Ray Brassier is associate professor of philosophy at the American University of Beirut.
What I am going to present today is a critical discussion of the tenets of so-called ‘flat ontology’. The expression ‘flat ontology’ has a complicated genealogy. It was originally coined as a pejorative term for empiricist philosophies of science by Roy Bhaskar in his 1975 book, *A Realist Theory of Science*. By the late 1990s, it had begun to acquire a positive sense in discussions of the work of Deleuze and Guattari. But it only achieved widespread currency in the wake of Manual De Landa’s 2002 book about Deleuze, *Intensive Science and Virtual Philosophy*. More recently, it has been championed by proponents of ‘object-oriented ontology’ and ‘new materialism’. It is its use by these theorists that I will be discussing today.

I will begin by explaining the ‘four theses’ of flat ontology, as formulated by Levi Bryant. Bryant is a proponent of ‘object-oriented ontology’, a school of thought founded by Graham Harman. In his 2010 work *The Democracy of Objects*, Bryant encapsulates flat ontology in the following four theses:

Thesis 1: “First, due to the split characteristic of all objects, flat ontology rejects any ontology of transcendence or presence that privileges one sort of entity as the origin of all others and as fully present to itself.”

Thesis 2: “Second, […] the world or the universe does not exist. […] [T]here is no super-object that gathers all other objects together in a single, harmonious unity.”

Thesis 3: “Third, following Harman, flat ontology refuses to privilege the subject-object, human-world relation as a) a form of metaphysical relation different in kind from other relations between objects, and that b) refuses to treat the subject-object relation as implicitly included in every form of object-object relation.” The basic idea is that, unlike Descartes, Kant and other philosophers who put epistemology before ontology, flat ontology does not begin by negotiating conditions of cognitive access to the world. It begins by treating the human-world relation, i.e. our relation of cognitive access to things, as simply another thing in the world, which is to say, an inter-object relation. It refuses the claim that this epistemic or cognitive relation is inscribed in all objectifications, so that anything we say or do with objects reflects or encodes some kind of conceptual or practical transaction.
Thesis 4: “[F]ourth, flat ontology argues that all entities are on equal ontological footing and that no entity, whether artificial or natural, symbolic or physical, possesses greater ontological dignity than other objects. While indeed some objects might influence the collectives to which they belong to a greater extent than others, it doesn’t follow from this that these objects are more real than others. Existence, or being, is a binary such that something either is or is not.”

These four theses taken together are supposed to entail something that has been called ‘antropodecentrism’. Bryant explains this in the following way:

In this connection, flat ontology makes two key claims. First, humans are not at the center of being, but are among beings. Second, objects are not a pole opposing a subject, but exist in their own right, regardless of whether any other object or human relates to them. Humans, far from constituting a category called “subject” that is opposed to “object”, are themselves one type of object among many.

What is significant are the denials that accompany the four theses of flat ontology. According to the first thesis, there is no transcendence: forms, species, kinds, archetypes, propositions, laws, and other abstract entities are disallowed. The flatness affirmed by flat ontology is the flatness of a more or less differentiated but nevertheless level ontological playing field.

According to the second thesis, there is no world: no totality, universe, One-All, etc. This claim is not peculiar to flat ontologists; other contemporary philosophers, including Markus Gabriel and Alain Badiou, defend some version of it.

According to the third thesis, there is no constituting subjectivity: no pure Apperception, Geist, consciousness, Dasein, etc. Flat ontologists do not begin by identifying subjective conditions of epistemic access to reality.

According to the fourth thesis, there is no appearance/reality duality: what is, is, what is not, is not. Here we have an interesting reassertion of the Parmenidean thesis discussed

in Plato’s *Sophist*. For Plato, philosophy or dialectics is predicated on the subversion of this Parmenidean interdiction on asserting the being of non-being or non-being of being: dialectics affirms the mixture of being and non-being. Flat ontology, in contrast, treats being as univocal: things can only be said to be in a single sense. But the claim about putting entities “on an equal ontological footing” implies that there are no degrees of being, just as there is no distinction between being and non-being, or between reality and appearance. Of course, this means that flat ontologists deny Plato’s claim that it is necessary to think the interpenetration of being and non-being, which is the task of dialectics.

I want to examine these four theses. I do not propose to repudiate them all; I simply want to scrutinize them and consider which of them may be retained, subject to amendment of course, and which need to be rejected.

I begin with immanence, whose affirmation is the corollary of the rejection of transcendence. The first question that arises is: If the ‘flatness’ affirmed in flat ontology is the flatness of a kind of immanence, then which immanence are we talking about? It is important to note that it differs from the kind of phenomenological immanence that can be found in Husserl for instance. Phenomenological immanence is the immanence in which we bracket off the ‘natural attitude’, which assumes that objects have a consciousness-transcendent existence. The immanence that is attained through this suspension of the natural attitude articulates the pure structures of constituting consciousness: noetic structures, noematic correlates, etc. Obviously, this is not the immanence that flat ontologists are talking about, because it violates strictures 1 to 3 (although not 4).

In some flat ontologies influenced by phenomenology, such as Graham Harman’s, there is a version of phenomenological immanence which could be called ‘object-oriented immanence’. It retains the phenomenological primacy of intentional interaction. This variety of flat ontology insists that intentional correlation is primary, but it generalizes it to all objects in the world: all objects intend one another, and all interaction between objects is based on a kind of intentional
transaction. Harman distinguishes between the ‘sensual’ qualities of objects and their ‘real’ qualities. Objects interact by unlocking and decoding each other’s sensual qualities, but they can never grasp the real core of the objects they intend. As a consequence, reality is replete with objects intending one another, but these objects only unlock each other’s ‘sensual’ qualities, never their ‘real’ ones.

Certain problems ensue from this view. The most fundamental is that it becomes very difficult to specify conditions for object-individuation. We might be able to delineate certain formal or structural characteristics of objects in general, but it becomes very difficult to say what objects are or to specify what the quiddity of an object consists in once we have removed the primacy of constituting consciousness. Without intentional consciousness as source and unifier for the eidetic or object disclosing horizon, we have no reliable way of distinguishing between the eidetic or real features of objects and their accidental or sensual qualities. Harman interprets the distinction between eidetic and accidental qualities in Husserl in terms of his own distinction between real and sensual qualities. But once human consciousness is no longer on the scene, the attempt to explain interactions among objects in terms of intentionality becomes problematic.

For example, when we consider the transaction between an ant and a bridge, what exactly is the basis for the interaction between the ant’s nervous system and the sensual properties of the bridge? What is it that the ant is interacting with? Is it interacting with or intending the bridge as a bridge? It is very difficult to maintain this claim, because for something to be disclosed as something, or for something to be intended as something, you need to be able to identify a noetic horizon of sense, of meaning, to unify all the intentional adumbrations of the object. Once we suspend the anthropocentric perspective from which the ant is perceived as an ant and the bridge perceived as a bridge, it becomes very difficult to say what object the ant is intending when it is crossing the bridge, or what object the bridge is intending when it is letting the ant crawl across its surface. Of course, it is perfectly possible to explain this interaction from a non-intentional perspective. This is
precisely what empirical science does. Biology and cognitive ethology can tell us how the ant’s brain and nervous system extract and process relevant physical information from the bridge, while elementary physics explains how the bridge’s physical properties enable the ant’s locomotion. But these are precisely the sorts of explanation that Harman considers irrelevant. For Harman, neither physics, nor biology, nor cognitive ethology gives us any sort of insight into what is really going on when an ant crawls across a bridge because this is an intentional interaction between different sets of sensual qualities, and as far as Harman is concerned, intentional interaction is simply inaccessible to empirical science.

Unfortunately, the immediate consequence of adopting this full-blown object-oriented immanence is that we cannot say what anything really is. But if we cannot specify the essential qualities that distinguish one real object from another, how can we be sure that the discrete multiplicity of sensual objects does not mask the underlying continuity of a single, indivisible real object? If we do not have any criteria for distinguishing between the sensual and real properties of objects, how do we individuate real objects? How many real objects are there on this podium for instance? We might be tempted to treat it as one, i.e., maintain that there is a single real object that ties together an array of sensual qualities, but as far as the microphone and the floor and all the other objects in this room are concerned, it is difficult to specify exactly how one would discriminate the split between their real and sensual properties. The consequence of this is that Harman’s account of real objects fuses epistemic ineffability, i.e. not being able to specify where sensual properties end and real ones begin, with ontological inscrutability, i.e. not being able to say what real objects are. Since Harman insists real objects can never be represented but only ‘alluded’ to, it is impossible to say what they ‘really’ are. The result is a metaphysics where we can never know what we are ‘really’ talking about, or explain why our allusions should succeed where our representations fail. There is another version of immanence affirmed by flat ontologists; one which is neither phenomenological nor object-oriented. It is inspired by the work of Gilles Deleuze.
Manuel De Landa has provided an ingenious reconstruction of this Deleuzean immanence in his book *Intensive Science and Virtual Philosophy*. In Deleuze, says De Landa, we have a materialist ‘plane of immanence’, a pre-individual continuum of matter-energy flows in various stages of individuation. This plane of immanence is not immanence to consciousness; yet nor is it composed of objects. It is not immanence to anything; it is immanent only ‘to’ itself. De Landa argues that the primary commitment of Deleuze’s ontology is to individuals; i.e., to actual individuals in space-time. Within this continuum of immanence, only concrete individuals exist, but they exist at various nested spatio-temporal scales, as well as at various stages of individuation. The remit of Deleuzian ontology is to identify the pre-individual continuum of processes of individuation. This means that Deleuze does not begin by taking individuals as ready-made or pre-constituted entities (i.e. objects). Instead, the task proper to Deleuzean metaphysics is to identify the processes of individuation through which individuals are constituted. This is why individuation is virtual and intensive, whereas individuals are actual and extensive, and establishing this distinction is fundamental for De Landa’s reconstruction.

This conception of immanence entails the rejection of representation. Representation, in De Landa’s account, correlates propositionally individuated beliefs with states-of-affairs comprising individuated objects. Representation remains at the level of the actual, it deals with a ready-made world, with concepts of individuals that are tailored to already-individuated objects. But the plane of immanence is inaccessible to representation precisely because it is pre-individual. Since representation is only able to operate with individuated concepts and individual objects, it is ruled out as a means of access to the plane of immanence. The Deleuzean philosopher must forego representation in order to reconstruct the real yet virtual problem structure to which the actual phenomenon stands as a case of solution. Individuation is a complex, problematic process: every individuated object is an actual case of a solution to a virtual problem structure. De Landa writes:
I want to draw your attention to the way in which De Landa incorporates Deleuze’s epistemology within his ontology: this is a key move in this version of flat ontology. The philosophical task is always to identify or extract the virtual problem structure that conditions the structure of actuality. Thus ontology comes before epistemology. The epistemic question—“how do you know?”—is subordinated to the ontological question—“what is there?” In the first two chapters of his book, De Landa gives an exceptionally clear and lucid reconstruction of Deleuze’s ontology in terms of contemporary dynamical systems theory. If what there is is characterised in terms of dynamics, where the linear is a special case of the non-linear, then knowledge itself must be seen as a dynamical process, comprising both linear and non-linear aspects. But then it follows that cognitive processes are not “true” or “false”; they are either “interesting” or “ordinary”. The incorporation of epistemology within ontology means that ontological categories, such as the singular and the ordinary can be extended to epistemology, so that the classical distinction between true and false representations is supplanted by the pragmatic distinction between interesting and uninteresting problems.

This, I think, echoes Kuhn’s distinction between revolutionary and normal science. Revolutionary science radically

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reconfigures the objective field and the conditions of cognition; whereas normal science remains ensconced within a well-established paradigm and is dedicated to solving well-defined problems using proven techniques. While revolutionary science is creative and problem-generating, normal science is mere puzzle-solving. De Landa proposes an ontological framework for ratifying this distinction between normal and revolutionary science, arguing that scientific practice is bound up with these ontological processes. He writes:

This intimate relation between epistemology and ontology, between problems posed by humans and self-posed virtual problems, is characteristic of Deleuze. A true problem, such as the one which Newton posed in relatively obscure geometric terms and which Euler, Lagrange and Hamilton progressively clarified, would be isomorphic with a real virtual problem. Similarly, the practices of experimental physicists, which include among other things the skilful use of machines and instruments to individuate phenomena in the laboratory, would be isomorphic with the intensive processes of individuation which solve or explicate a virtual problem in reality.3

In other words, the constitution of actual entities, or the actualization of individuals from these dynamic processes of intensive individuation, is a kind of objective problem solving. De Landa’s claim is that science reiterates or extends these problem-solving processes both in the laboratory and in the theoretical domain. The key word here is ‘isomorphic’. What De Landa describes as “the skilful use of machines and instruments to individuate phenomena” is allegedly isomorphic with the intensive processes of individuation, which solve or explicate a virtual problem in reality. He continues:

This conception of the task of theoretical and experimental physicists runs counter to the traditional realist picture which views it as that of producing a corpus of linguistic propositions expressing true facts which mirror reality. In this old and tired view, the relation between the plane of reality and that of physics would be one of similarity. Yet, as Deleuze says, there is ‘no analytic resemblance, correspondence or conformity between the two planes. But their independence does not preclude isomorphism...’ Indeed [...] there is a further

3 Ibid., p.136.
The alleged isomorphism between experimental practices and intensive individuation is reiterated when De Landa explains what distinguishes philosophical concept-creation from the development of scientific functions.\(^5\) “[T]he philosopher must become isomorphic with the quasi-causal operator, extracting problems from law-expressing propositions and meshing the problems together to endow them with that minimum of autonomy which ensures their irreducibility to their solutions.”\(^6\) Again, the philosopher tries to extract this reservoir of pure unactualized virtuality; she tries to identify what is irresolvable in every actual solution. This is what distinguishes philosophy from science: identifying what is virtually irreducible in every individuated actuality.

I want to raise a couple of difficulties here. This whole account is based on the rejection of representation understood as a claim that the mind mirrors nature. According to Deleuze, the form of representation is based on the primacy of similitude or resemblance. But it is difficult to see how this underwrites the claim that the culturally acquired know-how used by scientists to ‘individuate’ laboratory phenomena is ‘isomorphic’ with intensive processes of individuation. How exactly are macro-physical perceptual competences anchored in constituted individuals supposed to be ‘isomorphic’ with pre-individual, microphysical processes? It seems it is no longer the mind that is a ‘mirror of nature’ but the practical competences embodied in technical know-how. The mirroring relation has simply been transplanted from the realm of theoretical contemplation into the realm of embodied practice. But

\(^4\) Ibid., my emphasis.
\(^5\) For the distinction between scientific functions and philosophical concepts, see Gilles Deleuze and Felix Guattari, *What is Philosophy?*, London and New York, Verso, 1994, pp. 117–162.
\(^6\) De Landa, op. cit. p.136.
this does not explain how it is that embodied techno-scientific know-how is supposed to be ‘isomorphic’ with microphysical processes of intensive individuation. Theoretical or contemplative mirroring has been replaced with practical or performative mirroring. The question then regarding the philosopher is: what faculty allows the philosopher to become isomorphic with the virtual quasi-causal operator that is the sufficient reason underlying the process of individuation?

In Deleuze’s renovated *Bergsonism*, it is the ‘method of intuition’ that allows the philosopher to construct concepts tailored to the unique singularities proper to the virtual problem. This is Deleuze’s explicit definition of the method proper to philosophy in his Bergsonism book, in *Difference and Repetition*, and elsewhere. But then it seems as though the Deleuzean philosopher disavows representation only to lay claim to a superior faculty of intuition: she intuits the virtual.

So the destitution of representation has two problems. First of all, it seems to unwittingly presuppose an alternative kind of mirroring, a reduplication of reality at the level of embodied practice. Embodied practice somehow tracks intensive processes. As far as I can see, no convincing argument is offered to substantiate this claim. Secondly, although this claim is supposed to follow from the rejection of transcendence, it raises the following question: by what faculty is the philosopher equipped to intuit this pre-individual chaos? Deleuze is not a phenomenologist, he is not simply describing the objectivating structures of pure phenomenological consciousness. He is supposedly tracking the pre-individual plane of immanence constituted by complex dynamic processes. But how could a philosopher simply ‘intuit’ this pre-individual chaos? This remains obscure.

De Landa cashes out Deleuze’s ontology in terms of contemporary dynamical systems theory. He tries to show how things that are actually very difficult to understand in Deleuze can be rendered empirically tractable once translated into the vocabulary of contemporary complexity theory. I think this is wholly admirable, especially given the chronic obfuscation of much Deleuze-inspired writing. De Landa does a fantastic clarificatory job, but I think he goes awry in his insistence
that dynamical systems theory circumvents representation. Dynamical systems theory is a science or cluster of sciences using mathematical modelling techniques. Modelling is non-linguistic representation. Because De Landa assumes that all representation is linguistic, he infers that non-linguistic representation is sub-representational and therefore able to access the pre-individual domain. In doing so, he also assumes that the isomorphy in the modelling techniques used to chart intensive dynamisms is effectively causal. He writes:

> Even if a material system under study has been fully linearized and domesticated, the causal relations between experimentalist, machines, material phenomena and causal models are still non-linear and problematic. Indeed, the physics laboratory may be viewed as a site where heterogeneous assemblages form, assemblages which are isomorphic with real intensive individuation processes.  

I think that something has gone wrong here. Causation does not equal justification. Instead of supplanting representational correspondence with the creative extraction of virtual problems, De Landa’s account endows non-linguistic representation with an epistemic authority whose guarantee derives from its being caused by the virtual dimension. But the assumption that causation yields justification is precisely the empiricist premise disqualified by the Kantian account of representation, which, pace Deleuze, is not predicated upon resemblance. As a consequence, De Landa’s subordination of epistemology to ontology does not adequately deal with the Kantian problem of representation: rather, it postulates an isomorphy between a historically specific mode of mathematical representation (i.e. dynamical systems theory) and flows of matter-energy as characterised by an a priori philosophical ontology (i.e. Deleuze’s). This postulated isomorphy is “dogmatic” in the Kantian sense. In other words, it is rationally illegitimate.

To understand what has gone wrong, we must consider some of the philosophical rationales for rejecting representation. One version frequently reiterated by proponents of flat ontology is the claim that representation subordinates ontology

7 De Landa, op. cit. p.165.
to epistemology and therefore always leads to anti-realist consequences. But one can maintain the primacy of being over knowing, and acknowledge that being is irreducible to knowing, while insisting that epistemology is a condition of ontological access. The primacy of being over knowing is not equivalent to the primacy of ontology over epistemology. What there is does not depend on what we know about what there is, but anything we say about what there is does, particularly where empirical science is concerned. De Landa’s account is full of illuminating explanations of developments in contemporary empirical science, but his wholesale integration of epistemology within ontology leads him to think that causation can account for the isomorphy between knowledge and reality. Talk of ‘non-linear dynamisms’ between “experimentalist, machines, material phenomena and causal models” brings us no closer to understanding how ‘embodied scientific practices’ succeed in tracking pre-individual dynamisms.

So, it is not the case that all representation is linguistic, or that it presupposes an isomorphism between propositional structure and real structure. Insisting that epistemology is a condition for ontology does not necessarily commit one to an ontology of propositionally structured facts and states of affairs; nor does it entail realism about ideal entities such as propositions, properties, relations, and kinds. The epistemic insistence on the explanatory indispensability of representation does not necessarily entail these nefarious ontological consequences. Since thoughts of things are not the things that are thought, it is necessary to explain how thoughts are related to things while distinguishing their causal connection from their justificatory relation. This is the Kantian problem. It cannot be dismissed by simply levelling the distinction between thoughts and things, which is what flat ontology seems to require.

I want to propose an alternative to this levelling of the distinction between thoughts and things, which involves a ‘deleveled’ conception of immanence. I think the prohibition on transcendence is worthy and should be accepted, but it has been perverted by the excesses of these ‘steamrollering’ ontologies. What is immanent is the difference between
thoughts and things, not their identity. If one begins by assuming the identity of thought and being, which is the traditional armenian premise of classical metaphysics, all sorts of difficulties ensue. I think this identity is actually incompatible with the constraint of immanence. It renders being transitive to thought while eternalizing thought’s contingent grip upon being. The immanence of thought and being becomes indistinguishable from thought’s transcendence. It results in a false immanence, which needs to be rejected.

The alternative conception of immanence I propose is one consequent upon adopting a stance that could be described as ‘transcendental naturalism’. It is most fully developed in the work of Wilfrid Sellars, which I am drawing upon here. It insists on the logical difference between thoughts and things. But the logical difference between thoughts and things is not an ontological difference: thoughts are just things considered in terms of their logical or epistemic powers, rather than their material powers alone. Before I continue, I ought to clarify what I mean by ‘material’. It is not clear in what sense contemporary empirical science is ‘materialistic’, since very little remains of matter conceived as a metaphysical substance: it has been more or less pulverized by contemporary physics. Nevertheless, anything operating within the spatiotemporal nexus described by physics qualifies as ‘material’ in the sense intended here. So by ‘material’ powers of things I simply mean those powers described and explained by sciences such as physics and biology. The contrast between ‘material’ and ‘logical’ powers is not a contrast between material and immaterial properties but between causation and justification. These are not two different kinds of things but two distinct registers of description.

Thus the distinction between thoughts and things need not entail transcendence. Thought is embedded in the reality which it seeks to know. The challenge of transcendental naturalism is to identify the general features any conceptual system must have in order to know the nature of which it is a part. The way in which we know the world is conditioned by our being imbedded in that world, and the world constrains our knowing of it. Transcendental naturalism imposes a methodological
constraint which insists on a dynamic interaction between knower and known while rejecting the thesis of a pre-established harmony between thought and being, as well as any postulated isomorphy between concepts and objects. To quote Sellars: “The task of ‘transcendental logic’ is to explicate the concept of a mind that gains knowledge of the world of which it is a part. The acquisition of knowledge by such a mind involves its being acted on or ‘affected’ by the objects it knows.”

Knowledge consists of true representations. True representations are of actual states of affairs. But nature-in-itself is devoid of propositional form: “The extra-linguistic domain consists of objects, not facts. Propositional form belongs only in the linguistic and conceptual orders.”

This means that although knowledge is of or about states of affairs, reality itself does not consist of propositionally structured facts. Indeed, the world consists of things, not facts. Thus one can uphold truth at the level of representation without saddling oneself with commitments to transcendent entities such as the propositions, laws, and states of affairs that De Landa rightly finds objectionable. The truth of a representation does not consist in its mirroring the world. The mirroring account conflates two distinct aspects of representation: its internal logical dimension and its external material dimension. The logical dimension consists in representational content being justified by, as well as justifying, other representations. When we say something is thus and so, we are obliged to justify our claim and give reasons for why we believe this thing to be thus and so. The material dimension consists in the representing act being affected by, as well as its affecting, other natural-material objects. Thus justification alone is not sufficient for an account of truth. It needs to be supplemented by a non-justificatory causal relation capable of explaining how representing acts bear the appropriate causal relations to the things their contents are about. We have

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to be properly connected to things in the world in order to say something true about them.

What is immanent for transcendental naturalism is the difference between representables and things in-themselves. This is not a two-world theory, postulating a supersensible domain in addition to the sensible realm, but a double aspect theory about a single, immanent world. The distinction between the sensible and the supersensible is methodological, not ontological. The manifest world of intersubjective experience—encompassing both the public and private domains—is empirically real in the only acceptable sense of ‘empirical’. What is immanent is our corrigible, justifiable, shared knowledge of ourselves and our world. Philosophies of immanence which begin from an experience allegedly lying beneath or beyond judgment, categorization, and representation, begin from an abstraction. The way towards absolute knowing does not lie in plunging deeper into the alleged ineffability of subjective immediacy. It starts with the reflexive stratification of immanence into representing act and represented content, and the gradual recognition that what we know about the latter (the represented) is conditioned in ways we don’t yet know by the former (our representings). This is why knowing takes time.

Let me conclude by stating what I think should be discarded and what should be retained from the four theses of flat ontology.

Thesis 1: No transcendence: Yes, not only because there are no supernatural mechanisms, but because there is no pre-established harmony between thinking and being. This is why immanence is stratified, not flat.

Thesis 2: No world: Yes and No. Yes, because the claim that we inhabit the same world as that of our cognitive predecessors and have learnt more about it does not mean there is only one world to know. Perhaps this world is just a situation, a locality or region within a vaster multiverse. We can grant localized contexts that may be as spatiotemporally extended as one wants. In spite of this, there will be fundamental invariants common to all worlds, precisely insofar as they are distinct individuals. A world encompassing infinite domains is still a world. So because the world plays a determining role in
constraining the ways in which it can be known, we also have to answer ‘No’, there is only one world to know, no matter how spatiotemporally variegated, and no matter how different the ways of knowing it may be.

**Thesis 3:** No constituting subjectivity: No, epistemic subjectivity is ineliminable, but it is neither supernatural nor immutable. It embodies a mutable conceptual structure embedded in the natural order. Concepts change over time because the way in which we know the world is conditioned by the way in which the world changes. Time conditions knowing, even if it is possible to say true things about the way the world is at any particular moment or slice of the cognitive process.

**Thesis 4:** No appearance/reality distinction: No, the distinction between reality and appearance is also ineliminable: it is both empirical, which is to say internal to the represented as the difference between truth and falsity, and transcendental or external as the difference between representing act and represented content. The empirical distinction is practically indispensable; we would be cognitively crippled without it. But the transcendental distinction is required in order to make sense of the idea of cognitive progress. Cognitive progress consists in integrating knowledge about the structure of representing acts into represented content. This is an interesting way of naturalizing Hegel’s account of the spiral of absolute knowing: over the course of our cognitive history, we incorporate more and more facts about representing into represented facts.