenon of emergence.

As can be seen from the last point, Harman seems to oppose undermining – as well as other forms of mining to a lesser degree - to emergence, claiming that if the latter is not recognised as an ontological or real feature of reality, then only three options would be available: first, one would either have to concede that everyday objects do not exist at all, and that the only true level is the one pertaining to their ultimate constituent parts. But in this case, one would be left with an undermining philosophy. Second, one might also be willing to say that real objects only exist at a "level of observational scale pertinent to humans," but in this case they would be left with an overmining position.<sup>27</sup> Finally, one might assume both these positions at once by claiming that objects are at once equivalent to their parts but that they also exist at a level pertinent to humans. In this last case we would have a "duomining" position. From the fact that Harman rejects all forms of mining, it therefore follows that he must be committed to emergence as an

<sup>21</sup> Harman, Bells and Whistles, 86-7.

<sup>22</sup> Ibid., 87.

<sup>23</sup> Ibid., 88.

<sup>24</sup> Harman, "Realism Without Materialism," 66.

<sup>25</sup> Harman, Bells and Whistles, 258.

<sup>26</sup> Harman, "Realism Without Materialism," 62.

<sup>27</sup> Harman, Bells and Whistles, 18. It is worth noting in passing that this claim illustrates that emergence cannot be a sensual phenomenon as Morton suggests in Realist Magic, for otherwise this would reduce emergent entities to the realm of "experience" broadly conceived.

*objective* feature of reality, both in the sense of being "mind-independent" and in the sense of "pertaining to objects themselves."

Such claims would in turn beg the question of the precise meaning of emergence in the work of Harman. Nevertheless, he has to date not provided an explicit formulation of the meaning of this particular term. For this reason, in the third part of this article I shall seek to articulate what this term might mean in OOO, and I shall do so by taking a brief detour through the work of David Chalmers, Manuel DeLanda, and Paul Humphreys.

## 3 On emergence

A given entity in a particular field may be roughly characterised as emergent if it gives rise to properties which are not possessed by its parts. By way of a classic example, water consists of two hydrogen atoms and one oxygen atom. Nevertheless, water is also an emergent entity since it possesses real qualities which the individual atoms do not. In this way, water is more than the sum of its parts because it is not simply an aggregate of hydrogen and oxygen, but rather emerges over and above its atoms. Nevertheless, water is simultaneously also less than the sum of its parts, insofar as water does not display all the qualities of hydrogen and oxygen individually.

Relative to this, one may then distinguish between epistemological or conceptual emergence, and ontological emergence. For Paul Humphreys, epistemological emergence entails the claim that emergent features arise from "the limited abilities of people to predict, to calculate, to observe, and to explain," while conceptual emergence defines it as nothing more than a "product of theoretical and linguistic representations of the world." It may be noted that this characterisation tethers emergence to epistemology, insofar as it defines it in terms of our (human) abilities to explain certain observable features of entities. Within this particular framework, water would *have been* emergent only insofar as we could not express the process in terms of a formula, but would have then ceased to be emergent insofar as it became possible to deduce the process from a given set of chemical laws. Conversely, and as its label suggests, ontological emergence does not frame this feature in terms of epistemic constraints, but rather defines something as emergent if it is, in the words of Manuel DeLanda, "objectively irreducible." The precise meaning of this term shall be fleshed out shortly. For the purposes of the current study, it may be noted that the difference between epistemological and ontological emergence, and the implications of emergence have in turn been incorporated into David Chalmers's influential distinction between strong and weak emergence.

For Chalmers, a high-level phenomenon X may be said to be strongly emergent with respect to a low-level phenomenon Y if X "arises (in some sense) from" Y, "but truths concerning that phenomenon are *not deducible* even in principle from truths in the low-level domain." On the other hand, a high-level phenomenon X is weakly emergent relative to a low-level domain Y if X "is *unexpected* given principles of" Y, "but is nevertheless *deducible* in principle from truths concerning that domain." Crucially, he holds that if strong emergence were be shown to exist, then this would in effect refute physicalism to the extent that its account of the world would be shown to be incomplete. Conversely, weak emergence supports the physicalist world view, since it would show that apparently irreducible and complex phenomena are in fact reducible to the underlying structural and/or micro-physical facts.<sup>32</sup> In standard onto-taxonomical move which distinguishes consciousness from everything else, Chalmers asserts that everything bar consciousness

<sup>28</sup> Humphreys, "Emergence," 191.

<sup>29</sup> DeLanda, A New Philosophy of Society, 6, emphasis added.

<sup>30</sup> Chalmers, "Strong and Weak Emergence."

<sup>31</sup> Ibid., 244-5, emphasis added.

<sup>32</sup> Ibid., 246.

**<sup>33</sup>** Consciousness, for Chalmers, "naturally supervenes" on the physical, that is, it *depends* on the physical but is *not reducible* to it.

"logically supervenes" on the physical; that is, everything can be in principle be reduced to either the structural microphysical facts ("undermining") or the functional properties ("overmining") of the entity in question.

For his part, it follows from the critique of various forms of "mining" philosophies that Harman would reject this Chalmersian distinction between strong and weak emergence, and he would therefore also strongly reject any conclusion concerning the reduction of emergent phenomena - or lack thereof - to the physicalist world-view. This is because the picture of emergence provided by Chalmers is solely couched in terms of epistemic constraints insofar as it leans towards an epistemological or conceptual notion of emergence which is essentially tethered to human ways of knowing and describing the world. In this way, and as is often seen in cases of "correlationism" and "philosophies of human access," it transforms an ontological reality into an epistemic qualification.<sup>34</sup> Contrastingly, Harman follows Maurizio Ferraris<sup>35</sup> in separating the epistemological from the ontological when he claims that "even if quantum theory lucidly and thoroughly explains the behaviour of all chemical elements in the periodic table, it does not follow that these elements can be eliminated in favour of a microphysical discussion of quarks and electrons."36 In other words, like Manuel DeLanda (as I shall show shortly), Harman maintains that emergence is to be understood as an *ontological* or *real* phenomenon, namely a feature of the world in and of itself rather than an occurrence to be framed in terms of our ways of knowing the world. It would then be useful to further develop the object-oriented account of emergence being pursued in this article by briefly looking at the ways in which DeLanda characterises this particular real phenomenon. I have chosen DeLanda's work over other potential accounts of emergence for two main reasons. First, because he gives a comprehensive account of the phenomenon of emergence, and second because Harman has sporadically framed his views on emergence in relation to those of this specific thinker.

DeLanda uses the term "assemblage" to describe emergent "individual singularities,"<sup>37</sup> and in his seminal text *A New Philosophy of Society*, he selects four determinate criteria for the identification of a real assemblage. The first criterion is that a given emergent assemblage has "emergent properties," namely properties which are not possessed by its parts.<sup>38</sup> By way of an example, one may refer to the Dutch East India Company, which was famously described by Leibniz as a mere aggregate rather than a real emergent entity. Contrary to Leibniz, for DeLanda and Harman alike, this would be a case of an emergent "assemblage," insofar as the company as a whole possesses properties which are not present in its individual ships, merchants, cargos, and ports.<sup>39</sup> Opposing the bottom-up approach championed by reductionist accounts of reality, DeLanda's second criterion for emergence is that of "downward causation." This entails the claim that once an emergent entity comes into effect through interactions between its component parts, the entity as a whole is then able to retroactively affect its parts.<sup>40</sup> For instance, a given predatory organism is itself made up of parts. Nevertheless, the organism as a whole can organise its parts causally in order to perform complex actions such as looking for prey.

DeLanda's third criterion for emergence is that of "redundant causation." This condition entails the view that any given entity is able to gain new parts or even lose some of them without having these gains or losses impact the emergent entity as a whole. <sup>41</sup> A given organism, for instance, is constantly losing old cells and replacing them with new ones, but it does not become an entirely different entity by virtue of changes to

<sup>34</sup> Roughly stated, correlationism names the philosophical view that one can only restrict their claims to the relation between thinking and being, rather than the latter considered in its own right. The term philosophies of human access in turn alludes to the idea that the real is to be reduced to whatever humans have access too. For more information, see Young, "On Correlationism and the Philosophies of Human Access."

<sup>35</sup> Ferraris, Introduction to New Realism.

<sup>36</sup> Harman, Bells and Whistles, 190.

<sup>37</sup> DeLanda, A New Philosophy of Society, 28.

**<sup>38</sup>** Ibid., 48.

<sup>39</sup> See Harman, Immaterialism.

<sup>40</sup> DeLanda, A New Philosophy of Society, 34.

**<sup>41</sup>** Ibid., 37.

some of its constituent parts. In other words, the emergent entity is more stable than the fluctuations on its interior. Crucially, DeLanda also argues that different causes on behalf of interactions between parts can potentially have the same effect. For example, while a coalition emerges through discussions between a specific group of activists, it would very well be possible to imagine that utterly different negotiations and dealings can in fact give rise to the same coalition.<sup>42</sup> Finally, DeLanda claims that an emergent entity is capable of giving rise to new parts. To use the Dutch East India Company example once again, it may be claimed that once this entity emerges as a new force in reality, it is then able to generate new parts such as new ships, outposts, ports, and currency.

For his part, Harman agrees with each of these criteria, but at the same time holds them to be limited in their scope, and this is for the following reasons: first, he argues that one cannot view entities primarily in terms of their effects, since a given object must first and foremost exist as a real emergent whole before it is able to have any effect on its surrounding environment. For this reason, he views DeLanda's account as overly interested in an entity's actions and effects rather than its being as a particular emergent "real object." Second, Harman argues that each of these criteria lean heavily towards an account of the relation between a given assemblage and its parts, and therefore do not pay enough attention to the relation between a particular emergent entity and its surrounding environment. In view of these reasons, Harman claims that DeLanda's fourfold account of emergence presents us with the criteria for determining that particular entity is in fact an emergent whole rather than a loose aggregate sum of parts. However, he does not view these conditions as being conditions of possibility for an object. In view of this, one may then further inquire into Harman's specific definition of emergence.

Rather than focussing on an entity's effects, Harman focuses on the emergent object itself when he defines emergence as a specific grouping of objects together arranged in such a way that they form "a larger compound entity per se."45 Each given emergent whole is then a sum total of parts which is nevertheless also ontologically distinct from them. In other words, Harman is of the view that each and every object necessarily emerges out of parts, but it is nonetheless also irreducible to them, since DeLanda's criterion of "redundant causation" clearly illustrates that object's history and constitution is ontologically irrelevant to the emergent entity as a whole. A thing can change many of its component parts without becoming a different thing. Such claims further indicate that, for Harman, each and every emergent "real object" is a unified whole through which its pieces are combined in such a way that it is then able to generate new real and sensual qualities, even if said object is not equivalent to any of these qualities. 46 This account in turn harbours important implication with respect to what is often referred to as the problem of the one and the many. There is a crucial sense in which a real object is a *unit* or monad, since it must necessarily *unify* its component parts. Nevertheless, each and every object is also itself made up of parts. As Harman puts it, "I am inclined to agree that all entities are composite, made of smaller things rather than being simple and indivisible, but in no way does this prove that only the *smallest* things are real."47 Entities are therefore, in Harman's esteem, both one and many, such that there exists a reality composed of an infinite regress of "objects wrapped in objects wrapped in objects wrapped in objects,"48 and it is for this reason that it would be impossible to undermine objects in favour of some ultimate stratum of reality. Nevertheless, Harman also argues that this infinite regress does not imply an "infinite progress" of entities leading to the notion of the "world as a whole," and this is because there is "nothing forcing [entities] to enter into combination with [others]."49

**<sup>42</sup>** Ibid.

<sup>43</sup> Harman, Towards Speculative Realism, 186.

<sup>44</sup> Harman, Immaterialism, 42.

**<sup>45</sup>** Ibid., 8.

<sup>46</sup> See Harman, "Time, Space, Essence, and Eidos," 15.

<sup>47</sup> Harman, "The Third Table," 8.

<sup>48</sup> Harman, Guerrilla Metaphysics, 85.

<sup>49</sup> Harman, "Aristotle With a Twist," 252.

## 4 Emergence and vicarious causation

Harman is clearly of the view that an entity emerges into a unified whole out of interactions between its parts. But it would also be interesting to note that, for Harman, "if every entity is already made up of a set of relations," then it would also follow that "every relation is also ipso facto a new entity." 50 Such claims have two important consequences for the present study: first, as I have already shown, every real object is necessarily the product of an interaction between component parts. It therefore follows that each object must necessarily have parts, hence the reason why Harman often expresses his commitment to an infinite regress of objects.<sup>51</sup> Second, the fact that every relation generates a new entity entails broadening the notion of the "object" more generally – and that of emergence more specifically – in such a way that even events such as car collisions, plane crashes, and avalanches would need to be understood as new emergent entities in their own right within the framework of OOO.

Such an account would then lead to a fundamental problem with respect to Harman's notion of emergence and its relation to causality. More specifically, in the first section of this article, I accentuated that Harman's account of "withdrawal" entails that once specific emergent entities come into being, they would be incapable of interacting directly with other objects. Nevertheless, in the remaining sections, I have also argued that the objects of 000 are unified wholes which nevertheless emerge through interactions between their component parts. Such claims in turn raise the following question: if it is the case that entities withdraw from one another, then how is it possible for them to interact and give rise to new entities in the first place, for it would seem that the notion of withdrawal precludes the possibility of emergence? The question of emergence in OOO - when coupled with the fact of withdrawal - would then necessarily have to consider the conditions of possibility for the causal connections between entities which would account for the advent of emergent entities to begin with.

The answer to this conundrum is to be found in Harman's claim that entities are indeed incapable of direct interactions, but are nevertheless able to interact indirectly via a much-misunderstood process which he dubs "vicarious causation." Harman often describes the process of vicarious causation in terms of three fundamental features. For him, causation is always vicarious, buffered, and asymmetrical. Nevertheless, I am of the view that this list needs to be broadened so as to include three additional criteria. On my reading, vicarious causation is also alluring, binary, and aesthetic. In what follows, I shall give an extensive account of these criteria, given the crucial role that vicarious causation plays in the possibility of emergence.

In the first instance, the causal mechanism which gives rise to new emergent entities can only be vicarious. The notion of "withdrawal" necessarily implies that objects cannot interact directly, but this does not preclude the possibility of interaction tout court as it is sometimes claimed. Rather, it entails that entities are only ever able to interact by proxy or "vicariously" through a relational stand-in - or what Harman calls the "sensual object" – acting as a translation of the real object. In other words, the interaction between objects is mediated via "information" provided by the sensual.<sup>52</sup> Causality is also buffered insofar as the sensual qualities belonging to a sensual object inhibit the direct contact between real objects, preventing them from fusing into a seamless whole.53

In OOO, causation is necessarily asymmetrical since a real object originally interacts with the aforementioned sensual mediator rather than a real object. Nevertheless, it is also asymmetrical in the more crucial sense that Harman denies the possibility of reciprocal interaction between two entities, such that the mutual influence of two entities would necessarily be the result of two separate interactions.<sup>54</sup> Causation must also be binary in the sense that interactions, for Harman, occur exclusively between two and only two objects. Thus, in specific cases where more than two objects interact, this would either be the result of "a slow accretion of pairs of terms" or the product of "a central term that related independently with each of the others."55

<sup>50</sup> Harman, Tool-Being, 260.

<sup>51</sup> Ibid., 293.

<sup>52</sup> See Harman, "Zero-Person and the Psyche."

<sup>53</sup> Harman, Prince of Networks, 221.

<sup>54</sup> Harman, "On Vicarious Causation," 200.

<sup>55</sup> Harman, "Asymmetrical Causation," 106.

Crucially, 000 maintains that all causality is alluring. This aspect is vital to 000's view of causation and therefore requires further attention. To elaborate, Harman's philosophy may be said to recognise two forms of relation, namely "sincerity" and "allure." The former refers to ordinary states of affairs in which an object "intends" a real object but only interacts with a sensual mediator, namely the sensual object with its various shifting qualities. In such situations, a sensual object is "fused" to two kinds of qualities (namely real and sensual) in such a way that the difference between the sensual object and its qualities is not noticed at all.56 Contrastingly, "allure" names a "special and intermittent" mechanism which unsettles the flow of the ordinary state of things.<sup>57</sup> Such cases differ from "sincerity" insofar as it consists of a double activity:<sup>58</sup> first allure produces a disturbance (or "fission") of the routine bond (or "fusion") between a sensual object and its sensual qualities.<sup>59</sup> Thus, in this first instance, allure interrupts sincerity by producing an "interference [...] in the usual relation between a concealed sensual object and its visible symptoms," thereby creating "a strife between an object and its own [sensual] qualities."60 Second, the sensual qualities previously associated with a sensual object are then lured towards the "withdrawn" real object in such a way that they subtly allude or point to its being, but "without making its inner life directly present." in other words, the second activity of allure consists in its ability to present one real object to another in its absence through the medium of sensual qualities which fill in for its absence, and it is in this way that a new emergent entity is formed composed of one object being lured towards another one by having its qualities allude to it.

Finally, causation may be said to be aesthetic, and this is to be understood in two interrelated senses: first, causation must necessarily be aesthetic in the specific sense that Harman confers the source of all causal impetus to the sensual surfaces of things. Furthermore, causation is also aesthetic to the extent that Harman identifies the mechanism of allure with a surface or aesthetic effect which is able to split an object from its qualities, using the latter to allude to a real one.

These six aspects of causation may be illustrated by making recourse to Harman's oft-cited example of fire burning cotton, which he in turn borrows from Islamic philosophy. For Harman, when fire burns cotton, the interaction between the two entities does not occur directly, but only vicariously. In other words, the fire only apprehends the cotton as a sensual object, namely through the aspect of the cotton which are pertinent to it, and the same holds for the apprehension of fire by cotton. The sensual caricatures which the two entities present to one another also act as a buffer between them, preventing them from fusing into an undifferentiated lump. Their interaction is also not the result of mutual influence but is rather the product of two separate interactions; one where the fire burns the cotton, and another where the cotton is being burnt by the fire. The relation between fire and cotton is also binary in the sense that it involves two and only two objects. Their interaction is alluring in the sense that the sensual qualities of the cotton draw the fire towards the cotton, thereby producing a new emergent entity composed of the two objects, one which we call "burning cotton ball." Finally, there is an aesthetic dimension to the interaction to the extent that the impetus for their interaction occurs by way of the sensual.

### 5 Conclusion

In this article, I sought to construct a unique systematic interpretation of emergence in OOO, and I have done so with the primary goal of making explicit the forceful yet tacit account of emergence present in

<sup>56</sup> See Harman, Guerrilla Metaphysics, 150-1; Harman, Quadruple Object, 102-3.

<sup>57</sup> Harman, Guerrilla Metaphysics, 142.

<sup>58</sup> Harman, "On Vicarious Causation," 221.

**<sup>59</sup>** Ibid., 215.

<sup>60</sup> Harman, Guerrilla Metaphysics, 150.

<sup>61</sup> Harman, "On Vicarious Causation," 215.

**<sup>62</sup>** Ibid., 195.

Harman's thought specifically. Furthermore, I have also shown how Harman's account of emergence is necessarily linked to my specific expanded version of his notion of "vicarious causation."

To sum up what has been presented here, I claim that if we want to speak about realism, then we must necessarily accept that emergence happens on many levels of reality, rather than simply at the level of the relation between that which is supposedly physically ultimate and its surface effects. As I have shown, Harman does just this when he characterises emergence as a real ontological feature of reality; for Harman, each and every emergent entity is always more than the sum of its parts, since the object is not just an aggregate of all its parts, but it rather unifies these parts into an emergent whole. Simultaneously, the emergent entities of 000 are also less than the sum of their parts to the extent that any emergent whole does not express the qualities of all its parts, but rather selectively expresses such qualities.

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