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On Transcendental Materialism and the Natural Real

Let's assume it is correct to assert that there is something unthinkable and unspeakable about the real quanature; that there is something radically alien about it when it is put into relation to human experience and understanding, such that attempts to translate insights from a science like quantum physics into ordinary language may not just be misleading, but even essentially falsifying.

One drawback of this view is that it suggests that there is a sharp, potentially absolute, divide between nature as it is in itself and human experience. Such that even if one wishes to defend a realist position for the natural sciences, the rest of our thinking may still consist of nothing other than a "spinning around in a void" whenever it is not mathematical or performed in some other formal language. As Husserl pointed out, in relation to the sciences human consciousness becomes the merely subjective-relative, so heterogeneous is it with respect to the way the natural real is. And with the young Nietzsche, in such texts as "On Truth and Lies in an Extra-Moral Sense," one could then argue from this model that consciousness itself is necessarily a poetization, or metaphorization, of what he portrayed at the time as a natural X. Nietzsche would go on to develop the insight that there is something tragic about human consciousness when it is modeled this way, since it is responsible for our separation from what really is. But, rather than embracing the sciences, of course Nietzsche critiqued both scientists and scholars for their literalism (we might say, for their naïve realism), calling instead for the development of a culture that would embrace the creative, artistic, if indeed bubble-like dimension of human consciousness itself. Nietzsche takes a considerable step, then, toward detaching thinking from anything like truth, which also amounts, despite his intentions, to a significant step toward the total devaluation of thinking itself – at least as it occurs in natural human languages and everyday human experience.

There are aspects of this model – a model that contains within it what Quentin Meillassoux calls "correlationism," but other views as well – that are also obvi-

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ously Kantian. Although the realism this model allows makes it possible to dispense with the notion of an inaccessible, fundamentally unknowable noumenal realm, it still seems to suggest that everyday human experience – what phenomenology includes under the heading of "the lifeworld" – is in some sense merely apparent, no matter the types of objectivity that may be available within it it; and it also implies that the realm of experience is somehow less real because in numerous ways it is dependent on something else. Experience and thinking are made up of something else, and, of course, they really are something else – in other words, this model suggests that experience and thinking are false precisely insofar as neither exposes us to their true, constituent processes, or their true constituents. Kant no doubt did not intend to render human experience "unreal" at all – yet such a conclusion is virtually inevitable given his positing of an inaccessible noumenal realm. And the complete de-realization of experience is something the later Nietzsche wanted to avoid too: consider his claims in Twilight of the Idols to the effect that the elimination of a certain thesis on being also meant that appearing itself comes into question. "The true world, we have abolished. What world has remained? The apparent one perhaps? But no! With the true world we have also abolished the apparent one" (*Twilight*, p. 51). Yet both philosophies (Kant's no doubt unintentionally, Nietzsche's on purpose at least for a while) do imply the de-realization of human experience, and the withdrawal of any meaningful sense of truth from it – with severe consequences for the status of thinking in ordinary human languages.

My aim in this paper is to explore ways in which this de-realization of experience and thinking can be avoided, and to consider how in particular Žižek's recent attempts to develop a dialectical materialism go in this direction. While I will be arguing that the basic model I've outlined concerning the relationship between consciousness and the natural real does need to be retained, one can correct several things about it. The view that nature is an unknowable X can be rejected of course; but more importantly the conclusion that the model necessarily entails a de-realization of, and devaluation of, thinking can be contested too. I think that a dialectical materialism accomplishes this. What is not clear, however, is what status the natural sciences will have within a dialectical, materialist philosophy.

To elaborate on this model a bit, as well as its problems, I'll stake out here what I think is a non-controversial, and non-exhaustive, description of what the sci-

ences do. The sciences formalize and quantify the workings of nature; they discern patterns and laws in the behavior of their objects of study. They designate objects (and I am using this word loosely enough so that I would include within it non-objectal things such as waves and forces), the properties of those objects, and relationships among those objects. Whether one takes a realist or antirealist view on the sciences, I think it can be maintained in either case that the quantification of nature gives us a particular sort of know-how with the real that other disciplines and traditions and ways of thinking do not give us: and, if one is indeed a realist of some sort, the sciences can even be thought to give us a theoretical knowledge of the real.

It is even acceptable to call what we get from such sciences an understanding of nature as long as some kind of distinction is made among types of understanding. What I have in mind is a distinction that is something like the one found in Hegel between theoretical knowledge and philosophical (or speculative) knowledge. Only, I would like to frame the difference in terms of truths that are available to us in and with mathematics compared to those that are available in natural human languages. (And this is one of the basic points I want to defend: that truths are indeed available to us in natural human languages.) Consistent with what the model has to say about the gap between the natural real and human experience, if the sciences can be said to give us an understanding of the natural real, this should be considered an understanding that does not entail anything like "making sense" of what is going on in nature. Or, it is a non-discursive understanding. To think that we understand nature in the same sense in which we understand things in ordinary human languages is to be too anthropomorphic about what is going on in the sciences: the formulas we use in the sciences can work, and we can work on nature with them, whether or not we are in another sense able to "make sense" of what is going on in them and what they are doing; whether or not we are in any way able to "understand" what it means, for example, for the Higgs boson particle to be responsible for mass, etc., or for energy to equal mass times the speed of light squared.

What comes to mind here is what Merleau-Ponty said about the sciences once – that their description of the world is basically poetic. This is similar to what I described above as the early Nietzsche's view. It may be taken to mean that what the sciences do is fictitious, and thus, that we ought to be anti-realist when it comes to the sciences (the sciences are culturally constructed, etc.). The early

Nietzsche certainly went in this direction. But the claim does not necessarily imply that. It can be admitted that when one goes about discoursing about the symbolization and quantification of nature in physics, one is necessarily in a domain (the domain of meaning, of sense, in natural human languages) that is quite different from the domain in which the sciences really operate and have their validity (call it the domain of quanta, laws, nature, etc.). No matter how accurate one's *linguistic* descriptions of the workings of nature may be (if it is even *possible* for them to be accurate, which I am not inclined to think), there is still a separation between these linguistic descriptions and what is going on in the real, which is accounted for more adequately in abstract, formal languages. Again, we are here at the wide and problematic gap between thinking and the natural real posited by the model I am describing.

What I am calling a *philosophical* understanding is, by contrast, something characterized by a dialectical relationship to its objects. When it comes to understanding another person, any bit of language, etc., I am able to contribute and reciprocate by giving forth something similar, in a register that is essentially identical to what my speech and thought are about. Of course, as a Lacanian I do think misunderstanding is inherent to any understanding of this sort, and it remains a structural part of communication: but what I want to emphasize here is that there is at least a back-and-forth, a dialectic, in such forms of understanding, and that this essential failure of communication is an *enabling* failure. That is, it allows communication to continue, and to be potentially infinite. Our interpretations are fallible, and open; but the objects being interpreted are as well. Not only am I able to correct interpretations and views and opinions about which I was mistaken (which, of course, we do in the sciences as well): but more importantly, in this realm I at the same time contribute to that which I both understood and misunderstood, by continuing to verbalize about it – verbalizations which, again, participate in the same register as the object to which they are directed (linguistic utterances, e.g.). At this level, it makes sense to think there is a real interaction and influence between the objects at stake and our linguistic utterances about them. In other words, there is no meta-language here. It can be said, with Hegel, that these sorts of objects do change with our knowledge of them. Or, that here thinking and being are identical.

There is another important feature of this kind of truth. One of Hegel's key claims in the *Phenomenology of Spirit* is that philosophical truth is not propositio-

nal. Philosophical truth is not propositional because the objects of philosophical truths are not concrete, immediate particulars. They are not empirical, or not *simply* and *exclusively* so. Hegel made the object of philosophy the concept (if not the Absolute itself) and avoided the object problem by infusing the concept with development and self-alienation – in other words, by temporalizing concepts. This makes the proper object of philosophy not an object per se (not a being) but a development, and, indeed, a logic: what philosophy ends up discerning is a basic logical structure for the becoming of beings. Moreover, philosophical truths are not of the same sort as the empirical truths we get from standard propositions of the form "S is P". Philosophical truths require time, a back and forth, a reading, a deliberating, that requires a form for which simple propositions are not adequate: rather, larger discursive forms as paragraphs, dialogues, books, treatises, etc. are. In other words, philosophical truths are the stuff of larger discursive efforts, while empirical and scientific truths do not at all require similar efforts in order to be true: they can adequately be contained in formulae. Empirical propositions generally take on an "S is P" form, and scientific truths take on a generally non-linguistic form. In both cases, this is not the stuff of philosophical truths.

Considering these points brings me to why Lacan can rightly qualify as our Hegel, following a famous suggestion by Alain Badiou (Theory of the Subject, p. 132). What we get in Lacan is the same kind of innovation that Althusser observed in Marx's creation of a new "science": the creation of a new object. Indeed, Lacan himself thought that his greatest contribution to psychoanalytic theory would be his notion of "object a". This is, indeed, a new object. But it is also in important respects not an object at all. Lacanian theory – with respect to object a, and beyond – generally entails the formalization of a new kind of thing, and the creation of a discipline that is not about formulating propositions about merely empirical objects. What we get instead is the formalization of what can be called new practical "objects". For example, the unconscious itself can be considered a practice that involves relationships among people, time, language, sexuality... It is in this respect that Lacan is our Hegel: he orients thought toward non--empirical objects, and in such a manner that the relationship between thinking and its new object is dialectical. Psychoanalytic theory and practice are thus in a relationship of mutual influence and interaction, whereas this is not the case with the natural sciences. (Consider Freud's observations about how the unconscious seems to have changed once psychoanalytic practice was introduced...)

So, dialectical relationships are prevalent in the domain of what I am calling philosophical truths, but not in the domain of empirical truths. For, in what sense is there a similar dialectic between thinking and being when the natural real is involved? The model I outlined above suggests that there cannot be. And even quantum physics does not go so far as to say there is a *dialectical* relationship between the theory of quantum physics and its objects. What I mean is that no matter how fragmentary, indeterminate, chaotic, or void-like quantum physics tells us the natural real is, the scientific point of view still requires that we think of the real as *always having been in fact that way*. (While someone like Lacan, and others, can in fact question whether the Ancients had an unconscious, etc.) Call this the necessary realism any natural science asserts for itself.

Such sciences virtually require that thinking be put into either an asymptotic or a reflective relationship to the beings they are about, but never do they suggest a dialectical relationship. A reflective relationship would be one where thinking mirrors the natural real somehow. I think Žižek is in some sense advocating this view, as we will see below. Most realisms would also probably endorse such a view. I am rejecting it if "thinking" is understood in the sense of what occurs in natural human languages, but I am not rejecting it for the thinking that occurs in and with mathematics. The asymptotic view of the relation of thinking to the natural real, again a property of most realisms, holds that thinking gets at more and more accurately what is going on in the real. Yet the requirement that the natural real always was what it was is still there, no matter how one views it. (Again, I am not saying that for quantum physics nothing changes, or nothing happens: but I am saying that as a science quantum physics must be saying that its laws or rules have always been operative, whether we have known them or not. In other words, it is not that quantum physics suddenly became true in the 20th century, or that Higgs boson particles started to create mass just recently.) This is why I wish to claim that the sciences virtually require that thinking be put into an asymptotic, and not dialectical, relationship to the real. And it is important to keep this in mind any time the kind of understanding we allegedly get from the sciences is brought up. The kind of understanding we get is what I'm calling a theoretical understanding, which needs to be taken as one that is deprived of sense and that dialectical relationship that characterizes other domains of human life: the sciences may be in a reflective, realist relation to the real, as well as an asymptotic relation, but in any case they are not in a dialectical one.

So, there is nothing dialectical about our knowledge of the natural real; its objects do not change with our knowledge of them (which is not at all the point of the Heisenberg uncertainty principle; we know which objects are in question in any case, we just don't know which object or event will obtain ontologically, a wave or a particle...). Perhaps it is for this reason that Alain Badiou claims there are no natural events. It can, however, be argued that nature itself does change in a more trivial sense, insofar as we do introduce new constituents into it, making it become somewhat different, and making our relationship to it different as well. And in cases such as these, our relationship to nature is indeed dialectical. But this relationship does not involve only a theoretical understanding; it involves a practice. Consider the points Lukács makes about Hegel and nature and labor in his Young Hegel. The objective dimension of our dialectical relationship to nature begins when we try to act on an idea whose implementation nature resists and makes difficult. Because of this resistance, this otherness, we are impelled to learn more about the alien realm of nature and how it works, with much difficulty; and as we come to know the laws of this nature better (laws that we would never have been able to anticipate or intuit), we use them to better bring about our own purposes in nature, and even to start developing purposes we did not have before. Lukács quotes Hegel's 1805-6 lectures on this: "In general nature's own activity, the elasticity of a watch-spring, water, wind, etc. are employed to do things that they would not have done if left to themselves, so that their blind action is made purposive, the opposite of itself: the rational behavior of nature, laws, in its external existence. Nothing happens to nature itself" (Hegel quoted in Lukács, p. 424). None of this requires that we understand, in the philosophical sense, anything about the natural world. We discern its laws, which are meaningless in themselves. But, following them, we are able to construct objects on the basis of those laws – objects whose existence we never would have been able to anticipate, and objects of great practical value for us - and, again on the basis of the laws discovered, we can manipulate natural beings in such a way that things and activities it had always been possible for nature to come up with (watches, nuclear fission, waves used for communication, unheard of plant and animal species, etc.) appear in accordance with our ideas and projects. This is of course the Hegelian-Marxist theme of the humanization of nature. And it is here where there is certainly a dialectical relationship to nature.

Yet this separation of the natural real from dialectics, which seems necessary, allows us to continue to be haunted by the notion that the realm of human expe-

rience and most of what occurs in thought and consciousness is still somehow not the really real, no matter how important and fundamental it is to us. Such a position is an offshoot of a splitting of Hegel that is still common, whereby nature is removed from his philosophy, such that his major philosophical insights (such as dialectics) only have purchase on the realm of the practical-human, or however one prefers to reconfigure the notion of *Geist*. One danger of such a splitting of Hegel is that versions of eliminativism and extreme reductionism continue to be viable after it – *Geist*, as important as it is for us, can always be argued by the sciences to be really something else (reducible to its constituent, non-Geist parts). So, whatever truth-value Hegelian philosophy might have, it could be argued to apply only to a realm that is merely phenomenal and apparent, because it depends for its being on something else entirely – the natural real. This kind of claim in fact calls into question the entire truth-value of Hegelian philosophy.

This is why the distinction between theoretical understanding and philosophical understanding is important to revive, even though it comes with risks – most notably, spiritualist/irrationalist risks, which try to minimize the importance of scientific truths, and try to preserve a domain for theological, moral, and spiritual hopes. It may be true that no science can either verify or nullify what I am calling a properly philosophical truth – because a philosophical truth never boils down to a simple empirical proposition. Moreover, the objects of philosophical truths are just not empirical objects, but "things" characterized by relationships, time, processes, negativity, etc. What information from the brain sciences, for example, could possibly nullify a claim about the unconscious, especially considering that claims about the latter are based on observations and reflections on human practice, and are made from within human practice, if you will? There need not be any particular thing or collection of empirical brain-things to which the thesis of the unconscious corresponds: the unconscious emerges in a practice and perhaps essentially is a practice (and I do not mean that it is so only in the practice of psychoanalysis). At most, the unconscious ought not to contradict what the brain sciences establish. But how could it at all do so?

This is certainly something that makes us very uncomfortable with philosophical claims. I suspect that hardly any philosopher would tolerate the accusation that he or she holds a position that is not falsifiable. And yet, are we not being far too naïve and ideological about the sciences when we think this? Again, by

not distinguishing between empirical propositions and philosophical theses, and by giving scientific propositions too wide a scope, such that they alone have exclusive rights to the really real, it seems to me that we unjustifiably hand over to the sciences an absolute license to truth, simply because the sciences are best at designating the constituent parts and rules for beings. An important part of what I was saying above is that there is a field, an "object" or area, to which philosophical theses pertain and from which they gain their validity: it is just not a field of objects as we normally think of them, à la empiricism and the sciences. In this manner, philosophy does not have to be condemned to spin around in a subjectivistic, relativistic void either – there is a real proper to it. It is just not a real that is identical to the natural real. (And there is no reason to think that it is a spiritualist, supersensible real either.) As we will see in a moment, Žižek's recent work highlights this point very well.

But it is this realm's lack of identity with, and its distinction from, the natural real that remains a problem, as I mention above: because, if one is a realist as far as the sciences go, any philosophical truth seems to pertain only to a realm that is ontologically dependent on the natural real. And thus we end up with "irrealist" views of human experience and thinking. I am trying to deny this, but it is difficult to defend such a denial.

The reason I wish to emphasize this point is because it is useful to keep in mind when considering recent discussions of quantum physics in philosophies that wish to claim the label of dialectical materialism. My thesis is that there must be a way to develop a dialectical materialism that does not reduce thinking, or sense, to a mirroring, reflective relation with respect to the real, and that also does not render thinking into something that is entirely other than the natural real, condemned to spin around in its own stuff, detached from and unable to reach what really is. To develop such a philosophical position, I am arguing that it is helpful to revive and strengthen the distinction between theoretical knowledge and philosophical knowledge: the former can occur in a variety of ways - through mathematics and related disciplines – while the latter is available through ordinary, natural human languages, and it pertains to what is available to us in human practice, even if it is not available to us in a straightforward manner (as is the case with any theory of the unconscious). Reviving this distinction should be a way to avoid a major philosophical error: precisely, the extreme reductionist, verificationist philosophical views to which the sciences are not at all enti-

tled, but to which they are strongly inclined. One point that I think helps out a dialectical materialist project is, perhaps unexpectedly, a thesis on a hierarchy of existence or actuality, as I will discuss in my concluding paragraph. One must be very careful with such a point, because an ordering or ranking of beings is one of the hallmarks of idealism, whereas one of the hallmarks of materialism is its ontological egalitarianism (Cf. Pluth, forthcoming).

So we started with a model that posits an alarming gap between the natural real and consciousness; a gap that is alarming because of what it implies for conscious life and human experience itself. This gap seems to render experience merely apparent, relative, derivative, and not really real. There are different ways of responding to this gap: one is to affirm it with a robust reductionism, in which the sciences become the only discourses about the really real, the consequences for consciousness be damned. Other responses include relativisms, mysticisms, dualisms, and other views that may involve everything from disparaging the sciences to cynical affirmations of the relativism of human thought and experience, to attempts to argue that human consciousness and experience are not reducible to non-human things, etc. I am not trying to cover every possible response. Rather, I only want to point out what I wish to avoid. By distinguishing between theoretical understanding and philosophical understanding, I am trying to find a way to render to the sciences what is theirs, while still not conceding to them exclusive rights on the really real. The sciences have a right to reductionism. It is difficult to imagine a materialist philosophy that would reject this. What they are not entitled to – at least, what does not follow from their reductionism – is the philosophical view that the order to which everything reduces (the natural real) is alone the really real. Whatever human reality is is built up out of non--human components; but it does not thereby follow that these components, on which human reality depends, qualify exclusively as the really real. This is a philosophical point, and not a scientific one. The question is: does Žižek's transcendental materialism, which he also wishes to be a dialectical materialism, get us to this point?

This is perhaps an overly long build-up to what is going to be my focus in the rest of this essay. I want to open a discussion here about the status of quantum physics and the real in recent works by Žižek; a discussion that could be continued elsewhere, with a few changes, and expanded into considerations of the

works of Badiou, Brassier, Meillassoux, Johnston, and others. The discussion here is something like a first test-run.

For several years now, Žižek has included in his books discussions of quantum physics that highlight the parallels between that field and the dialectical, materialist philosophical position he develops. The important points about quantum physics, for Žižek, are ones that are similar to the key concepts of his own philosophy – themes such as the negative, or the "parallax" relation between things like waves and particles, for example. He is, rightly, suspicious of overly enthusiastic quantum philosophies. The problem with such "quantum maniacs" seems to be that they focus on the wrong topics – the possibility of time travel, parallel universes, relativism, etc. Žižek is interested in quantum physics for other reasons, and his use of physics differs from theirs in a fundamental way.

I argued above that there is something about the natural real that defies understanding in an ordinary sense. Žižek suggests this too in his earlier book, *The* Parallax View: physics, he writes, "confronts us with the gap between the Real and reality at its most radical: what we get in it is the mathematized Real of formulas which cannot be translated into ontologically consistent reality – or, to put it in Kantian terms, they remain pure concepts which cannot be 'schematized,' translated/transposed into objects of experience" (The Parallax View, p. 172). Further on, taking what looks to be a realist position on the sciences, Žižek points out that "in quantum physics, it is the noumenal Real which can be grasped and formulated in a consistent theory, while the moment we try to translate this theory into the terms of our own experience of phenomenal reality, we get involved in senseless contradictions (time runs backward, the same object is in two places at once, an entity is a particle and a wave, and so on)" (*Ibid.*, p. 173). And just a bit earlier, Žižek claims that "quantum physics is scientific formalization at its most radical, a formalization without interpretation" (*Ibid.*, p. 172-3). Such points endorse key parts of the model I proposed above: such as the idea that between the natural real and human experience there is a gap, and if we get any kind of understanding of nature from the sciences, it needs to be contrasted to the understanding we acquire with respect to objects of experience and human practice. As a "formalization without interpretation" the sciences can be true, and realist, without us really "understanding" or "making sense" of what they are about.

After making these points, Žižek considers the problems of subjectivism and relativism: as we have seen, on this model it would seem as if thinking consists of nothing but a diversity of opinions, beliefs, or ideologies about a real that for all of us remains an X. Among them would be psychoanalysis itself, which would have no purchase on anything real. But he goes on to claim that "the only proper reply to this challenge [I take him to mean the reductionist challenge the sciences present us with, with the devastating consequences for consciousness – EP] is to meet the brain sciences' neuronal Real with another Real, not simply to ground the Freudian *semblant* within the neuronal Real. In other words, if psychoanalysis is to survive and retain its key status, *we have to find a place for it within the brain sciences themselves, starting from their inherent silences and impossibilities*" (*Ibid.*, p. 177). And Žižek does this in part by pointing out how key features of his philosophy – such as the parallax relationship – are also present at the neuronal level.

The call to situate key concepts from psychoanalysis within the brain sciences seems to be motivated by a dissatisfaction with the reductionism that is intrinsic to the sciences. And indeed, the sciences, as sciences, can only ever be reductive. If we consider a naïve model of the sciences, what they reduce everything to is constituent parts bound by laws. If this is the case, there would not be much point in psychoanalysis – it would be nothing more than something that suited the taste of a few fans. Žižek (along with Adrian Johnston on this) points out that contemporary sciences actually give us a different, non-deterministic, non-mechanistic, and indeed indefinite, model of nature, such that while a reductionism to constituent parts may still be part of what the sciences do, this is no longer a reductionism that entirely eliminates topics such as freedom, the negative, and the subject from the picture (see Johnston 2008). This is what Žižek's call to situate psychoanalytic insights within the brain sciences should accomplish: rather than relying on an account of how what psychoanalysis says and does is true because it is, or can be, grounded in the neurosciences, instead the basic structures psychoanalysis reveals will also be seen to be structures unveiled by the neurosciences themselves.

There is a more expansive version of this type of claim in *Less than Nothing*, with the idea that a philosophy such as Hegel's can help us to understand the universe described by quantum physics. Žižek observes that with quantum physics we can hold the view that the natural real actually has properties homologous

to aspects of human reality that Hegel (and Freudo-Lacanian psychoanalysis) have brought to light, even if what both have to tell us remains unclear to or simply not visible within ordinary lived experience. Thus, Žižek writes that "the 'spookiness' of quantum physics is not its radical heterogeneity with regard to our common sense, but, rather, its uncanny resemblance to what we consider specifically human – here, indeed, one is tempted to say that quantum physics 'deconstructs' the standard binary opposition of nature and culture" (*Less than Nothing*, p. 920). In *The Parallax View*, we saw how Žižek did discuss, and endorse, the gap between the natural real and experience; now the claim is that our inability to properly imagine and understand what is going on in quantum physics is not the eeriest thing about it. Rather, the striking thing is that quantum physics shows us that there actually is a *homology* between a specifically human realm and the quantum realm. Here we see how Žižek revives the Hegelian position on the relationship between thinking and being.

This use of physics certainly does contrast with other uses of the sciences in philosophy, in which the sciences basically lead philosophy around by the nose, or, in which philosophical claims are expected to be validated by having a ground in what the sciences tell us. Or, as the quantum maniacs would have it, if quantum physics tells us that something like time travel is not impossible, then it becomes a worthwhile endeavor to think through the philosophical consequences of that. The manner in which Žižek portrays the relationship between science and philosophy is different. It is a relationship in which a particular philosophy (Hegelian, Lacanian, dialectical, negative, transcendental, materialist) helps us to "understand" the universe as the sciences describe it, or, in other words, it is one in which philosophy and physics dovetail, both giving us the same fundamental account of the real; although philosophy manages to do so in a more discursive manner than the sciences.

To be clear, the homology that Žižek posits between being and thinking is still not to be found between quantum physics and conscious life, between which there is still the gap discussed earlier; instead, the homology is between quantum physics and something else, this other order that can be thought of along the lines of the symbolic and/or the Other in Lacanian theory, as well as along the lines of Hegelian Geist. To keep things straight from here on out, let me point out that there are three distinct orders at play here, three versions of the real – there is the real as quantum physics tells us of it, then there is human experien-

tial/phenomenal reality, and then there is this other level of human experience for which Lacanian theory is well suited for describing, as well as Hegel's Logic, and, Žižek argues, Deleuze's notion of the Virtual. This order is in fact what is called the Real by Žižek, and is the one he typically marks with a capital letter. In a discussion of Deleuze he writes: "we thus have to posit a kind of ontological triad of quantum proto-reality (the pre-ontological quantum oscillations), ordinary physical reality, and the 'immaterial' virtual level of Sense-Events" (Less Than Nothing, p. 921). I think this triad applies to Žižek's philosophy as well. We can think of this as a distinction between a real real, an imaginary real, and a symbolic real, where the real real would be quantum mechanics, the imaginary real would be human reality, and the symbolic real would be the order of the symbolic, the Other, Geist... But Žižek will prefer to describe what I've been calling the natural real as Being, and usually calls the symbolic real alone the Real (with a capital letter). Thus, "the order of Being and the Real are mutually exclusive: the Real is the immanent blockage or impediment of the order of Being, what makes the order of Being inconsistent" (*Ibid.*, p. 958). And furthermore, this Real is "an effect of the symbolic, not in the sense of performativity, of the 'symbolic construction of reality,' but in the totally different sense of a kind of ontological 'collateral damage' of symbolic operations: the process of symbolization is inherently thwarted, doomed to fail, and the Real is this immanent failure of the symbolic" (*Ibid.*, p. 959). Clearly, this is a Real affected by the symbolic, and so it could be thought of as the "symbolic real" as I suggest above, although it is not produced entirely by the symbolic, and is also not anything like "symbolic reality," which would be something that I presume would be available within ordinary experience. It might be preferable to qualify the Real Žižek describes as a structural, or structuring, Real.

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So the point is that the same impasses, failures, and oddities that quantum physics details for us in the natural real, or Being, are the ones that are characteristic of the linguistic, negative, temporal domain of the Lacanian symbolic. Thus, in fact the Real for Žižek is something like a Logic – a structure that bestows its traits and its rules on whatever it affects, be it human existence or being qua being. Žižek wishes to retain the adjective "transcendental" for his materialism, though, because his philosophy must not be a Logic in the *full* Hegelian sense; if it were, then it would actually be constitutive of, and not just regulative for, Being. This would go against materialism. Thus, Žižek's Real functions more like Kantian categories do: it operates on something other than

itself, it requires a trigger, a receptivity, to kick in to operation. This point does allow Žižek's philosophy to be materialist, where Hegel's is (badly) idealist. But the similarity to Kant's philosophy is striking and worth dwelling on some more, because it raises questions about the status of dialectics in Žižek's philosophy, as well as the precise position of the natural sciences.

Hegel himself generally *did not* consider his philosophy to be transcendental because its most important insights involved constitutive claims. And must a *dialectical* philosophy not be in the business of making constitutive claims? The structures Hegel was unveiling were not only conditions for the *possibility* of experience and appearance: they were structures responsible for both the *actuality* of experience, and of being itself. Of course, this was a move that Kant could not allow himself to make: the categories, and the schemata, are not responsible for the *actuality* of experience – for that, being affected by something external, something not already included in the structure, is always required. Husserl, another great transcendental philosopher, also considered the constitutive move to be unwarranted. The phenomenological epochê required an abstention from ontological questions, from questions about the reality and actuality of appearances. Phenomenology, instead, outlines the basic structures of conscious lived experience – again, these are just *conditions* for any possible experience and any conscious act. They are not sufficient to bring anything about.

The reasons for avoiding a full-on Hegelian Logic are probably obvious. Žižek no doubt does not wish to argue that there is a dialectical *relationship* between thinking and being when it comes to the natural real. What he asserts instead is a homology between the *structure* of the natural real (being) and the *structure* of the realm of human experience (albeit not human experience as it is available to us straightforwardly in everyday experience). This would not be troubling, if it were not for the strong case the natural sciences continue to have for reductionism: the case they can make that *they* are the disciplines that are about what constitutes being. The structural Real in Žižek must always act upon something else – upon being, as well what used to be called the realm of *Geist*. Žižek's transcendental materialism, as a materialism, should hold that this real was not floating around before there was anything at all. So, here we are back to the model I began this paper with: only now, not only is there a gap between being (understood as the natural real) and experience, but there is a gap between being and the *structural* real as well. (This also suggests that the laws of nature are

contingent: if the structural real emerges from being itself, it could have emerged otherwise.)

To start concluding, let me return to a consideration of quantum physics in Žižek's work, which is said to echo the insights of a dialectical materialism. Of course the sciences, whatever model of nature they give us, cannot in and of themselves lead to a dialectical materialism; that is, we just aren't going to get that kind of philosophy with the help of physics or other sciences, even if they do happen to tell us the exact same things that a dialectical, materialist philosophy does. This is precisely because of their intrinsic reductionist tendencies. No science requires that consciousness and thinking be vigorously real components of the processes they describe; while philosophy does require this for the processes and objects it describes. The sciences are fully capable of, and entitled to, describing human experience and consciousness in terms other than those that are available from within human experience and consciousness. A materialist--reductive science may not be able to *rule out* a dialectical materialism (despite efforts to do so – in, for example, eliminativism): that is, the sciences may not be able to disallow it. But it is equally important to point out that they cannot get us to such themes either. For example, quantum physics is not, as quantum physics, in need of a Hegelian, dialectical-materialist supplement. Such a supplement is only for us: that is, it is for our attempts to understand, in discursive terms, the order that quantum physics is describing. I've already argued that in one sense, such an attempt at understanding needs to be given up. Žižek is saying however that we can understand nature as quantum physics describes it to us because what it is describing is a structure familiar to us from Hegelian and Lacanian philosophy – a structure that we can articulate in non-mathematical, ordinary languages. This structural real is the same in both cases – in the case of what used to be called Geist, and in the case of the natural real. This is a very good philosophical move to make. I read it as an attempt to avoid the distressing gap that the model I've been discussing in this paper implies. But the key problem is that while something like dialectics might well be functioning in and present in the natural real, this view of a dialectics-in-the-Real still does not assert a genuinely dialectical *relationship* between thinking and being. It asserts a homology. Therefore, there is still a gap.

So, what is to be done with the sciences' claims to reductionism? The materialism of Žižek's philosophy seems to require that the structural Real depends for

its efficacy on the being(s) from whence it arose – had things gone differently in the order of being, the structural real could well be different, for example. Thus, it is hard to avoid equating the structural real with a merely virtual order, not in Deleuze's sense but in a more ontologically derogatory sense. As important as it is, this order would not necessarily deserve the title of the really real – a title that being qua being would always have a stronger claim to. And if this is the case, the natural sciences would seem to have a stronger claim to getting us access to that real.

It seems that the gap I have been referring to must be upheld. But there are different ways of dealing with it, or philosophizing about it. For example, there is no reason to conclude that the natural, constituent parts of a thing are more real than they thing they constitute. Yet, this is our tendency. We have now seen that Žižek's transcendental materialism asserts another troubling gap alongside the one between experience and nature; one between the structural real and being. While the structural real is the way in which being is organized, this structural real could still be considered to be *ontologically* dependent on being, the natural real. Thus, this relationship would be more one-way than it is dialectical. And such a one-way relation does not offer any arguments against an extreme reductionism, and therefore also does not offer an argument against the de-realization of thinking.

It is difficult for us not to think that the things that compose something are more fundamental than the things they compose. For example, if the structural Real is just the Logic of being, no matter how appropriate this Real is for expressing such notions as Geist in Hegel or the Other in Lacan, if one wishes to defend a materialism one would expect to encounter the view that there is no structural Real without Being: and that whatever beings emerge are conditioned by this Being. This turns out to be a reductionism, which is fine, but it does not address the main problem contained in the model I began this paper with: the implied de-realization of thinking, consciousness, and what is available to us through natural human languages. However, I maintain that the sciences are genuinely reductive, but this does not mean they are exhaustive, since there is a domain of objects, real objects, in which thinking is in fact in a vigorous dialectical relationship. There is no reason to think that a thing's constitution is what is always most real about it, since a constitutive story is only a partial story about whatever thing is in question. Hegel's philosophy shows this quite well by hig-

hlighting the importance of processes and development: *Wesen ist was gewesen ist.* Lacanian psychoanalysis also suggests this, in numerous ways.

But I would like to conclude on the following point. There is still a possible view on these matters, according to which what is available to us through ordinary human languages is affirmed to be clearly important (to us) and may even be granted to contain truths. Yet an extreme reductionistic tendency persists in this view I have in mind, which must admit (even if it does not want to) that these truths are de-realized and degraded because of their ontological dependence. To correct this, perhaps some kind of ordering of actuality is required along the lines of what Hegelian philosophy encourages us to do: one according to which beings and processes that have thinking added to them or involved in them become more actual than those which do not. For example, consider the famous claim in the introduction to Hegel's *Aesthetics*, according to which "even a silly fancy such as may pass through a man's head is higher than any product of nature" (p. 4). Lukács quotes a different version of this idea given in Lafargue's Reminiscences of Marx and Engels: "Even the criminal thought of a malefactor has more grandeur and nobility than the wonders of the heavens" (Lukács, p. 544). What such things have is a quality that the sun, for example, lacks, even though, as far as *quantity* of being goes, and even as far as *power* goes, a silly fancy, a child's drawing, a criminal thought, are things that are clearly inferior to celestial objects. The key point, in any case, is to develop an argument for why the constitutive level of being is not the highest sort of actuality that things may have, even though every being is still reducible to something else as far as its constitution goes, or as far as its quantity or power goes. To begin such an endeavor, I would suggest that arguments for reductionism be embraced but also reconsidered: does the claim that every being reduces down to more simple constituents - a claim that does need to be defended - necessarily entail the claim that those constituents are the really real, the ontologically fundamental level? While spiritualisms and dualisms may not be able to put up with such a vigorous reductionism, a version of dialectical materialism should be able to, when it is drawing on the legacy of Hegel, Marx, Freud, and Lacan.

Works Cited and Consulted

Badiou, Alain. Being and Event, trans. Oliver Feltham. London: Continuum, 2006.\

- --- Logics of Worlds, trans. Alberto Toscano. London: Continuum, 2009.
- --- Theory of the Subject, trans. Bruno Bosteels. London: Continuum, 2009.

Brassier, Ray. *Nihil Unbound: Enlightenment and Extinction*. Hampshire and New York: Palgrave Macmillan, 2007.

Hegel, G. W. F. *Introductory Lectures on Aesthetics*, trans. Bernard Bosanquet. With introduction and commentary by Michael Inwood. London: Penguin, 1993.

--- Phenomenology of Spirit, trans. A. V. Miller and J. N. Findlay. Oxford: OUP, 1977.

Husserl, Edmund. *The Crisis of European Sciences and Transcendental Phenomenology*. Trans. David Carr. Evanston, IL: Northwestern University Press, 1970.

Johnston, Adrian. "Alain Badiou, the Hebb-event, and Materialism Split from Within." *Angelaki* 13 (1): 27–49, 2008.

Lukács, Georg. The Young Hegel: Studies in the Relations between Dialectics and Economics.

Trans. Rodney Livingstone. London: Merlin Press, 1975.

Meillassoux, Quentin. *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier. London: Continuum, 2008.

- Nietzsche, Friedrich. "On Truth and Lies in an Extra-Moral Sense". In *Philosophy and Truth: Selections from Nietzsche's Notebooks of the Early 1870's*, trans. Daniel Breazeale. New York: Humanity Books, 1992.
- --- *Twilight of the Idols and the Anti-Christ*, trans. Michael Tanner and R.J. Hollingdale. London: Penguin, 1968.

Pluth, Ed. "The Black Sheep of Philosophical Materialism." In *Badiou and Philosophy*. Ed. Sean

Bowden and Simon Duffy. EUP Press. Forthcoming.

Žižek, Slavoj. *The Parallax View*. Cambridge, MA and London: MIT Press, 2006.

--- Less Than Nothing. London: Verso, 2012.