Why Meillassoux's Speculative Materialism Struggles with Ancestrality

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Abstract

This paper shows that Quentin Meillassoux's speculative materialism doesn't offer us the means to account for the ancestral statements that the modern sciences produce, i.e. for the scientific statements about events preceding all forms of life. An analysis of the reasons why Meillassoux thinks that the problem of ancestrality problematizes the contemporary self-evidence of correlationism is first offered. The results of this analysis are then applied to speculative materialism itself and the consequences are not very promising: very much like correlationism, speculative materialism explicitly denies what I call the "generalized version of the realistic assumption of science" and, in so doing, renders scientific ancestral statements de jure unverifiable. Therefore, if correlationism is rendered suspicious by the issue of ancestrality, the same can be said of speculative materialism.

Keywords: *Meillassoux, speculative materialism, correlationism, ancestral statements.*

This paper shows that Quentin Meillassoux's speculative materialism doesn't offer us the means to account for the types of ancestral statements that the modern sciences produce. In other words, as far as their way of handling ancestrality is concerned, speculative materialism and correlationism do not seem to be all that different. However, since Meillassoux uses the problem of ancestrality precisely as a means "to problematize the contemporary self-evidence of correlationism,"¹ this similarity in the handling of ancestral statements might raise difficulties for the speculative materialism itself.

¹ Quentin Meillassoux, "Iteration, Reiteration, Repetition: A Speculative Analysis of the Meaningless Sign," trans. R. Mackay, April 20, 2012, forthcoming, accessed June 25, 2014, https://cdn.shopify.com/s/files/1/0069/6232/files/Meillassoux_Workshop_Berlin.pdf.

I don't intend to show that speculative materialism is incapable of accounting for the general ability of mathematized sciences to identify the properties of a world that exists independently of the thinking. Indeed, I couldn't claim such a thing since the derivation of this ability of mathematized science from the guiding principle of speculative materialism (i.e. from the principle of factiality which states that the necessary contingency of beings is the *sole* necessity the world can be characterized by) has not yet been offered by Meillassoux, even though the first steps taken towards achieving this goal look promising.² But one cannot criticize an author's intentions or goals, one can only criticize the positions and arguments he or she has clearly articulated. Therefore, my aim here is not to show that speculative materialism cannot account for science's ability to know or think – in general – a world independent of thought, but only that it cannot account for the ability of science to produce ancestral statements, i.e. to describe "independent of thought" properties of beings belonging to a world anterior to man or to life in general. Out of all the "facts" that sciences can identify and treat, I only focus here on the ancestral ones.

Presuppositions

In order to spare the reader's patience here, I will assume that the main lines of Meillassoux's arguments are well known, and I will simply indicate here which of them are necessary for the aim of my paper. I will mainly make use here of two of his beautiful demonstrations.

a) The first necessary element is the proof given in chapter III of *After finitude*³ (and even more clearly re-stated in "Iteration, Reiteration, Repetition") as to why a correlationist (defined as every philosophy that maintains the impossibility of acceding through thought to a being *independent* of thought) that wants to distinguish himself or herself from subjectalism⁴ will necessarily fall back on a speculative materialist position, i.e. he / she will be forced to assume the principle of factiality. Obviously, the distinction between what Meillassoux calls

 $^{^{2}}$ I'm hinting here at Meillassoux's proof that our ability to use meaningless signs stems from the necessary contingency of all beings (cf. "Iteration, Reiteration, Repetition," where Meillassoux's earlier considerations about identity – from his thesis *L'inexistence divine* – are adapted to serve this new purpose).

³ trans. R. Brassier (London: Continuum, 2008, ebook version).

⁴ In *After Finitude*, "subjectalism" is referred to by different names (absolute idealism, subjectivist metaphysics, etc.). In order to avoid any possible misunderstandings, in "Iteration, Repetition," Meillassoux coins the term subjectalism to refer to the type of absolutism (whether idealist or vitalist) that "survived the correlationist critique, for it consisted not in disputing the closure of thought upon itself, but in confirming it, in the name of the absoluteness of thought itself (or certain of its characteristics)".

strong correlationism and subjectalism might be difficult to operate historically: in the works of many philosophers casted by Meillassoux in one or the other category, one might actually find statements that seem to indicate that the respective philosophers actually belong to the other category, and so on. However, the role of this distinction is precisely that of making us look past isolated statements: it forces us to decide to which category this or that philosopher belongs, and anyone who would contest this decision would be forced to resort to something more than simple statements of the respective author in order to state his claim (i.e. he would have to appeal to the guiding principles of that philosophy and to *deduce* from it the positioning of the author in one of the two categories).⁵ For simplicity, I will call this "the argument of the impossibility of correlationism", because its fundamental significance resides in the fact that it effectively *dissolves* one of these categories: strong correlationism has no choice but to recognize that it is, in fact, either a subjectalism or a speculative materialism. Strong correlationism is thus pushed into extinction: it is forced to choose in which of the two remaining fortresses - subjectalism or speculative materialism – it will henceforth camp its troops.

Obviously, with respect to this argument, one could take a different line of attack. One could thus not contest the introduction of this or that author in this or that category, but one would contest the categories themselves that Meillassoux proposes (subjectalism, correlationism, etc.)⁶ This, of course, can always be done, but that is beyond the scope of this paper. For my aims here, I can simply assume Meillassoux's categories, and see where they lead us with respect to ancestrality.

b) The second of Meillassoux's demonstrations that I will assume (and assume as known) here is that of the non-totalizability of the possible, provided in Chapter IV of *After Finitude*. This demonstration makes use of Cantor's notion of the transfinite in order to show that one cannot reasonably claim that a world (or Universe) whose entire set of laws and constants *could* change at any moment is also a world in which those laws and constants *would in fact, in all sane probability*, change frequently. Meillassoux shows that such a probabilistic

⁵ This deduction has its limits, of course: as Meillasoux states (*After Finitude*, 109), Kant only *postulates* the existence and the non-contradictory nature of things-in-themselves; therefore, when we say that Kant belongs to the "weak correlationism" category we are ultimately relying on simple statements. This is why, in what follows, I will pay little attention to the distinction between weak and strong correlationism.

⁶ Or one could even contest Meillassoux's ability to *conceive*, at the same time, these categories in the context of his own argument, as Josef Moshe has done in a very interesting paper ("Correlationism reconsidered. On the «Possibility of Ignorance» in Meillassoux," *Speculations: A Journal of Speculative Realism*, II, May (2011):187-206).

reasoning is impossible to apply to the world or universe as a whole, because this sort of reasoning would imply (i.e. suppose) our access to a totality of Universe-Cases in which probabilistic calculations could operate, while the notion of the transfinite indicates that such a totality – or totalization – of Universe-Cases is impossible.

Of course, Meillassoux admits that this demonstration is itself based on a particular mathematical axiomatic (i.e. the standard axiomatization of set-theory, itself an intra-wordly and therefore non-necessary mathematical theory), and other axiomatics might allow for the totalizability of the possible. In other words, the argument given in *After Finitude* does not yet prove that the non-totalizability of the possible necessarily follows from the principle of factiality, but only that this non-totalizability is possible. In this respect, Meillassoux's demonstration is only partial or unfinished, for the time being, and it should be complemented – or, better yet, replaced – by a derivation of the non-totalizability of the possible from the principle of factiality itself. But, again, for my aim here the partial nature of this argument is less important,⁷ and my point would remain unchanged even if a complete derivation of non-totalizability were already in place.

However, it should be noted that the non-totalizability argument does not prove the stability of the laws of our universe. Meillassoux is a bit ambiguous on this point, and dispelling this ambiguity is necessary for my own argument here. The ambiguity appears in statements like the following: "Thus, a genuinely satisfactory speculative resolution of Hume's problem should explain what could constitute *a precise condition for the manifest stability of chaos.*"⁸ From such statements, one might understand that a factial derivation of the non-totalizability of the possible would *prove* the stability of the laws of nature. However, one should not be led to that conclusion. Instead, let's see how Meillassoux details what this factial derivation would in fact achieve:

the resolution of Kant's problem presupposes that we have achieved a speculative rather than merely hypothetical resolution of Hume's problem. For it is also necessary to establish the legitimacy of the assumption that the stability of natural laws, which is the condition for every science of nature, can be absolutized. If empirical science is actually possible, we said, this is on account of the actual stability of the laws of nature. But it is now clear that this stability must be established as a mind-independent fact if we want to achieve a decisive break with contemporary Ptolemaism. Thus, it is a question of establishing that the laws of nature derive their factual stability from a

⁷ As is its validity. I personally don't think the argument of the non-totalizability is a valid one, but proving this claim would mean going beyond the scope of this paper.

⁸ Meillassoux, After Finitude, 163.

property of temporality that is itself absolute, which is to say, from a property of time that is indifferent to our existence, viz., that of the non-totalizability of its possibilities.⁹

Here is how I think Meillassoux's point should be understood. The argument of non-totalizability based on Cantor's transfinite only establishes that there is at least one mathematical axiomatic that allows us to think that the stability of the laws of nature is *possible*. But this possibility is not yet ontologically grounded as long as it is not derived from the principle of factiality. In other words, only such a derivation would establish the ontological possibility of the stability, and not merely a "mathematical" possibility of this stability for-us. But, by the same token, the factial derivation of the non-totalizability would certainly not prove that laws of nature are stable, that they don't change; it would only prove that it is possible and this is an ontological possibility, one independent of us – that they are stable or that they don't change. We would thus move from a stability that is "possibly possible", to one that is simply possible. But this in no way proves that the stability is the only possibility, it only proves that this stability is possible, and possible as a fact, not as a necessity. It would indeed be difficult - to say the least - to imagine how Meillassoux could possibly attempt to derive from the principle of factiality (i.e. from the idea that everything can change for no reason) the fact that there are some things - the laws of nature - that never change. Of course, apparently impossible tasks have already been accomplished in Meillassoux's thought, but I don't think that the one I'm talking about here is a task he has set for himself.

Correlationism and ancestral statements

Having indicated my assumptions, I can now make my way towards the main claim of this paper: when faced with the type of statements that modern science produces about events preceding all forms of life – the age of the universe, the formation of the Earth, etc. – speculative materialism doesn't seem to fare better than correlationism.

In order to make sense of this claim, we need to get down to the details of how correlationism fails to account for ancestral statements. Meillassoux is uncharacteristically ambiguous about this particular "failure", because in a number of places he lets us believe that a correlationist philosopher's claim with respect to a given ancestral statement could take the following form: "The statement «The event X took place Y years ago» is false". This ambiguity has already led to some misunderstandings in certain commentaries, such as the following:

⁹ Ibidem, 205.

However, it should be the cause of extreme astonishment if the philosophers referred to as correlationists by Meillassoux, such as Kant, Husserl, and Heidegger were not capable of understanding that the sun has existed before man. Neither idealism nor phenomenology is an ontic theory according to which the existence of human beings is the efficient cause of the existence of particular objects such as the sun, the Milky Way, or Niagara Falls.¹⁰

Obviously, objecting this to Meillassoux is unfair. If Meillassoux's notion of correlationism implied that the existence of the sun or the Earth etc. was dependent on the existence of human beings, then there would be no possible distinction to be made between correlationism and subjectalism (or, more precisely here, subjective idealism). Or, Meillassoux's entire argument of the "impossibility of correlationism" rests on the distinction he draws between these two philosophical positions. But, as I said, Meillassoux seems to encourage this misleading reading himself in After Finitude. He says, for example, that, for a correlationist, the ancestral statement is "one whose referent cannot possibly have actually existed in the way this truth [the objective truth of the ancestral statement] describes it."¹¹ And we are lead to believe that this impossibility of the actual existence of the referent of the ancestral statement stems from the fact that a correlationist must claim, with respect to an ancestral statement, that "its referent, taken literally, is unthinkable."¹² But, of course, later on in the same book, Meillassoux will state that the main thing that differentiates a correlationist from a subjectalist is precisely the fact that, according to the former, "everything is possible, even the unthinkable."¹³ The correlationist cannot therefore be assumed to claim that the ancestral event is *impossible*: if one assumes this, the entire edifice of After *Finitude* crumbles. The fact that Meillassoux seems to make this assumption in the first chapter of his book has to be written off as nothing more than an inconsistency (or insufficient precision) on his part. Therefore, the correlationist's position with respect to ancestral statements certainly can not be summarized in the form: "The statement «Event X took place Y years ago» is false".

Instead, the correlationist transforms the ancestral statement into something like this: "The event X took place Y years ago, for us (or for humans or even for the human scientist.")¹⁴ This correlationist modification of the ancestral statement

¹⁰ Markus Gabriel, "The Mythological Being of Reflection – An Essay on Hegel, Schelling, and the Contingency of Necessity," in *Mythology, Madness and Laughter*, Markus Gabriel and Slavoj Žižek (New York: Continuum, 2009), 86-87.

¹¹ Meillassoux, *After Finitude*, 32.

¹² *Ibidem*, 30.

¹³ *Ibidem*, 106.

¹⁴ *Ibidem*, 27.

plays two different, yet interrelated roles. First of all, the small "codicil" added at the end introduces the distinction between the "in-itself" and the "for us". This basically splits the event X in two asymmetrical halves: the "manifestation" of the event X or the way in which it appears to us, on one hand; and, on the other hand, the event X in-itself, as it might have taken place in the absence of any manifestation of it for us. The two "halves" are asymmetrical because one of them is unique, while the other is always potentially plural: we have no doubts about the way in which any event presents itself to us, the "presentation" itself already determines the "for us" part of the event; however, on the other side, the event itself (or in-itself) is a wholly different affair, because there is nothing to determine it (the manifestation only determining the "for us" side of it, like the visible part of the moon). In other words, the event X itself *might* not have taken place at all, or it *might* have taken place differently than we picture it (i.e. event X might actually have been event Z) or it might even have taken place in the exact way in which (and at the exact date at which) we describe it. The point is that all of these possibilities of the "event in-itself" are open as soon as the distinction for-us/initself comes into play, and one of these multiple possibilities is precisely that the ancestral statement be *purely and simply true*. Far from stating that the ancestral statement is false, the first role of the correlationist's codicil indicates that the truth of the statement is one possibility among others.

Its second role – tightly related to the first – is that of demanding, by its simple presence, *proofs* as to how we could access the "in-itself" in order to reduce (to just one) the plurality of possibilities characterizing the "in-itself" side of the ancestral event. Obviously, providing proofs for our actual access to the in-itself means using thought in order to gain access to what is independent of thought and, therefore, falling inevitably prey to the correlationist circle. Even more so when the object of discussion is ancestrality, where the only signs we have about the existence of these *past* events are nothing more than *present* traces. To the general "horizontal" obstacle posed by the for-us / in-itself distinction, a "temporal" obstacle is added, that of having to somehow directly access a past event (that no longer exists) without using the present traces (and sole remains) of its past occurrence. Obviously, there is no way to circumvent this double obstacle; consequently, the conclusion of this second moment or role of the correlationist's "codicil" is that there is no way to access the "in-itself" without transforming it into a for-us. Therefore, the correlationist himself could not claim that the ancestral statement is purely and simply false, because that would be tantamount to claiming that he actually has access to the in-itself (in order to know that the event X itself didn't take place, or it took place differently or at a different moment, etc.), and it is precisely the possibility of this access that he denies. Consequently, the multiple positions opened by the first role of the codicil are to remain *forever* open from the correlationist's perspective.¹⁵

To sum up, there are two moments in the correlationist's take on ancestral statements. The first one consists in stating that the truth of the ancestral statement is only one possibility among others; and the second one is that of stating that it is forever impossible to determine whether this possibility is more justified than the others. The correlationist's position could therefore be synthetically expressed in the form of the following syllogism:

The statement "The event X took place Y years ago" is true if and only if the ancestral event X itself really did take place and, moreover, it took place precisely as (and when) our current theory (and dating methods) assert.

But such a correspondence between our theory and the in-itself is impossible to prove. Consequently, it is impossible to determine whether the statement "The event X took place Y years ago" is true or false.

Let us face it: there is nothing nonsensical about this syllogism, and Meillassoux's conclusion in *After Finitude* about the correlationist's take on ancestral statements – "*it is a nonsense*"¹⁶ – is unjustifiably harsh. Meillassoux himself is well aware of this. In a later conference he states that the problem of ancestrality lays out "an aporia, rather than a refutation"¹⁷ of correlationism. Of course, by most standards, any philosophical theory that is proven nonsensical is thereby refuted, so, when Meillassoux maintains that ancestrality does not refute correlationism, he is implicitly stating that there is no nonsense in the correlationist position regarding ancestrality.

But it is important to try to understand why Meillassoux thinks that, while the problem of ancestrality does not refute correlationism, it is still important

¹⁵ In Meillassoux's account of this, another ambiguity – but tightly related to the one already indicated – is generated by the fact that he doesn't fully explain his claim regarding "the replacement [operated by correlationism] of adequation by intersubjectivity in the redefinition of scientific objectivity" (Meillassoux, *After Finitude*, 19). While it is true that correlationism does operate such a replacement, this doesn't mean that correspondence-truth is completely erased or eliminated from the correlationist position. Rather, it is "suspended" or "bracketed", since intersubjective-truth becomes all we can strive for, while correspondence-truth becomes impossible to express. What defines correlationism is precisely this way of keeping the options open as far as the in-itself is concerned. The pertinence of Meillassoux's argument of the impossibility of correlationism rests entirely on this way of interpreting the correlationist's position.

¹⁷ "Time without Becoming," conference given at Middlesex University (London, May 8, 2008), accessed June 25, 2014, http://speculativeheresy.files.wordpress.com/2008/07/3729-time_without_becoming.pdf.

enough to be considered an aporia. In order to see why, first of all, we must refrain from unflinchingly accepting all of Meillassoux's statements on the subject: indeed, every time Meillassoux deals with ancestrality – and its relationship with correlationism –, many of his statements seem to become problematic, if not outright self-contradictory.¹⁸ Secondly, we need to connect some of the disparate elements that Meillassoux provides in support of his claim, and the remainder of this section aims to connect the disparate remarks that Meillassoux's work offers us. This will lead us to identify what I think is the core of Meillassoux's position on this subject: brutally told, Meillassoux argues that correlationism renders science meaningless, and this is because it refuses what Meillassoux calls "the spontaneous realism"¹⁹ of science (or, in other words, because it restricts what I will call "the realistic assumption of science").

Before we attempt to clarify the meaning of this "realistic assumption of science", a few remarks need to be made. First of all, we should note that the following considerations will certainly seem overly naïve to a contemporary philosopher of science. Undoubtedly, Meillassoux should be viewed as advocating a form of "scientific realism", as philosophers of science would put it.²⁰ However,

¹⁸ Here are a couple of examples. In "Time without Becoming," Meillassoux states that correlationists claim that "there has never existed anything like a Universe preceding humanity with such and such determinations we could effectively know - this is just nonsense - but only an agreement between scientists which legitimates the theory in question. One maintains in the same sentence that scientists have solid reasons for accepting a theory, and that this theory describes an object – the field of pre-terrestrial life – which can't exist as described, because it is a nonsense". I have emphasized the problematic points in this passage: either the correlationist claims that we can't know the pre-life universe (but this doesn't mean that it couldn't have existed) or he claims that it couldn't have existed. One cannot maintain both descriptions of the correlationist's claims at the same time, at least not if one wants to be fair towards correlationism. Here is another example, this time from "Iteration, Reiteration, Repetition." Correlationism is initially defined as "every philosophy that maintains the impossibility of acceding through thought to a being *independent* of thought". But, as soon as ancestrality enters into the picture, Meillassoux states: "In this way, we would no longer, like the correlationist (whether Kantian or not), who affirms that the world is but the obverse of human (or animal) representation, have to perform more and more intellectual acrobatics to account for the scientific description of the Universe anterior to the appearance of terrestrial life." Again, either the correlationist claims that there is no knowable world independent of thought or that there simply is no world independent of thought. We cannot define correlationism in two ways that contradict each other and then claim that it is the correlationist that contradicts himself.

¹⁹ Meillassoux, After Finitude, 26.

²⁰ Anjan Chakravartty, "Scientific Realism," in *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), ed. Edward N. Zalta, http://plato.stanford.edu/archives/spr2014/entries/scientific-realism/, describes scientific realism as a commitment to three dimensions: a metaphysical one ("the mind-independent existence of the world investigated by the sciences"), a semantic one (commitment to the "literal interpretation of scientific claims about the world") and an epistemological one (commitment to the idea that the theoretical claims of the sciences "constitute

he does not go through the trouble of satisfyingly spelling out his realism: he does not, for example, try to refute anti-realist positions about science in order to strengthen his position, nor does he try to refute any of the famous anti-realist arguments. This is why Meillassoux's realism, detailed below, will necessarily seem naïve and insufficiently grounded. However, I think there are two important and interrelated points to make here, and they will hopefully avert us from dismissing Meillassoux's realism as being naïve. First of all, thus far Meillassoux did not need to defend his scientific realism as a philosopher of science would have, since his main goal has been ontological, and not epistemological. His goal, for the time being, has been that of creating an ontology – speculative materialism -, and it is on the basis of the main principle of this ontology – the principle of factiality - that Meillassoux intends to show exactly how the sciences can reach the in-itself (the mind-independent properties of the world). If Meillassoux's latter goal is achieved, then his naïve realism will certainly have been vindicated (therefore, dismissing it as naïve will prove to have been overhasty). Second, I think it is safe to say that Meillassoux does not need to explicitly defend his scientific realism from anti-realist arguments precisely because his philosophy is directed against correlationism. Arguably, all anti-realist positions about science (instrumentalism, pragmatism, social constructivism, etc.) are in fact tributary to correlationism. Consequently, Meillassoux's critique of correlationism and his scientific realism go hand in hand: one can only accuse his realism of "naïveté" by situating oneself on correlationist positions. In other words, if Meillasoux's critique of correlationism is successful, his scientific realism follows almost automatically: take away the arguments of correlationism, and the anti-realist arguments are also swept up.

Now, let us try to spell out what "the realistic assumption of science" might mean in the context of Meillassoux's philosophy. An example will clarify this. Let's imagine that we have two competing scientific theories that explain *equally well* a given set of phenomena. How do we decide which of the two theories is better? A scientist or a philosopher of science would probably tell us that this sort of problem can be easily settled²¹ by identifying some predictions of previously unnoticed phenomena that *only one* of the two theories makes possible – the "bending" of the light around massive objects, for example – and then testing or experimenting in order to see whether these predictions are confirmed or not. If

knowledge" of both observable and unobservable aspects of the world). Meillassoux's position with respect to the mathematized sciences perfectly illustrates the commitment to all these three dimensions.

²¹ Even if this "easy" settlement might require billions of dollars and fantastic ingeniousness.

they are confirmed, then the theory that predicted those phenomena (that were unconceivable in the framework of the other theory) is the better one. The point is that we do not *decide* which of the two theories is better based on their own inherent properties, but we have to *discover* which of the two theories is better, and this discovery is made precisely by putting them to the test against something like "reality". But in order to arrive at this "discovery", we must assume that each of the particular predictions made by our theories can be confirmed or infirmed. By this I do not mean that we must have the technical ability to produce the test or the experiment that could confirm a particular prediction, but simply that we must assume that that prediction really talks about something like "reality" and it is that reality that can prove it right or wrong. By supposing that, based on one theory, we predict that a certain sub-atomic particle exists and behaves in a specific way: this prediction cannot be confirmed or infirmed if we also suppose, for example, that it is impossible to know whether there are such things as "particles in themselves", independent of the thought that conceives them or of the experiment that isolates them. In other words, scientists supporting the competing theory – the one that didn't predict the particle - will simply reply: since we don't know whether particles in general exist "in themselves", all you have proven is that you can produce a particle in your experiments or, more precisely, all you've proven is that that particle exists in your experiments; but that does not prove that your theory is better than ours, just as we do not claim that a civilization is better than others because it produced Van Gogh or Scott Fitzgerald.²² Scientists can therefore always reply this: but the important point is that at the precise moment when they utter this reply, they will have stopped doing science.

In other words, in order for science in general – as an activity or, if one prefers, as a "discourse" – to work, we need to assume that its statements have an attached truth value, i.e. they are either true or false with respect to something like "reality". We could never compare two scientific theories unless we assume that their statements have the ability to be confirmed or infirmed by something exterior to them.²³ The functioning itself of scientific activity is impossible without this.

 $^{^{22}}$ Note that this is not the same thing as objecting that an error in the setting of the experiment or the insufficient precision of the instruments used might have given us the false impression that we'd found a new particle.

 $^{^{23}}$ This does not mean that scientists consider their theories as being absolutely and forever true. It simply means that there could be no "science" in general unless we consider as provisorily true the theory that has been confirmed. In Meillassoux's words, the fact that a theory is always susceptible to being refuted by a new, more appropriate theory "will not prevent the scientist from considering that it makes sense to *suppose* that her statement is true: that things could actually have happened the way she has described them and that so long as her description has not been supplanted by

While Meillassoux is pretty elliptical about this in *After Finitude*,²⁴ he does state it pretty clearly in his conference "Time without Becoming":

Truth, and truth considered as something like a correspondence with reality, is a condition of the meaning of theories, as hypotheses one can prefer to other ones.

In order for science to "work", it has to be spontaneously realist. This realism is therefore a fundamental assumption of science, and as soon as we refuse this assumption all scientific theories become equally valid – which is tantamount to saying that they become equally invalid.

But the most important point is that there are two possible attitudes with respect to this realistic assumption of science. One can accept it in a *restricted* sense, or one can accept it in a *generalized* sense. Accepting it in a restricted sense means admitting that it is indeed a fundamental condition for the functioning of science, but also that there is no reason why it should not remain confined to science. Scientists have to assume it in order to do science, but that does not mean that the realism they are adhering to is valid in general or should be accepted by other types of human activities or discourses (like philosophy, religion, etc.). This restricted sense of the realist assumption of science is the one Meillassoux attributes to correlationism:

A [correlationist] philosopher will generally begin with an assurance to the effect that his theories in no way interfere with the work of the scientist, and that the manner in which the latter understands her own research is perfectly legitimate. But he will immediately add (or say to himself): legitimate, as far as it goes.²⁵

One should note that the "as far as it goes" translates here the French "*dans* son ordre", which indicates the restriction of the domain of applicability of the realistic assumption. It is "within science's own discursive regime" that the realistic assumption is legitimate, but, the correlationist adds, there is nothing that could coerce us to adhere to the assumptions of that regime. Now, the correlationist's point is correct, insofar as I cannot think of a type of argument that

another theory, it is legitimate to assume the existence of the event such as she has reconstructed it. And in any case, even if her theory is falsified, this can only be done by another theory which will also be about ancestral events, and which will also be supposed to be true" (Meillassoux, *After Finitude*, 25). The realistic assumption is thus always present; it is coextensive to science itself.

²⁴ There are hints towards this in *After Finitude*. Here is an example (182-183) in which the notion of "discovery" is connected to that of "confirmability": "For the fundamental point is this: even if science had discovered this synchronicity, this would still have been a *discovery* – which is to say that it is precisely insofar as modern science is mathematized that it is capable of *raising* the question of a possible temporal hiatus between thinking and being – of construing the latter as a meaningful hypothesis, of giving it meaning, of rendering it tractable – whether in order to refute it or confirm it."

²⁵ Meillassoux, *After Finitude*, 26.

would render it necessary for all types of discourses (philosophy, religion, etc.) to adhere to the fundamental presuppositions of one of these discourses (in this case, science). This is why it is, in my view, impossible to actually prove correlationism wrong on this front, and this is why Meillassoux says that the problem of ancestrality does not amount to a refutation.

However, the problem with this restricted version of the realistic assumption of science is that it renders science meaningless, *when the latter is seen from outside the confines of its own discursive regime*. Suppose two scientific theories are competing for the description of the accretion of the Earth. One of them claims that it took place Y years ago, the other one claims that it took place W years ago. For a correlationist, it is this "competing" itself that becomes useless: for him, both positions could be right or wrong only if there were a way to prove that the initself really did behave (if it existed at all) as we describe it, but, as the syllogism above showed, this possibility is forever refused to us. Both theories become equally impossible to prove, and the whole fuss is in fact about nothing. Exchanging arguments and proofs, making experiments to corroborate this or that theory – it all becomes futile. Science keeps making sense, *but only for scientists*; meanwhile, seen from outside, from the "vantage point" of other discourses, it is utterly meaningless.²⁶

If a restricted version of the realistic assumption of science renders the latter meaningless, then the only way to hold on to the meaning of science is *to share* its realistic assumption. This is why, as we have seen above, Meillassoux claims that the realistic assumption is "a condition of the meaning of [scientific] theories"; or, as he states in *After Finitude*:

Science does not experiment with a view to validating the universality of its experiments; it carries out repeatable experiments with a view to external referents which endow these experiments with meaning.²⁷

If we want to hold on to a meaningful science, we need to defend a *generalized* version of the realistic assumption of science. In other words, we need to assume that this assumption, *internal to science* as it is, is valid *in general*. How is this possible? Simply by accepting the fact that science has the necessary "protocol" (i.e. experiments, measurements, etc.) that allow it to decide *on its own* if and when a statement or a theory is confirmed or infirmed. In other words, we need to acknowledge that science, and science *alone*, is sufficiently well equipped

²⁶ At least meaningless with respect to its cognitive capacities. Pragmatic capacities might be a different matter, even though it is not always easy to imagine what the pragmatic virtues of an ancestral theory might be...

²⁷ Meillassoux, After Finitude, 32.

to decide when a statement describing mathematizable properties of beings is to be considered true or false.²⁸ This, I think, indicates the most serious discomfort that Meillassoux has with respect to the correlationism-ancestrality issue: the fact that correlationists do claim that science has "good reasons" to consider that an ancestral statement is correct, and yet that very statement is declared, by the correlationists, completely and forever unverifiable.²⁹ Science thus becomes a sort of empty game, where huge amounts of intelligence and resources are expended for endeavors that finally have no cognitive value. This is why Meillassoux can consider that the problem of ancestrality is an "aporia", though this last word might itself be too strong, and he later reformulates it in a much more appropriate manner by saying that the problem of ancestrality is only meant "to problematize the contemporary self-evidence of correlationism".³⁰

I should add here that the generalized version of the realistic assumption of science might seem like a particularly strong assumption, but only if one places oneself outside the framework of speculative materialism. As soon as we view it from the larger perspective of Meillassoux's philosophy, it certainly becomes much more sensible, as my remarks above on the "naïveté" of his scientific realism have indicated.

To sum up, Meillassoux accuses correlationism of rendering science meaningless. In order for science to keep its meaning, we need not only to assume that scientific statements can be confirmed or infirmed (the realistic assumption of science), but also that it is science alone that can infirm or confirm them (generalized version of the realistic assumption). In order for science to keep being meaningful for us, we need to also assume that science has *the first and the last word* with respect to the mathematizable properties of beings. But this, as will be shown below, puts speculative materialism into a less convincing light.

²⁸ Again, this doesn't mean that a statement is considered forever true: it is only considered true as long as another *scientific* theory doesn't come along to invalidate it or to replace it. Also, when we assume that science has the necessary protocol for the validation of its statements, this doesn't mean that this protocol itself is forever fixed: but its possible modification would itself be the work of science, in the sense that it would stem from a debate internal to science.

 $^{^{29}}$ As he says in "Time without Becoming", "one maintains in the same sentence that scientists have solid reasons for accepting a theory, and that this theory describes an object – the field of preterrestrial life – which can't exist as described". I've show above why the latter part this phrase needs to be slightly – but significantly – modified.

³⁰ Meillassoux, "Iteration, Reiteration, Repetition."

Speculative materialism and ancestrality

When raising the issue of ancestrality against correlationism, Meillassoux might have raised the bar a bit too high for his own liking. We've already seen how the correlationist position with respect to ancestrality can be "syllogistically" expressed. But my discussion above regarding the realistic assumption of science shows that the already provided syllogism can be reformulated in the following manner:

The statement "The event X took place Y years ago" is true if and only if one accepts the generalized version of the realistic assumption of science.

We, correlationists, refuse this generalized version of the assumption.

Consequently, it is impossible to determine whether the statement "The event X took place Y years ago" is true or false.

However, if we were to construct a syllogism representing speculative materialism's position with respect to ancestral statements, would it be much different? Here is how such a syllogism would sound:

The statement "The event X took place Y years ago" is true if and only if the present laws of nature of our world have been the same for the past Y years.

But such a constancy of the laws of nature is impossible to prove.

Consequently, it is impossible to determine whether the statement "The event X took place Y years ago" is true or false.

In order to clarify this, let us assume we use radioactive decay rates in order to date the event X. In order to date it, we need to assume that the decay rates have themselves remained constant from the time of the event until our present. However, making such an assumption is precisely what speculative materialism forbids. The principle of factiality forbids us *to assume* the constancy of things, natural laws and natural constants alike.³¹ Of course, the principle of factiality doesn't tell us that the radioactive decay rates *really did change* in the last Y years, but it tells us that it is *impossible* to assume that they didn't.

But, one could ask, is it *absolutely* and *forever* impossible to assume that constants haven't changed in the past Y years? Could we not, for example, use dating techniques that have a built-in corroboration, like the uranium-lead technique that actually analyzes two decaying processes within the same sample, thus providing us – by the corroboration of the two results – with further guarantee that our dating is satisfyingly accurate? Or could we not go even further and apply, say, 20 dating methods or more – whether extant or not yet invented, whether

³¹ "For the truth is that there is no reason for anything to be or to remain thus and so rather than otherwise, and this applies as much to the laws that govern the world as to the things of the world." (Meillassoux, *After finitude*, 88-89).

based on radioactive decay or not - on the same sample? If numerous methods point to a unique date - Y years ago - then it is surely very likely that our dating is right, isn't it? Well, actually it isn't. When we claim that multiple methods pointing to a unique date make it *most likely* that our date is correct, we are obviously making a probabilistic inference. We are actually saying that, even though all the constants involved might theoretically have changed in the past, it is very unlikely that they would have all changed in such a coordinated manner as to point, at present, to the exact same date. If all constants can change for no reason – as the principle of factiality states –, it is more probable, the reasoning goes, that each of the 20 or more constants will have changed in its own way and at its own intervals, and this would – with an overwhelming probability – have lead to highly divergent readings in our present measurements: each method would, in all probability, have indicated a different date for the event X. In other words, if we assume that all the constants did change, the probability that they will have changed in such a manner as to unanimously point to a unique date -Y years ago - is extremely small.

This argument might seem convincing, but in the light of speculative materialism it is invalid. It basically asserts that a Universe with coordinated changes of its constants and laws is more improbable - or even incalculably less probable – than a Universe with erratic changes in its laws and constants. But this is precisely the type of inference that the argument of the non-totalizability of the possible forbids us to do, since it would imply a probabilistic reasoning operated on our universe itself, i.e. operated "to our universe itself considered as merely one among a totality of possible universes."³² It consists, basically, in claiming that a universe with coordinated changes in laws and constants - such as our own - has such a small probability among the totality of universes with changing laws and constants, that we might just consider the actualization of this incalculably small possibility as impossible. But, according to Meillassoux's argument of the nontotalizability, assuming such a "totality" of possible universes is a theoretically unjustified move, and, consequently, applying this type of probabilistic reasoning to the universe itself is wrong. Therefore, we might use as many dating methods as we like in order to situate the event X, but the corroboration of these dating methods will never prove anything with respect to the actual date at which the event X took place. They can all point to the same date - Y years go - but, in a speculative materialist framework, this will not modify in any way the fact that it

³² Meillassoux, *After Finitude*, 158.

is *de jure* impossible to determine whether the statement "The event X took place Y years ago" is true or false.

Let us state this in a different way. Meillassoux's argument of the nontotalizability of the possible makes it impossible for us to infer the necessity of the laws of nature from their *manifest* stability.³³ But, *the very same argument*, makes it impossible to infer the constancy of these laws *beyond their manifest stability*: while we, humans, are here now to *attest* to the stability of *contemporary* laws of nature, this does not allow us to infer that the same stability characterized our world *before* we were here to attest to this stability. One could, of course, say that inferring necessity from the improbability of (manifest) stability is not the same thing as inferring constancy from the improbability of coordinated changes. This is true, but the point I wish to make here is that both of these "implications" are relying on *the very same* totalization of the possible, on the very same idea – criticized by Meillassoux – that the "Universe of all Universes" is thinkable as a totality.

Let us take an example in order to make this point more obvious. Meillassoux compares the "frequentialist implication" that infers necessity from the improbability of stability with the inference made by a gambler (when he observes that the dice he plays with always lands the same face up) concluding that the dice is most probably loaded.³⁴ Now, for the purpose of my own comparison, let us assume that the gambler uses two dices instead of one. When he notices that the two dices always land the same face up (say, at each throw, each dice gives us a three), the player reasons in the following manner: there are 36 possible combinations that we could get by throwing the two dices, but we repeatedly get only one of these 36 combinations (namely, three-three). That the same one of 36 combinations be actualized at each throw is such an improbable result, that the dices must be loaded. The point is that the gambler's inference is

³³ Indeed, the only reason why we even have the idea that laws might be necessary is the fact that we are here to experience their stability. It is the *manifest* stability – the stability that we experience constantly all around us – that Meillassoux has to account for, and this is the whole point of the argument of the non-tatalizability of the possible. Meillassoux makes no secret of this, and in *After Finitude* he repeatedly points to the experienced – by us – nature of this stability: "the manifest stability of our world" (136), "the manifest stability of physical laws" (148), "the (manifest) stability of nature" (152), "the manifest stability of Chaos" (163), "the impeccable stability of the visible world" (179).

³⁴ "What is it that allows us to claim that the constancy of experience opens onto a genuine necessity, whereas the *a priori* does not open onto a veritable contingency? The answer is that our assumption in this case is exactly the same as that which would lead a gambler to suspect (at the very least) that a die that always lands the same face up is *very probably* loaded" (*After Finitude*, 155).

based on the totality of 36 combinations. And Meillassoux's entire argument against the "frequentialist implication" is that such a totality is unthinkable – and therefore unusable in an argument – for the universe itself.

But the argument that would infer that the event X is likely to have taken place Y years ago because of the corroboration of different dating techniques would also appeal to the same unthinkable totality. In order to simplify my point, I will use an example in which we only use 2 different dating techniques for the event X. Each technique represents one dice in my previous example; but this time, it is not the ratio between the (unique) face that comes up and the totality of possible combinations that is pertinent. What is pertinent is to calculate the probability that the two dices' results will always give us the same total sum. What does this mean? It means that, even though each dice does not always land with the same face up, the added results of the two dices will always amount to the same thing. This is precisely the case of two dating methods pointing to the same date for event X: each of the two constants involved might have changed, but we have to calculate the probability that they would have changed in such a coordinated manner that both of them will still point to a unique date for our event. Likewise, in the dice example, each of the two dices can give a different result, but we have to calculate the probability that, together, they end up giving the same total. For example, let's assume that the sought sum of the results of the two dices is 5. This means that we have 4 possible combinations that give us this total (onefour, two-three, three-two, four-one) out of the same total of 36 possible combinations.³⁵ Whereas in the first case above (rendering Meillassoux's own reasoning) we were dealing with the ratio of 1 combination for 36 possibilities, here we are dealing with 4 combinations out of the very same "totality" of 36 possibilities.³⁶ This is the type of reasoning we make when we say that it is "unlikely" that, if the decay rates have changed, all the dating techniques would still point to a unique date: we are basically saying that there is only 1 in 9 chances that such a coordinated change could have taken place, and each new dating

 $^{^{35}}$ A different – and probably more appropriate – manner to construct this example could have been used. In this more complicated version, a set of two or more successive throws would have had to give the same sum for *each* dice, and the sums for the two dices would also have had to be equal. But that would only have complicated matters without modifying in any way the conclusion we can draw from the simpler version of the example.

³⁶ And, just to indicate how my argument can be further unfolded, with each new dating method used for the event X, we are basically adding a new dice to my second example. But the first example with a unique combination works with as many dices as we want, so the totality of possible combinations will remain the same for both examples, irrespective of how many dices we use.

technique we add (i.e. each new dice we add to the example) will only lower the chances even further. But the point is that, *in both examples*, we are operating with the same notion of "totality" of possibilities, or the same totality of the "Universe of all universes", and, according to Meillassoux's argument of the non-totalizability, this is an unjustified move.

This drives home my point, namely that the argument of the nontotatlizability of the possible makes it absolutely impossible for us to claim that the stable laws that are manifest to us now were also in place in ancestral times. It is therefore impossible for us to infer (or assume) that the present stability has been in place for the past Y years. Therefore, the speculative materialist syllogism with respect to ancestral statements given above is the right one, and it can be reformulated as follows:

The statement "The event X took place Y years ago" is true if and only if one accepts the generalized version of the realistic assumption of science.

We, speculative materialists, deny that the generalized version of the realistic assumption of science can cover ancestral statements.

Consequently, it is impossible to determine whether the statement "The event X took place Y years ago" is true or false.

We are thus led into the following "aporia": science has *the last word* about the mathematizable properties of beings (generalized version of the realistic assumption of science), but this last word is *meaningless* with respect to ancestral statements. Therefore speculative materialism and correlationism both restrict the realistic assumption of science. But they restrict it in different manners. Correlationism operates a logical restriction of the assumption, by saying that this assumption can only be made within the confines of science's "discursive regime": the realistic assumption is therefore never valid – or, in any case, its validity is never provable – outside the discourse of science. On the other hand, speculative materialism operates a chronological restriction of the realistic assumption, by saying that we are justified to make this assumption for present or contemporary phenomena, but that it is impossible to make the same assumption as far as ancestral phenomena are concerned.

This point is somewhat overlooked by Meillassoux, and signs of this omission are clearly visible in his work. For example, in "Iteration, Reiteration, Repetition," Meillassoux states that "physics (or any other science of nature) must be based upon this absoluteness of the void sign in order to produce hypothetical (revisable) descriptions of the *present* world, capable, in turn, of being true in an absolute sense – that is to say, independently of our existence." I've emphasized the word "present" here because, on the very next page, Meillassoux states that, if

a factial derivation of Galilean science is reached, "we will have arrived at an understanding of the remarkable capacity of sciences to describe the Universe as it existed *anterior* [my emphasis] to man and to the living, and, doubtless, will exist after they have gone." However, as shown above, this leap from the present world to the ancestral one is impossible to make within the framework of speculative materialism.³⁷ Even if a factial derivation of the absolutizing properties of mathematized sciences is achieved, this will *de jure* tell us nothing about ancestral phenomena.

We are thus lead into the following paradoxical situation: if the factial derivation of Galilean science is achieved, the principle of factiality will have allowed us to prove the ability of mathematized science to identify true properties of the present world in-itself, of the present world as it is, independently of our existence or of the existence of thought; however, *the very same principle* will limit this ability of science to the present, making it forever impossible for science to identify true properties of a world anterior – or ulterior – to our existence or to the existence of thought. With respect to ancestral statements therefore, a speculative materialist will have to take a similar position with that of a correlationist: for both, the truth of ancestral statements is certainly possible, but forever – or *de jure* – unprovable. Scientists will have "solid reasons" to place the event X Y years ago, but the truth value of this dating is *de jure* unassertable. Two competing theories placing the event X at different dates – Y years ago and W years ago, respectively – thus become, again, equally valid, i.e. equally invalid.³⁸

³⁷ I am only dealing here with the question of ancestrality, so I do not tackle the problem of knowing what extension the "present world" could have in a speculative materialist setting. In such a setting, the chronological extension of the "present world" that science can accurately treat might be significantly smaller than the total duration of the existence of man (or of life) so far, but I cannot deal with this problem here.

³⁸ I have challenged here the idea that the dating of the ancestral event X can be declared correct or incorrect in a speculative materialist setting. But, as we have seen, for a correlationist it is even impossible to declare whether the event X has taken place or not. Is it the same for a speculative materialist? I think it is safe to say that for a speculative materialist, the Earth, for example, has certainly appeared, but it is impossible to state whether it was formed by accretion or not. When he states that, instead of obeying the laws of impact, two billiard-balls could in fact be "flying off into the air, or fusing together, or turning into two immaculate but rather grumpy mares, or into two maroon but rather affable lilies, etc." (After Finitude, 147), Meillassoux means what he says. This means that there is nothing that prevents us from claiming that the Earth has appeared due to two billiard-balls colliding, since claiming one or the other assumes that we know what laws of nature were in place at that time and since speculative materialism prevents us to use probabilistic reasoning in order to asses that the laws at that time were probably the same as the present ones. In other words, when Meillassoux mocks correlationists for being dangerously close to the creationists that claim that "God also created at the same time as the earth 6,000 years ago those radioactive compounds that seem to indicate that the earth is much older than it is" (After Finitude, 30

As a conclusion, it seems fair to say that speculative materialism faces the following alternative. On one hand, it can claim that restricting the realistic assumption of science is not such a bad thing after all, and that a generalized version of the realistic assumption is not a necessary desideratum for a philosophy. But this is tantamount to admitting that the problem of ancestrality does not discredit correlationism *in any way*. Or, on the second branch of the alternative, speculative materialism can hang on to the assumption that a generalized version of the realistic assumption is a necessary requirement for a philosophy worthy of its name. But this would purely and simply imply giving up the principle of factiality;³⁹ that is, it would imply no more and no less than reverting back to correlationism. Undoubtedly, it is the first branch of the alternative that seems less costly for speculative materialism.

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^{34),} there is nothing in speculative materialism that makes it impossible *or even unlikely* that the hyper-Chaos did *the exact same thing* (without, it should be said, the help of God). So, to *both* questions that Meillassoux addresses correlationists: "*what is it that happened 4.56 billion years ago?* Did the accretion of the earth happen, *yes or no?*" (*ibidem*, 31), speculative materialists have to reply in the exact same manner as correlationists: "We don't know, and it is impossible to know." However, this point is only mentioned in this long footnote and it will not be further developed here since continuing, even for a short while, this line of reasoning will rapidly lead us to contesting the validity of the non-totalizability argument; and this, as I said, is not within the scope of this paper.

³⁹ Not directly, but *via* the following chain: first, one would give up the argument of the nontotalizability of the possible, but that would entail admitting some sort of necessity for the laws of nature (either metaphysical – i.e. real –, or one pertaining to the conditions of possibility of experience – i.e. correlationist); and, as speculative materialism shares the anti-metaphysical character of correlationism, the last step in this cascade would entail choosing the correlationist's kind of necessity and, consequently, giving up the principle of factiality altogether.

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