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Contingency

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Varia

Metaphysics, Speculation, Correlation[1]

QUENTIN MEILLASSOUX

The endeavour we began to expose in *After Finitude*[2] consists in the attempt to uphold the contemporary legitimacy of a speculative philosophy that repudiates neither the notion of principle nor that of the absolute. Moreover, we do not deny the extent of the crisis that has plagued metaphysics for the last one hundred and fifty years. The fundamental question involves circumscribing what was decisively made obsolete by this crisis and what, on the contrary, can escape it with a renewed vigour for the ongoing quest for eternal truths. The guiding hypothesis of our research is the following: we believe that *the downfall of metaphysics does not affect the speculative demand of thinking according to the absolute*, but the will to think the absolute *with the help of the principle of reason*. This is the belief that things will have a necessary reason for being what they are—and the idea that such a necessity should lead us to a Reason of reasons, a supreme reason, divine or otherwise—which has truly died in the spirit of contemporary philosophers. And this death is certainly—as we shall demonstrate in our own way—with good reason. On the contrary, the idea of a *non-metaphysical speculation* would consist *in making the ultimate absence of reason* for all things, their radical contingency, *the principal absolute* through which a discourse could develop that, instead of unreasoning, would be woven from specific arguments reconfigured for tackling new or traditional philosophical problems. I am also convinced that instead of dissolving the great problems left behind by metaphysics into meaninglessness, we could—within such a logos of irreason, but not of unreason—*precipitate* such

1 From Bernard Mabille ed., *Ce peu d'espace autour. Six essays sur la metaphysique et ses limites* (Chatou: Les Éditions de la Transparence, 2010), translated for *Pli* by Taylor Adkins.

2 Q. Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (Continuum: London, 2010).

problems: we could rediscover a solid precipitate of these problems after their sceptical dissolution or their deconstruction—and I shall therefore oppose such a speculative precipitation of metaphysical problems to their contemporary destruction.

In order to explain the orientation of such an endeavour and rather than dogmatically deploying my own theses, we shall begin with the patient exposition of a problem: 'the antinomy of ancestrality'. It is in fact by becoming familiar with this antinomy that we convinced ourselves of the necessity and even the urgency to maintain within thought, against every contemporary disqualification, the demand of a theoretical—and not just practical—quest for the absolute.

Our analyses will unfold in three stages: 1) the exposition of the antinomy of the ancestral as an aporia capable of motivating a return of thought to a certain form of absolute; 2) the exposition of what we shall call 'correlationism', which we shall take as a model for the main contemporary disabsolutisations of thought; 3) the exposition of a principle that has directed our investigations for the last several years: the 'principle of factuality', through which we attempt to escape from the correlationist prohibitions towards a certain absolutory capacity of philosophy.

1. The antinomy of ancestrality

Let us set off from a fact, and more specifically a fact of knowledge bound to a contemporary state of the experimental sciences: the capacity of the sciences that are said to be concerned with dating to reconstitute, even as a revisable hypothesis, a temporal framework that includes events prior to the appearance of terrestrial life. The procedures of dating became possible in the 20th century due to the progressive amplification of techniques that can determine the actual duration of the objects in question. These techniques generally concern the constant speed of disintegration of radioactive nuclei, as well as the laws of thermoluminescence that enables us to measure the age of the light emitted by stars.

Beyond the technical difficulty of these particular disciplines, this fact of knowledge poses a question to the philosopher which in turn relates to his own competence and can be formulated in the following way. We shall call 'ancestral events' all events whose dates are supposed as being prior to the appearance of life on Earth. We shall call 'ancestral time' a time whose scientifically established chronology includes ancestral events, thus a time of the physical Universe in which the appearances of life and humanity constitute milestones in a chronology that both contains and exceeds them.

The question from which we are setting off is therefore the following: under what precise conditions can a philosopher give a *meaning* to the statements bearing upon ancestral events—for the sake of convenience we shall call them ancestral statements—and ancestral time. How do we think this relatively recent fact, which is not the fact that humans talk about what has preceded them—they have always done this—but that they have inscribed the ancestral discourse within the field of *scientific experimentation*, and no longer that of myth, storytelling, or gratuitous hypothesis?

The difficulty we have encountered due to this simple question comes from engaging the ancestral bearing of modern science and the dominant antirealism of modern philosophy. If metaphysical materialism seems basically untenable after Berkeley, and if every form of realist dogmatism (including Berkeley's immaterialism) seems to be discredited after Hume, then it is perhaps for a reason as simple as it is decisive: the realist in fact always seems to commit a 'pragmatic contradiction' when she claims to know a reality independent from her thought, because the reality of which she speaks is precisely what she is given to think. When I claim to access a thing in-itself, I have really accessed nothing but a given from which I cannot abstract that it is strictly correlated with the access that I have to it, and that it has no conceivable meaning outside this access, in whichever way I may conceive it. In this sense, it seems empty to ask what things are when no one is there to perceive them.

We are making this argument the foundation for a position to which we shall return in more detail, an antirealist position that we call

'correlationism'. As a preliminary approximation, we mean by this neologism any position that affirms that there is no meaning in accessing a thing independent from thought, due to the fact that we cannot extract ourselves from the essential correlation of being and thought in which we always-already are. We are trying to characterise every sort of antirealism —whether it defines itself as idealist or not, whether it is transcendental, phenomenological, or postmodern. This characterisation obviously does not mean that we identify these various and complex currents with this elementary argument. But this argument—which we shall call the 'correlationist circle' because it consists in being equivalent to the vicious circle, which is essentially pragmatic and inherent to every realism (the moment I claim to think an in-itself independent from thought, I precisely think it, thus contradicting myself)—this argument, as we say, produces a disqualification that is extraordinarily effective upon the presupposition from which extremely different, even conflicting, antirealisms could trek out their own paths. It seems that this argument is the fundamental obstacle that every realism always comes up against: how do we claim to think what there is when there is no thought, without seeing the manifest contradiction inherent in this process? Thus many other arguments can feed off this so as to nourish the antirealisms of various traditions, and the correlation itself can be thought in many different ways: subject-object, consciousness-given, noetico-noematic correlate, being-in-the-world, language-reference, etc. But in each case, the correlation will be posited as a primordial fact nullifying the belief in the thinkability of a thing independent from all thought. The most certain sign of the domination of correlationism over contemporary philosophy—at least in its 'continental' sphere—is that 'metaphysical materialism' or 'dogmatic realism' quite generally constitute the paradigm of philosophical naivety. It seems like 'naïve realist' is for many philosophers a ready-made expression, in the end redundant.

Although we shall return to it, let us add that we shall more specifically call 'correlationism' any endeavour towards the *disabsolutisation* of thought: i.e. a philosophy which not only affirms that we can say nothing through the force of the concept about a realist type of absolute, neither what it can be, nor even if there is one—but which will also challenge any absolutisation *of the correlation itself*. Correlationism

in fact irremediably encloses us in our relation to the world without giving us the means to affirm, in the manner for example of a speculative idealist, that this relation itself contains the foundation for a veritable absolute. According to correlationism, enclosed in this relation that certainly opens us to a world but according to a bond strictly relative to our apprehension, we cannot pick out a necessary foundation that would allow us to hypostatise this reciprocal relation of the subject and the world beyond its instantiation in a community of human mortals. We are always-already in a correlation that separates us from the absolute, without it itself being able to constitute an absolute of substitution (this will be explained below).

Correlationism understood in this way seems to constitute a model particularly prevalent among modern and contemporary antimetaphysics, a mode of *closure in the open*—in our only opening to the given—that it has prevented us from going beyond towards an eternal grasp of the in-itself.

But before returning to this philosopheme so as to expose it more appropriately, we should expose the problem that has convinced us of the necessity of theorising both the notion of correlationism and its possible critique. As we said, this problem constitutes *the antinomy of ancestrality*, whose meaning we shall now explore.

The problem which we have come up against and which has, if not determined, at least confirmed our search, consists in the fact that we have progressively become aware that, despite appearances to the contrary, it was truly difficult to give a meaning to an ancestral statement within the framework of correlationism, i.e. an antirealism—be it sceptical, transcendental, phenomenological, or postmodern. The question is namely the following: if it is meaningless to believe that we can think what there is when there is no thought—to claim to know what there is even when we are not—then what are the sciences of dating doing when they produce ancestral statements?

There is a well known response to this question: it is certainly impossible for an antirealism to absolutise space-time so as to turn it into a

milieu in which humanity would have effectively emerged after an immense series of ancestral events. For a correlationist, experimental science can indeed express itself in this way—it has the right to do so—but, as for the philosopher, he must understand that the ancestral past cannot have existed in itself, independently from us: in truth, it has been *retrojected* by the scientific community on the basis of the present, all in the name of the present experiences themselves which make ancestral dating possible. We are enclosed within the structures of our relation to the world, and it is *inside* such a relation that we construct an ancestrality prior to our existence.

In the first *Critique*, we find in Kant a similar interpretation of the immemorial past of the Universe. Kant clearly affirms that this past has no meaning except as a contemporary projection of our experiences toward the past—and not as a past dogmatically understood as that of a Universe that would have subsisted in itself before any subjectivity.

Let us cite the passage that is found in the 'Antinomy of Pure Reason' which perfectly illustrates what we call the 'retrojection' of the past on the basis of the present:

> Thus we can say that the real things of past time are given in the transcendental object of experience; but they are objects for me and real in past time only in so far as I represent to myself (either by the light of history or by the guiding-clues of causes and effects) that a regressive series of possible perceptions in accordance with empirical laws, in a word, that the course of the world, conducts us to a past time-series as condition of the present time—a series which, however, can be represented as actual not in itself but only in the connection of a possible experience. *Accordingly, all events which have taken place in the immense periods that have preceded my own existence mean really nothing but the possibility of extending the chain of experience from the present perception back to the conditions which determine this perception in respect of time.*[3]

We suggest that this is how Kant could reconcile his remarkable cosmogony, which was written in 1755 and thus in a pre-critical or, in brief, 'dogmatic' period—his *Theory of the Heavens*[4]—with his transcendental turn. In fact, the *Theory of the Heavens* consists in applying the principles and categories of Newtonian physics to a history of the Universe supposedly beginning in a state of radical material dissemination where, according to Kant, "nothing was 'yet' formed",[5] up to the existing planetary systems of our day. Thus Kant does not hesitate to conceive a Universe in which very long periods of time have passed before the arrival of conditions favourable to life in general and to that of humanity in particular, which occurred with the formation of the first planetary systems. The cosmology that he proposes does not claim to explain the genesis of life itself, but simply the mechanical and cosmic conditions within which such an existence of living and conscious beings can take place. This text, although amended later, was never repudiated by Kant, since it went through seven editions during the author's life, the last in 1799—thus well after the writing of the three *Critiques*. Kant therefore considered that what I have called an 'ancestral temporality' posed no particular problem to the transcendental development of his philosophy, the moment we understand that the cosmic past no longer has a dogmatic meaning: that it should be thought within the framework of a regression on the basis of our present and not as a past having existed in itself independently from the community of 'transcendental' subjects instantiated in the human species.

It nevertheless seems that things are more delicate than Kant envisioned. It is not really obvious that we can put on the same level the

3 Immanuel Kant, 'Antinomy of Pure Reason', 6th section, 'Transcendental Idealism as the Key to the Solution of the Cosmological Dialectic' in *Critique of Pure Reason,* trans. Norman Kemp Smith, (Palgrave: New York, 2003), A 495, B 523.

4 Immanuel Kant, *Histoire générale de la nature et théorie du ciel, ou Essai sur la constitution et l'origine mécanique de l'univers dans sa totalité traités d'après les principes de Newton,* trans. J. Seidengart, A.M. Roviello and P. Kerszberg, (Paris: Vrin, 1984).

5 *Op. cit.,* p. 101; Ak, I, 263.

projection of experience towards a past that was 'inhabited' by other subjects having existed before me—we shall call this past, speaking quite broadly, a subjectivated past, i.e. having been constituted by one or several past subjects—and an ancestral past prior to humanity, thus prior to every known subjectivity. This is because, when I project towards the subjectivated past, it has *already* passed; like every past, it flowed from its present towards its future. In fact, this past has existed as a temporal sequence correlated with transcendental subjects, even before I was able to project back its passing in order to reconstruct the thread. But the ancestral past, in its turn, has had no existence before our own emergence: it has had no existence at all—neither in itself, nor for a subject before we reconstitute it. The moment we admit that the space-time of ancestral events only has a being insofar as it is correlated with a transcendental or constituting subject (to say it like a phenomenologist), the ancestral past—unlike the subjectivated past (ours or those of other past humans)—is a past *that has never been a present*. In other words, the ancestral past is a past that is *originarily* a past: the ancestral is originarily a past for us—reconstituted by us—that has never been a present in itself or for another.

Thus within a transcendental interpretation, the ancestral has never been a present before being a past for subjects: on the contrary, it has been *its own future*—i.e. our present which reconstitutes it on the other side—*before* being a past: because as past it is completely *constituted*—and not *re*constituted—by our current projection towards it. The ancestral past is not constituted by a passage of time from the present—its own—towards the future, but from the present—our own—towards a past that is not prior to this regression. It is important to understand that this retrojection of the past on the basis of our present is not simply our perspective on an ancestral past having existed in itself—but that the ancestral past, unlike the subjectivated past, has no meaning besides our own regression towards it—has no meaning besides this inversion of the time of today towards a time without humanity.

This is why there arises a difficulty here due to the way in which correlationism affects the *meaning* of the ancestral statements produced by contemporary science: what is such a past, what signification can it have? Can we still say in a meaningful way that this past *which has never been*

contemporaneous with itself is still a past, still has something to do with what we would want to call a past? The ancestral past indeed becomes a past *that never took place* [un passé qui ne s'est jamais passé], *which has never been present, which regresses from the future towards itself instead of progressing of itself towards the future*. From here on, the simple question of knowing what science is talking about when it describes an event dated as prior to terrestrial life (for example, the Earth's accretion) makes us fall into inevitable absurdities, such as: science objectively reveals to us the past existence of an event that never took place during the time that it is dated...These are just some of the paradoxes that turn the ancestral into a transcendental milieu, a notion that endangers the meaning of temporality itself and the scientific statements concerning it.

Here we are touching on a problem of meaning that can be found within the confines of any rigorous antirealism. We shall not fully develop the extent of the problem of retrojection here, but we will insist on the following point. What is difficult to grasp in this problem is how it is different from a naïve and very well known objection against every form of idealism. In the end, it can seem like we rest content with objecting to correlationism that there was a universe before the appearance of humanity and that this proves that we must be realist—which would obviously be a naive critique. The whole problem lies in understanding how our proposal is different from this type of triviality.

Let us begin this differentiation by continuing our discussion with Kant.

First, we understand that the problem of retrojection does not naively affirm that there was a Universe existing in itself before subjectivity—this would be begging the question. As we said, the problem concerns the conditions of meaning for science when it bears upon ancestral events. We are questioning if the transcendental, whose responsibility is to ensure the conditions of possibility of science, does not instead destroy the conditions of meaning—we are thus asking if *the spontaneous realism of science would not truly be the unsurpassable condition for the meaning of its statements*. We thus do not oppose correlationism naively to the idea of a reality dogmatically posited as prior

to us: we are investigating the conditions of signification for an ancestral scientific statement.

Next, one could object that the problem of retrojection mixes empirical considerations (the appearance of the human species, the existence of sciences concerned with dating) and transcendental considerations (the *a priori* conditions of knowledge). But the problem is precisely to determine at what point the transcendental and the empirical —in phenomenological terms, the reduction and the natural attitude—are certain to never interfere concerning this question. For the subject or transcendental consciousness are *instantiated* in *empirical* subjects: they would not exist outside their incarnation in bodies. The transcendental discourse and the empirical discourse are distinct, but this difference in levels of discourse does not at all imply the hypostasis of a transcendental subject: if empirical subjects do not exist, there is no sense in saying that transcendental subjects should remain on another plane. Our proposal is to examine the effects upon the meaning of the transcendental discourse of the empirical non-being of human beings, as exposed by a science which deals with the ancestral Universe. We then intend to show that these effects are destructive for the transcendental and retrojective interpretation of temporality.

Finally, one could claim that the problem of the ancestral is unoriginal, but that it gathers together the classical objections concerning the being of unperceived phenomena. Thus the naïve realist who is not disposed to believing in correlationism spontaneously asks what happens to the sunlight when no one is in the apartment to witness the scene. But, as we know, the correlationist easily answers this question. First, by making believe that a world is never *actually* given in its *totality* to a subject or plurality of subjects: the givenness of a world is essentially lacunary—and this lacuna belongs to the world in a way that is as essential as its full experiences. For Kant, real experience takes place on the basis of an indefinite number of possible experiences in space-time; for Husserl, intentional consciousness deploys itself on the basis of the contours of an unclosable horizon of givennesses, etc. The sunlight unperceived at the moment of its descent therefore fully takes part in the world of subjects *as a possible experience*, not actual. And its

determination is nothing other than what the subject could reconstruct through a counterfactual, such as: if there had been a witness to the sunlight, she would have observed such and such a scene. But, our correlationist philosopher will perhaps affirm that one could rigorously say the same thing about an ancestral event, which is, according to him, not at all different from the banal example of the sunlight's descent: if there had been a witness to the Universe before our appearance, she would have observed this or that—and we cannot object that, in fact, there were no such witnesses, because then we would be allowing an empirical consideration to intervene in a transcendental type of reasoning.

Nevertheless, this objection falls short because it confuses *lacunary givenness* with the *lacuna of givenness*. In a world actually correlated with a subject, it is essentially the non-given that poses no problem—lacunary givenness allows us to give a precise status to the unperceived: it constitutes this sphere of possible experience essentially correlated with the sphere of actual experience. We can thus say that the unperceived event existed the moment it took place *before* being observed, but only as a *possible* experience. The sunlight was actually [*actuellement*] only determined by retrospective reconstitution, but it was indeed something *before* this reconstitution: the light was precisely a *possible* experience, i.e. by force of its retrospective determination. But in the ancestral, we posit by hypothesis that there was no subject at all then, thus certainly neither actual experience, *but also nor any possible experience*—neither horizon, nor the possible perceptible, whatever it may be—for there is nothing possible except that which 'makes a hole' in an *actual* experience of the world. It is thus impossible to think a past that would have had a worldly status—that of actual possible experience—before being reconstituted. When it took place, during the age in which it took place, it was *pure nothingness*—in other words, it did not at all take place when it took place, neither as actual nor as possible—hence the preceding paradoxes concerning the past that was never contemporary of itself, endangering everything up to the meaning we give to the notion of time.

We can no longer carry our engagement with the problem of retrojection any further. No doubt other objections are conceivable, but we are convinced that by honestly engaging the difficulty we shall afterwards

always discover the aporetic force of ancestrality upon every correlational conception of science. And we hope that after exhausting the signification of the problem it will in turn seriously rattle the certainty of the most entrenched antirealists.

Henceforth we can more precisely formulate what we mean by *the antinomy of ancestrality*, namely the double-impasse into which we appear to be falling: *every realism is immediately destroyed by the pragmatic contradiction that it inevitably seems to include*; but on the other hand, *every antirealism seems to imply a destruction of the meaning of science* insofar as science brings us to discover an ancestral temporality that becomes somewhat 'demented' in the light of correlationism. This is the antinomy that we shall work to deepen and resolve.

Let us now pass to the way in which we attempt to confront this double aporia. According to us, one of the two sides of the difficulty can be overcome, albeit under drastic conditions: and, contrary to what many philosophers no doubt believe, the difficulty that can receive the beginning of a solution is not—we are convinced of this—the correlational destruction of ancestral meaning, but the pragmatic contradiction to which realism seems condemned and which 'beheads' it as soon as it is stated. In other words, our entire enterprise consists in maintaining that *we can without inconsistency think what there is when there is no thought*, thus being able to think a certain form of *absolute* that is non-relative to our mental categories because it subsists in itself whether we exist or not so as to conceive it. And it is such an absolute that will allow us to secure the signification of science insofar as the latter itself contains the ancestral as one of its possible objects. But we are henceforth suggesting that this absolute will have to take on the form of *a time of a radical inhumanity*, since it is able to precede and engender our humanity in its totality or even destroy it, without itself being affected. A time that will not be a form of thought but the possible engendering and perishing of all thought, a time that will not flow from consciousness, but from the flows in which consciousnesses rise and fall. It is this ancestral and 'sepulchral' time, able to be prior or posterior to all life in general and able to contain nothing but a dead matter, which we seek to capture through the concept by releasing thought from all forms of correlationism. The question is one of knowing

how to do this without falling into the aporias of naïve realism, so as to access instead what we shall call, lacking better terms, a *speculative materialism*.

Such a materialism gives itself a precise task, but one that seems devoted to considerable difficulties with which I am always grappling: to give meaning to a mathematised description of the ancestral Universe. Not to affirm that the contemporary theories of science applied to an inhuman Universe are true, but that there is meaning in supposing that they can be. Every scientific theory arises as a revisable hypothesis (or set of hypotheses), but as a hypothesis it must be able to be posited with meaning as a possible *truth*, thus must be significant. It therefore forces us to consider, against a large part of contemporary philosophy, that in the matters of philosophy of science we must be the heirs of Descartes and not Kant. For if we do not have to suppose that the Universe without man was already endowed with qualitative features (odour, taste, colour, etc.) characteristic of the objects of our sensations and perceptions, we are on the other hand constrained to consider that its mathematical restitution possesses a non-correlative, i.e. absolute, bearing as a way of conserving a meaning to its restitution by a science which is no longer Aristotelian (qualitative) but composed of numbers and magnitudes. However, we do not hide the considerable problems that such a vision of science and its relation to the world supposes. Yet we are resolutely engaged in the specific confrontation of each of these difficulties, the first of them being the overcoming of the pragmatic contradiction seemingly inherent in every refusal of correlationism. Obviously not having the possibility of unfolding the entirety of this task here, I shall content myself with exposing its primary stage by returning more specifically to the philosopheme of correlation and the possibility of escaping it.

2. Correlationism

As we said, the correlationist model does not claim to reconstitute the various non-realist philosophies of modernity in their wealth, but allows us to identify the two fundamental necessary and sufficient arguments that constitute a consistent and radical antirealism. By showing

how it is possible to counter this argumentation, we shall outline the contours of a contemporary speculation, which would consider that any problematisation of this model would give us reason to hope for the consecutive problematisation of any philosophy whatsoever that would reject the possibility of thinking what there is when there is no thought. For as soon as the objection is made that there is a pragmatic contradiction inherent in the grasping of an in-itself, there are serious reasons to think that we have already breached the main line of defence of the philosophies of correlation. But the counter-proof of this postulate could not consist in anything other than a specific confrontation with the main representatives of these various currents, although this cannot be undertaken here.

Correlationism seeks more specifically to model the majority of the contemporary endeavours towards the *disabsolutisation* of thought by challenging not only any form of absolute materialist, but also all the forms of 'subjectivist metaphysics' that consist in absolutising the correlation itself in various ways. Hence the two decisions of thought of correlationism: the *correlational circle* and the *facticity of correlation*. We have already discussed the correlational circle, and thus we shall return to it only briefly, so as to dwell for longer on the second decision.

In a preliminary approximation, we mean by correlationism any philosophy that maintains the impossibility of accessing a being *independent* from thought through thought. According to this type of philosophy, we never have access to a perspective (understood in the most general sense) that is not always-already correlated with an act of thought (again understood in the most general sense). Consequently, correlationism posits against any sort of realism that thought can never *escape from itself* to the point of accessing a world that is still unaffected by our subjectivity's modes of apprehension. As Hegel pleasantly said, we cannot hope to "grab the object from behind" so as to discover what it would be in itself,[6] and from that point on it is absurd to try to know a world which is not always-already the correlate of our relation to the world. Nothing is, that is not relative-to: to a consciousness, a language, or any other subjective apprehension.

6 See the Introduction to the *Phenomenology of Spirit*. I am citing B. Bourgeois's translation; (Paris: Vrin, 2006), p. 127.

Nevertheless, correlationism cannot sustain itself from this decision *alone*, at least if it intends to meet the definition I gave it above: namely, that of an endeavour towards the disabsolutisation of thought. For if the correlational circle suffices to disqualify the realist absolute, it does not suffice to disqualify every form of absolute. There indeed exists, as we already know, a form of absolute that is not realist, which this time we can call 'subjectivist' (rather than idealist) and whose principle consists no longer in claiming to think a non-correlational absolute, but in turning the correlation itself into the absolute as such. But, faced with this second form of absolute [*absoluité*], the correlational circle is not effective, and it has to mobilise another decisive argument against it, namely the *facticity* of correlation. And this second decision will be the Achilles' heel of correlationism.

In this new defence of the absolute, one reasons thus: since the idea itself of an in-itself independent from thought is inconsistent, it is suitable to posit that this in-itself, being *impossible for us*, is *impossible in itself*. If we can only know what is given to thought, it is because nothing can be which is not a given—thus which is not correlated with an act of thought. We mentioned Hegel's pleasant phrase affirming that we cannot grab the thing in-itself 'from behind': but Hegel, far from positing this Kantian thing in-itself as unknowable as Kant does, posits it as empty—as being nothing but a *void* of thought *posited* by thought.[7] This is another way of saying that there exists no type of entity sustaining itself for all eternity outside a dynamic relation with the absolute Subject, whether this be a relation of resistance, opacity, or conflict. By inspiring us with such a gesture of thought in a voluntarily shoddy way, we shall define as subjectivist metaphysics any metaphysics that absolutises the correlation of being and thought, somewhat like the meaning one gives to the subjective and objective poles of such a relation.

Let us emphasise that the relevance of the subjectivist argument comes from the force of the correlational circle itself through which realism has been challenged. Since, as the subjectivist claims, the correlational circle shows us that the notion itself of an in-itself separated

7 See §44 of the 'Preliminary Conception' of the *Encyclopedia of the Philosophical Sciences* (ed. 1827-1828).

from thought is an inconsistent and empty notion, then such a possibility —an in-itself without thought—is itself meaningless. Even positing the simple *possibility* that an autonomous in-itself can subsist outside correlation falls back on supposing that there perhaps exist non-circular circles outside our field of vision: this is an absurd supposition in either case concerning these entities, insofar as they are inconsistent and unknown to us. Thus the subjectivist metaphysician must maintain that only the correlation is thinkable, because it alone is real and because nothing can be outside of it.[8]

In order to counter both the subjectivist and the realist absolute, it is obvious that correlationism must mobilise a second argument capable of disabsolutising the correlate itself and preventing it from becoming necessary as an eternal structure of that which is. This second argument involves the 'facticity of correlation'.

In order for correlationism to maintain a disabsolutisation of thought, it must indeed maintain that the correlation is not absolutely necessary, and that this absence of the correlation's absolute necessity is accessible to thought, that we can justify it and not simply posit it as an act of faith. This thinkable non-necessity of the correlation is precisely what we call the facticity of correlation. The thesis of correlational facticity is therefore this: thought can think its own absence of necessity, not only as personal consciousness, but also as supra-individual structure. It is only on this condition that correlationism will be able to claim to think the simple *possibility* of a wholly-other of correlation. How can one justify this thesis?

Precisely by emphasising *the absence of reason* of the correlation itself, in whatever way this correlation is understood. To which act of thought does this absence of reason return (what I shall call irreason)? If

8 This position is not only that of speculative idealism but, according to highly different modalities, also that of various philosophical 'vitalisms' spanning from Leibniz to Deleuze whose commonality is to posit in every reality an extra feature specific to subjectivity (will, perception, affect, etc.) which has become the mode of being of every being. This is the reason why we speak of 'subjectivist metaphysics' rather than 'idealist metaphysics', despite the 'relativist' connotation that the term subjectivism tends to convey.

we say that the 'milieu' of correlation is language or consciousness, we shall say that the determinations of this milieu are *describable*, but certainly not *demonstrable* as absolutely necessary. For if the correlation is unsurpassable, it is not given in the manner of a necessary foundation: there is nothing in it indicating its own necessity, even when we would be unable to think its being-other, even when we would not know how to escape it so as to access its radical elsewhere. *That there is* language, consciousness, being-in-the-world, it is a question in each case of an originary 'there is'—of a primary fact beyond which thought cannot project.

Here we must distinguish three notions: the *contingent*, the *fact*, and the *archi-fact*. We shall call 'contingent' any event, entity, or thing of which I *know* that it is or effectively could have been able not to be or be other. I know that this vase might not have existed or have existed otherwise—I know that the falling of this vase might not have occurred.

On the other hand, we shall call 'fact' strictly any type of entity which I can conceive as being otherwise, but of which *one does not know* that it really could be otherwise. This is the case with the physical laws of our Universe: indeed I can conceive without contradiction, and without such conceiving being able to be invalidated by past experience, that these physical laws change in the future (which is basically the Humean critique of causality), and thus I cannot demonstrate that such laws are necessary: but, nevertheless, I do not know if these laws are truly contingent, or, on the contrary, if their necessity is real, although inaccessible to any demonstration. We shall thus say in this sense that laws are 'facts'—that they are 'factual', have their place within 'facticity', but not that they are 'contingent' in the sense of a vase or its falling.

Lastly, we shall call 'archi-fact' any fact whose being-other or not-being I cannot in any way conceive and yet whose necessity I cannot demonstrate, that of which it must still be said that it is a fact in the broad sense. Now, it is precisely over the notion of the archi-fact thus defined that correlationism and subjectivist absolutism diverge.

What does the subjectivist say here? That I cannot think the other of correlation: I can very well think that the given world be otherwise or that its laws collapse—indeed I can think, and even imagine, a world endowed with other laws. But, if the other of correlation is unthinkable, for the subjectivist this is because it is impossible: the non-correlated is a completely absurd notion, and thus as inexistent as the Euclidean cubic sphere. According to the subjectivist, correlation is therefore not a contingent reality: it is an absolute necessity. But, on the other hand, the correlationist's thesis is the following: certainly, he admits, I cannot think the other of correlation, thus correlation is not a fact like physical laws are; but, he adds, I cannot however found the supposedly necessary being of correlation in reason. I can do nothing but describe correlation, and the description is always related to what is given as a pure *factum*. The correlation is thus a certain type of fact as well: a fact whose other is unthinkable and nevertheless whose other could not be posited as absolutely impossible. In this sense, correlation is an archi-fact.

The particularity of the archi-fact is that it is not given through an alternative whose two terms would be equally accessible to us—both itself and its negation—because I cannot conceive the other of such a factum. The archi-fact is really given through an *absence*: that of a *reason* capable of founding its continuity. The archi-fact is the givenness to thought of its own limits, of its essential foundational incapacity: but this limit, this frontier, can only be given according to its 'internal edge', because thought cannot itself conceive what could exceed such a limit—what in our vocabulary could be other, the wholly-other of correlation. Thought can only posit that *it could have been wholly-other*, not what this could be, nor even—ultimately—whether it really exists.

Thus correlationism culminates in the following thesis: the unthinkable for us is not impossible in itself: it could be that there is the Wholly-Other subsisting beyond our relation to the world—god or Nothingness. It could be, as the subjectivist believes, that all is phenomenon—but it could be not, and that the unthinkable transcends any conceptual discourse. This is why contemporary correlationism reveals itself often through a 'conversion operator' of the philosophical discourse into a discourse of the Wholly-Other, which will always be a wholly-other

discourse than the philosophical discourse—be it religious, theological, or poetic. This discourse will not be demonstrated as true—but defined as possible and inaccessible to the labour of the concept: in this sense, preserved from the works of thought and open to offerings of piety.

3. The principle of facticity

The problem of a materialist absolute can now be clearly posed: is there a way of thinking an absolute capable of avoiding the obstacle of correlationism, without consequently reactivating a subjectivist metaphysics? Can we discover an absolute that does not absolutise the correlation and is independent from it? This amounts to asking if a materialism can be conceived that would be identified with this minimal program: to think the non-necessity of thought and to think what remains when thought ceases to be. Is such a materialism conceivable without pragmatic contradiction?

To begin the second stage of our argumentation, we must set off from subjectivism. In particular, we must ask what has been the strategy of the great idealist systems in order to counter the disabsolutisation of the transcendental. Speaking with the utmost concision, we believe that it was a question of grasping the *hidden absolute* in the essential *instrument* of disabsolutisation. Speculative idealism in particular has turned the correlation—which is an instrument of the transcendental disqualification of the dogmatic absolute—no longer into a limit of thought, but into the process of an absolute accessible to thought. Far from leading to the end of theoretical absolutes, the correlation reveals itself as the veritable and only absolute: a speculative truth and no longer a transcendental limit.

This endeavour, however, comes up against the *second* decision of correlationism: the facticity of correlation. Consequently, our endeavour is going to proceed in this way: we propose to overcome the correlational obstacle no longer by absolutising the correlation, *but by absolutising the (archi)facticity of correlation*—i.e. no longer the first, but the second instrument of the disabsolutisation of correlationism. We propose to do for

facticity what subjectivism did for the correlation, namely by turning facticity into an absolute independent of all thought.

Before examining how we intend to justify this thesis, we must first ask what it can mean exactly.

To absolutise facticity, what could that mean? It means to transmute the absence of reason for what is—which defines facticity—to transform this irreason from an ignorance of reason of things into an actual property of that which is. Instead of saying: thought cannot determine the ultimate *raison d'être* of that which is given, rational thought thus comes up against an irremediable facticity—we propose to say: thought accesses in facticity the *real* absence of the *raison d'être* of that which is, and thus the real *possibility for every entity to become-other*, to emerge or disappear *without any reason*. In other words, the perspective that we are adopting is the following: we propose to grasp facticity no longer as the index of a limitation of thought—of its incapacity to discover the ultimate reason of things—but the index of a capacity of thought to discover the *absolute* irreason of each thing. We propose to *ontologise* irreason and consequently to envision it as the property of a *Time* whose chaotic force would be extreme, because it would span every possible entity.

If this transmutation could be legitimised, then we would carry out a conversion of the perspective on facticity: it would stop representing our incapacity to discover the ultimate reason of things, and would become our capacity to discover their ultimate absence of reason, identified with an unlimited power of time—a time that would no longer in any way resemble what has been theorised under this term, albeit according to a 'thousand modalities'. And this is because such a time could break any law, whether physical or logical, without reason (indeed, even our logic seems factual and not founded by an absolute principle), or at the other extreme, might never pass to the act, thus leaving the Universe to follow its impeccable regularities (since the advent of disorder is just as contingent as the persistence of order) and leading to the destruction of all forms of becoming by imposing on everything a pure fixity and of an indefinite duration (since even becoming, change, is given to us as contingent, thus having no more reason to occur than immobility).

We are faced with the strange object that would result from this absolutisation of facticity, which we shall call *Hyperchaos* [*Surchaos*] in order to distinguish it from other conceptions of chaos irrelevant to the present problematic. But is such an absolutisation legitimate, and if so, on what is it based?

To justify this absolutisation of facticity, we must respond to the correlationist's fundamental objection. It goes like this: our absolutisation of facticity amounts to *unduly identifying contingency and facticity* —'unduly', for we do not, according to him, have the means to carry out this identification. There is an illicit confusion between facticity and contingency: facticity, as we said, designates our *ignorance* of the modality of correlation—our incapacity to know if the correlation is necessary *or* contingent. Thus we shall commit the same error—albeit symmetrical—as the subjectivist: like her, we shall unduly absolutise a modality of the correlate—but, while the subjectivist would absolutise the necessity of correlation, we shall absolutise its contingency.

But this is precisely the thesis we hold concerning the absolute, which is simply this: facticity *is indeed* contingency in truth; what we took for an ignorance *is* in fact a knowledge. Facticity, particularly understood as archi-facticity, is transmuted into hyperchaotic [*surchaotique*] contingency. We must therefore justify this transmutation, this identification of these two notions and the thesis of their essential synonymy.

In what name do we argue that contingency, including that of the correlation, is an absolute? The only legitimate reason can be this: hyperchaotic contingency is an absolute because it and only it escapes the endeavour of correlationism's disabsolutisation. But why does it escape the latter?

Because, just as the argument for the correlational circle, in order to refute the realist, should implicitly absolutise the correlation, so the argument for the correlation's facticity, in order to refute the subjectivist, must implicitly absolutise facticity.

Being unable to give a complete demonstration of this point, I can simply give an intuitive, although not perfectly rigorous, version of it.

The correlationist claims to be able to think the possible non-being of the correlation. Let us then transpose his reasoning to the idea that we have of our death. We shall generally agree that we are able to think about our death, and thus to think this as our abolition, both corporeal and perhaps psychic. Certainly, we cannot sensibly conceive what this 'would be' and what this would 'feel' like to *be* dead, even more so if we make of death a complete annihilation of our person, a 'not-to-be' of the body and the mind. To envision *what it is* to be annihilated is contradictory—but, on the other hand, to envision the *possibility* of being annihilated is not. For here we are precisely engaging an archi-fact: our psychic life is thought as a fact that may no longer be, without positively being able to determine—with good reason—what it is for a mind no longer to be. All of this signifies that we are able to think ourselves as mortal in the radical sense without contradiction. But what is the nature of this possible non-being of our mind? Is this possibility in particular *dependent* on the thought that we have of it? Surely not: for if our mortality, our possible cessation, itself were only possible on condition that we would exist to think it, then we would stop being mortal and even stop being capable of thinking ourselves as mortal. For if we were only mortal on condition of thinking ourselves as such, we would not be able to die except on condition of still being alive to think this possibility. This is another way of saying that we would agonise indefinitely, but never actually pass away. To the very same extent that we would disappear, so would our disappearance, thus reestablishing us within being.

We thus cannot think our own possible abolition, and therefore our facticity—and this is both as individual and as correlational structure—except on condition of being able to think the *absolute* possibility that we no longer are—i.e. a possibility independent from our thought, since it precisely consists in the annihilation of the latter. Thus there is indeed a truly thinkable absolute, just as the correlationist admits, but which she can no longer refute, because she presupposes it: namely the possible non-being of everything, including the correlation, which is what we have designated as the mark of a hyperchaotic Time.

We shall call *factuality* the property of *facticity* to not itself be factual: factuality designates non-facticity, i.e. the absolute necessity of facticity and it alone. We shall thus give the name *principle of factuality* to the speculative statement according to which only facticity is not factual—or, synonymously, according to which contingency alone is necessary. Such is the principle—that of the necessity of contingency alone—that orients the idea of a post-metaphysical speculation.

4. The idea of derivation

The question is now one of knowing how this absolutisation of Hyperchaos allowed by the principle of factuality, even the moment its possibility would be accepted, could allow us to give a meaning to an ancestral statement of experimental science. For it seems that we are further away from legitimising a mathematised description of reality, past or present, since being is on the contrary identifiable with the purely irrational. We are faced with a world that is no longer a world, other than superficially, other than in its occasional productions. For henceforth being is found to be subtended by a temporality seemingly deprived of any stable foundation, capable of everything—capable of order (why not?) but also capable of the illogical and the unthinkable. The result of absolutisation appears to be the very contrary of that after which we sought: to justify the capacity of the experimental sciences to treat a world independent from thought, capable of giving rise to explanatory categories presupposing a certain constancy of reality.

Nevertheless, there is a possibility of getting ourselves out of this seemingly aporetic situation: it consists in maintaining that being contingent really implies not being just any which way at all. In other words: we believe that there are non-arbitrary conditions of contingency, that in order to be contingent, specific demands must be met—demands which themselves will be properties of the absolute, since they are derived from the absolute facticity of the real. I call Figures these non-arbitrary conditions of contingency, and I call derivation the operation that consists in extracting from contingency one of its Figures.

I have arrived at the experience of thought to which a large portion of our investigation proceeds. We have indeed set off from a revelation concerning the bond, unperceived until now, between the absence of reason—usually synonymous with irrationality—and the principle of non-contradiction—the minimal principle of all rationality, generally considered as impossible to ground itself, as it subtends any reasoning. We have indeed discovered that it was really possible to ground the absolute ontological truth of non-contradiction—to turn it into a universal property of beings—on the basis of the absence of reason of that which is. *It is because it is necessary that things be without raison d'être* and remain what they are *that they must necessarily be non-contradictory*, i.e. submitted to the grasp of logic. In other words, the irreason of things protects us from the unreason of discourse. From that moment on, the idea of grounding in facticity itself the source of the eternal capacity of the logico-mathematical to discourse about ancestral time, absolutely independent from our existence and nevertheless thinkable, becomes clear.

It is impossible within the limits of this intervention to rigorously justify these hypotheses. Thus in conclusion, we shall give simply a brief glimpse of the factual derivation of non-contradiction by attempting to sketch out the way in which a factual speculation tries to justify its progressions.

The question from which we left off is the following: can we give a precise reason to the fact that a universally contradictory entity—i.e. an entity that would simultaneously render all conceivable propositions and their negation true—to the fact, as we say, that such an entity cannot exist? Can we ground in reason our certainty that such an inconsistent being is a sheer ontological chimera? It is by responding to this questioning that I have elaborated the idea of derivation: for it seemed to me that a precise answer *could* be given to this strange question. And this answer would be the following: an inconsistent—universally contradictory—being is impossible, because this being would stop being able to be contingent. Indeed, what an inconsistent being could not do is *modify itself or become other*, since what it isn't, being contradictory, *it already is*. And what could no longer happen to this being is to no longer be, because, no longer being, it would still be, always because of its contradictory status. In short,

the intuition that I have followed consisted in ontologically interpreting the eternal truth of the principle of non-contradiction as proceeding from the eternal truth of contingency, of which this principle is the guarantee: in order to be able to no longer be, a being must not *already* be what it is not. From then on, it would become possible to auto-limit Hyperchaos, to prohibit it from producing the unthinkable—inconsistency—such that every being remains contingent and submitted to its power. And it is by deepening such a process that we could hope to progressively deploy the fundamental categories of an absolutory, but not metaphysical, discourse.

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Meillassoux's Speculative Philosophy of Science: Contingency and Mathematics

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> *For it could be that contemporary philosophers have lost the* great outdoors, *the* absolute *outside of pre-critical thinkers: that outside which was not relative to us, and which was given as indifferent to its own givenness to be what it is, existing in itself regardless of whether we are thinking about it or not.*[1]
>
> *Philosophy's task consists in re-absolutizing the scope of mathematics...but without lapsing back into any sort of metaphysical necessity, which has indeed become obsolete.*[2]

These two opening passages summarise Quentin Meillassoux's two-fold ambition: to denounce the restrained nature (and inconsistency) of the premises of post-Kantian continental philosophy and to propose a new, *speculative* way of philosophising, based on direct access to the external world obtained through mathematical reasoning. These two moments in Meillassoux's project are both a *negative* critique of contemporary philosophy and a *positive* demonstration of a new principle on which philosophical speculation can be founded: the absolute necessity of contingency and the recognition of mathematical discourse as its expression. After reconstructing his argument, I will question how this

1 Quentin Meillassoux, *After Finitude. An Essay on the Necessity of Contingency,* with a Preface by Alain Badiou. Trans. Ray Brassier, (London: Continuum, 2008), p. 7, hereafter *AF.*
2 *AF,* p. 126.

Meillassouxian protocol can be applied to/followed by the empirical practice of science. As such, I will assess whether Meillassoux's speculative materialism can be adopted as a starting point for a (continental) philosophy of science.

Anti-Correlationism

On his way towards the philosophical rehabilitation of a concept of the absolute, Meillassoux aims to draw attention to that philosophical position, silently operating since Kant, which he labels *correlationism.* By 'correlationism' he means

> the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other...*[C]orrelationism* [indexes] any current of thought which maintains the unsurpassable character of the correlation so defined. Consequently, it becomes possible to say that every philosophy which disavows naïve realism has become a variant of correlationism.[3]

The Kantian split between a phenomenal and noumenal realm was the founding decision of correlationism: subsequently, the noumenal realm of *Dinge an sich* became so epistemologically irrelevant, in its radical inaccessibility for human knowledge, that post-Kantian philosophies, starting with Hegel's powerful critique, effectively proceeded towards what Lee Braver has labelled the progressive 'erosion of the noumena'.[4] The idea of a thing-in-itself became yoked to our own existence as *finite* knowing subjects, subjects who are always already in a world of co-relations.

Correlationism therefore asserts the priority of the correlation above the related terms (the -relationism part) and the reciprocal nature of this

3 Ibid., p. 5.
4 Lee Braver, *A Thing of This World. A History of Continental Anti-Realism* (Evanston, IL: Northwestern University Press, 2007), p. 79.

relation (the co- part): being and thought are conjoined so that every being is a being-given, a being-presented, a being-thought. It is Meillassoux's project to counter the "exceptional strength of [correlationism's] antirealist argumentation, which is apparently…implacable"[5] and hence to reclaim, for philosophy, the ability to think about the *ab-solutus,* non-correlative, to thought or whatever else *without* falling back into out-dated, theologically licensed metaphysical dogmatism. This is the true aim of a *speculative* philosophy[6]: to think the thing without us.

Meillassoux identifies two main correlationist arguments against realism and against idealism. Firstly, the 'correlationist circle'[7] argues that all forms of realism incur in the pragmatic contradiction of *thinking* an object independent of *thought.* Correlationism (in its *weak,* Kantian variety) considers it impossible to transcend the structure of our knowledge and to untangle the contents of our cognitive acts from their (conceptual, linguistic) conditions of possibility; what is thought is thought through a subjective transcendental synthesis: being is the manifest (to us). Things-in-themselves can only be thought, they cannot be *known.* Therefore, correlationist philosophy disowns the possibility of reference to primary qualities, those *non-relational* properties of things that are implicitly erased and assimilated to secondary, *relational* ones via the correlationist *dictum* that 'X is' ultimately means 'X is thought as such'. Only scientific thought, Meillassoux argues, has proceeded unscathed by the post-Kantian correlationist circumscription of knowledge thanks to the mathematical formalism underpinning its epistemic project since the Galileian revolution. Mathematics is the only non-correlationist language and "*all those aspects of the object that can be formulated in*

5 Quentin Meillassoux, 'Time without Becoming'. Paper presented at the Centre for Research in Modern European Philosophy, Middlesex University, London, 8th May 2008, p. 1, hereafter TWB.

6 In the famous passage referring to his 'dogmatic slumber' Kant writes: 'I freely admit that the remembrance of *David Hume* was the very thing that many years ago first interrupted my dogmatic slumber and gave a completely different direction to my researches in the field of speculative philosophy [*spekulativen Philosophie*]'. Immanuel Kant, *Prolegomena to Any Future Metaphysics.* Trans. Gary Hatfield. (Cambridge: CUP, 2009), p. 10 (4:260). Reappropriating this term, Meillassoux wishes to recuperate Hume's spirit, correcting its Kantian misunderstanding.

7 *AF,* p. 5.

mathematical terms can be meaningfully conceived as properties of the object in itself".[8] It is via mathematical propositions that we can refer directly to primary, non-relational qualities of thing-in-themselves. The absolute is said mathematically. But how can mathematics achieve this result?

Before answering this question, Meillassoux' employment of the terms 'metaphysical' and 'speculative' must be understood:

> [l]et us call 'speculative' every type of thinking that claims to be able to access some form of absolute, and let us call 'metaphysics' every type of thinking that claims to be able to access some form of absolute being, or access the absolute through the principle of sufficient reason. If all metaphysics is 'speculative' by definition, our problem consists in demonstrating, conversely, that not all speculation is metaphysical, and not every absolute is dogmatic—it is possible to envisage an absolutizing thought that would not be absolutist.[9]

The key element here is the rejection, by speculative thought, of the principle of sufficient reason. Such a principle, of Leibnizian origin, states simply that for whatever thing or state of affairs that *is*, there must be a reason why it indeed is the way it is. Any being must have a reason to be, literally a *raison d'être* which must necessarily be discoverable.[10] The

8 Ibid., p. 3. Emphasis in original.

9 Ibid., p. 34.

10 In order to fully grasp the target of Meillassoux's refutation of the principle of sufficient reason, and the anti-theological backdrop to this move, we must remember that Leibniz introduced the principle of sufficient reason in order to *grant* the existence of contingency, and how this project is, however, undermined by an internal contradiction, ultimately caused by Leibniz's theological commitments. Givone explains well what he calls the paradox of Leibniz's philosophy: "[s]urely through the principle of sufficient reason Leibniz wants to safeguard the contingency of the world. And on the logical plane this appears incontrovertible. This world is but one of the possible worlds. This something that is, is because its potential being has been converted into being on the basis of the principle of sufficient reason. But already on the ontological plane the issue becomes problematic. When the reason of this something is linked to the series of reasons that lead to the ultimate reason, it is not

central tenet of any dogmatic metaphysics is the belief in the necessary existence of *at least* one (hence supreme) being, and such a belief easily engenders the confidence that the entire order of being (supported by/emanating from the supreme Being) is indeed necessary. Speculative thought's desire to recuperate an absolute, then, does not emerge in connivance with a totalitarian metaphysics positing some being as eternally reproducing itself, but, on the contrary, springs out of a rejection of such a metaphysics, described by Meillassoux as "the illusory manufacturing of necessary entities".[11]

Secondly, (engendering another, *strong*, variety) correlationism, refuting subjective idealism, posits the facticity of transcendental conditions of knowledge. Idealism denied the possibility that things could be different from how we think them (*even if* we get to know only according to our transcendental structure), since the very act of knowing wholly constitutes what is known. The correlation between knower and known is thus elevated as the true absolute: the categories of understanding cannot just be accepted, but must be deduced as necessary. The strong (post- and anti- idealist) correlationist rejects the possibility knowing *and* of thinking things-in-themselves (hence repudiating, with idealism, even the Kantian agnostic stance towards noumena) but de-absolutises the correlation by claiming the conditions of possibility of experience to be contingent (upon the unfolding of epochs of Being or

clear any more how it is possible to keep the actuality of something belonging to the category of possibility from sliding into being. On the theological plane, then, we are dealing with an actual paradox. The existent, the contingent, the being that can be otherwise is grounded onto a necessary being. And this necessary being grounds it since it is the ultimate reason. Therefore, necessity. The necessity in which necessary being converts the freedom that it is called to safeguard. And this is truly the paradox of the philosophy of Leibniz. Once nothingness is exorcised, the existent tends to configure itself as the possible that necessarily comes into being. It is like this, and not otherwise, that things '*doivent exister*'...In Leibniz's perspective, the fundamental question [why is there something rather than nothing?] can legitimately be read as if it was an answer. Let us remove the question mark, and let the question be preceded by the thesis: God is the ground of being. We would obtain: God is the ground of being because there is something rather than nothing, exactly what Leibniz wanted to claim." Sergio Givone, *Storia del Nulla* (Roma and Bari: Laterza, 2003), p. 186. My translation.

11 *AF*, p. 34.

upon the current language game). The 'totalitarian' idealist absolutisation of the correlation is challenged by the *facticity* of the correlation. The principles of organisation of knowledge are not eternal and necessary but ungrounded and historically dependent: humans are finite beings and that which lies beyond our phenomenological horizon must be passed over in silence; what is possible is an infinite series of descriptions of our *Lebenswelt* of everyday dealings. Correlationism is the name for the protocol of de-absolutisation: of the 'dogmatic' real (naïve realism) in its weak type, of the correlation itself (idealism) in its strong one.

Having reconstructed the evolution of continental philosophy from Kant to the post-Heideggerian (and postmodern) present, Meillassoux intends to produce a new stance. His move here is to agree with correlationism about the disqualification of necessity in favour of facticity, *but* to carry the argument forward by demonstrating that the correlation's facticity can be made an absolute. His signature argumentative strategy is that of turning a limit into a (speculative) opportunity: by going straight to the conceptual core and founding decision of *any* post-Kantian correlationism, human *finitude,* and reverting it, Meillassoux therefore wants to show that

> thought, far from experiencing its intrinsic *limits* through facticity, experiences rather its *knowledge* of the absolute through facticity. We must grasp in facticity not the inaccessibility of the absolute but the unveiling of the in-itself and the eternal property of what is, as opposed to the mark of the perennial deficiency in the thought of what is.[12]

This movement of "turning an inability into an absolute"[13] is similar to idealism by taking the obstacle that 'weak' correlationism posed for the knowledge of the in-itself and absolutising it. Yet, Meillassoux's conceptual shift acknowledges the way in which 'strong' correlationism refutes idealism by postulating the facticity of the correlation: once again the obstacle becomes the absolute. Meillassoux's speculative absolutisation, however, does not aim at a metaphysical—necessary—

12 Ibid., p. 52.

13 Ibid.

absolute, but for the first time acknowledges as absolute *the very lack of metaphysical necessity*, hence breaking both with any correlationist stance *and* with the history of dogmatic metaphysical thought.

To understand the full ontological implications of this move, we must attend to Meillassoux's initial claims regarding the recovery of primary qualities whose examination was effectively forbidden by correlationism, and henceforth see this conceptual revolution as changing the ground rules of philosophy itself, from a focus on the finitude *of humans* to the absolute lack of necessity of *things in themselves,* overcoming that solipsism proper to correlationist thought, and hence of contemporary philosophy as a whole:

> facticity will be revealed to be a knowledge of the absolute *because we are going to put back into the thing itself what we mistakingly took to be an incapacity in thought.* In other words, instead of construing the absence of reason inherent in everything as a limit that thought encounters in its search for the ultimate reason, we must understand that this absence of reason *is,* and can *only* be the *ultimate* property of the entity. We must convert facticity into the real property whereby everything and every world *is* without reason, and is thereby *capable of actually becoming otherwise without reason.* We must grasp how the ultimate absence of reason, which we will refer to as 'unreason', is an absolute ontological property, and not the mark of the finitude of our knowledge…the truth is that there is no reason for anything to be or remain thus and so rather than otherwise, and this applies as much to the laws that govern the world as the things of the world. Everything could actually collapse: from trees to stars, from stars to laws, from physical laws to logical laws; and this not by virtue of some superior law whereby everything is destined to perish, but in virtue of the absence of any superior law capable of preserving anything, not matter what, from perishing.[14]

14 Ibid., p. 53.

Meillassoux goes on to name the principle thus reached as the 'principle of unreason',[15] defining it as absolute and non-hypothetical given that it is reached merely by "pointing out the inevitable inconsistency into which anyone contesting [its] truth...is bound to fail".[16]

Time, for Meillassoux, is the stage on which the principle of unreason acts, "capable of the *lawless destruction of every physical law*...a Time that is inconceivable for physics, since it is capable of destroying, without cause or reason, every physical law, just as it is inconceivable for metaphysics, since it is capable of destroying every determinate entity, even a god, even God".[17] This systematic power of destruction allowed by the absolute, individuated in the lack of (sufficient) reason, is more positively defined as "nothing other than an extreme form of chaos, a *hyper-Chaos* [*surchaos*], for which nothing is or would seem to be impossible, not even the unthinkable".[18] The 'hyper-' prefix, Meillassoux clarifies, is meant to differentiate it from our 'normal' understanding of chaos: hyper-Chaos is not merely a term for a conventional understanding of disorder and randomness, since following its logic means affirming that "its contingency is so radical that even becoming, disorder, or randomness can be destroyed by it....[A] rationalist chaos...is paradoxically more chaotic than any antirationalist chaos".[19] Hyper-Chaos is not absolutely unconstrained, since the discourse about unreason through which it is unveiled is not in itself *irrational* (to allow that would be again to fall back into a crypto-fideistic thought), but moves within rational limits: "[e]verything is possible, anything can happen—except something that is necessary, because it is the contingency of the entity that is necessary, not the entity".[20] Probably referring obliquely to Deleuze's turn of phrase (*le platonisme renversé*) Meillassoux defines such a conception of rationality as emancipated from the principle of sufficient reason as an "*inverted,* rather than *reversed* Platonism, a Platonism which would maintain that

15 Ibid., p. 60.
16 Ibid., p. 61.
17 Ibid., pp. 62, 64.
18 Ibid., p. 64.
19 *TWB*, pp. 10-11.
20 *AF*, p. 65.

thought must free itself from the fascination for the phenomenal fixity of laws, so as to accede to a purely intelligible Chaos".[21]

Meillassoux can now present a new kind of non-naïve, *speculative,* realism by asking how it is possible to return to the existence of things-in-themselves (or, in fact, to the existence of anything at all) once the principle of unreason has been demonstrated. This of course must be done speculatively, avoiding the pitfall of reformulating any sort of metaphysical necessity, yet rationally, via a '*logos* of contingency.'[22] Hence it is imperative to find a solution that would neither reinstate theological reason nor relinquish reason, capitulating to fideistic scepticism. This solution, (nothing other than an answer to the *Grundfrage* 'why is there something rather than nothing?') is found by appealing to a 'strong' interpretation of the principle of unreason, one that does not only claim that if something exists it must be contingent, but that all existing things are contingent *and* that there must be contingent things. So

> the solution to the problem is as follows: *it is necessary that there be something rather than nothing because it is necessarily contingent that there is something rather than something else.* The necessity of the contingency of the entity imposes the necessary existence of the contingent entity.[23]

The content of the principle of unreason is that contingency is *necessary,* and not merely that contingency *is*.[24] In other words, "facticity cannot be thought as another fact in the world...it is not a fact but rather an absolute necessity that factual things exist",[25] and this is necessary to avoid slipping into metaphysical thought since (with a nod to Hegel) Meillassoux warns that "the statement 'contingency is necessary' is in fact entirely compatible

21 Quentin Meillassoux, 'Spectral Dilemma' *Collapse,* Vol IV, (2009), pp. 261-275 (pp. 273-274).
22 *AF,* p. 77.
23 *AF,* p. 76.
24 On the basis of this qualification, Meillassoux re-christens his principle 'principle of factiality'. I will continue to refer to 'principle of unreason' for purely euphonic reasons.
25 Ibid., p. 75.

with metaphysics".[26] To play with the title of his book, *After Finitude,* we realise that what we thought was an imposition of our finitude is actually a feature of the world as such, i.e., facticity, and that such facticity is not merely an accidental fact about the world but its one and only necessary feature: we have to acknowledge *the necessity of contingency.* Contingency alone is logically, 'metaphysically' necessary, while the rest is at best empirically necessary; for everything that *is* could have been *otherwise.*

The Copernican Revolution and the Absolutisation of Mathematics

Meillassoux must still explain how *mathematical* science alone is capable of raising the anti-correlationist issue of a gap between thinking and being. Only with the advent of mathematical structuring were cosmological statements promoted from narrated myths to scientific theories, paving the way for a rational debate around their implications. Meillassoux insists that the momentous worth of science is that it "deploys a process whereby we are able to *know* what might be while we are not, and that this process is linked to what sets science apart: the mathematization of nature".[27] The process of *mathematisation* is not simply a useful heuristic tool for scientific theorising or a means for technical control of nature, but opens up a completely new view of the universe, revealing a "*glacial* world"[28] organised according to a set of indifferent coordinates whose zero point is no longer the human being, operating an irreversible laceration between thought and the world.

Meillassoux deems it necessary to offer a complete philosophical re-evaluation of the 'Copernican Revolution', which, more than a mere 'paradigm shift' for astronomy, amounts to a "much more fundamental decentering which presided over the mathematization of nature, viz. *the decentering of thought relative to the world within the process of knowledge*".[29] The overwhelming cognitive effect of this revolution is vividly described:

26 Ibid., p. 80.
27 *AF,* p. 115.
28 Ibid.
29 Ibid.

> the Galilean-Copernican revolution has no other meaning than that of the paradoxical unveiling of thought's capacity to think what there is whether thought exists or not. The sense of desolation and abandonment which modern science instils in humanity's conception of itself and of the cosmos has no more fundamental cause than this: it consists in the thought of thought's contingency for the world, and the recognition that thought has become able to think a world that can dispense with thought, a world that is essentially unaffected by whether or not anyone thinks it.[30]

This is the most authentic meaning of the Copernican Revolution, one that can be condensed in the phrase "*whatever is mathematically conceivable is absolutely possible*":[31] indifferent to human access and unrestrained by metaphysical necessity.

The necessity of restating the meaning of this revolution is justified by the paradoxical role that the Copernican revolution played in the history of *philosophy,* radically splitting philosophy from science, beginning with the Kantian hijacking of this term for his own philosophical project, a project that should be renamed a "Ptolemaic counter-revolution".[32]

Since the post-Kantian, catastrophic abdication of the *speculative* role that was philosophy's main characteristic—and since the renunciation of its role as a tool of knowledge of the world as it is in-itself in favour of a restricted realm of competence, of a self-referential metaphysics bound within the limits of the correlation—every philosophical current has merely reproduced this misunderstanding of the Copernican Revolution and reinforced an implicit understanding of philosophy as an ultimately solipsistic enterprise. Thus,

30 Ibid., p. 116.
31 Ibid., p. 117.
32 Ibid.

> 'the man of philosophy' has been narrowing the ambit of the correlation towards an originally finite 'being-in-the-world', or an epoch of Being, or a linguistic community; which is to say, an ever narrower 'zone', terrain, or habitat, but one in which the philosopher remains lord and master in virtue of the alleged singularity of his specific brand of knowledge.[33]

In other words, the 'most *urgent* question' that science is posing to philosophy–'*how is thought able to think what there can be when there is no thought*?'–has been demoted to being the 'pointless question *par excellence*.'[34]

It will be the task of a reformed philosophy, a *speculative materialism,* to revive this question in all its philosophical vigour and use it as a cornerstone for a new set of answers, capable of escaping correlationism and denouncing the illegitimate passage from the end of metaphysics to the end of absolutes. This speculation proceeds via rational demonstration, since the absence of reason does not entail the end of rationality; on the contrary, it is rational thought that leads reason to the liquidation of necessity, replaced with necessary contingency as its sole rule and ruler. Returning to my epigraph, and quoting it in full:

> [p]hilosophy's task consists in re-absolutizing the scope of mathematics–thereby remaining, contrary to correlationism, faithful to thought's Copernican de-centering–but without lapsing back into any sort of metaphysical necessity, which indeed has become obsolete. It is a matter of holding fast to the Cartesian thesis–according to which whatever can be mathematized can be rendered absolute–without reactivating the principle of reason. And this seems to us to be the task of the principle of facticality, a task that is not only possible but also urgent: to derive, as a Figure of facticality, the capacity, proper to every mathematical statement, through which the latter is capable of formulating a possibility that can be absolutized, even if only hypothetically. It is a question of

33 Ibid., p 121.
34 Ibid.

> absolutizing 'the' mathematical just as we absolutized 'the' logical by grasping in the fundamental criterion for every mathematical statement a necessary condition for the contingency of every entity.[35]

Meillassoux is however conscious of what *still* needs to be worked out. In order to explain how mathematics is able to refer to primary qualities of a necessarily contingent absolute, he needs to demonstrate the existence of a link between the possibility of absolute mathematical statements and the absolute character of his principle of unreason. In his words "we must establish the following thesis...by deriving it from the principle of factiality: what is mathematically conceivable is absolutely possible".[36] Crucially, Meillassoux assigns to philosophy the goal of demonstrating how the possibility of accurate mathematical descriptions of reality is *derivable* from the ontology of necessary contingency.

Distinguishing between *ontical* and *ontological* absolutisations he claims that the ontical "pertains to entities that are possible or contingent, but whose existence can be thought as indifferent to thought", while the ontological states "something about *the structure of the possible as such,* rather than about this or that possible reality. It is a matter of asserting that the possible *as such,* rather than this or that possible entity, must *necessarily* be un-totalizable".[37] Like Badiou, Meillassoux argues that only those theories that "ratify the non-All",[38] hence excluding any possible conceivability of a totality, can be defined as ontological, given that being *is* the non-totalisable. A redefinition of philosophy is needed on the basis of a reconfiguration of ontology dependent on the principle of unreason:

35 Ibid., p. 126. This ambitious project for a complete renewal of philosophy is supported by Alain Badiou who, in his preface to Meillassoux's book, writes that '...Meillassoux has opened up a new path in the history of philosophy, hitherto conceived as the history of what it is to know; a path that circumvents Kant's canonical distinction between "dogmatism", "scepticism" and "critique". Yes, there is absolute logical necessity. Yes, there is radical contingency. Yes, we can think what there is, and this thinking in no way depends upon a supposedly constituting subject' (Ibid., p. vii).
36 Ibid., p. 126.
37 Ibid.
38 Ibid.

"ultimately the matter of philosophy is...a very special possibility, which is not a formal possible, but a real and dense possible, which I call the '*peut-être*'—the 'may-be'".[39]

Following Badiou, Meillassoux considers this ontology of the unforeseeable possibility to be articulated in mathematics. Indeed, Meillassoux needs to demonstrate that the mathematical discourse which describes a non-totalisable being, is *itself* contingent, hence explaining science's non-correlationist nature. Tackling this problem he argues that

> the minimum requirement for the possibility of mathematical writing...is the possibility to conceive and thematise signs devoid of meaning. Far from being identifiable as a nothing or a nonsense (meant as an absurdity) the sign devoid of significance is posited as an eminent condition for mathematico-rational thought.[40]

To conceive of mathematical signs as devoid of meaning will allow him to attempt to

> derive from the principle of factiality our ability to produce signs devoid of meaning, therefore showing that mathematical discourse moves within a sphere of thought 'closely associated' to the absoluteness of contingency.[41]

Mathematics is thus not reality itself, but the language which—by virtue of its set-theoretical structure articulating non-totalities and of its syntax of signs devoid of meaning—can meaningfully refer to the in-itself of hyper-chaotic reality. Mathematics is,

> the possibility of iteration without differential effect of repetition. And the possibility of a sign that you can iterate

39 *TWB*, p. 11.
40 Quentin Meillassoux, 'Contingence et Absolutisation de l'Un'. Conference paper delivered at la Sorbonne University, during the colloquium "Métaphysique, ontologie, hénologie", Paris-I, 2008, np. My Translation.
41 Ibid. My Translation.

> without any sense. So it is not the meaning of the sign which is the same in each sign, it is just the sign, but grasped through its own facticity, the pure arbitrary fact of the sign.[42]

If, for Badiou, mathematics/ontology is a structured presentation of an inconsistent multiplicity only retroactively identifiable as 'preceding' the One-operation—a presentation of *nothing*—Meillassoux continues and radicalises this understanding of mathematics as fundamentally ungrounded. He envisions it as the formal repetition of meaningless signs. Meillassoux's mathematical meontology replaces Badiou's still too axiomatically necessitarian Void with the anarchic capriciousness of hyper-Chaos.

It is through such a *mathesis* of being that we can describe real properties of an object, free from the correlationist link between thought and being: mathematics is the language of contingency, hence of reality in itself. This is a subverted mathematical formalism: mathematical signs are devoid of meaning, not in virtue of their being a self-contained 'game' but because they actually refer to reasonless entities. The contingency expressed by the meaninglessness of mathematical signs is what allows mathematical statements to refer to a necessarily contingent Great Outdoors so that "it is really our deaths that we contemplate when mathematics describes reality",[43] i.e., the absence of *thought* and the absence of *meaning*. Only an arbitrary formal language can be adequately employed to refer to the primary qualities of a necessarily contingent reality. The claim that whatever is mathematically conceivable is absolutely possible then means that such an absolute possibility depends not on the metaphysical *necessity* of mathematical statements, but on their utter arbitrariness.

42 Quentin Meillassoux, Florian Hecker, and Robin Mackay 'Document 1' (2010), p. 8. online at http://www.urbanomic.com/archives/Documents-1.pdf [accessed 15 February 2011], hereafter Meillassoux, Hecker and Mackay.
43 Ibid.

What about (philosophy of) Science?

Having briefly unpacked the central knots of Meillassoux's thought, I can proceed to place his position within the horizon of the philosophy of science, in order to highlight some peculiarities (and problems) entailed by it. I believe that the most outstanding methodological (and indeed argumentative) oversight of *After Finitude* is the complete disregard for the literature in the (analytic) tradition of philosophy of science. This produces a twofold shortcoming: first, an all too 'continental' failure to engage with a field where discussions germane to Meillassoux's project (the problem of induction, realism *vs.* antirealism, and the ontological status of laws of nature) have been raging for—at least—the last five decades cripples the power of his exposition, depriving him of a potentially useful argumentative arsenal. The consequences of this neglect, however, are more severe than a deficient bibliography since (secondly) Meillassoux's unfamiliarity with these debates makes him indifferent to the very *possibility* of a philosophy of science, a discipline concerned (among other things) with offering a rational justification for both the current and the future *predictive* success of science. Indeed, Meillassoux's attempt to account for this success while maintaining his rejection of any necessary law-like behaviour of reality is bold, logically valid but somewhat unsatisfactory, at least for the philosopher interested in having an account of (scientific) explanation which goes beyond empirical adequacy. Let me quickly rehearse his argument.

Hume's problem of induction, according to Meillassoux, has been neglected by scientists—who have to assume the stability of fundamental laws—[44] and (continental) philosophers alike, and it necessitates a solution

44 As clearly stated by cosmologist Roberto Trotta '[w]e assume all along–*and we couldn't do without it*–that the laws of physics are the same here, on Andromeda, and at the very beginning of time, which is a very major assumption. But there is little we can do if we don't make this very strong assumption' (Roberto Trotta 'Dark Matter. Probing the Arche-Fossil', *Collapse*, Vol. II (2007), pp. 83-169, [p. 119]. My Emphasis). The assumption of the time-invariance of laws is given mathematical formalisation in Emmy Noether's theorems, connecting symmetries and conservation laws, which state that for each physical system which holds a symmetry property there are fixed conservation laws (of energy, of momentum, etc.) (see Katherine Brading and Harvey Brown, 'Symmetries and Noether's Theorems' in *Symmetries in*

which avoids both its metaphysical and sceptical extremes, one that does not shy away from the acknowledgement of its most radical and inescapable meaning, that of a hyper-chaos. The problem must hence be speculatively reformulated, from the vantage point of the principle of factiality:

> instead of asking how we might demonstrate the supposedly genuine necessity of physical laws, *we must ask how we are to explain the manifest stability of physical laws given that we take these to be contingent*....[H]ow is it that their contingency does not manifest itself in sudden and continual transformations?[45]

Meillassoux individuates a fault in probabilistic reasoning, and urges the need "to elaborate a concept of the *contingency* of laws that is fundamentally distinct from the concept of *chance*".[46] The crucial point is that "probabilistic reasoning is only valid on condition that what is *a priori* possible be thinkable in terms of a numerical totality".[47]

This concept of numerical totality was undermined by the work in set theory by Georg Cantor and his mathematical demonstration of hierarchically organised classes of infinities. Cantor, the first mathematician to treat infinity as a definite mathematical entity instead of a fuzzy numerical sense of a 'very large number', demonstrated that the powerset (the set of all subsets) of a given set has always more elements than the original set. For finite sets the powerset of any set n has 2^n

Physics: Philosophical Reflections, ed. By Katherine Brading and Elena Castellani (Cambridge: CUP, 2003), pp. 89-109). However, there have been, within physics, attempts to question this assumption, the most notable of which is probably Paul Dirac's Large Number Hypothesis, which assumed—in direct disagreement with General Relativity—that the value of the gravitational constant G had varied (decreased) during the evolution of the Universe. To this day this hypothesis is considered to be highly improbable and—notwithstanding a few attempts to use it as a basis for the construction of alternative cosmological theories—largely employing coincidental values.

45 *AF*, p. 92.

46 Ibid., p. 100. His arguments are here indebted to Badiou, specifically to the latter's handling of ontology via the mathematical tools of set theory.

47 Ibid., p. 101.

elements (so the powerset of a set with cardinality 3, i.e., with 3 members, has 8 elements). But the powerset axiom which allows this operation can also be applied to any basic denumerable *infinite* set (any set whose elements can be matched 1:1 with the counting numbers, said to have cardinality aleph-null), so to produce a *larger* infinite set (with cardinality aleph-one, aleph-two, and so on). The result is an iterative hierarchy of sets of increasing cardinality, also known as transfinite cardinal numbers. The crucial point for Meillassoux then is that this series cannot be totalised, because any closure into a 'total set' could once again be shattered by the creation of a new powerset, a larger infinity. Therefore

> this 'quantity of all quantities' is not construed as being 'too big' to be grasped by thought – it is simply construed as not existing. Within the standard set-theoretical axiomatic, that which is quantifiable, and even more generally, that which is thinkable – which is to say, sets in general, or whatever can be constructed or demonstrated in accordance with the requirement of consistency – does not constitute a totality... We will retain the following translation of Cantor's transfinite: *the (quantifiable) totality of the thinkable is unthinkable.*[48]

After Cantor then we can dispatch the concept of a totality of conceivable possibilities onto which probabilistic reasoning is based. The non-factical understanding of laws allows only for 'potentiality', i.e., the not yet actualised cases which belong to a *closed set* of possible cases regulated by a law, defined as 'caged freedom'.[49] Understanding how the necessary contingency of laws can be consistent with their observed stability can be reached only by "detotalizing the possible"[50] by assuming instead a *virtuality* as "the property of every set of cases of emerging within a becoming which is not dominated by any pre-constituted totality of possibles".[51]

48 Ibid., p. 104.

49 Quentin Meillassoux, 'Potentiality and Virtuality', *Collapse,* Vol. II, (2007), pp. 55-81, p. 70, hereafter *PV.*

50 *PV*, p. 71.

51 Ibid., p. 72.

As Meillassoux (here deeply Badiouian) explains, this means that

> time [has] the capacity to bring forth new laws which were not 'potentially' contained in some fixed set of possibilities; I accord to time the capacity to bring forth situations *which were not at all contained in precedent situations*: of creating new cases rather than merely actualizing potentialities that eternally pre-exist their fulguration.[52]

Such a radical interpretation of time as a transfinite, chaotic force, operating outside the limits of a given situation and always creating[53] the event of the emergence of a new unpredictable situation *for no reason whatsoever*, allows for the existence of "*laws which are contingent, but stable beyond all probability*".[54] We must be faithful to the principle of unreason, remembering that the only necessity is that of contingency and submit to the Hyper-chaos that spawns from such a necessity. To observers

> [a]n entirely chaotic world—submitting every law to the power of time—could thus in principle be phenomenally *indiscernible* from a world subject to necessary laws, since a world capable of everything must *also* be able *not* to effect all that it is capable of.[55]

This not only settles the reformulated version of Hume's (philosophical) problem, but implicitly legitimises the (pragmatic)

52 Ibid.
53 Meillassoux (*Ibid.*, p. 75) claims that such a creation indeed maintains the Christian ideal of *creatio ex-nihilo*, yet purges it of metaphysical overtones, and delivers it to its more abysmal meaning: 'the notion of virtuality...makes the irruption *ex nihilo* the central concept of an immanent, non-metaphysical rationality. Immanent, in that irruption *ex nihilo* presupposes, against the usually religious vision of such a concept, that there is no principle (divine or otherwise) superior to the pure power of the chaos of becoming; non-metaphysical in that the radical rejection of all real necessity assures us of breaking with the inaugural decision of the Principle of Sufficient Reason'.
54 Ibid., p. 67.
55 Ibid., p. 76.

possibility for experimental science in a universe whose only law is the absence of laws:

> it becomes possible to justify the postulate of all natural science—namely the reproducibility of experimental procedures, supposing a general stability of phenomena—whilst assuming the effective absence of a principle of uniformity of nature.[56]

> [W]hat I am trying to do is to claim that nature can change. There is the problem of believing in the necessity of laws, but that's not the problem of believing in the necessity of theories. Nature stays what it is, but theory changes....Reason can extend to, can justify, the evolution of theory, yes. But I want to justify the possible evolution of *nature*.[57]

It is not only the *theories* regarding nature that can be proven contingent, (upon an inaccurate human understanding, hence falsifiable), but the natural *reality itself*, described by those theories which can change unconstrained by necessity. Moreover, only a peremptory relinquishment of the belief in necessary laws can bolster a truly secular scientific enterprise since "the belief in necessary laws is necessarily a belief in God, because you believe what you cannot demonstrate, you believe in an order that guarantees laws".[58]

For Meillassoux then, science must be considered an inquiry into the natural world—made possible by the mathematical toolbox whose contingent nature mirrors the contingency of reality—capable of offering a contingent causal explanation of phenomena at some spatially and temporally macroscopic level but structurally incapable—in order to avoid lapsing into a theological trap—of offering anything like a *reason*. Paradoxically, Meillassoux's position asks us to adopt as a *realist* stance, one in which we are not simply rationally unable to justify the

56 Ibid.
57 Quentin Meillassoux in Ray Brassier, Iain Grant, Graham Harman and Quentin Meillassoux 'Speculative Realism', *Collapse*, Vol. III (2007) pp. 307-449, (p.444).
58 Meillassoux, Hecker, and Mackay, p.4.

(metaphysical) validity of inductive inference (what Meillassoux would define a 'sceptical resolution' of Hume's problem) but one in which we are rationally *able* to know that such an induction *cannot* work, because of our metaphysical certainty that there are no necessary causes, according to a principle of reason which is "injected into the world"[59] by us. For Hume, we cannot help but draw (via habit) inductive inferences, *even if* we do so with no rational justification. Meillassoux's principle of unreason demonstrates that inductive inferences cannot be reliable: the riddle therefore is not anymore that of proving the necessity of physical laws (for they have been already rationally proven contingent) but to explain how is it that they appear to be stable,warranting our belief in induction and making empirical science possible. Even Popper's well-known 'solution' to the problem of induction is considered invalid by Meillassoux because it is still reliant on a misguided metaphysical belief, since Popper

> continues to assume that the principle of the uniformity of nature...will still be valid in the future, and it is by relying *a priori* on this supposedly necessary validity that he is able to elaborate the principles of his own epistemology.[60]

Meillassoux's rather heterodox scientific realism could then thus be phrased: mathematically formalised scientific theories are true descriptions of the (primary qualities of) reality and the theoretical terms that feature in these theories refer to real entities and phenomena, even when in principle unobservable by humans (as in the case of 'ancestral' events).[61] However, the consistent predictive success of science is something of a continuous inductive miracle, depending upon the contingent stability of natural laws (hence undermining the 'no-miracles argument' still today widely

59 *AF*, p. 91.
60 *AF*, p. 134.
61 Meillassoux's (*AF*, p. 9,10) refers to those scientifically analysable material remnants (*arche*-fossils) carrying information regarding events preceding the appearance of human consciousness, in order to expose the correlationist's inability of offering a *literal* interpretation of such events. Only (realist) scientists can be fully committed to the human-independent and verification-transcendent existence of real unobservable events.

considered the strongest argument against scientific antirealism).[62] The laws underpinning scientific theories and their postulated entities are true/real today but could in principle become untrue/unreal tomorrow: there can be no *experimentum crucis* capable of a definite pronouncement on the world. For the Meillassouxian realist all that counts is our *rational* knowledge of the in-itself of hyper-Chaos. The price to pay for this knowledge is the relinquishment of our confidence in a metaphysically warranted *time-enduring* empirical knowledge of things-in-themselves. We *can* expect nature to be stable, but we *cannot* ground this expectation on a belief in external causality. This seems somewhat of a Pyrrhic victory for the realist. Meillassoux's rationalism, however, compels him to scorn empirically-bred preoccupations (and metaphysical modesty): "philosophers, who are generally the partisans of thought rather than of the senses, have opted overwhelmingly to trust their habitual perceptions, rather than the luminous clarity of intellection".[63]

I largely agree with Adrian Johnston's recent indictment of Meillassoux's project, in particular with the stress Johnston puts on those problems of *scientific practice* which a philosophy of absolute contingency raises and which Meillassoux fails to resolve. Johnston underlines how the ontology of hyper-Chaos could lead us to the paradoxical conclusion of explaining scientific revolutions not as epistemic paradigm shifts but as *ontological* rearrangements of reality itself. Johnston argues that

> [t]he hyper-chaotic early twentieth-century becoming-post-Newtonian of the material universe in itself should strike one as an absurdity at least as absurd as the conceptual contortions Meillassoux claims correlationists and Christian creationists would resort to when faced with his argumentative mobilization of the 'arche-fossil' in *After Finitude*.[64]

62 For a classic exposition see Alan Musgrave 'The Ultimate Argument for Scientific Realism', in Robert Nola, ed., *Relativism and Realism in Science*, (Dordrecht, Boston and London: Kluwer Academic Publishers, 1989), pp. 229-252.
63 *AF*, p. 91.
64 Adrian Johnston, 'Hume's Revenge À Dieu, Meillassoux', in Levi Bryant, Nick Srniceck and Graham Harman (eds.) *The Speculative Turn*, (Melbourne: Re:press,

Indeed. However, I think that when Johnston goes on to argue that

> Meillassoux cherry-picks from the empirical realms of the experiential (seizing upon Hume's problem of induction) and the experimental (extracting the arche-fossil from certain physical sciences and also dabbling in speculations superimposed upon biology)....Meillassouxians, if they can be said to exist, believe it legitimate, after the fact of this cherry-picking, to seal off speculative materialism as an incontestable rationalism of the metaphysical-pure-logical-ontological when confronted with reasonable reservations grounded in the physical-applied-empirical-ontic.[65]

His critique is undoubtedly well-aimed but there *can* be a way out of this impasse for a heterodox Meillassouxian. In order to explain how, I would like to take a *detour* and compare Meillassoux's theses with the ambitious idea of theoretical cosmologist Max Tegmark, whose position is arguably the closest thing to a full-blown, scientifically informed (neo)Pythagoreanism available in the contemporary intellectual landscape.

The Mathematical Universe

Tegmark begins by defining the 'external reality hypothesis' as stating that "there exists an external physical reality completely independent from us humans".[66] He then aims to show the necessary connection of this relatively uncontroversial thesis (certainly among most physicists, as compared with the philosophers targeted by Meillassoux)[67]

2010), pp. 92-113 (p. 101).
65 Ibid., p. 102.
66 Max Tegmark 'The Mathematical Universe', *Foundations of Physics*, 38:2 (2008), pp. 101-150 (p. 102), hereafter *MU*.
67 Yet not all of them: Tegmark notes that there will be some 'metaphysical solipsists' (*MU*, p. 102) such as adherents of the Copenhagen interpretation of quantum mechanics who will reject this thesis. Indeed Tegmark clarifies that the MUH 'constitutes the opposite extreme of the Copenhagen interpretation and other "many worlds interpretations" of physics where human-related notions like observation are fundamental' (*MU*, p. 139).

with his own more speculative modification of it, the mathematical universe hypothesis (MUH). MUH claims that "our external physical reality is a mathematical structure"[68] where structures are defined as "abstract entities with relations between them" to compose "an abstract, immutable entity existing outside space and time".[69] For Tegmark, the physicists' quest for a theory of everything can only be considered possible if such a complete description of physical reality can be formulated without the employment of non-mathematical human language ('baggage') and only a purely mathematical structure can offer such a description, wherein the exorbitant complexity of the universe is reduced to mathematical terms—in principle understandable by *any* form of mathematically-savvy sentient being. The MUH, then, not only postulates a mathematical structure capable of describing the universe but states that the universe *is* a mathematical structure. Applying the Leibnizian principle of indiscernibles, Tegmark stipulates that

> if there is an isomorphism between a mathematical structure and another structure (a one-to-one correspondence between the two that respects the relations), then they are one and the same. If our external physical reality is isomorphic to a mathematical structure, it therefore fits the definition of being a mathematical structure.[70]

68 Ibid., p. 102.
69 Ibid., pp. 104-106.
70 Ibid., p. 107.

This form of mathematical (ontic) structural realism,[71] allows Tegmark to give a deflationary answer to the question, most famously elaborated by Eugene Wigner,[72] of the apparently unreasonable effectiveness of mathematics in physics. How can we explain the success of mathematically formalised theories of explaining and predicting physical phenomena? Tegmark flatly states that

> [t]he various approximations that constitute our current physics theories are successful because simple mathematical structures can provide good approximations of certain aspects of more complex mathematical structures. In other words, our successful theories are not mathematics approximating physics, but mathematics approximating mathematics.[73]

In such a mathematical structure human beings belong to the group of 'self-aware substructures' (SAS), generally endowed with an inside perspective (a 'frog view') expressed in baggage-laden terms but capable

71 The term structural realism was introduced into the debate between realism and antirealism in philosophy of science by John Worrall (in 'Structural Realism: The Best of Both Worlds?' *Dialectica,* 43:1-2, (1989) pp. 99-124) in order to offer a realist position capable of both resisting the antirealist argument of pessimistic meta-induction and being consistent with the so-called 'no-miracles argument' for scientific realism. A strong metaphysical (ontic) interpretation of this position (which can be summarised by 'there is *nothing but* structure') was exposed by James Ladyman (in 'What is Structural Realism?', *Studies in History and Philosophy of Science*, 29:3, (1998), pp. 409-424)—an article to which Tegmark refers—and further defended by Ladyman and Don Ross in their *Everything Must Go. Metaphysics Naturalised*, (Oxford: OUP, 2007). Note, however, that Ladyman is unconvinced by the possibility of equating mathematical and physical structures, commenting, when pressed, that "[a]s to what makes the difference between concretely instantiated mathematical structure (physical structure) and purely mathematical structure, I think any attempts to say so would amount to empty words that would in the end add nothing to our understanding of the difference. I have no idea what conceptual resources one could deploy to say more about a distinction that, if it obtains, is so fundamental" (James Ladyman, 'Who is afraid of scientism?', *Collapse*, Vol. V, (2009) pp. 135-185 [p. 166-167]).

72 See Eugene Wigner, 'The Unreasonable Effectiveness of Mathematics in the Natural Sciences' in *Communications in Pure and Applied Mathematics*, 13:1, (New York: John Wiley & Sons, Inc. 1960).

73 *MU*, p. 107.

of achieving an outside perspective (a 'bird view') if reasoning in purely mathematical terms.

The MUH allows Tegmark to envision the possibility of a mathematical multiverse: expanding on standard cosmological and/or quantum mechanical theorisations of different kind of multiverses he argues that our universe is just one mathematical structure amongst all possible mathematical structures (other universes). He vouches for a 'complete mathematical democracy' defined as a form of 'radical Platonism'[74] (referring to *mathematical* Platonism)[75]: since mathematical existence is equivalent to physical existence every possible mathematical structure is existent. This implies that laws of nature are contingent, in the sense that they 'apply' only to one of the infinitely many mathematical structures in which we happen to live.

Asserting the MUH and the necessary existence of a multiverse of structures, Tegmark–like Meillassoux appeals to the Galileo event, the intuition of the mathematical language of nature, and argues for the necessity of referring to external reality in baggage-free terms (a term synonymous with 'non-correlationist', inasmuch as any language-based description will be bound to the structure of human thought and not to the absolute structure of reality). Unlike Meillassoux though, his neo-Pythagorean stance leads him to affirm the *necessary* existence of the mathematical structure which *is* reality, insofar as such a structure is 'abstract and eternal'. Tegmark explains that

> [t]he traditional view of randomness...is only meaningful in the context of an external time, so that one can start with one state and then have something random 'happen', causing two or more possible outcomes. In contrast, the only intrinsic

74 Ibid., p. 125

75 As Maddy observes, in philosophy of mathematics this term is "applied to views of very different sorts, most of them not particularly Platonic" (Penelope Maddy, *Realism in Mathematics,* (Oxford: OUP, 1990), p.21). In Tegmark's case the Platonic elements in his thesis are the belief in the objective, mind-independent existence of mathematical objects (structures: set of abstract objects and the relations between them) which are discovered, not created by rational agents and existing outside of physical space, eternal (outside of time) and unchanging.

> properties of a mathematical structure are its relations, timeless and unchanging. In a fundamental sense, the MUH thus implies Einstein's dictum 'God does not play dice.'[76]

It is clear then that the metaphysical assumptions guiding Tegmark and Meillassoux are profoundly at odds, finding their sharpest contrast in the treatment of time: Tegmark's mathematical structure is defined by relations standing *out* of time (both out of subject-centred transcendental time *and* out of any absolute time of cosmic evolution) therefore out of the reach of that omnipotent hyper-Chaos which commands the necessary contingency of any entity.

Both authors, however, seem to start from a similar evaluation of the intellectual implications of Copernicanism for humanity, and indeed Tegmark's words are reminiscent of Meillassoux's description of "the sense of desolation and abandonment which modern science instils in humanity's conception of itself and of the cosmos",[77] and of his hostility towards philosophies that constrain knowledge within the structure of natural languages:

> The MUH brings…human demotion to its logical extreme: not only is the [mathematical] Multiverse larger still [than our human-centered perception could imagine], but even the languages, the notions and the common cultural heritage that we have evolved is dismissed as 'baggage', stripped of any fundamental status for describing the ultimate reality.[78]

Moreover, Tegmark and Meillassoux appear to agree with the necessity of thought to accept the inevitably disappointing results of rational speculation, even where these frustrate human narcissism:

> [t]he most compelling argument *against* the MUH hinges on…emotional issues: it arguably feels counterintuitive and disturbing. On the other hand, placing humility over vanity

76 *MU*, p. 118.
77 *AF*, p. 116.
78 *MU*, p. 142.

> has proven a more fruitful approach to physics, as emphasized by Copernicus, Galileo and Darwin.[79]

Yet, Tegmark closes on a positive note: the identification of reality with a mathematical structure, united with the assumption that any mathematical structure is eternal, unchanging and necessarily existent ultimately will allow SASs (human or non-human rational agents) to achieve an absolute knowledge of the universe:

> if the MUH is true, then it constitutes great news for science, allowing the possibility that an elegant unification of physics, mathematics and computer science will one day allow us humans to understand our reality even more deeply than many dreamed would be possible.[80]

What is most significant from the perspective of a philosophy of science, therefore, is that Tegmark's—admittedly highly speculative—hypothesis contributes to the expectation of the (present and future) success of science to know things-in-themselves due to the identity of an eternally subsistent mathematical structure (theoretically completely computable) and physical reality—a mathematically grounded eschatological expectation of absolute knowledge. Meillassoux's position, on the other hand, both in rejecting the principle of sufficient reason and upholding the Cantorian rejection of the totalisation of the real, seems to posit unsurpassable limits to the intelligibility of the universe: the absolute of contingency is rationally deducible but it is precisely this contingency which forces us to reject any possible form of teleological or order-abiding reasoning; neither God nor mathematics can assure a final revelation of the primary causes and inner workings of the universe, since there are no such necessary causes, but only contingent events (described, not necessitated, by mathematics).

This fundamental metaphysical divergence depends on different aims: Tegmark wants to offer the simplest explanation for the success of the physical sciences through a radical mathematical realism;

79 Ibid.
80 Ibid.

Meillassoux's aim is to reform (continental) philosophy according to a correct understanding of the Copernican revolution *and* a rejection of the principle of sufficient reason. But what remains of the philosophical foundations of science and scientific practice once the principle of sufficient reason is declared invalid? If philosophy's concern is not with (necessary) being but with the May-be, and hence delineates an 'un-reasonable' ontology, what kind of science—as organised in observation, modelling and prediction of the natural world—can be built upon it? With these questions we return to Johnston's sceptical remarks regarding the reasonableness of Meillassoux's materialism. In particular we should recall his criticism of Meillassoux's awkward treatment of the ontological-metaphysical and the ontic-empirical levels and indeed the very *veracity* of the ontological difference (a 'Heideggerian hangover')[81] mostly in the direction of their *unjustified* confusion and the ultra-rationalistic privileging of the ontological plane. Meillassoux's ultra-rational ontological doctrine of hyper-Chaos remains immune from empirical undermining derived from ontic, materialistic inquiry (and it is, as it stands, radically at odds with the best explanations of scientific practice). How to solve this problem?

I believe that a Tegmark-inspired Pythagorean structural realism offers a—speculative—solution: what if we *willingly* conflate the empirical with the ontological, with the simple move of *identifying* the physical and the mathematical? Is this merely an out-speculation of Meillassoux? Meillassoux rejects Pythagoreanism by denying reality to mathematical statements while preserving the reality of their referents. Again here he follows Badiou, who dismisses the question in a brief line in his *Being and Event* claiming that "except if we pythagorize, there is no cause to posit that being qua being is number".[82] Are the rationalists dismissing the equation of being with mathematics as an über-rationalist, *a priori* conjecture? Is there 'no cause' to do so? On the contrary: only such a hypothesis can save mathematically-grounded (me)ontologies from their lamentable lack of purchase on empirical reality by denying any

81 Johnston, p. 110. Johnston offered a similar critique of Badiou in his 'What matter(s) in ontology. Alain Badiou, the hebb-event and materialism split from within', *Angelaki*, 13:1, (2008), pp. 27-49.
82 Alain Badiou, *Being and Event* (London: Continuum, 2007), p.24.

ontological difference and by being compatible with (and indeed justified by) the empirical work of physicists. In mathematical statements then, the form and the content of expression would be completely isomorphic, thus also responding to the phenomenological accusation that Meillassoux conflates the two.

Tegmark's thesis has the advantage of following the basic rules of an inference to the best explanation for the success of the physical sciences. Meillassoux on the other hand—preserving the mathematical-physical difference—selectively employs physics to build his argument to then reject it on rationalistic grounds as being "only a description of *our* world, not a description of being itself" since "what we call explanation is a complex description of our world…but ultimately it is experiential, it is an experiment, because it is a fact: physical laws treat about facts—they have to be experiential and not rational".[83] If we adopt Tegmark's position physics becomes experimental mathematics, collapsing the distinction between rationalism and empiricism (or, more correctly, between experimental and speculative philosophies): by—rationally—discovering more mathematical structures we reveal more empirical reality.

This thesis can be justified by the passage from a mathematical interpretation of observed regularities to a theoretical work employing new mathematical methods to predict the existence of hitherto unobserved entities and phenomena, one which has occurred, in physics since at least the first decades of the twentieth century: as early as 1931 we can find Paul Dirac arguing that

> There are at present fundamental problems in theoretical physics awaiting solution…[which] will presumably require a more drastic revision of our fundamental concepts than any have gone before. Quite likely these changes will be so great that it will be beyond the power of human intelligence to get the necessary new ideas by direct attempts to formulate the experimental data in mathematical terms. The theoretical worker of the future will therefore have to proceed in a more indirect way. The most powerful method of advance that can

83 Meillassoux, Hecker and Mackay, p.4.

> be suggested at present is to employ all the resources of pure mathematics in attempts to perfect and generalize the mathematical formalism that forms the existing basis of theoretical physics, and after each success in this direction, to try and interpret the new mathematical features in terms of physical entities.[84]
>
> Possibly, the two subjects will ultimately unify, every branch of pure mathematics then having its physical application, its importance in physics being proportional to its interest in mathematics.[85]

The mathematical and the non-mathematical content of physical theories are today often impossible to separate, unless—with Tegmark—one employs Ockham's razor to excise the non-mathematical 'baggage' which still clings to the mathematical structure, baggage that, impossible to represent in equations, would therefore indicate some intrinsically unknowable and unquantifiable property, undermining the (tested) predictive power of mathematical theories. What remains is a de-substantialised mathematical description of 'entities' in mere terms of a relational structure, their belonging to a structure being their only *property.*

But can we save Meillassoux's necessity of contingency whilst adopting the mathematical universe hypothesis? Tegmark's placement of mathematical structures out of space-time (indeed, mathematical structures *are* space-time) makes them into immutable entities: the time which Meillassoux claims is capable of bringing about any possibility from a non-totalisable virtual reservoir of possibilities can only be found *within* structures. More precisely, Tegmark argues that time *seems* to be passing to those self-aware substructures which have only a partial understanding of the structure, while a correct spatiotemporal representation of the universe would permit us to 'see' space and time as

84 Paul Dirac, 'Quantised Singularities in the Electromagnetic Field' in *Proc. R. Soc. A*, 133:60 (1931), pp. 1-13 (p. 1-2).

85 Paul Dirac, 'The Relation Between Mathematics and Physics' in *Proc. R. Soc. Edinburgh,* 59, Part II (1939), pp. 122-129, (p. 3). Available online at http://www.damtp.cam.ac.uk/strings02/dirac/speach.html [accessed 1 February 2011].

they are: eternally couched in the structure itself. With Meillassoux, however, we must recast this totalising structure under the dominion of hyper-Chaos, for such a necessitarian approach would lead us back to dogmatic metaphysics: "when God calculates and exercises his thought, the world is made".[86] The possibility of the unpredictable, of the evental, of the undecidable cannot be curtailed by a mathematical closure but enforced by a mathematical arbitrariness: mathematics cannot be identified with an eternal, divinely engineered structure. However, in order to account for the success of science (and to avoid Meillassoux's lamentable 'divinological' lucubrations) we should conceive the entire (mathematical) universe as being necessarily contingent in the sense of lacking an *external* causal principle while preserving a weak *internal* structural consistency, displaying mere regularities.

Voiding Totality, Unmooring Structures

Here, I believe, we can most productively place Meillassoux's project on a continuum with a certain project of the evacuation of presence (of substance, meaning, totality) operating in the work of Alain Badiou and Jacques Derrida. To quote the latter:

> Everything that has always linked *logos* to *phone* has been limited by mathematics, whose progress is in absolute solidarity with the practice of a nonphonetic inscription....But the extension of mathematical notation...must be very slow and very prudent, at least if one wishes it to take over *effectively* the domains from which it has been excluded so far.
>
> ...
>
> We must...be wary of the 'naïve' side of formalism and mathematism, one of whose secondary functions in metaphysics, let us not forget, has been to complete and confirm the logocentric theology which they otherwise would

86 Gottfried Wilhelm Leibniz, *Philosophical Papers and Letters (*Dordrecht, Boston and London: Kluwer Academic Publishers, 1989), p.185, n.4.

> contest. Thus in Leibniz the project of a universal, mathematical, and nonphonetic characteristic is inseparable from a metaphysics of the simple and hence from the existence of a divine understanding, the divine *logos*. The effective progress of mathematical notation thus goes along with the deconstruction of metaphysics, with the profound renewal of mathematics itself, and the concept of science for which mathematics has always been the model.
>
> ...
>
> Grammatology must deconstruct everything that ties the concept and norms of scientificity to ontotheology, logocentrism, phonologism. This is an immense and interminable work that must ceaselessly avoid letting the transgression of the classical project of science fall back into a prescientific empiricism. This supposes a kind of double register in grammatological practice: it must simultaneously go beyond metaphysical positivism and scientism, and accentuate whatever in the effective work of science contributes to freeing it of the metaphysical bonds that have borne on its definition and its movement since its beginnings. Grammatology must pursue and consolidate whatever, in scientific practice, has always already begun to exceed logocentric closure.[87]

Isn't Meillassoux's (and Badiou's) ungrounding of mathematics—and science with it—from the metaphysical bonds of necessity and of presence/unity, the same project of localising the breaking points of ontological closure? Doesn't Meillassoux's break with the principle of sufficient reason shatter the covenant between mathematics and its divine guarantor, its eternal *logos*? Isn't his goal to indict those ontologies "haunted by the dissipation of Presence and the loss of origin", to undermine "the (false) thesis of the ontologies of presence, 'the one is'" and to replace it with "a radically subtractive dimension of being", a (me)ontology which "deconstructs any one-effect"?[88] And aren't all of

87 Jacques Derrida, *Positions* (London: Continuum, 2004), pp. 29, 30.
88 Alain Badiou, *Being and Event,* pp. 9-10, 53, 30.

these enterprises ultimately aimed at an *improvement* ('consolidation') of science itself, by removing misleading conceptual prejudices?

Meillassoux's project *viz.* the natural sciences would then equate to a rationalist program of overhauling the metaphysical presuppositions which lie at the very heart of science, those dictating a necessitarian understanding of mathematics, without for this falling back to a 'pre-scientific empiricism'. To push Meillassoux to the Pythagorean extreme, and to preserve his unreason as the mode of mathematics would then allow a constructive reading: the necessity of contingency is inherent in mathematics itself, and—mathematics being all that there is—the consequence is that reality as a whole is internally consistent but ultimately groundless. In other words, a differential structure characterised by a lack of origin/reason based on an erratic void which is "scattered all over, nowhere and everywhere",[89] a centre that "does not belong to the totality" since "the totality *has its centre elsewhere*".[90] The intuition of a structure based on a point of indeterminacy, on a hypo-immanent *nothing* (whether the void or a formal play of differences), is carried on from Derrida's deconstructive project aimed at identifying that "something that *could not be presented* in the history of philosophy, and which, moreover, is *never present*",[91] Badiou's axiomatic project of labelling this "phantom remainder...both excluded from everything, and hence presentation itself, and included"[92] as proper name of being (void), and by Meillassoux's proof of the lack of any metaphysical mooring of empirical reality and mathematics. Against a (pre-Cantorian) understanding of mathematics/reality whose 'aleatory margin' remains "homogeneous with calculation, within the order of the calculable...[devolving] from a probabilistic quantification and still...[residing] in the same order and in the order of the same...where there is no absolute surprise",[93] it is imperative to bring into light "the latency of the structures...an excessive

89 Alain Badiou, *Being and Event*, p. 55.
90 Jacques Derrida, *Writing and Difference* (London and New York: Routledge, 2002), p. 352.
91 Jacques Derrida, *Positions*, p. 6.
92 Alain Badiou, *Being and Event*, p. 53.
93 Jacques Derrida, *Psyche. Inventions of the Other, Volume I* (Stanford: Stanford University Press, 2007), p. 39.

horizon of inconsistency, of which structures are only effects for a finite thought".[94]

These are the commitments that lead Meillassoux to attack the correlationist conflation of truth with knowledge, and to conceive the real as that which escapes[95] an impossible totalisation, whether structured around the synthetic operation of a subject or around a metaphysical principle of necessitarian closure: the aim is laboriously to negotiate a "metaphysics without metaphysics".[96] As Meillassoux recently stated:

> [a] metaphysics *informed by* the work of its great opponents —informed by its reversals (Nietzsche), its destruction (Heidegger), its therapeutic dissolution (Wittgenstein), or its deconstruction (Derrida)—presents us with both an extraordinary legacy, a unique treasure of thought towards which we can still turn, and at the same time it imposes on us an entirely new and exciting task: how to produce a contemporary metaphysics, capable of making sense, even if a fragile one, of our lives by the sheer force of thought, and capable of 'passing through' these formidable enterprises of 'demolition' which crossed the entire twentieth century?[97]

Attempting an answer to my initial question, Meillassoux's (revisited) project of offering a quasi-Pythagorean metaphysics of mathematical contingency—a (speculative?) *matherialism*, if such a pun

94 Alain Badiou, *Number and Numbers* (Cambridge: Polity, 2008), p. 212.

95 Playing on this word, one could draw a venturous contraposition between Meillassoux and the early Levinas (who titled On Escape [*de l'Evasion*] one of his first works) as both thinkers start from a form of philosophical claustrophobia. However, if Levinas' path to escape the malaise of the omnipresence of Being is phenomenological, grounded on the ethical transcendence of the other, Meillassoux's aim is precisely to break out of phenomenological cages, facing the immanent aloofness of the in-itself, through mathematised science.

96 Alain Badiou 'Metaphysics and the Critique of Metaphysics', *Pli,* 10 (2000), pp. 174-190, (p. 190).

97 Quentin Meillassoux 'Que peut dire la métaphysique sur ces temps de crise?' Interview with Quentin Meillassoux, 5th of February 2010. Online at http://www.idee-jour.fr/2-Que-peut-dire-la-metaphysique.html [accessed 15 February 2011], np. My translation, my emphasis.

can be forgiven—could be defined as a hyper-rationalistic philosophy of science, guided by the assumption that the 'sheer force of thought' can unearth and dissolve revered metaphysical principles pre-assumed in the conceptual scheme applied to scientific methodology. Such a rationalist attack on metaphysics, however, is unlikely to convince the philosopher of science attempting to build a scientific realism via empirical means (not to mention the constructive empiricist for whom *all* metaphysical speculations are meaningless *flatus vocis*), and trying to reconcile empiricist scruples with the necessity for either a nomological or a causal account of scientific explanation. Faced with this split, we could archive it as yet another instance of the analytic-continental divide: on the one hand a science-attentive analytic method and, on the other, an unruly continental (anti)metaphysics prone to unwarranted transcendental arguments. I want to suggest that this irreconcilability is not inevitable: metaphysical theories are neither to be completely 'read off' experimental results (often themselves open to more than one interpretation) nor can they be armchair, *a priori* fabrications. With Meillassoux we can revoke the legitimacy of a metaphysics that arbitrarily manufactures (substantial) entities and properties, but endorse a rationalism that questions the basic (structural) conceptual conditionings of our experience. My attempt to 'save' Meillassoux's speculative venture from the scientific dustbin of epistemically irrelevant ideas—by proposing a 'matherialist' reading of his philosophy of contingency—is a way to build a stage wherein both experimental science and rational speculations are legitimate means for the exploration of reality. That our metaphysical theories must be compatible with those features of reality which we regularly examine and exploit (in scientific practice and in our everyday dealings) does not imply that the principle to be followed during the indispensable and interminable duty of absolving our metaphysical concepts from their historically inherited restraints is that of *common sense*: if there is *one* feature of reality-in-itself which we can confidently predict, it is the power of shattering the horizon of common sense.

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The Medium of Contingency

ELIE AYACHE

Absolute contingency

In this article, we propose an alternative treatment of contingency – one that doesn't unfold in time and never leaves the place where contingency strikes. "The world emerged at a single stroke", Baudrillard writes in *Impossible Exchange*, and this is why "it cannot have any determinate meaning or end".[1] Only because we are accustomed to exchanging contingency against metaphysics and against its characteristic division of the world into 'states of the world' (following the canon of probabilistic thought) do we interpret contingency in a differential or disintegrated fashion. We think of the contingent thing as the superposition of two thoughts: the thought of the thing as it actually is and the thought of the other thing that it could have been, or that it could be.

Actuality alone is obviously too short to transmit the sense of contingency. Contingency has a sense; it is an arrow, something alive and vibrant and not petrified in actuality. It is an event, a happening, an upheaval of matter, and we can hardly resist making sense of it or trying to exchange it. For this reason, Meillassoux's proposal to hold contingency as only absolute, and to overturn both materialism and metaphysical speculation as a result, is truly challenging.

Contingency is a single stroke. It is the thought that things are the way they are without a remainder or a reason or a return to the initial causes. The stroke is faster than the reflected light of reason. (For this

1 J. Baudrillard, *Impossible Exchange*, trans. C. Turner (London and New York: Verso, 2001), p. 9.

reason, it requires a new brand of speculative thought, called 'factual speculation').[2] To be true to the single and absolute stroke of contingency, one has therefore no longer to think of contingency dually, as the 'being' of a thing that could have been or could be otherwise. One has to think the stroke, not the extremities (and if one cannot think the stroke – for to think and conceive is to represent, that is to say, to duplicate what cannot be duplicated and to exchange what cannot be exchanged –, one probably will have to *repeat* the stroke). One has to bracket the word 'being' and think instead of what the thing *can* be, putting the emphasis on the word 'can' as single and undivided matter, or mark.

Contingency strikes in place. It says at a stroke that a thing is what it actually is and – at the same time and in the same sense – that it could have been different. My contention is that the metaphysics of possible states and chronological time has taken from the start the wrong direction in which to make sense of contingency. If a speculation like Meillassoux's must bring our thought flat against the matter of absolute contingency, with a flattening of the depth where we would have searched for the reason why things are what they are and not otherwise and with the flipping of ontology from the side on which things *are* to the side on which things *can* be[3] and if, correlatively, contingency has to be thought independently of any division of underlying states in which the contingent thing *possibly* can be something or other, then the step back from contingency – for only by stepping back from its absolute strike are we able to make sense of it and unfold the expanse where it can be thought speculatively – should take place in a direction and through a medium that maintain the absence of reason and the absence of states.

Something has to be exchanged from the beginning; a philosophical decision has to take place right at the start, in order to set the thought of contingency on the right course. If factual speculation is speculation without the reflected light of metaphysics, literally without the mirror of

2 Cf. Q. Meillassoux, *After Finitude: Essay on the Necessity of Contingency*, trans. Ray Brassier (London: Continuum, 2008).

3 Cf. R. Brassier, I. Hamilton Grant, G. Harman and Q. Meillassoux, 'Speculative realism', in R. Mackay, ed., *Collapse III: 'Unknown Deleuze'* (Oxford: Urbanomic, 2007), pp. 307–450, esp. p. 393.

necessity or even the eye of possibility, then one should be able to *continue* thinking of contingency without turning back, to translate and literally move in space its single stroke – to extend it and prolong it, or in a word, to repeat it and create its concept (to write a book about it?) – without reproducing the states of possibility and without even going through chronological time. Chronological time might even be the direction to avoid above all, for it furnishes the stages where the states of possibility unfold in succession. It may sound indeed as if factual speculation should take place before ontology, yet the challenge is to perceive in exactly what sense it is a speculative *realism* and not a mere philosophy of sense.

Meillassoux's absolute contingency is not a thought of absolute change or absolute becoming. Meillassoux is open both to the absolute possibility of change and to the absolute possibility of no change. As a matter of fact, the thought that the actual thing 'can still be different' is not future-tensed. It doesn't necessarily imply that the thing will change. It is as of now, at present, or rather, in place (*au lieu de*), that an exchange takes place and that, *instead* of thinking that the thing is, the proposition is to think that it can *still* be different (crucially, the word 'still' here is not synonymous with movement and change; it literally means the opposite). I interpret the proposition as the refusal to admit that an actual (yet contingent) thing is in a *state*, not as the intimation that it should move into another state, or even that there are states that it can possibly be in.

To repeat, flipping the verb of ontology from 'to be' to 'can be' is not a shift from being to becoming, for becoming is only a succession of states of being. Contingency is to be purified even from possibility, when the latter is defined relatively to states. This is what makes factual speculation so incongruous with metaphysics. It is not even anti-metaphysical; it is the *other* of metaphysics. By the same token, this is what makes Meillassoux's later move (using Cantor's theorem of non-totalisation of possibilities as the way of defending absolute contingency against the probabilistic argument that the laws of nature would consequently exhibit erratic change) so puzzling indeed. Probably Meillassoux didn't suspect the alternative direction that I am hinting at, in

which I claim absolute contingency should be translated and possibility not even mentioned.

I interpret Meillassoux's overturning of metaphysics as an attack against the notion of state (the replacement of 'to be' with 'can be'). How else, indeed, can contingency come before existence and existence be literally derived from it (as in Meillassoux's factual derivation)? States that a contingent thing *possibly* can be are the coordinates of contingency in a representational space that is mapped by possibility. However, to really think of contingency absolutely, we should be able to think it independently of any system of coordinates, in exactly the same way that we think a vector in space independently of its Cartesian coordinates. That a thing 'can still be different' is simply the minimum negation of the proposition that it is necessary.

Pierre Menard

The alternative plane (or direction) of contingency that I wish to explore is non intuitive indeed. One way of 'feeling it in the dark' is to think of the work of Pierre Menard, author of the *Quixote*.[4] Within the space of literary texts, the *Quixote* is fated to its actuality. Cervantes has finished writing it; the text now actually exists and can no longer be another possible text. In this sense, we can say it is unpredictable because it is now altogether meaningless to predict it. My alternative reading of the word 'unpredictable' (corresponding to my alternative plane) is that the actual and finished *Quixote* is deemed unpredictable because there are no possible states left in the enclosure of which prediction can play out.

4 Pierre Menard is a fictional character created by Jorge Luis Borges (J. L. Borges, *Pierre Menard, Author of the* Quixote, in *Collected Fictions*, trans. A. Hurley (New York: Penguin Books, 1999), pp. 88–95). Menard is a twentieth-century Frenchman who has dedicated his life to writing two chapters of *Don Quixote* – not a modern adaptation, but the *Quixote* itself, using exactly the same (Spanish) words Cervantes has used. Menard's book has a completely different meaning than the original *Quixote* and, according to Borges, is in fact far more profound.

Now the *Quixote* is a contingent text. It remains so even when all possibilities are over.[5] When it is not actualised, when it is still a possibility open to Cervantes, we think it is unpredictable because we don't know what possibility it will finally settle in. We confuse its contingency with its unpredictability in that sense. However, Pierre Menard is here to remind us that one can *still* write the *Quixote* even when the possibilities lying ahead are reduced to a single one, exactly as they are at the expiration of the text. Indeed, Pierre Menard has set out to write the actual *Quixote*, not another text. Yet Pierre Menard is not dead; he has not yet reached the end, what I call the 'expiration' of the text. He is not done writing. Simply, he has managed to recede from the strike of contingency of the *Quixote* into another space than the space of alternative states and possibilities. (He has receded in another dimension than chronological time.) He, too, writes an unpredictable text, although not in the sense of unforeseen possibilities. His possibilities are not even there to be seen; they simply don't exist. By extrapolation, there will be nothing to predict either for anyone carrying out tasks, like Menard's, that are adapted to the space of writing. In that essential space, which is in line with contingency and independent of possibility, it is only accidentally that possibilities and chronological time get into the way. As Baudrillard writes:

> [The world] cannot be exchanged for anything. There is no equivalent of the world. [...] No equivalent, no double, no representation, no mirror. [...] There is no integral calculus of the world. A differential calculus, perhaps? 'The Universe, made up of multiple sets, is not itself a set'.[6]

Prediction is always relative to a given representation. When the contingent world is envisaged at a stroke as a non-totality and a non-state,

5 As Pierre Menard explains: 'The *Quixote* is a contingent work; the *Quixote* is not necessary. I can premeditate committing it to writing, as it were – I can write it – without falling into a tautology' (Ibid., p. 92). To which I may add that only because Menard is *writing* the perfectly actual yet contingent *Quixote* is his work not a tautology. To anticipate, this clearly designates writing as the material medium in which contingency can be thought separately from possibility – so separately indeed that writing an existing text is deemed an original work and not a replica.

6 J. Baudrillard, *Impossible Exchange*, trans. C. Turner (London and New York: Verso, 2001), p. 3. Baudrillard quotes Denis Guedj.

as such unexchangeable, its unpredictability no longer means the unpredictability of its future behaviour, but more basically, the present and static lack of distinction and delineation of *any* state.

Now we wish to recede from the stroke of contingency and move backward in time, while maintaining this strong sense of unpredictability and trying not to mix it up with the usual sense of relative unpredictability of outcomes. We wish to exchange the very thing that Baudrillard says is impossible to exchange *without contradicting Baudrillard*. If exchanging the world is indeed deemed impossible, might not the hint be that the only possible exchange of absolute contingency has to take place outside possibility? Just as Meillassoux has missed the alternative direction in which absolute contingency can be mediated, Baudrillard has missed the alternative to the impossible exchange.

Quantum mechanics

So we start with the strike of contingency and we wish to move backward and to explore a space, or a medium, that will be alternative to possibility and its states. Metaphysics has taken the wrong direction, moving backwards into possible states, and speaking only of the unpredictability of *outcomes*. In fact, the image is deeper than the apparent coincidence of contingency and possibility. There is a leeway between the strike of contingency and the moment metaphysics decides (wrongly) on possibility. If contingency is real and material, if contingency is a matter of ontology and precedes even existence (which, according to Badiou, is the subsequent matter of logic),[7] if contingency is physical, then the interval in question will simply be the interval between physics and metaphysics. It is right in the heart of fundamental physics, in exactly the place where objective probability has recently been recognised to attach irreducibly to nature, that we shall debunk the metaphysical decision to represent contingency via possible states.

7 Cf. A. Badiou, *The Logics of Worlds: Being and Event 2*, trans. A. Toscano (London: Continuum, 2009).

Before the advent of quantum mechanics, probability, even in its objective brand known as frequentist probability, was not believed to materially inhere in nature. Probability was only a metaphysical reification. How the concept of objective probability emerged, according to Ian Hacking, is through the historical combination of two phenomena: the erosion of the doctrine of determinism and an avalanche of numbers that the statistician was finally able to tabulate.[8] Being historically dated, the concept of probability is thereby contingent. This suggests that an alternative concept is perfectly possible, with which we might just translate contingency.

Only because statistical regularities have emerged on top of what could only be described, otherwise, as a flurry of irregularities, and only because determinism was independently giving way on account of deterministic chaos or statistical physics, was the move legitimate to posit a random generator that was supposed to probabilistically *generate* each individual instance of the statistical population. The metaphysical realist, who would not satisfy himself that chance is just another name for the flat evidence of statistical series, could thus speak of statistical or probabilistic *laws*, which would come and replace the deterministic ones that were dear to his heart. Random generators subsisting in the domain of physics are truly objective and some of them are truly irreducible but this doesn't stop them from being metaphysical posits. As a matter of fact, the notion of generator is correlative with the notion of state (hence the metaphysical implication). Take a mental note, for later, that the notion of generator may also have to yield in front of contingency.

It is only with the advent of quantum mechanics that objective probability was finally offered a chance to become physical and to physically inhere in the single case (and no longer to be metaphysically reified and extrapolated for the single case from the statistical population). Popper speaks of this single-case probability as a *propensity* that inheres in the particular physical situation and is 'generated' by it. He remains critical enough a philosopher, though, not to lodge this mysterious propensity in the object itself. He writes: "[Propensities] are not properties

8 Cf. I. Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990), pp. 1–10.

inherent in the die, or in the penny, *but in something a little more abstract, even though physically real*: they are relational properties of the total objective situation".[9] In this, Popper opens an interval between the *physically real* and the *object* – an 'open realism', as Bernard d'Espagnat will later dub it, to be contrasted with the more stringent objectivist realism.

There is a gap between the 'real' source of quantum indeterminacy and the language of probability, which *can only be the probability of observations* in the present case. What Popper didn't perceive is that, due to this gap, what will finally be found to 'inhere' in reality is not even probability; it is something else. When quantum mechanics is scrutinised, one finds no random generator and no objectivist source. If anything, the source of indeterminacy is a subtraction rather than a salient feature such as the positive word 'generator' may suggest. Perhaps the main lesson of quantum mechanics is that the notion of object and property, and correlatively of possible state whose actualisation would be the observation that the given object bears the given property, is only a derivative notion. What is absolute and not derivative, what precedes the stage of objectivation, is a vector that is independent of the particular range of possibilities on which it will eventually be decomposed. It is the stroke of contingency. It is called *vecteur d'onde* in French, or 'wave function'.

The source of indeterminacy in quantum mechanics is not intrinsic probability. The reason why philosophers of quantum mechanics like d'Espagnat and Bitbol insist that quantum probabilities should be interpreted as probabilities of measurements (the Born rule), and not as probabilities of events taking place behind the scenes, is not just excessive empiricism.[10] It is that the crystallization of the range of possibilities whose elements are assigned the relevant probabilities is *concomitant* with the contingent choice of the particular experimental setup that is intended

9 K. R. Popper, *Realism and the Aim of Science* (London and New York: Routledge, 1983), p. 359, my emphasis.

10 Cf. B. d'Espagnat, *On Physics and Philosophy* (Princeton and Oxford: Princeton University Press, 2006) and M. Bitbol, *Mécanique Quantique, Une Introduction Philosophique* (Paris: Flammarion, 1996).

to measure the specific observable (for instance, position or momentum of the quantum particle). The event whose probability we are supposed to measure over given states is taken over by an event of immeasurable probability: the event first deciding the range of possible states.

It is not even true that the range is decided and *then* the probability-bearing event is picked or generated. Indeed, a theorem, shown by Paulette Destouches-Février, establishes that a theory such as quantum mechanics, which articulates predictions at the meta-level where it is recognised that a range of possibilities can be incompatible with another and the corresponding observable not com-possibly measurable with another (the so-called conjugate variables), is *essentially* indeterministic.[11] To my mind, this very deep result is onto-*logical*, not ontic. It doesn't show indeterminacy to inhere in nature, thereby pinning it down on some essence. Instead, it redefines the word 'essentially'. Indeterminacy is intransitive; it is the absolute background; it is nature; it precedes the notion of object or state and there is no first ground in which it may be said to inhere.

One must always keep in mind that probability and random generator might just be artifacts of our objectivist language, whereas indeterminism is, *in reality*, something 'older' than being or state or metaphysics altogether. Quantum mechanics may just be the first and final word concerning reality or the strike of contingency – a word older than the later exchange of reality against concept or word. To speak like Derrida, the stage of quantum mechanics, or the unmediated translation of the strike of contingency, may just be the *writing* of reality. Translating the *point* of the wave function may just have to take place in writing, not in possibility. Accordingly, factual speculation, or the continuation in thought of the strike of contingency, may never issue in ontology or cross the path of positive science, but may have to keep materialising contingency and maintaining its tension and risk in its *adapted medium*.

It might be very difficult to mediate, or translate, the instant stroke of contingency (that is to say, to *leave* that instant or to write after it). All

11 Cf. P. Destouches-Février, *La Structure des Théories Physiques* (Paris: Presses Universitaires de France, 1951).

instances of mediation and representation, even speech, may very well be indebted to the framework of possibility and expectation, and infected by it. Deeply embedded in our logico-linguistic framework are "invariants that are extracted from the Heraclitean flux" by the operation of what Michel Bitbol calls 'schemes of reciprocity'. These schemes "enable anticipation of what will occur and rely on methods for reproducing situations". They constitute our capacity of "freeing ourselves as much as possible from the irreversible aspects of any concrete situation".[12] Speech is thus based on the "reciprocal play of beings",[13] whose other name is possibility. It is constitutively linked with probability. So we wonder: How to speak of absolute contingency – how to possibly mediate it – without compromising at any point with probability or even with the very idea of mediation, without submitting at any point to Baudrillard's impossible exchange?

Semantic factualism

Baudrillard speaks of 'uncertainty in physics' arising from "the fact that the object, in its turn, analyses the subject" and of the 'uncertainty of thought' coming from "the fact that I am not alone in thinking the world – that the world, in its turn, thinks me".[14] This certainly sounds like the credo of correlationism. Object and subject, world and thought, seem to be co-defined by each other, and incapable of escaping the circle of their correlation. With Meillassoux, however, we know that the circle leaves something outside, which is precisely the thought of the absolute

12 M. Bitbol, 'Non-Representationalist Theories of Knowledge and Quantum Mechanics', *SATS (Nordic journal of philosophy)*, 2, 2001, pp. 37–61.

13 To put it in Badiou's words in his book on Deleuze. The full quote is illuminating for our later distinction between the possible and the real: 'To the extent that what one assigns to thought is the exploration of the simple abstract possibility and the closed reciprocal play of beings, rather than the extraction of that share of beings that is virtual, and therefore real, one still certainly constructs a plane or a consistent section of the chaotic ground. This plane, however, only 'refers' beings [...] It does not attain the ground' (A. Badiou, *Deleuze: The Clamor of Being* (Minneapolis and London: University of Minnesota Press, 2000), p. 46).

14 J. Baudrillard, *Impossible Exchange*, trans. C. Turner (London and New York: Verso, 2001), p. 8.

contingency of this correlation. (Baudrillard wouldn't speak of 'uncertainty' if this weren't accountable to some outside.) As Meillassoux writes: "Certainly, the presence of an observer may eventually affect the effectuation of a physical law, as is the case for some of the laws of quantum physics – but the very fact that an observer can influence the law is itself a property of the law which is not supposed to depend upon the existence of an observer".[15]

Meillassoux may not be aware of the degree of correlation between subject and object in quantum mechanics. In keeping with the received view, he believes that the observer perturbs the objective law only incidentally. From the work of d'Espagnat and Bitbol, however, we know that the 'influence' is much deeper than this and that the subjective intervention, or the experiment, is constitutive of the object and of the very range of possibilities that defines it. In a word, the epistemology of quantum mechanics – not as a theory of knowledge, but as the logic of science or the very relation between subject and object – is more Kantian than Meillassoux has ever dreamed. However, *that* this should be the case, or the thought of *this* from the outside – what Žižek calls the "*speculative* crux of Meillassoux's argument" or the "passage from (or reversal of) epistemological limitation to (or into) positive ontological feature",[16] – is, therefore, all the more hospitable to absolute contingency since the stroke of contingency – what I have called the *point* of the wave function – now literally reaches behind beings and their possible states. By d'Espagnat's and Bitbol's (and Kant's) own lights, it reaches exactly to the domain of the 'can be'.

The thought that the contingency of the correlation is unsurpassable is very close to the thought that the world is unexchangeable – that it is without 'a determinate meaning or end' – and the two of them are very close to the thought that existence is therefore produced out of *nothing* – a word that I interpret, in Baudrillard, as meaning 'absolute contingency'

15 Q. Meillassoux, *After Finitude: Essay on the Necessity of Contingency*, trans. Ray Brassier (London: Continuum, 2008), p. 114.

16 S. Žižek, *An Answer to Two Questions*, as Appendix B in A. Johnston, *Badiou, Žižek, and Political Transformations: The Cadence of Change* (Evanston, Illinois: Northwestern University Press, 2009), p. 224.

rather than the absolute void. Indeed, Baudrillard writes:

> The Nothing is the only ground – or background – against which we can apprehend existence. It is existence's *potential of absence and nullity, but also of energy* (there is an analogy here with the quantum void). In this sense, things only ever exist *ex nihilo*. Things only ever exist out of nothing.[17]

The answer to the fundamental question of metaphysics: 'Why is there something rather than nothing?' therefore is that contingency is the only absolute and that something, rather than nothing, is *then* deduced from it.

There is always a very fine line separating those who think that correlation is the final word and those who crave an outside. If there is indeed a leeway between reality and the *representation* of reality; if, as d'Espagnat says, the realist can be generally defined as a thinker who tends to identify the features of the observed phenomena that make up representation with elements of mind-independent reality and if, more specifically, what d'Espagnat calls the *objectivist realist* is a thinker who insists that these features are "the remarkable stability of some groups of impressions, named 'objects', positions and forms of objects, numerical values of these quantities, etc., on the one hand, and counterfactuality on the other hand",[18] then the possibility is open to be a realist in between – what d'Espagnat calls an 'open realist', a realist who is not necessarily an objectivist realist. It is in this opening that I locate Meillassoux's realism.

For all that, the speculative twist that Meillassoux applies to the correlation may still strike the scientist as purely internal to philosophy – a sort of 'reflexive rearrangement of thought'[19] – without any ontological

17 J. Baudrillard, *Impossible Exchange*, trans. C. Turner (London and New York: Verso, 2001), p. 8, my emphasis.

18 B. d'Espagnat, *On Physics and Philosophy* (Princeton and Oxford: Princeton University Press, 2006), p. 77.

19 To put it in the words of Arun Saldanha who speaks here, instead, of the philosophical counterpart of Meillassoux's factual speculation, namely Kantian transcendentalism (A. Saldanha, 'Back to the Great Outdoors: Speculative Realism as Philosophy of Science', *Cosmos and History: The Journal of Natural and Social*

consequences. As J. Alberto Coffa, the champion of objective semantics, writes: "Science is in charge of deciding what there is, and philosophy is in charge of explaining what it is that science has decided".[20] Recognizing an absolute in the facticity of correlation may thus sound like an overhaul of the meaning of science and of the meaning of our position as thinkers in the world rather than speculation proper. In other words, this absolutisation may just be taking place entirely within the precinct of meaning.

Note that Coffa's whole book is a charge against Kant's pure intuition. At his hands, objective semantics is also meant to be a break outside the correlational circle. For him and for the philosophers that he considers (the semantic tradition), "semantics is meant to play the role that metaphysics has played for others: the *prima philosophia*".[21] It is not surprising, in this context, that Coffa should uncover the exact correspondent of Meillassoux's principle of factiality. He calls it 'second-level semantic factualism'. It is the recognition that beyond the first-level semantic conventionalism, beyond the fact that the multiplicative axiom in mathematics is, for instance, a convention and not an absolute truth, one must recognise that the *last* statement, namely, that the multiplicative axiom is a convention, is not itself a proposal for a convention, therefore is absolute. "This is the second-level factualism", writes Coffa, "the presupposition that there is fact of the matter concerning the difference between the stage at which we produce the semantic machinery involved in communication and the stage at which we are finally communicating".[22] Note that the word 'absolute' never occurs in Coffa's book (although the dictionary definition of the expression 'fact of the matter' is 'absolute truth'). Given that Meillassoux insists, for his part, that factual speculation is speculation without metaphysics, the structural similarity between his

Philosophy, Vol 5, No 2 (2009), pp. 304–321).

20 J. Alberto Coffa, *The Semantic Tradition from Kant to Carnap to the Vienna Station* (Cambridge: Cambridge University Press, 1991), p. 404.

21 J. Alberto Coffa, 'Le Positivisme Logique, La Tradition Sémantique et L'A Priori', in J. Sebestik and A. Soulez, eds., *Le Cercle de Vienne: Doctrines et Controverses* (Paris: Méridiens Klincksieck, 1986), p. 83, my translation.

22 J. Alberto Coffa, *The Semantic Tradition from Kant to Carnap to the Vienna Station* (Cambridge: Cambridge University Press, 1991), p. 322.

move and Coffa's leaves one wondering – like it did me from the start – whether Meillassoux isn't above all a meta-philosopher.

Writing reality

As far as science and ontology are concerned, the last word may be absolute contingency: the contingency of everything, including the contingency of necessity. The scientist may satisfy himself with this final word and science may indeed stop there. Now, to insist, on top of that, that contingency must be necessarily thought may just appear as internal to thought, in other words, as a requirement of philosophy. As François Zourabichvili writes: "Perhaps the most general problem of thought is that of its *necessity*: not the necessity of thinking, but how to reach a necessary thought".[23] Philosophy must overstep the modesty of science and the "false modesty of all recent philosophy".[24]

When Meillassoux's factual speculation starts admitting positive ontological consequences, such as the derivation of existence (the 'there is') from absolute contingency, it can no longer be said to be a reflexive rearrangement of thought. Yet it remains to see how it can possibly connect with positive science. The risk, indeed, is that the 'there is' might only be formal in Meillassoux. As Saldanha writes: "[Meillassoux's] realism requires mathematics (not proof in symbolic form but the idea of mathematical discourse as such) strictly not for description of reality, but for thinking a realm *before* the discourse of existence".[25] Absolute contingency may thus appear to be ontologically inert: not an ontogenesis, not the trigger of existence, but merely the thought – if fully speculative – that precedes existence.

23 F. Zourabichvili, *Deleuze. Une Philosophie de l'Evénement*, in P. Marrati, A. Sauvagnargues and F. Zourabichvili, *La Philosophie de Deleuze* (Paris: Presses Universitaires de France, 2004), p. 15, my translation.

24 As Saldanha puts it (A. Saldanha, 'Back to the Great Outdoors: Speculative Realism as Philosophy of Science', *Cosmos and History: The Journal of Natural and Social Philosophy,* Vol 5, No 2 (2009), pp. 304–321, esp. p. 310).

25 Ibid., p. 318.

My own contention is that Meillassoux's speculation is material and not just formal. It may never admit of material consequences, such as showing us how "this hyper-Chaos freezes into things",[26] however what is material about it is the medium in which I claim it should be conducted. If there is anything I really expect from Meillassoux's speculation, it is not an end result but speculation itself becoming material (and a book like his being written). Probably an exchange of the result for the *condition* is required as preliminary.[27] The 'can be' has to operate an exchange in thought itself, an exchange older than the later conceptual exchange of contingency (*pace* Baudrillard) against the thought of states and beings.

If contingency is indeed to emerge as the basic material of the world, my claim is that we should follow its trail, or continue its strike, in another direction than its crystallization into beings. Our material should remain homogenous with contingency and accompany its strike as far as possible, while we keep holding our breath in the period of *suspension of ontology* – before existence. If contingency must be real and if it must precede existence, then it may very well be that Meillassoux's philosophy is realism, even materialism, without ontological intention. It is no coincidence if the only expression that Saldanha finds appropriate, at this juncture, to describe Meillassoux's enterprise is "to write reality *itself*".[28]

I keep talking about the stroke, or the strike, of contingency, and the image of a print, or an irreversible mark, suggests itself. This is not just metaphorical. The mark of contingency is the 'can be', a *condition* rather than a definite state, a prescription, thus a writing. My whole point is that

26 Ibid., p. 319.

27 This exchange may be so radical that it will no longer be the genesis of reality that we are contemplating, but the genesis of the book. (See Part III of my *The Blank Swan: The End of Probability* (London: Wiley, 2010).) Speaking of Joseph Joubert, Blanchot writes: 'He was thus one of the first entirely modern writers, preferring the centre over the sphere, sacrificing results for the discovery of their conditions, not writing in order to add one book to another, but to make himself master of the point whence all books seemed to come, which, once found, would exempt him from writing them' (M. Blanchot, *The Book to Come*, trans. C. Mandell (Stanford California: Stanford University Press, 2003), p. 50).

28 A. Saldanha, 'Back to the Great Outdoors: Speculative Realism as Philosophy of Science', *Cosmos and History: The Journal of Natural and Social Philosophy,* Vol 5, No 2 (2009), pp. 304–321, esp. p. 321.

we should develop contingency in the material medium of writing, not through the mediation of possible states or beings. Perhaps the only point at which Meillassoux's speculation touches with positive science is when he worries that the laws of nature should not change as a result of absolute contingency. Unsurprisingly, it is at this juncture that Saldanha remarks that "it is a major weakness that Meillassoux cannot tell us *what* then ontologically explains [the manifest stability of the world]".[29] My contention is that factual speculation should be preserved from the duty of explaining. Meillassoux reaches his speculative result fully when he establishes that the only necessity of thought concerning the laws of nature is that they should be absolutely contingent. To expect them to change or not is a different matter, and different from matter. Expectation is correlative with possibility.

Saldanha detects a Wittgensteinian modesty in Meillassoux when the latter declares that the only thing he can speak about is what *can be*, not what is.[30] However, Saldanha is soon to recognise that "such modesty is just what allows for consistent speculation".[31] Meillassoux is modest in his ontological exigencies (the 'can be') but is ambitious in his consistent and far-reaching speculation. My endeavour is to secure the unusual and exclusive expanse in which the speculative ambition is no longer hindered by the ontology of beings, or even possibility. I wish to give the expression 'to write reality' its fullest (material, not ontological) sense.

It is the non-totalising consequence of the chaos he is describing that plays the ontological role in Meillassoux's system. As he explains towards the end of his book, he strives to derive from absolute contingency a 'being possible', or a condition attaching to the structure of the 'possible as such', such that non-totalisation will follow, thus securing the stability of the world. My claim is that to even mention the possible, like Meillassoux does at this crossroads, is to compromise already. It

29 Ibid., p. 319.

30 Cf. R. Brassier, I. Hamilton Grant, G. Harman and Q. Meillassoux, 'Speculative realism', in R. Mackay, ed., *Collapse III: 'Unknown Deleuze'* (Oxford: Urbanomic, 2007), pp. 307–450, esp. p. 393.

31 A. Saldanha, 'Back to the Great Outdoors: Speculative Realism as Philosophy of Science', *Cosmos and History: The Journal of Natural and Social Philosophy,* Vol 5, No 2 (2009), pp. 304–321, esp. p. 319.

jeopardises the total reservation from possibility that the 'can be' of absolute contingency was supposed to prescribe. The strike of contingency takes place at a level where ranges of possibility can be incompatible with each other (quantum mechanics). When they are incompatible they cannot be joined together. So before we wonder whether the possibilities that are opened to the world constitute a total set or not, it may be impossible to even start putting the first two possibilities together! Not even the 'differential calculus of the world' (Baudrillard) is possible.

Reality, or the strike of contingency, takes place before the representation of the world in possible states or objects. The Bell's inequalities are independent of any theoretical formalism whatsoever. Their violation is real; it shows that physics is always one step ahead of metaphysics.[32] No need to think of possible worlds and of experiments that we would counterfactually conduct in those worlds in the hope of supporting the metaphysical notion of object; the physical world we live in presents us locally and immanently, without us leaving it, with statistics that are impossible to recover in an overarching range of possibilities, thus readily disrupting the notion of object.

If writing reality must proceed alternatively to possible states and division of states, if we must find a sense for the materiality of speculation that accompanies its condition and not its result, then writing should be taken literally and contingency should be written and *materially exchanged* – instead of being thought possible and ex-changed (externally) against a material consequence. What is indeed the internal matter of contingency? What is its *work* (as opposed to its 'state')?[33]

32 Cf. B. d'Espagnat, *On Physics and Philosophy* (Princeton and Oxford: Princeton University Press, 2006), p. 63. Elsewhere, d'Espagnat writes: '[The discovery of the violation of the Bell's inequalities] is even more decisive than the discovery of relativity or quantum physics. [...] This experimental violation and the conclusion it leads to constitute a conquest of science perhaps even more fundamental than Copernic's discovery' (B. d'Espagnat (with C. Saliceti), *Candide et le Physicien* (Paris: Fayard, 2008), pp. 100–104, my translation).

33 On the opposition between work and state, see A. Badiou, *Deleuze: The Clamor of Being* (Minneapolis and London: University of Minnesota Press, 2000), p. 26.

Viewed from the point of view of the scientist who goes as far as absolute contingency (up to and including the contingency of necessity), the extra speculative step is ontologically inert. Viewed from the point of view of absolute contingency now turned into 'unscientific' ontology (the 'can be'), the possible itself should not even take off, and a shunting (*aiguillage*) must be operated *before* the notion of generator of the other possible worlds is even enabled. Meillassoux hopes to deduce as a condition of the factual that it may constrain the *possible as such* in such a way that non-totalisation obtains. But what if the factual, or the ontology of the 'can be', had to diverge from the possible from the start and to ignore it absolutely? Is such a diversion possible? Is there a room for factual speculation outside (or before) possibility? Instead of upholding absolute contingency 'against all odds', through the improbable argument of non-totalisation whose danger, as Saldanha fears, is to make the whole move look "quasi-esoteric at worst, reductive at best",[34] wouldn't a purer defence consist in alternatively opening the proper space of factual speculation, as such original and independent? If it is indeed a revolution of metaphysics we are talking about, let us first secure its epoch and medium, let us find its proper name, and later turn back and see if it is an eternal truth or not.

Writing contingency

Such a medium exists, unadulterated by state, possibility or probability. I have dedicated a full book to outlining this 'pure science' of contingency, whose characteristic, as I have said, may just be that it will never establish contact with the physical world or the positive sciences (at least, not directly).[35] It consists of an exchange of any *possible* thought, before looking to exchange contingency against possibility. It puts in order the metaphysics with which to deal with absolute contingency, leaving for later the task of finding the corresponding physics.

34 A. Saldanha, 'Back to the Great Outdoors: Speculative Realism as Philosophy of Science', *Cosmos and History: The Journal of Natural and Social Philosophy,* Vol 5, No 2 (2009), pp. 304–321, esp. p. 320.

35 E. Ayache, *The Blank Swan: The End of Probability* (London: Wiley, 2010).

Instead of thinking of different states unfolding in possibility and in chronological time (S, t), we first think what the *materialisation* of this may be: its materialisation in reality (that is to say, in contingency) and not in possibility, in the present place (or spot) and not in chronological time. As an alternative to exchanging contingency against possibility, we think of *writing it in exchange*, of marking it under different strikes and expiration dates (K, T).

This requires that we recede into the archaeology of being to the stage where writing is a substitute of being and not merely a copy or a supplement; to the stage where writing even precedes being and still gathers, in one and the same sense, the different strands that later became *analogies* of writing only because being had taken precedence.

When contingency is written over underlying possible *states*, for instance as a contingent function, or claim, that will return BLUE if state S_1 is realised and RED if state S_2 is realised, this colouring is purely derivative; it adds nothing to the thought of the possible states; if they are unreal, likewise it is unreal. A material exchange takes place, however, when the thought of the underlying states is withdrawn from underneath the sheet on which the contingent claim has been written and the only thing left is the sheet with the difference marked on it: BLUE, if S_1; RED, if S_2.

I insist that we really withdraw the states; we are left with absolute contingency which is no longer derivative on possibility. The formula collects as one writing the two branches of the alternative which are incompatible in actual reality; this is feasible by the alchemy of writing. We tend to forget what writing can do!

A real effort of thought is needed in order to stop seeing in the written formula merely the reiteration of the states, where BLUE just replaces S_1 and RED just replaces S_2. The replacement and the exchange take place at a higher level. The written material *truly* replaces the thought of the possible – right at the knot, so to speak, not in the strands. The trick is to divert our attention from the irresistible attraction of the underlying states to the surface tension of the written formula and, in the same

movement, *to the question of its only possible fate now that the underlying metaphysics has been subtracted.*

As the pressure of being and identity withdraws, we are left with the 'depression' of writing. The sheet automatically 'collapses' into the only remaining side of writing: the side that remains once writing *qua* derivative is withdrawn together with being *qua* original – a side which emerges, therefore, as the absolute single side of writing and *which is the exchange*. "Writing, therefore, *is* the exchange", writes Roland Barthes.[36] The sheet *can* turn blue or red, depending on the underlying state, however, the states are not real; they are not available because they are only possible. The sheet, by contrast, is materially available. It is real *and* it is contingent. What could become of it right here and right now? What could be its written destiny? What can exchange it before time and possibility, even before thought: exchange it on the spot? Imagine a direct translation of its contingency that doesn't require the intermediary of the states.

Mathematics of price

If the actual (yet contingent) real is symbolised by 1, what would be the symbol of the non-actualised real? Probability symbolises the non actual by numbers that are less than 1. However, probability is unreal; it only measures the *possible*. When two worlds are different, they cannot both exist in the real. Because probability is less than 1, it is able to circumvent the principle of excluded middle. Because the probabilities of two different possibilities can add up to 1, probability tricks us into thinking that the two worlds can now coexist as possibilities, in a 'real' world in which we only measure their probabilities. The truth is that they only coexist in the unreal. The 'real' world in question is only a fabrication artificially projected in the past, whose sole purpose is to measure probability.

36 R. Barthes, *Œuvres complètes*, vol. IV (Paris: Éditions du Seuil, 2002), 292, my translation and emphasis.

There is utter heterogeneity between the possible and the real. If you are able to cash 1 for reality, you are unable to cash the probability that is less than 1. Is there a number other than probability (perhaps even other than the whole metaphysics of number) that we can always *homogeneously* cash in reality, regardless of whether the real is actual or not? (Bergson calls *virtual* the real that is non actual.) If contingency is indifferent to actuality – to what I have called the 'expiration' – because it *remains* written (Pierre Menard's *Quixote*) and if the underlying states of the world are no longer here, anyway, to assign 1 to the contingent claim when they become real and a number less than 1 when they are merely possible, what could be written over the contingent claim, homogeneously with its unfailing reality, to be always cashed for real regardless of its expiration? It is something I call the *price*.

Let K_1 be the contingent claim that pays out 1 if S_1 is realised at expiration T and 0 otherwise, and let K_2 be the contingent claim that pays out 1 if S_2 is realised at expiration and 0 otherwise. What does it mean, to 'pay'? It means that K_1 can be cashed out for 1 in S_1 (at expiration). Its price is 1 in S_1. Let us not be impressed by money. Money is every bit as ideal as numbers. It is necessary if they are. If probability is the bridge between the possible and the real – between project and realisation –, isn't money likewise an intertemporal bridge, the alternative to abstract probability in our material world? Can't money be defined as the *numeraire* in which to express the price, where the price has in turn been defined as the 'present value' of contingency in the absence of underlying states and the whole metaphysics of presence?[37]

37 Orthodox financial theory has always had a backward view of the price. It uses probability in order to compute the price of the contingent claim as the mathematical expectation of its payout. For this reason, it needs a framework of stable underlying states of the world. Likewise, general equilibrium theory construes the market price as the solution of a problem that it first poses on top of postulated states. The irony is that the concept of probability itself is defined after price. De Finetti defines subjective probability through coherent bets accepted by a *banker*. Even objective probability leans on the notion of fair price in the long run, or even more fundamentally, on insensitivity to gambling systems for the rigorous definition of random sequences in von Mises's axiom of randomness. (See J. von Plato, *Creating Modern Probability* (Cambridge: Cambridge University Press, 1994).) In reality, price should be the medium of absolute contingency and probability should only come second, if at all. In the market, there isn't such a thing as an absolute price or a derived price; or such a thing as an underlying state or an overlying state. There is no transcendence. There is only the immanence of the exchange.

When 1 is the *probabilistic* symbol of reality, it can only be assigned to two mutually exclusive worlds by virtue of a fiction. We assign 1 to a possible world in the fiction of its future realisation and we step back to the present to get its probability. We assign 1 to the other world in a *different future*, and we step back to the present to (improperly) mix its probability with the first. By contrast, when 1 is the price, it attaches to both contingent claims at once without contradiction, because it is simply *written* on them. K_1 and K_2 really coexist in the actual real world. That they should pay out 1 in S_1 or S_2 respectively is a real condition presently written on each one them. Price is the transposition in writing, therefore in the material real, of the unreal assignment of a possible reality. Once the move is decided to replace unreal possible states with real contingent claims, price is what replaces, in the real, the prop of unreality that we had added to the real in order to stage the possible.

In the present world S_0 (also called *spot*), whose time t_0 is prior to the expiration date T of the contingent claims, the price of K_0 is 1 and the prices of K_1 and K_2 are less than 1 and add up to 1, exactly like probability. Indeed, anyone buying today the combination of K_1 and K_2 will be guaranteed to receive 1 at expiration no matter the outcome. Crucially, S_1 and S_2 are never conceived as possible states in this arithmetic. They *really* exist in S_0, only at the state of writings marked over the sheets of K_1 and K_2. If the real world turns out to be S_1 at expiration, the price of K_1 will be 1 and the price of K_2 will be 0, as prescribed. Crucially, the world S_1 is now real (at expiration) yet is contingent. It never was possible. At no point was there a transition from the possible to the real.

Exchange place

The only remaining question is: Who attaches a price to the contingent claim prior to its expiration? Who takes care of the transition? Who shifts the price from $p < 1$ to 1? Who 'generates' history (instead of generating possible worlds)? If this cannot be a transcendent possible subject, who this immanent contingent subject might be? When there is no subject to name the event, the only event that takes place is place itself. The contingent, immanent place is the *exchange place*. It is nobody's place in particular but is defined as the place where anybody *can be*. In the topology of absolute contingency,[38] this is the absolute place. Statistically, it can only be the place of many, also called the *crowd*, or the *market*. Note that the *exchange place* is defined categorically, as the place of pricing of the contingent claim, before the exchange is analysed away as a transaction relative to two exchanging counterparties.

Probability is backward because it steps back from a possible real to a 'mixed' (and improper) real. It has to mesh its backward travels in a tree of possibilities and has to go through a (temporal) process. The tree is prone to instability, as the 'implausibility' of the possible and the strain it constantly exerts on the thought of the real are propagated throughout its nodes. Not to mention that it is vulnerable to the strike of contingency, which may very well shake the whole tree from outside. The price process, by contrast, propagates forward, from real to real. There are no mixtures in the market. All contingent claims are traded at once, in all the variety of their strikes K_i and expirations T_j, and market prices immanently attach to them.

The market process is not a time process; it is a *place process*. Since we have fallen into the only remaining place, where contingency finally can be exchanged after the withdrawal of the possible and the impossible alike, we can no longer *supervise* the succession of market

38 If, following Jeff Malpas, we must indeed move from the ontology of being to its topology (Cf. J. Malpas, *Heidegger's Topology: Being, Place, World* (Cambridge, Massachusetts and London, England: The Massachusetts Institute of Technology Press, 2006)).

prices. One has to be-there in the market, as a fundamental topology, not ontology.

Immanence is completed when the last remnant of state is withdrawn. What, indeed, is the nature of the state S_i that is still hanging in the formula written over K_i? If there must only be prices in the market and no states, then S_i must itself be a price. We thus redefine K_i as the basic contingent claim that pays out 1 at expiration T if the price of a reference contingent claim, likewise traded in the market, is equal to some number S_i at that time. This is the completed description of the market of contingent claims, or more generally, of the financial market. All derivative instruments (a.k.a. contingent claims) are just different complications and combinations of this basic one.

In this finishing stroke (which is but the continuation of the single stroke of contingency), probability and possibility are cornered into a death trap. Indeed, the so-called derivatives valuation theory, which is the culmination of probabilistic thought and of stochastic calculus, thinks no better, at this juncture, than to model the temporal succession of prices S_i as a stochastic process. It calls it the *underlying process* (of the reference asset). In the tree of possibilities that is thus crafted, the consequence follows automatically that the payoff of any derivative underlain by the reference asset would now be replicated by a self-financing dynamic trading strategy involving the latter. From this, the theoretical value of the derivative becomes a deterministic function of the price S.[39] It is now transcendentally imposed and can no longer be given by the immanent market. Theory illegitimately misplaces the range of possibilities before the strike of contingency.

In reality, it is the reverse. What I have called the *place process*, or the market process, takes place outside chronological time. If we force time into it regardless (since we all accidentally yet inescapably live in time) and try to think it *through* time, the real process will transpire as the *repeated restoration*[40] of the hierarchy of contingency and possibility. In

39 Cf. F. Black and M. Scholes, 'The Pricing of Options and Corporate Liabilities', *Journal of Political Economy*, 81 (May–June 1973), pp. 637–659.

40 In the Deleuzian sense of repetition.

reality, the market *proceeds* as this continual reversal of the order of time. The market-maker uses the theory of dynamic replication of derivative instruments. In this, he may seem to rise as the original author of the market. However, when he recedes in the right medium (like Pierre Menard) and receives the price of the derivative instrument from the market – a price which *will be* different from the output of his theoretical tool, if only because it cannot be imposed by him, yet a price which he will *affirm* nevertheless –, the pricing tool automatically inverts in his hand. It becomes the signal that the range of possibilities on which it is temporarily based *could* (even should) have been different.[41] Prices are absolute and are never derived. Derivative instruments should be renamed *contingent claims*.

The pricing tool thus turns into a *writing* tool. It now advances and translates contingency by continually retracting from possibility and by forever postponing it, as if the suspension of the ontology of states, ordered by the *point* of the wave function and more generally by the stroke of contingency, was finally finding its script. The market of contingent claims is the human science to write *after* quantum mechanics.

Conclusion

The question remains of what the bearing of the market on philosophical speculation could be. How will reality fare now that we write it instead of representing it? Note that the market was only a coincidence. It was the last stop before other things, totally irreducible to number, start being written over the 'contingent claims', or the sheets, of history. Numbers were a happy coincidence in the market, because money – a numeraire which also had the nature of number – was able to measure success or failure and to provide both the fabric and the horizon of that world. The market was a useful thought, if only because it allowed us to

41 This perversion of the order of thought manifests itself in the phenomenon of the 'implied volatility smile,' still an unsolved riddle of derivatives valuation theory whose only solution, I hold, lies in placing price before probability and the exchange place before the underlying state. (See my *The Blank Swan: The End of Probability* (London: Wiley, 2010))

find a substitute for a fake (i.e. unreal) number: probability. In this, the market is more of an interchange of the path of thought than a stop. It is up to factual speculation to generalise the notion of price that we found best adapted to contingency. My speculation is that instead of probability and its backward mode, philosophy should turn metaphysical thought to the only reality that is being materially written: its own *book*. What the price is to the unending market, the perpetual book is to reality.

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Critique as a Practice of Learning: Beyond Indifference with Meillassoux, towards Deleuze

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In *After Finitude: An Essay on the Necessity of Contingency*, Meillassoux argues that we can breach the allegedly finite nature of human understanding and access the real.[1] He concludes that "there is nothing beneath or beyond the manifest gratuitousness of the given – nothing but the limitless and lawless power of its destruction, emergence and persistence."[2] As the subtitle of the book explains, the only necessity that can be ascribed legitimately to reality is that it is absolutely contingent. Meillassoux is unflinching in drawing out the consequences of his conclusion. Reality is nothing other than 'hyper-chaos':

> Hyper-chaos is very different from what we call usually 'chaos'. By chaos we usually mean disorder, randomness, the eternal becoming of everything. But these properties are not properties of Hyper-Chaos: its contingency is so radical that even becoming, disorder, or randomness can be destroyed by it, and replaced by order, determinism, and fixity. Things are so contingent in Hyper-chaos that time is able to destroy even the becoming of things...contingency no longer means the necessity of destruction or disorder, but rather the equal contingency of order and disorder, of becoming and sempiternity.[3]

1 Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. R. Brassier, (London: Continuum, 2008), hereafter *AF*.

2 *AF*, p. 63.

Indeed, the hyper-chaos he has in mind is so all-encompassing that he has recently come to "prefer to use the term *surcontingence*, supercontingency, rather than contingency".[4] It is not just metaphysical dogmatists that he has in his sights, therefore, but post-critical philosophers of flux and becoming; that is, not only the heirs of Leibniz who argue that there must be a reason why things are the way they are but also any of the contemporary Heraclitans who argue for the primacy of becoming over being. In the latter group Meillassoux includes philosophers as (apparently) diverse as Hegel, Wittgenstein, Heidegger and Deleuze. The philosophical stakes are clearly high: Meillassoux's arguments, to the extent that we accept them, not only call into question traditional forms of metaphysical enquiry but also all attempts to recast philosophy as a post-metaphysical, critically orientated discipline. It is with these high stakes in mind that we shall reconstruct, reclassify and challenge his argument.

To begin with, it is important to specify the philosophical problem that Meillassoux addresses and the project that he sets himself in *After Finitude*. Once the problem and the project are established, we shall move on to a brief reconstruction of the argument that he makes at the heart of the book, chapter 3. With the argument laid before us, we will then be in a position to understand the importance of what we will call the cultural and political milieu to which Meillassoux appeals. We will argue that this milieu is intrinsic to the argument presented in *After Finitude*; simply put, the argument only works to the extent that it lays claim to a terrain of contemporary cultural and political problems that orientate his arguments about the real. Having reclassified his project as a form of critical intervention in the present, it will be concluded that Meillassoux shares with Deleuze a Kantian understanding of the need for critique to address itself to the problem of cultural and political indifference but that 'the critique of critique' that Meillassoux advances ultimately presupposes a dogmatic image of thought that erases the priority of learning over

3 Quentin Meillassoux, 'Time without becoming', paper delivered at the CRMEP Research Seminar series, Middlesex University, 8 May 2008, http://speculativeheresy.wordpress.com/resources/, p. 10, hereafter *TWB*. See also, *AF*, p. 64.

4 *TWB*, p. 10.

knowing. As such, Meillassoux fails to specify what Deleuze referred to in *Difference and Repetition* as, "the conditions of true critique".[5]

The Problem and the Project

Meillassoux constructs the problem that he addresses by simply putting side-by-side two commonplaces of contemporary thought. On the one hand, there is the philosophical claim, common since Kant, that we have no direct or unmediated access to the real only knowledge of how the real appears to us. On the other hand, there are an increasing number of scientific claims about events that occurred before human (or any other) life emerged. The problem is how we can hold on to both of these commonplaces without bringing ourselves into contradiction. To see the precise nature of the contradiction Meillassoux detects, however, we must specify what he understands by these philosophical and scientific claims.

For Meillassoux, the organizing principle of philosophy since Kant can be described as 'correlationism'. Correlationism is "the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other".[6] Correlationists argue that there can be no access to an event, object, law or being that is not always already correlated with "a point of view".[7] Any account of reality, whatever its details, must ultimately be construed as an account that is relative 'to us', to our experience of the world as finite beings. What Meillassoux calls the 'correlationist two-step' – the variously different ways in which philosophers have described this correlation itself – is less important, he argues, than the fact that any philosopher aligned to a post-critical heritage will be engaged in this dance of thought and being. Conversely, for the correlationist, any attempt to claim access to the real without recognition of this inescapably human point of view will dissolve into the most naïve and dogmatic realism. Such realism will always be prey to the 'argument of the circle' at the core of correlationism:

5 Gilles Deleuze, *Difference and Repetition*, trans. P. Patton, (New York: Columbia University Press, 1994), p. 139, hereafter *DR*.
6 *AF*, p. 5.
7 *TWB*, p. 1.

> When you speak *against* correlation, you forget that *you* speak against correlation – and hence, from the viewpoint of your own mind, or culture, or epoch, etc. The circle means that there is a vicious circle in any naïve realism, a *performative contradiction* through which you refute what you say or think by your very act of saying it or thinking it.[8]

And yet, it would appear that the empirical sciences are replete with non-correlational claims. At the beginning of *After Finitude*, Meillassoux lists four: that the universe began 13.5 billion years ago; that the accretion of the earth took place 4.56 billion years ago; that the origin of life on earth can be dated to 3.5 billion years ago and that *homo habilis* emerged 2 million years ago.[9] Meillassoux calls such scientific claims 'ancestral statements' because they refer to a reality that pre-dates the emergence of humanity and are based upon data drawn from 'arche-fossils', by which he means materials that "indicate the existence of an ancestral reality or event".[10] On the face of it, therefore, there appears to be a contradiction between post-critical philosophy and the science of ancestral claims.

Of course, Meillassoux is aware that this may only be an apparent contradiction. For the correlationist, the problem is easily resolved by simply adding to ancestral statements the appropriate philosophical qualification: such as, "the present community of scientists has objective reasons to consider that the accretion of the earth preceded the emergence of hominids by X number of years".[11] Moreover, is it not more philosophically subtle, argues the correlationist, to say that the arche-fossil appears to the scientific community in the present in ways that can be objectively verifiable and that this then allows the scientist to project from the present into the past. All we need do is qualify any scientific claim about events that occurred before the emergence of human life as claims

8 Ibid.
9 *AF*, p. 9. The importance of the assigned dates, according to Meillassoux, is that the statements no longer rely upon relative dating techniques but on absolute ones; techniques that rely upon, for example, the constant rate of disintegration of radioactive nuclei.
10 Ibid.
11 Ibid., p. 15.

that require the additional codicil, 'for us, now'; such that the objectivity of the scientific claim is circumscribed by an appropriately subjective (or intersubjective) and hence finite claim about our ability to access the real.

This commonplace post-critical qualifier is not sufficient to ward off the problem, according to Meillassoux. He argues that it requires of the correlationists that they must accept both the truth of the ancestral statement and that the referent of the statement cannot possibly be true in the way described by the statement itself. Or, employing objectivity instead of truth as the relevant criterion, both that the statement is objective but that it is a statement without an object.[12] There are only two consistent routes out of these contradictions, argues Meillassoux. Either correlationists must proclaim the reality of the referent/object of the ancestral statement or they must "dare to say" that the ancestral statements of the empirical sciences are "illusory".[13] The former is unacceptable from a post-critical point of view, while the latter has dangerous cultural and political consequences that seriously undermine the credentials of critically orientated philosophies, as will be explained below.

So it is not Meillassoux's project to simply present a refutation of correlationism from a naïve realist understanding of the kind of statements produced by science. On the contrary, Meillassoux spends much of *After Finitude*, and subsequent work, upholding the implacable nature of the correlationist argument against naïve realism. One cannot, according to Meillassoux, simply side-step the 'correlationist two-step' in the name of realism. His project is subtly different: it is to accept the correlationist qualifier against dogmatic realism but to argue that this qualification itself, when absolutised, necessitates that we confront the "irremediable reality" of ancestral statements.[14] In other words, we must remain a correlationist against the realist but a realist against the correlationist and we can be both if we absolutise the truth 'hidden beneath' correlationism. Only in this way will we be able to "get out of ourselves, to grasp the in-itself, to know what is whether we are or not".[15] Understanding what it means to

12 Ibid., pp. 16-17.
13 Ibid., p. 17.
14 Ibid.
15 Ibid., p. 27.

absolutise the presuppositions of the correlationist circle brings us to the heart of the argument that Meillassoux makes in *After Finitude*.

The Argument

So how does Meillassoux argue his way through the correlationist circle to a claim about the real? To answer this we must follow Meillassoux in distinguishing varieties of correlationism. In the first instance, he differentiates between weak and strong versions. Weak correlationism is aligned to the transcendental idealism of Kant, whereas the strong correlationists are those thinkers whom, on another occasion he calls post-modern thinkers[16] and they include Heidegger, Wittgenstein and Deleuze. This notably misses out the dialectical and anti-dialectical moments of modern European philosophy most obviously associated with Hegel and Marx, Nietzsche and Bergson. In *After Finitude* (anti-)dialecticism is, a little unhelpfully, referred to as 'speculative idealism'; unhelpfully, not because it mischaracterises Hegel, on the contrary, nor because including Marx, Nietzsche and Bergson within a category of idealism when they are all so critical of idealist philosophy seems unusual to the point of being perverse (though it may be) but because, in the context of his argument – an argument where all sorts of perverse alliances are constructed –, it is slightly bemusing that Meillassoux did not choose to refer to speculative idealism as another variant of correlationism (when it is clear that it is). Speculative idealism is, in fact, absolute correlationism.

Given the way that we shall reclassify Meillassoux's argument below, it is worth pausing for a moment on this point to make two comments. First, it seems reasonable to presume that Meillassoux's decision to refer to Hegel, Marx, Nietzsche and Bergson as speculative idealists in *After Finitude* and later essays was, at least in part, based on the fact that it creates a straightforward contrast to his own 'speculative materialism' (his current preference as opposed to Brassier's term 'speculative realism').[17] The upshot of this decision, however, is that in embracing the less politically charged 'speculation' the idea that his

16 *TWB*, p.1.

contribution is best described as 'absolute materialism' is kept at bay, and with it the more worrying political overtones of 'absolutism'; overtones of which he is fully aware, as we shall discuss below. Second, it is important to note that Meillassoux has defended his use of the term 'speculative idealism' on the grounds that "correlationism is the modern way of rejecting all possible knowledge of the absolute".[18] As such, the idea of 'absolute correlationism' appears to be oxymoronic. However, this only confirms that there is a political decision behind his classification because at numerous moments in his work Meillassoux simply defines speculative idealism as that view which "absolutizes the correlation itself".[19] While speculative idealism constitutes a limit case of correlationism, therefore, it is still clearly correlationism. His reluctance to classify it as such raises questions, as we shall argue, regarding his understanding of the cultural and political intervention that the book enacts. Before these questions can be fully explored we must first delve more deeply into the argument at the heart of the book.

Given what he sees as the impossibility of naïve realism how does Meillassoux argue his way through weak, strong and absolute correlationism in order to find his route to the real? In *After Finitude*, Meillassoux approaches the argument in different ways but it is not co-incidental, in view of the cultural and political milieu that is intrinsic to Meillassoux's argument, that the clearest exposition of it is given in the pages that summarise his argument through the correlationalist circle with regard to debates about 'life after death'.

Meillassoux sets up the debate as initially one between a 'Christian dogmatist' who claims that reason affirms the possibility of life after death and an 'atheist dogmatist' who argues that reason affirms that life is abolished after death. Into this stalemate arrives the weak correlationist who argues that as all knowledge is conditioned by our finitude and since death is literally unknowable to us then we must be strictly agnostic about the possibility or not of life after death. At this point the speculative

17 Ibid., p. 6 and Ray Brassier *Nihil Unbound: Enlightenment and Extinction* (New York: Palgrave Macmillan, 2007), p. 31, hereafter *NU*.
18 *TWB*, p. 7.
19 *AF*, p. 37.

idealist (or, as we prefer, the absolute correlationist) enters the debate claiming that the previous three positions are all inconsistent because they all presuppose the possibility of being able to think of oneself as not existing – a possibility that the absolute correlationist declares to be impossible on the grounds that in thinking I can no longer exist I must be thinking and existing. Meillassoux has the absolute correlationist continue thus: "I can only think of myself as existing, and as existing the way I exist; thus, I cannot but exist, and always exist as I exist now. Consequently my mind, if not my body, is immortal."[20] This intervention is a version of the general Hegelian criticism of Kant that it is necessary to bring the 'for us' back into contact with the 'in-itself' by insisting upon the structural identity between thinking and being. The upshot of this intervention explains why the absolute correlationist should be so named: the correlational circle is deemed to be absolute to the point where it expresses the inescapable and necessary existence of the correlational circle itself. Not only are thought and being correlated, the correlated nature of thought and being *is what is*. At which point the weak correlationist, troubled by this speculative foray into the in-itself, must become strong in order to ward off the unqualified idealism of this newly confident absolutism. The strong correlationist argues that it is legitimate to think the unthinkable – about life after death – because there is no necessary reason why there is a correlation between thought and being (and certainly not a correlation of absolute identity). In short, there is no necessary reason why we humans, with our capacity to think about the world, exist at all or think at all. Indeed, from the perspective of strong correlationism all the other positions appear as dangerous forms of absolutism: they all posit an unsustainable because ungroundable necessity to the correlation between thought and being (Meillassoux's version of the claim that post-modern thought is anti-foundational). There is no reason why either post-mortem salvation or post-mortem annihilation should be ruled out because our ability to think about the world and our place in it is a contingent, not necessary, feature of our existence.

Enter the speculative realist (or, as we prefer, absolute materialist) into the debate: if the strong correlationist has convinced us that there is no necessary reason for our not-being then this means that we always have

20 *AF*, p. 55.

the capacity to be other than we are (again, a commonplace of postmodern philosophy). But, argues Meillassoux, "this capacity-to-be-other cannot be conceived as a correlate of our thinking, precisely because it harbours the possibility of our own non-being".[21] In other words, the strong correlationist has convinced us of the absolute facticity of our being, but this facticity is no longer a limit to our thought – it is no longer the very marker of human finitude – but something that can be thought absolutely (and which must be thought absolutely if we are to ward off idealism). This thought acquires consistency in, what Meillassoux calls, the principle of factuality; that is, the absolute contingency of our factual existence. As he puts it, the principle "unveils the ontological truth hidden beneath the radical skepticism of modern philosophy: to be is not to be a correlate, but to be a fact: to be is to be factual – and this is not a fact".[22] Meillassoux concludes that "the equal and indifferent possibility of every eventuality"[23] is not a claim that is relative to our thought about life after death; it is, rather, an absolute requirement of the real. Salvation and annihilation are equally possible and impossible, as likely to happen as not happen, as likely to happen forever as to never happen at all. In a conclusion that discomforts believers, agnostics and non-believers in equal measure, Meillassoux's 'speculative' insight into the absolute contingency of the real makes life after death merely as likely and as unlikely as any other product of the hyper-chaos.[24]

In breaking through the correlationist circle to establish his claim about the absolute contingency of the real, Meillassoux seems to have strayed very far from his initial problem. We can recall that what motivated Meillassoux was the traditional philosophical desire to establish a form of philosophy that could ground the claims of science – for all that he wants to distinguish speculation from metaphysics in *After Finitude*, the project of speculation is still thoroughly metaphysical in the traditional transcendental sense.[25] But in going beyond finitude Meillassoux would

21 Ibid., p. 57.
22 *TWB*, p. 9.
23 *AF*, p. 59.
24 See also Meillassoux, 'Potentiality and Virtuality', *Collapse* Vol. II, March 2007.
25 *TWB*, p. 3, where he refers to his guiding question as having a transcendental form, and a 'transcendental allure', while claiming that it can not be answered within the terms of critical philosophy.

appear to have moved even further away from "guaranteeing the absoluteness of scientific discourse", a discourse resting on universal constants and laws. Is it possible to reconcile a speculative claim about reality with the scientific claims that led him through the correlational circle in the first place? He is characteristically bold: "our claim is that it is possible to sincerely maintain that objects could actually and for no reason whatsoever behave in the most erratic fashion, without having to modify our usual everyday relation to things".[26] It is a claim that he clarifies via Kant's response to 'Hume's problem'.

Meillassoux formulates Hume's problem in this way: it seems absurd to maintain that not only things but the physical laws that govern things are really contingent because we would then have to admit that the laws could change at any moment for no reason. Hume's own response, as Meillassoux presents it, is to situate regularity and constancy in mental habits, a response that has the potential problem of having to account for the regularity of our habits of mind which would surely be every bit as contingent as things and the laws of nature. Recognizing this problem Kant offers an alternative that Meillassoux neatly formulates into these three claims:

1) If laws could change they would change frequently
2) Laws do not change frequently for no reason
3) Laws cannot change for no reason, they are necessary.[27]

Meillassoux accepts that 2 is "incontrovertible" – the laws of nature do not change frequently for no reason – but he does not think that the first claim is of the same nature; when approached, that is, from a speculative point of view. At the core of the first claim, Meillassoux contends, is a probabilistic question: does contingency imply frequent transformation?

Following in the footsteps of Badiou, Meillassoux invokes the mathematics of set-theory, in particular the idea of the transfinite, to argue that there is no reason why contingency implies frequent transformation.[28]

26 *AF*, p. 85.
27 Ibid., p. 91.
28 Ibid., pp. 103-7.

Meillassoux is acutely aware, however, that this probabilistic reasoning merely establishes the possible compatibility of absolute contingency and the laws of physics and it is not a 'positive' derivation of a chaotic in-itself from within the mathematical discourse of physics.[29] He does not rule out such a derivation but in recognising the need for this derivation he admits that there is a significant distance between the *set-theoretical* and *logical* arguments he makes and the claim about *reality* they are said to support. It is in the space between these two claims that Meillassoux inserts a critique of cultural and political indifference. He is adamant that significant gains have been made by travelling through the correlationist circle in to the absolute reality of hyper-chaos, but it will become increasingly clear that these gains are best described as cultural and political gains and to this extent they can only be properly accounted for in the terms of a critical philosophy engaged with the present milieu. In the next section we will clarify the stakes of Meillassoux's intervention while the concluding section will challenge that intervention by appeal to Deleuze's version of a critically orientated philosophical practice of learning.

The Cultural and Political Milieu

While the 'positive' derivation remains to be established we might legitimately wonder if Meillassoux's journey has been worth the effort. The hope of establishing the philosophical basis of ancestral statements seems considerably weakened in the absence of that positive derivation. Nonetheless, Meillassoux does argue that he has established these claims: a) that the critique of critically-orientated philosophy takes us to the necessity of 'the principle of unreason' – that there is no necessary reason why anything is the way it is; b) that it is not as improbable as we suppose that the universal constants of physics can emerge out of hyper-chaos and, therefore, c) that we have gained a way of grounding ancestral statements and scientific laws that doesn't require the principle of sufficient reason to serve as their philosophical support.

Although these arguments appear to be at some distance from culture and politics, focusing as they do on the conditions of possibility of

29 Ibid., p. 107.

(certain) scientific statements, as one reads *After Finitude* one cannot but notice the cultural and political targets of his argument. It may well be that there is a general tendency among the speculative realists to downgrade the role of philosophy in cultural and political engagement – Brassier has talked of philosophy's concern with material social practices as an "alibi for idealism" and Harman has said that he wants to "oppose radicalism in the name of weirdness"[30] – but it is not a tendency within which one can easily situate Meillassoux. At key turning points in the text, his discussion is saturated with a clear cultural and political agenda. More pointedly, it is our view that it is this agenda that binds together the argument of *After Finitude*; if we do not read it as an intervention in current debates then it simply does not have much to offer either philosophy or science. To the extent that we do read it as an intervention in contemporary debates we must problematise Meillassoux's understanding of his own project, precisely to reclassify it as a form of critical philosophy.

The cultural agenda can be understood by treating *After Finitude* as a contribution to the current debates about science and religion. As noted above, his summary of the argument by way of a debate about life after death is not co-incidental. Meillassoux has in his sights contemporary dogmatists of both the religious and the secular variety, agnostics who think they are able to remain impartial vis-à-vis such debates and 'spiritualists' who invoke the world-disclosing nature of some non-material force, such as 'spirit', 'will' or 'life'. All these contributors to the current milieu, on Meillassoux's terms, are unveiled as idealist metaphysicians: that is they are all shown to be purveyors of the claim that there is some ultimate reason why everything is as it is and that we can come to know this reason, either in whole or in part. The claims to dogmatism that abound in the science-religion debates, therefore rebound on all parties from Meillassoux's perspective because every participant makes claims to the absolute necessity of some determinate entity. If dogmatism is unsustainable in the face of correlationism and if Meillassoux is correct in arguing that correlationism presupposes a claim about the hyper-chaotic nature of the real, then all of the dominant positions in the science-religion debates are disqualified as illegitimate. It

30 Comments made at the 'Speculative Realism/Speculative Materialism' conference, University of the West of England, 24.04.09.

is true that Meillassoux has not established the absolute necessity of supercontingency from a positive (mathematical) derivation of it, yet the cultural significance of the argument he makes is potentially huge because it renders obsolete religious and scientific dogmatism, agnosticism and spiritualism. In his preface to the book, Badiou expresses this dimension of Meillassoux's work well (if a little one-sidedly): "It allows thought to be destined towards the absolute once more, rather than towards those partial fragments and relations in which we complacently luxuriate while 'the return of the religious' provides us with a fictitious supplement of spirituality".[31] The "speculative, not metaphysical", intervention in this cultural milieu is to "think absolute necessity without thinking that anything is absolutely necessary"; or, as he also expresses the same point, speculative philosophy is a form of non-absolutist absolutising thought.[32]

This reference to thinking the absolute without absolutism has the political overtones that we would expect with the use of such a term. For Meillassoux, however, we must distinguish between the political absolutism that follows from dogmatism and that more subtle form, which follows from correlationism. In what at first appears to be a rather unexpected moment in *After Finitude*, Meillassoux adds in passing that to reject dogmatism in thought:

> [...] furnishes the minimal condition for every critique of ideology, insofar as ideology cannot be identified with just any variety of deceptive representation, but is rather any form of pseudo-rationality whose aim is to establish that what exists as a matter of fact exists necessarily. The critique of ideologies, which ultimately always consists in demonstrating that a social situation which is presented as inevitable is actually contingent, is essentially indissociable from the critique of metaphysics, the latter being understood as the illusory manufacturing of necessary entities.[33]

31 Alain Badiou, 'Preface', *After Finitude: An Essay on the Necessity of Contingency* (London: Continuum, 2008), p. viii.
32 *AF*, p. 34.
33 Ibid., pp. 33-34.

According to Meillassoux, therefore, there is a necessary, by which we can understand 'essential', connection between ideological dogmatism and metaphysics. In this sense, Meillassoux adopts a broadly Marxist understanding of ideology as a distortion of the real rather than the more Anglo-American sociological and hermeneutic understanding of ideolog*ies*, which treats them as plural forms of 'thought-behaviour', to use Freeden's terminology.[34] That there is a definition of ideology that rules out this and other options is already a political decision, one not acknowledged, let alone discussed, by Meillassoux. That said, Meillassoux's primary political target is elsewhere.

For Meillassoux, the absolutism that accompanies ideological dogmatism is not as pressing a problem of contemporary political life as the more subtle form of absolutism that accompanies correlationism. He calls this 'fideism'. What he describes as the "end of ideology", the victory of correlationist over dogmatic thought, has led to "the unqualified victory of religiosity" where thought "has relinquished its right to criticize the irrational".[35] All that remains is an absolutism of 'belief': everybody is absolutely entitled to believe what they wish about the nature of the real and philosophy is no longer entitled to intervene in those systems of belief because it can no longer claim to have any unmediated access to the real as it is in-itself. In a crucial but unacknowledged echo of Kant's understanding of the significance of his own project in the *Critique of Pure Reason*,[36] Meillassoux claims that "in leaving the realm of metaphysics the absolute seems to have fragmented into a multiplicity of beliefs that have become indifferent".[37] Where Kant understood critique as the project of side-stepping the indifference generated by the sterile debate

34 Michael Freeden, *Ideologies and Political Theory: A Conceptual Approach* (Oxford: Clarendon Press, 1996).
35 *AF*, p. 45.
36 Immanuel Kant, 'Preface (to the first edition)', *Critique of Pure Reason*, trans. P. Guyer and A. Wood (Cambridge: Cambridge University Press, 1998), p. 100: "Now after all paths (as we persuade ourselves) have been tried in vain, what rules is tedium and complete indifferentism, the mother of chaos and night in the sciences, but at the same time also the origin, or at least the prelude, of their incipient transformation and enlightenment, when through ill-applied effort they have become obscure, confused and useless."
37 *AF*, p. 47.

between dogmatists and sceptics, rationalists and empiricists, Meillassoux joins a long line of post-Kantian thinkers who claim that in one way or another Kant has failed to overcome indifference through critique. Indeed critique, as formulated by Kant, not only fails to overcome indifference: it actually provides safety and shelter for indifference within his correlationist system. This place of safety and shelter is found in Kant's separation of noumena and phenomena, and the fact that, beyond some formal remarks about noumenal reality, any claim to access the real is disqualified from the realm of knowledge and becomes a matter of belief. As such, according to Meillassoux, the more one guards against the dogmatist by setting up a correlationalist barrier, the more one legitimates a world in which all beliefs are equally valid and indifference reigns. It should be clear, therefore, that Meillassoux is in agreement with Kant about the nature of the cultural and political problem that philosophy must address; he merely adds that Kant's attempted solution has become part of the problem.

Meillassoux does not shrink from drawing out the political implications of the 'fideism' that is his version of 'indifferentism': "if nothing absolute is thinkable, there is no reason why the worst forms of violence could not claim to have been sanctioned by a transcendence accessible to a select few".[38] With the demise of ideological dogmatism, argues Meillassoux, we witness the arrival of 'fideist' fanaticism, an arrival described as 'the result' of critical rationalism. "Against dogmatism", he says, "it is important that we uphold the refusal of every metaphysical absolute, but against the reasoned violence of various fanaticisms, it is important that we rediscover in thought a modicum of absoluteness".[39]

In this sense, Meillassoux is situating his political commitments within the current critique of 'parliamentarianism' so ably expressed by Badiou.[40] The aggregation of opinion characteristic of parliamentary

38 Ibid.

39 *AF*, p. 49.

40 For example, A. Badiou, 'Against "Political Philosophy"', *Metapolitics*, trans. J. Barker (London: Verso, 2005) p. 24, where he states that: "The essence of politics is not the plurality of opinion. It is the prescription of a possibility in rupture with what exists." See also his criticisms of 'democratic materialism' in 'Preface', *Logics of Worlds*, trans. A. Toscano (London: Continuum, 2009).

democracies is revealed as simply a battleground of fanatically held warring beliefs, premised not upon new more rational forms of secular politics but on a 're-ligionised' modernity that makes the disqualification of certain beliefs illegitimate. In other words, the most fanatical believer is the one most likely to win out on this parliamentary battleground. That said, and in keeping with the tenor of his argument as one of disqualification, Meillassoux offers no alternative to the absolutisms of ideology and fideism that he presents. There is a total but not yet pure critique of critique itself and consequently only a lacuna where the question, 'what is to be done?' resides.[41] On the one hand, it is unreasonable to ask of Meillassoux that he resolve the matter of what would constitute a non-absolutist form of politics that nonetheless rediscovered 'a modicum of absolutism' when his target is the more traditional philosophical one of providing the conditions of possibility for certain scientific claims. On the other hand, however, there is urgency to this question because of the way that it frames Meillassoux's own argument. This urgency can be understood in two senses. First, it is the need to deepen his acute analysis of the bases of fideist fanaticism (his recent seminar course on finality can be read, in part, in this way).[42] Second, and more fundamentally, it cannot go unremarked that an argument that looks to establish a claim about the real, *irrespective* of how the real is presented to us, is so thoroughly saturated in a claim about precisely *how the real is being presented to us* in the current cultural and political milieu. To reach beyond correlationism is one thing but to the extent that this impacts upon (and may even require) claims about our deeply relational cultural and political situation it may be that we need to reconsider the critique of correlationism itself. It is with these thoughts in mind that we turn to our criticism of Meillassoux's absolute materialism.

41 See Iain MacKenzie, *The Idea of Pure Critique* (London: Continuum, 2004) for the distinction between total and pure critique.

42 Meillassoux, 'La finalité aujourd'hui' available at, http://www.diffusion.ens.fr/index.php?res=conf&idconf=2397. Our thanks to Benoit Dillet for this reference.

The Return of Critique (as a Practice of Learning)

Leaving to one side the criticisms of Meillassoux's argument that have focused on his appeal to the subject-independent nature of mathematics and certain mathematical sciences,[43] we have sought to reclassify it as a form of philosophical engagement with the present state of thought that brings it back into line with the critical, post-metaphysical tradition. It is a reclassification that other critics have also brought to the fore in their interpretations. Brassier was the first to suggest that there could be a lurking idealism in Meillassoux's requirement of having to go through the correlationist circle in order to access the real such that the project is already conditioned by the thought of finitude that it is supposed to overcome.[44] As such, there is a danger that Meillassoux's argument in search of the absolute will be incurably hamstrung by this conditionality: "the distinction between the real and the ideal is part of the correlationist legacy which cannot be mobilized against it without first undergoing decontamination".[45] Perhaps, as Toscano argues, there is an "ideological operation at work aimed at terminating correlationism's collusion with irrationalism".[46] If we add to this competing claims about the nature of ideologies (rather than ideology) we can see that there is potentially a double ideological operation at work in Meillassoux's argument; there is a selectivity about the features of social existence that matter and a selectivity about how these are to be understood given his uncritical use of a Marxist concept of ideology. Williams rather neatly summarises what is at stake: "Meillassoux is giving us his interpretation of the *significance* of the arche-fossil which involves many series of value judgments and

43 For example, Peter Hallward, 'Review of After Finitude: An Essay on the Necessity of Contingency', *Radical Philosophy*, 152, (2008), has made the point that a mathematics of nature without dates and measures, both of which have an irreducibly human component to them, is unthinkable. As he sums up: "a pure number of reality does not exist".

44 *NU*, pp. 49-94.

45 Ibid., pp. 93-4.

46 Alberto Toscano, 'Against Speculation, or, a critique of the critique of critique', paper delivered to the 'Speculative Realism/Speculative Materialism' conference, University of the West of England, 24.04.09, available at http://www.cinestatic.com/infinitethought/2009/05/alberto-toscano-against-speculation-or.asp.

selections."[47] All these criticisms, rightly in our view, amount to the claim that Meillassoux's search for the 'great outside' only makes sense if it is seen as a critical intervention in the contemporary problem of indifferentism he calls 'fideism'. It is, in other words, a critique of critique in the name of a critical intervention in the present, 'for us, now'. That Meillassoux's project is presented as the search for the 'great outside' establishes the significance of his contribution to contemporary social criticism but it does mean that we should not read his work as standing outside of the (post-)Kantian tradition because it shares with that tradition an understanding of the task of philosophy as that of going beyond indifference.

At which point it could be claimed either that Meillassoux's arguments are incoherent, a line that Williams appears to be developing,[48] or that their implicitly critical nature should be reframed within a more explicit critical framework. As we have argued, *After Finitude* can and should be framed as an intervention in the contemporary cultural and political milieu. As such, we are in agreement with Brown's sense that Meillassoux's argument must be situated within a broader domain of critical philosophy.[49] We disagree, however, with Brown's claim that *After Finitude* can be taken "as a contribution to what Althusser calls 'Marxist

47 James Williams, 'Gilles Deleuze and Michel Henry: Critical Contrasts in the Deduction of Life as Transcendental', unpublished draft, available at http://www.dundee.ac.uk/philosophy/staff/williams.

48 Ibid. Williams is one of the few commentators, to date, to suggest that we should not even look to reformulate Meillassoux's argument as a critical one. Williams refers to Meillassoux's position as rather 'blunt' partly because 'it fails to address its own internal incoherence'. As just noted, the incoherence resides, according to Williams, in Meillassoux's failure to recognise the interpretative choices he makes in selecting arche-fossils that he then treats as beyond interpretation. In contrast, we have presented a reconstruction of Meillassoux's project that makes evident his understanding of the cultural and political milieu into which his work intervenes and argue that while this changes how we understand his project, possibly in ways that are not evident to Meillassoux himself, this does not amount to a charge of incoherence.

49 Nathan Brown, 'Rationalist Empiricism/Dialectical Materialism: from Althusser to Meillassoux', paper delivered at the CRMEP Research Seminar series, Middlesex University, 8 October 2009, available at http://www.web.mdx.ac.uk/crmep/ DOCS/Brown_Rationalist_Empiricism.pdf, hereafter, *RE/DM*.

philosophy"'.[50] It is our view that the interventionist nature of *After Finitude* is much better understood when situated within the domain of the philosophical critique of indifference inaugurated by Kant. This requires us to challenge Brown's interpretation and then to offer our alternative framing of Meillassoux's project.

As regards the challenge, and for all that Brassier and Brown are correct to acknowledge the connection between Meillassoux and a Leninist understanding of Marxism, to "hold that the philosophical itinerary, the structural articulation and the argumentative method of *After Finitude* adhere to the determination of dialectical materialism" as conceived by Althusser is to undertheorise the strident critique of (anti-)dialecticism that pervades the text.[51] In particular, it is notable that Brown uncritically accepts Meillassoux's distinction between speculative idealism and speculative realism/materialism so as to recast the latter within an Althusserian understanding of dialectical materialism. This is problematic to the extent that speculative idealism is better understood as absolute correlationism (as we have argued above) and that this category includes both materialist dialecticism (Marx) and varieties of anti-dialecticism (Nietzsche and Bergson, for example). Given this, Brown's interpretative gesture is harder to establish. According to Meillassoux, the dialectical and non-dialectical yet similarly absolute claim regarding the correlation of thought and being (that allegedly characterises the philosophical systems of Hegel, Marx, Nietzsche and Bergson) is successfully challenged by the arguments of strong correlationists. Moreover, that this challenge is successful is necessary for Meillassoux's argument that we must go through strong correlationism in order to access the principle of factuality. Brown's laudable and inventive response to the problem of situating Meillassoux's intervention in a broader critical framework founders, therefore, because it does not sufficiently acknowledge either the breadth of Meillassoux's critique of absolute correlationism or his insistence that the strong correlationist criticism of it is as resolute as the general correlationist claim is against naïve realism. In place of an Althusserian reading, we will conclude by clarifying

50 *RE/DM*, p. 3.
51 *RE/DM*, pp. 7-8.

Meillassoux's Kantian presuppositions, the critique of which lead towards Deleuze.

It is clear that Meillassoux is engaged in a thoroughly Kantian project: that of going beyond the cultural and political indifference generated by a philosophical stalemate about the nature of reality. While Kant turned to the necessary features of subjective experience to overcome the indifference generated by a sterile debate about the facts, Meillassoux turns to the necessarily contingent nature of facts to disqualify the subjective turn. Both claim to have excavated the shared presuppositions held by indifferentists/fideists and to have established a new basis for philosophical rationalism that secures the legitimacy of scientific knowledge. The only way of securing the place of philosophy, both Kant and Meillassoux agree, is to reassert its right to legitimate (rational and scientific) knowledge and de-legitimate (irrational and unscientific) beliefs. While Kant's turn to weak correlationism and Meillassoux's turn to an absolute materialism are significantly different versions of how to defend philosophy's role as 'the queen of the sciences', it is clear that they agree on one point: that establishing philosophy as the queen of the sciences is the only way of going beyond the indifferentism pervading their respective cultural and political milieus.

This gives rise to a series of overlapping questions: are the differences in content significant or insignificant given their agreement on the formal nature of the project itself? While Meillassoux has called to account Kant and the post-Kantians for creating the conditions for a new form of indifferentism, is it possible that the formal presumption he shares with Kant - that philosophy must rediscover its role as the guarantor of (rational and scientific) knowledge - actually creates the conditions for the return of indifference? In short, what if the root of indifferentism and fideism is not to be found in belief but in the pursuit of knowledge itself?

The idea that the pursuit of knowledge is at the root of indifference is one that Deleuze explored throughout his work but it had its systematic expression in the critique of the dogmatic image of thought at the heart of *Difference and Repetition*. In his discussion of the eight postulates of dogmatic thought, Deleuze concludes that "the postulate of knowledge

(the subordination of learning to knowledge and culture to method)" is that which "incorporates and recapitulates all the others" because it is based on the idea that philosophical thinking must produce an "end or result".[52] According to Deleuze, it is this dogmatism of knowledge, not of belief, that creates the conditions for indifference: a series of rivals claims about what we can know that reduces thought to 'taking sides'. It is not, as Kant and Meillassoux believe, the pursuit of knowledge that enables philosophy to go beyond its role as the handmaiden to opinion and belief but the pursuit of knowledge that secures its servitude to its ancient rivals. For Deleuze, when we are surrounded by indifference, the philosophical task is that of *learning* how to think differently: it is not a matter of diagnosing the problem of indifference and curing it with a dose of knowledge.[53]

To conclude, we have established: a) that Meillassoux's project in *After Finitude* is self-avowedly one of disqualification; b) that it aims to disqualify all varieties of contemporary fideism; c) that, to this extent, it repeats the formal task of Kant's critical project (as outlined in the first edition of the Critique of Pure Reason); d) that it is, therefore, legitimate to describe *After Finitude* as Kantian in its design, despite Meillassoux's avowed anti-Kantianism; e) that the Kantianism of Meillassoux's project creates a point of contact with Deleuze's Kantianism (similarly motivated by a desire to critique indifference); f) that Deleuze nonetheless moves beyond Kant and Meillassoux because he understands that the source of indifference in contemporary culture and politics is the pursuit of knowledge, not the irrationalism of belief; and, g) that to go beyond indifference in the manner of Deleuze requires establishing why it is the case that "it is from learning, not from knowledge, that the transcendental conditions of thought must be drawn".[54]

That said, we have not established this priority (though there is a growing body of literature engaged in this task).[55] We can, nonetheless,

52 *DR*, p. 164-7.

53 Nor is it a matter of being 'the beautiful soul' that accepts all beliefs indiscriminately: ibid., pp. 52 and 196.

54 Ibid., p. 166.

55 For example, Eric Alliez, *The Signature of the World: What is Deleuze and Guattari's Philosophy?* (London: Continuum, 2004); Patricia Farrell, 'The Philosopher-Monkey: Learning and the Discordant Harmony of the Faculties' in E. Willett and M. Lee (eds), *Thinking Between Deleuze and Kant* (London: Continuum, 2009); Anna Cutler and Iain Mackenzie, 'Bodies of Learning', in Laura Guillaume and Joe Hughes (eds), *Deleuze and the Body* (Edinburgh: Edinburgh University Press, forthcoming).

finish by considering the relationship between Meillassoux's absolute materialism and Deleuze's understanding of critique as a practice based on learning. Where Meillassoux is engaged in the thoroughly Kantian project of overcoming cultural and political indifference by resorting to the rightful claims of philosophical knowledge, Deleuze implicates those claims in the very problem that both Kant and Meillassoux say they are hoping to solve once and for all. Following this Deleuzian trajectory, however, does not mean that we must simply walk away from the great philosophical insights of *After Finitude*. Meillassoux's arguments provide a powerful resource for clarifying the 'necessarily contingent' nature of the 'involuntary adventure' we call learning. As Deleuze expresses this point, albeit more gently: "we never know in advance how someone will learn".[56] In this sense, learning will always be a critical practice confronting the calm possession of knowledge. For this to serve as 'a condition for true critique', however, it must be recognised that the confrontation always comes from the outside of knowledge not from knowing the absolute nature of the outside.

56 *DR*, p. 165.

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Five Meanings of 'Contingency' in Kant´s Critique of Pure Reason

GIUSEPPE MOTTA

What does 'contingency' [*Zufälligkeit*] mean in Kant´s *Critique of Pure Reason*? What does it mean in Kant´s philosophy in general? 'Contingency' is the last concept in the table of categories and constitutes – after 'possibility' / 'impossibility', 'existence' / 'non-existence' and together with its positive correlate: 'necessity' – the third and last of the categories of modality.[1] Although the term 'contingency' has a well-defined and valuable place in the *Critique*, there are still numerous problems concerning its meaning, rules and importance.

One of the first difficulties is associated with the important function of the concept of 'necessity' as the main definition of *a priori*: "...if a proposition is thought along with its necessity [*zugleich mit seiner Nothwendigkeit*], it is an *a priori* judgment."[2] Contingency is in this sense the negation of the concept on which the whole critical project is based. A second difficulty comes out of the special character of the concepts of modality in general. For Kant, modal concepts do not represent objective-,

1 See *KrV*, A 80/B 106. References to the *Critique of Pure Reason* (*KrV*) are given by the standard pagination of the first and second edition (A= 1781, B = 1787). All other citations of Kant´s writings are located by volume and page number in (*AA*) *Kants Gesammelte Schriften*, hrsg. von der Preußischen Akademie der Wissenschaften / von der Deutschen / Göttinger Akademie der Wissenschaften, Berlin - Leipzig, G. Reimer, 1900 ff. / Berlin, De Gruyter 1967 f. English translations of Kant's works are used as currently available in the Cambridge University Press Edition of the Works of Kant. Specifically, I have made use of Immanuel Kant, *Critique of Pure Reason*, ed. and trans. by P. Guyer and A. Wood, (New York, Cambridge University Press, 1998). Some passages, which are not contained in the Cambridge-Edition, are given in my own translation.

2 *KrV*, B 3; see also B 4.

but rather subjective-synthetic judgments. This means they do not contribute to the definition of the object of experience, in contrast to categories of quantity, quality and relation. Modal judgments solely address the relation to the subject in its different faculties: they "...express only the relation to the faculty of cognition [*nur das Verhältniß zum Erkenntnisvermögen*]."[3] But the very constitutive paradox of the modal concepts is that they do not address the subject as such (which they should do, since they refer to the subject); instead, they address the very fundamental question about the sense of objectivity in general (in contrast to the main philosophical theories: rationalism, empiricism and idealism). A third problem can be found in what seems to be the purely correlative (and empty) contents of the three negative concepts of modality. 'Impossible' is simply that which does not correspond to the formal conditions of experience. It is nothing, or at least nothing we have experience with. 'Non existent' describes that which doesn't appear in a material perception, meaning, once again, nothing. Finally, 'contingent' seems to be the simple (and empty) negation of 'necessary'.

These difficulties all relate to the systematic and special meaning of some technical concepts of the *Critique,* such as '*a priori*', 'modality', 'category', etc. The main problem concerning the definition of contingency in the *Critique of Pure Reason* arises first and foremost from the simple fact that Kant uses the concept in diverse senses, which frequently seem to contradict one another. The purpose of this article is threefold: 1) to order and more precisely define the different meanings of contingency in the first *Critique*; 2) to establish the only possible meaning of contingency as a modal category in contrast to the modal definition of 'necessity'; and 3) to explain the importance of the concept of 'contingency' in Kant's philosophy in excerpts from the *Critique of Judgment*.

Propositions of pure logic and mathematics can't be contingent. They are for Kant necessarily true (A=A, 5+7=12) or necessarily false (A≠A, 5+7=10). That doesn't mean, however, that he considers logic and mathematics to belong together, like both empiricist thinkers (Locke, Hume, Crusius) and rationalist philosophers (Leibniz, Wolff, Baumgarten)

3 *KrV*, A 219/B 266.

believed. For Kant, the principles of geometry and arithmetic are synthetic, non-analytical judgments *a priori*. They do not come out of any logical definition or principle but from the pure form of sensible intuition.[4] Both logical and mathematical propositions are nevertheless, although in very different senses, not contingent but necessary. Only the object of our sensible experience, which Kant careful describes in the 'Transcendental Analytic', can (and must) be considered as 'contingent'.

We must first consider two different meanings of the word 'contingent'. Kant distinguishes in the "General remark on the system of principles" between the contingent which is understood as involving the category of modality (here **i.**)[5] and the contingent which is understood as involving the category of relation (here **ii.**).

i. Contingent is "something, the non-existence of which can be thought [*dessen Nichtsein sich denken läßt*]."[6] This first definition, which Kant also calls 'modal', corresponds to the classic designation of the predicate 'contingent' to all things or states of things whose opposite is as such possible: *id quod aliter esse potest*. In the 'Remark on the Thesis of the Fourth Antinomy' Kant calls that kind of contingency "intelligible contingency [*intelligible Zufälligkeit*]" or the contingency "in the pure sense of the category [*im reinen Sinne der Kategorie*]."[7] It corresponds to the most important (strictly logical) definition of contingency according Christian Wolff: "Contingens est, cuius oppositum nullam contradictionem involvet, seu quod necessarium non est."[8] For Alexander G. Baumgarten,

4 Kant underlines this difference, showing that even mathematical constructions are not absolutely necessary but just relative. He affirms for example in a lesson about Metaphysics in the 70s: "It is necessary, for example, that a triangle have three angles. Of course, if I think of a triangle, I must necessarily think of three angles; but the triangle is not necessary [*aber der Triangel ist doch nicht nothwendig*]" (*AA* 28: 315).

5 See *KrV*, B 209. We will see that the proper 'modal' meaning of 'contingent' cannot be understood in the sense of **i.** but rather in the way we describe in **iii.**

6 *KrV*, B 290.

7 *KrV*, A 458/B 486.

8 Christian Wolff, *Philosophia prima, sive ontologia, methodo scientifica pertractata, qua omnis cogitationis humanae principia continetur*, (Frankfurt and Leipzig, 1730, 2nd ed., Frankfurt and Leipzig, 1736, repr. Darmstadt, Wissenschaftliche Buchgesellschaft, 1962), § 294.

contingent is all that "cuius oppositum absolute possible est."[9] Kant is familiar with and assumes this same definition in the first *Critique*.[10] Each existing thing is for him contingent in this 'intelligible' sense of the word. That claim has an important ontological meaning: nothing is absolutely necessary, because the non-existence of something can't, as such, entail a logical or metaphysical contradiction. That means: "Everything that happens is in itself contingent [*Alles, was geschieht, ist zufällig an sich selbst*]."[11] Nothing is for the human reason non-contingent in the sense of being absolutely necessary ("*an sich absolut notwendig*"). In other words, we can always (without exception) affirm or suppose the opposite or the negation of something.[12]

9 Alexander G. Baumgarten, *Metaphysica*, (Halle, 1739. 4th ed., Halle, 1757. Repr. Hildesheim, Olms, 1982), § 104.

10 In four different reflections from the 1760s, the late 1760s, the 1780s and the 1790s respectively, Kant defines as contingent ("*zufällig*") all "whose non-being is possible [*dessen Nichtseyn moglich ist*]" (R. 3838, *AA* 17: 308), "whose opposite is possible in its position [*dessen Gegentheil an seiner Stelle möglich ist*]" (R. 4041, *AA* 17: 395), "whose opposite is possible in its place [*dessen Gegentheil an seiner statt moglich ist*]" (R. 5803, AA 18: 358) and "whose non-being is in itself possible [*dessen Nichtseyn an sich selbst moglich ist*]" (R. 6408, *AA* 18: 707).

11 R. 4032 aus 1769 (*AA* 17: 391). All things we experience are for Kant contingent: "All existence in time is contingent. For it is an unceasing disappearance and origination; and from the fact that a thing exists it does not follow that it will exist [*Alles Daseyn in der Zeit ist zufallig. Denn es ist ein immerwährendes Verschwinden und Anheben; und daraus, daß ein Ding existirt, folgt nicht, daß es existiren wird*]" (R. 4190, end of 1769-1770, *AA* 17: 450). See also R. 5797 (*AA* 18: 357) and R. 5798 (*AA* 18: 358) from the 1780s.

12 What does absolute necessity mean for Kant? Even if we can't determine absolute necessity as such ("Necessarium ens est, cuius nonexistentia est impossibilis. Absolute tale non involvit contradictionem, sed transscendit conceptum humanum", R. 5761, *AA* 18: 346; see also R. 5783 in *AA* 18: 353f., R. 5784 in *AA* 18: 354f., R. 6269 in *AA* 18: 538, all from the 1780s), we can think it: "One can indeed think such concepts, but not determine or implement them [*Solche Begriffe kan man zwar denken, aber nicht bestimmen und ausführen*]" (R. 4491, *AA* 17: 571, from the early 1770s), "We can indeed conceive absolute necessity, so that we understand it; but *a priori* comprehension is not so easy" (R. 5253, *AA* 18: 132, from 1776-1778). Absolute necessity is usually described by Kant as a "limiting concept" ("Grenzbegriff", "*conceptus terminator*"): "The concept of an *absolute necessarius* is a *conceptus terminator* (since we must regard everything contingent as necessary through a ground and in the end the condition must disappear); and since the

ii. In a second very different sense the word 'contingent' means something that "...can only exist as the consequence of something else [*nur als Folge von einem anderen existieren kann*]".[13] According to the *Dissertation* of 1770, all existing beings are contingent, which follows as an effect of a unique intelligible cause.[14] "Everything *causatum* is contingent in itself", as Kant wrote in 1773-75.[15] In a reflection from the same years we read: "All occurrence is contingent [*alles Geschehen ist zufällig*], hence its origin must be necessary."[16] Everything in the world is

condition of intelligibility disappears, it cannot be understood according to the laws of reason" (R. 4039, *AA* 17: 393f.). That is a reflection from the years 1769-1770 to the §§111-113 in Baumgarten's *Metaphysica*). We read in the same reflection: "The *terminus* of the series is its first member, but the *conceptus terminator* is the concept through which a first member of the series is possible." See also: R. 4033 (*AA* 17: 391f.), R. 4253 (*AA* 17: 482f.), both around 1770, R. 4580 (*AA* 17: 600, about necessity as *hypothesis originaria*) and R. 4660 (*AA* 17: 628), both from the year 1772, R. 5262 (*AA* 18: 134f.) around 1776-1778, R. 6278 (*AA* 18: 544f.) from the 1780s.

13 *KrV*, B 290.

14 In this academic (and therefore Latin) paper, Kant defines the world as the whole of all contingent beings: "Totum itaque substantiarum est totum contingentium, et mundus, per suam essentiam, meris constat contingentibus" (§ 19, AA 2: 408). That means, in the words of Robert Theis, that the world is made of all such substances, "whose existence is subordinated to an unique *cause*" [*die ihrem Dasein nach in einem Subordinationsverhältnis zu einer Ursache stehen*] (*Gott. Untersuchung zur Entwicklung des theologischen Diskurses in Kants Schriften zur theoretischen Philosophie bis hin zum Erscheinen der Kritik der reinen Vernunft*, Stuttgart-Bad Cannstatt, Frommann-Holzboog, 1994, p. 235). Discussing the same claim in the *Dissertatio,* Theis affirms: "The existence of contingent events require a cause, which leads to a requirement of a necessary cause. We could easily conclude that a necessary cause (that is a necessary substance) can only exist as a cause of contingent facts, or *ens extramundanum*, because the concept of a necessary *causa intramundana* is in itself contradictory [*Die Behauptung der Zufälligkeit müsste zunächst zu der Behauptung der notwendigkeit eines Grundes, diese dann zur Behauptung eines notwendigen Grundes führen. Von hier aus ließe sich dann zeigen, daß ein notwendiger Grund (bzw. eine notwendige Substanz) nur als Ursache im Verhältnis zum Zufälligen selbst stehen kann, und dementsprechend nur ein ens extramundanum sein kann, weil der Begriff einer notwendigen causa intramundana widersprüchlich wäre*]" (*Gott*, p. 236).

15 R. 4713 (*AA* 17: 684).

16 R. 4675, Duisburg 8. (*AA* 17: 650). See also R. 5773 (*AA* 18: 350) and R. 6214 (*AA* 18: 499f.) from the 1780s.

contingent because everything has an origin (in the sense of an efficient cause). The contingency of all events designates also in the first *Critique* nothing more than "their dependence on empirically determining causes [*die Abhängigkeit derselben von empirisch bestimmenden Ursachen*]."[17] Nothing in the world can happen by itself. That means nothing can occur without a cause. All beings are caused from other beings. In this sense they are all contingent.

Kant repeatedly criticises all supposed derivations of the intelligible contingency (**i.**) from the relative contingency (**ii.**): "Alteration proves *only* empirical contingency, i.e., that the new state could not at all have occurred on its own, without a cause belonging to the previous time, in accordance with the law of causality."[18] Changes alone don't prove any intrinsic contingency, since the possibility of the opposite, according to Kant, "...is here opposed to the other only logically, not *realiter*".[19] If such a translation of meanings were possible, then Kant's argument in the fourth antinomy could not be valid. Conrad Kramen addresses this point in a 1981 paper: "In order to justify the transition from what Kant calls empirical contingency to what he refers to as intelligible contingency or the contingency according to the terms of pure reason, we would have to consider Kant's conclusion about the antinomian character of reason based on the concept of the whole as no longer compelling and even completely erroneous."[20] The thesis of the fourth antinomy ("To the world there

17 *KrV*, A 458/B 486.

18 *KrV*, A 460/B 488, emphasis added: "Die Veränderung beweiset *nur* die empirische Zufälligkeit...".

19 *KrV*, B 290. Kant explains this point in a long footnote to the text: "One can easily think of the not-being of matter, but the ancients did not infer its contingency from that. And even the change from the being to the non-being of a given state of thing, in which all alteration consists, does not prove the contingency of this state at all, as it were, from the actuality of its opposite; e.g., the rest of the body that follows its motion still does not prove the contingency of its motion just because the former is the opposite of the latter. For this opposite is here opposed to the other only logically, not *realiter*. In order to prove the contingency of the motion of the body, one would have to prove that instead of the motion in the preceding point of time, the body could have been at rest then, not that it rests later; for in the later case the two opposites are perfectly consistent" (*KrV*, B 290).

20 "Ließe sich nämlich der Übergang von dem, was Kant die empirische Zufälligkeit nennt, zu dem, was Kant die intelligible Zufälligkeit oder die Zufälligkeit nach

belongs something that, either as a part of it or as its cause, is an absolutely necessary being")[21] can be considered invalid, because the two following passages are not allowed: 1) the passage from the empirical concept of contingency (**ii.**) designing all events, which have a determining cause, to the intelligible concept of contingency (**i.**) designing all events or things, which – as such – may be different; and 2) the passage from the general concept of all contingent things (in intelligible sense: **i.**) to the claim of an external cause of that whole, which can't in itself be also intelligible contingent and must therefore be absolutely necessary.[22] We can't derive the intelligible contingency of something from the empirical contingency of the same.[23] That is the illicit jump (*μετάβασις εἰς ἄλλο γένος*) in the argument of the thesis in the fourth antinomy: "... since they could not find in this series [the ascending series of empirical conditions] a first beginning or a highest member, they suddenly

Begriffen des reinen Verstandes nennt, rechtfertigen, ergäbe sich eine theoretische Situation, in der der von Kant gezogene Schluß auf den antinomischen Charakter der Vernunft in Ansehung des Begriffs des Weltganzen nicht mehr zwingend wäre und sogar als irrig zurückgewiesen werden müsste." (Cramer, *Kontingenz in Kants „Kritik der reinen Vernunft"*, p. 143-144). This was Cramer's contribution to a conference about Kant's *Critique of Pure Reason*, which took place in autumn 1981 in Marburg (*Probleme der „Kritik der reinen Vernunft"*, ed. by B. Tuschling, (Berlin - New York, De Gruyter, 1984)).

21 *KrV*, A 452/B 480.

22 The antithesis of the fourth antinomy is the following: "There is no absolutely necessary being existing anywhere, either in the world or outside the world as its cause" (*KrV*, A 453/B 481). Kant refers here to the empirical contingency of all things. He considers the necessary dependence of all events in time on an external, determining cause (**ii.**) concluding on this basis the impossibility of a first and in itself necessary (not caused) being. The symmetry between thesis and antithesis seems here to be perfect. Kant explains this via an impressive image found in the astronomical works of Mairan: "One [astronomer] inferred [...] that *the moon turns on its axis* because it constantly turns the same side toward the earth; the other, that *the moon does not turn on an axis*, just because it constantly turns the same side toward the earth. Both inferences were correct, depending on the standpoint taken when observing the moon's motion" (*KrV*, A 461/B 489). Both conclusions are correct considering the two different points of view: the sun and the earth.

23 Cramer writes along these lines: "Based on the phenomenon of variation, we cannot necessarily infer that something that happened could have also not happened. [*Aus dem Phänomen der Veränderung als solchem lässt sich nicht schließen, daß Etwas, das entstanden ist, auch hätte nicht entstehen können.*]" (*Kontingenz*, p. 152).

abandoned the empirical concept of contingency [...] But this proceeding is entirely illegitimate [*Dieses Verfahren ist aber ganz widerrechtlich*]."[24] If we could, on the other hand, move from the empirical to the intelligible contingency, then we could not refuse the thesis of the fourth antinomy.

The two meanings of contingency we have already explained (**i.** and **ii.**) are evidently neither in opposition to the assertion of the relative necessity of all events nor to the claim of the universal validity of some transcendental or empirical laws, which alone for Kant can give sense to the definition of this relative necessity. The contingency of all things, which are not in themselves absolutely necessary (**i.**), can be easily associated with their relative necessity. 'Nothing is absolutely necessary' and 'everything is relative necessary' are two compatible sentences. The definition of contingency from the point of view of the empirical causality (**ii.**) even contradicts the standard meaning of 'contingent' as something which happens without any reason. Everything having a relative cause can also mean that everything is necessary according to the second analogy of experience.[25] In order to justify the modal opposition between necessity and contingency we evidently need a third, stronger definition of the term 'contingency'.

We have seen that Kant refers the intelligible contingency (**i.**) to the "category of modality [*Kategorie der Modalität*]."[26] This is for him the

24 *KrV*, A 458/B 486.

25 *KrV*, A 189f./B 232f. Cramer writes about the structural identity between empirical causality and empirical necessity: "Variations are empirically contingent if and only if they follow from an empirical cause, that is, if they conform to the second analogy of experience. The word 'cause' is intended to mean all that, whose existence makes the existence of a different thing necessary. It follows, in my opinion, that in Kant's theory of modal determinism, the field of empirical contingency is identical with the sphere of empirical necessity. [*Jede Veränderung ist empirisch zufällig genau insofern, als sie eine empirisch bestimmende Ursache hat, d. h. insofern die zweite Analogie der Erfahrung gilt. Denn ‚Ursache' ist genau das, unter Voraussetzung von dessen Existenz die Existenz von etwas Anderem notwendig ist. Hieraus allein ergibt sich, so meine ich, zwingend, daß der Bereich des empirisch Zufälligen in Kants Theorie der Modalbestimmungen mit dem Bereich des empirisch Notwendigen identisch ist.*]" (*Kontingenz*, p. 147).

26 *KrV*, B 290.

contingency "in the pure sense of the category."[27] It is nevertheless evidently impossible to reduce the categorical meaning of contingency to the simple '*id quod aliter esse potest*' in contraposition to the necessity as '*id quod aliter esse non potest*'. In the third Postulate, considering the categories of necessity and contingency, Kant expressly excludes in this sense all consideration of the intelligible meaning of those concepts: "...it is not the existence of things (substances) but of their state of which alone we can cognize the necessity, and moreover only from other states, which are given in perception, in accordance with empirical laws of causality."[28] The category of contingency is the negation of the general validity of the law of causality. In a glossary to the first phrases of the Postulates in his personal copy of the *Critique* Kant calls it the absolute contingency of an event: "We call absolutely contingent [*absolut zufällig*] that which has no sufficient reason at all."[29]

iii. Kant mainly associates the name of Epicure with the idea that something happens or could happen without any reason or cause. Already in the *Allgemeine Naturgeschichte und Theorie des Himmels* of 1755 he writes: "Epicurus was [...] so unconscionable that he demanded that the atoms swerved from their direct linear movement without any cause, so that they could run into each other. [...] In my theory, by contrast, I find matter bound to certain necessary laws. [...] This does not happen through accident or chance. By contrast, we see that natural characteristics necessarily bring this condition with them."[30] In another (academic) work

27 *KrV*, A 458/B 486.

28 *KrV*, A 227/B 279-280.

29 R. LXXXVII to A 218f. in *AA* 23: 32.

30 *AA* 1: 227. Kant writes in the same work: "The chance collisions of the atoms of Lucretius did not develop the world. Implanted forces and laws which have their source in the Wisest Intelligence were an unchanging origin of that order inevitably flowing out from nature, not by chance, but by necessity" (*AA* 1: 334).

Kant was surely well-acquainted with Cicero's precise description and refutation of the epicurean theory of contingency in *De natura deorum* (from the year 44 BC) and in *De fato* (from the same year, written by Cicero a few months before his death in 43 BC in Formia). The second book of *De natura deorum* entails Balbo's (Balbo is here a fictive character of a stoic philosopher) defence of the universal validity of the laws of the universe against the epicurean apology of contingency. Some of Balbo's arguments are particularly vivid: "Can I but wonder here that any one can

of the same year, the *Nova dilucidatio*, Kant opposes the epicurean claim of rational proof of the universal validity of the principle of sufficient reason: "Nothing which exists contingently can be without a ground which determines its existence antecedently."[31] For Kant, everything has a necessary determining cause. One of the most important claims in the third Postulate of empirical thought is in this sense the Latin phrase: *In mundo non datur casus*. That means that nothing is contingent in the world.[32] Or more accurately, nothing can be assumed to be contingent

persuade himself, that certain solid and individual bodies move by their natural force and gravitation, and that a world so beautifully adorned was made by their fortuitous concourse? He who believes this possible may as well believe, that if a great quantity of the one-and-twenty letters, composed either of gold or any other matter, were thrown upon the ground, they would fall into such order as legibly to form the annals of Ennius. I doubt whether fortune could make a single verse of them. [*Hic ego non mirer esse quemquam, qui sibi persuadeat corpora quaedam solida atque individua vi et gravitate ferri mundumque effici ornatissimum et pulcherrimum ex eorum corporum concursione fortuita? Hoc qui existimat fieri potuisse, non intellego, cur non idem putet, si innumerabiles unius et viginti formae litterarum vel aureae vel qualeslibet aliquo coiciantur, posse ex is in terram excussis annales Enni, ut deinceps legi possint, effici; quod nescio an ne in uno quidem versu possit tantum valere fortuna*]" (II, 93, tras. by Th. Francklin, London, W. Pickering, 1829, p. 117-118). And some pages later: "Is he worthy to be called a man, who attributes to chance, not to an intelligent cause, the constant motions of the heavens, the regular courses of the stars, the agreeable proportion and connection of all things, conducted with so much reason, that our reason itself is lost in the inquiry?" ["*Quis enim hunc hominem dixerit, qui, cum tam certos caeli motus, tam ratos astrorum ordines tamque inter se omnia conexa et apta viderit, neget in his ullam inesse rationem eaque casu fieri dicat, quae, quanto consilio gerantur, nullo consilio adsequi possumus*"] (II, 97, p. 119). In *De fato* Cicero explains in detail how the epicureans rejected both the casual determinism of the stoics and logical determinism, which was based on the universal validity of the principle of the excluded third (*De fato*, 22-23).

31 *AA* 1: 396, *Prop. VIII.* "Nihil contingenter existens potest carere ratione existentiam antecedenter determinante." The proof of the principle of determining reason is based on the idea that, if there were no determining things (*ratio antecedenter determinans*) for all contingent things or events, they could then be their own cause. We should in this sense admit the possibility of a *causa sui*. Existing beings could exclude the possibility of their opposite without recurring to a determining cause. They were in this sense absolutely necessary. But that is in clear contradiction with the starting claim that such things are not necessary, but contingent (see *AA* 1: 357).

according to the dynamical laws of causality.[33] Human reason can't conceive of any blind contingency ('*casus purus*', in the words of *Opus postumum*).[34] In this sense, a short reflection from the 1790s clearly contradicts both previously-given definitions **i.** and **ii.** of contingency: "The contingent is not that whose non-being does not contradict itself, but that which lacks a foundation. Now everything that exists has a foundation; consequently, nothing existing is contingent."[35] Everything is necessary, because only that which is necessarily connected is 'objective'. That is the most important definition of 'objectivity' in the A-deduction of the categories: An Object is simply something, "for which the concept expresses [...] a necessity of synthesis."[36]

The list of the different – and sometimes even contradictory – meanings of the Kantian 'contingency' is therefore not really complete. Two previously-mentioned synonyms of 'contingent' must be considered in detail: 'subjective' (**iv.**) and 'empirical' (**v.**).

iv. 'Contingent' and 'subjective' are interchangeable concepts. In a reflection from the 1780s, Kant clearly affirms this idea: "Objectively valid and necessarily valid are one and the same [*Das objectiv gültige und nothwendig gültige ist einerley*]. Whatever I say about an object must be necessary. For, if it is contingent, then it is valid only in the subject, but not for the object."[37] In the second analogy of experience Kant distinguishes between the 'subjective' and 'contingent' succession in the apprehension of the different parts of an object (a house for example) and

32 In two reflections from the 1780s we can read the following. R. 5970: "*non datur casus.* An occurrence without a determining cause (in the world). [...] Origination from itself (*casus*) is also impossible" (*AA* 18: 409). R. 5973: "*Non datur casus.* No occurrence happens by itself, rather it is always determined through natural causes" (AA 18: 410).

33 Particularly clear is R. 4032 which dates probably from the year 1769, where **i.** and **ii.** are connected in the same claim: "Everything that happens is in itself contingent; but since it must nevertheless be necessary [...], it is necessary through an external ground" (*AA* 17: 391).

34 *AA* 22: 465.

35 R. 6410, *AA* 18: 707f.

36 *KrV*, A 106.

37R. 5915, *AA* 18: 383.

the 'objective' and 'necessary' succession of events in time (seeing a ship moved by a river's current).[38] Objective has in this context the meaning of 'non subjective' in the sense that it is not contingent but necessary. In another reflection of the 1780s, Kant presents the concept as follows: "In order to judge in an objectively universal and indeed apodictic manner, reason must be free from subjectively determining grounds; for if they determined it, then like them the judgment would only be contingent, that is, in accordance with its subjective causes."[39]

v. 'Contingent' can finally be understood as a synonym of 'empirical'. In Kant's system 'empirical' means '*a posteriori*', that is 'not *a priori*', 'not necessary' and thus 'contingent'. Bern Dörflinger describes this identity of the two concepts in the context of the transcendental deduction of the categories: "In the explanation of the transcendental deduction of categories, Kant precludes the notion that this could happen via the development of experience, that is, through the evolution of empirical consciousness, wherein, simply supported by illustration, the categories 'would be merely accidental' (*KrV*, B 126). Sensibility is the element which constitutes 'the distinctive difference between empirical and *a priori* knowledge' (*KrV*, A 167/B 208f.) and can also be considered, in this sense, the cause of contingency."[40] It was already shown (in **i.** and **ii.**)

38 The succession is in this second case "objective" and "necessary" because I can't dispose of my apprehension in another order. There is something that "necessitates us to observe this order of the perceptions rather than another" (*KrV*, A 196-197/B 242).

39 R. 5413, *AA* 18: 176.

40 My translation of: "In der Erläuterung dessen, wie die transzendentale Deduktion der Verstandesbegriffe zu geschehen habe, schließt Kant aus, sie könne durch 'Entwickelung der Erfahrung' stattfinden, d. h. durch das Fortschreiten empirischen Bewusstseins, wobei, als bolß durch Illustration gestützt, die Begriffe 'doch nur zufällig sein würden' (B 126). Insofern nun Empfindung es ist, die 'den eigentlichen Unterschied des Empirischen von der Erkenntnis a priori ausmacht' (A 167/B 208f.), wird sie auch Grund dieser Zufälligkeit sein." (*Zum Status der Empfindung als der materialen Bedingung der Erfahrung*, in: Akten des 7. Internationalen Kant-Kongresses, Mainz, 1990, ed. by G. Funke, Bonn-Berlin, Bouvier, 1991, p. 102). In a reflection from the 1780s Kant writes: "The unity of the consciousness is either empirical: in the perception of the manifold, combined through the imagination. Or it is logical: the unity in the representation of the object. The former is contingent and merely subjective, the latter necessary and objective" (R. 5933, *AA* 18: 392).

that Kant sometimes explicitly connects the contingency with the expression 'empirical contingency' ('*empirische Zufälligkeit*'). The two words seem indeed to indicate the same thing: '*empirisch, mithin zufällig*'. We find the expression, for example, in both the second section of the introduction to the *Critique of Pure Reason* and in the second section of the introduction to the *Critique of Judgment*.[41] Empirical laws, which as such express a necessity, are nevertheless for our understanding contingent.[42]

In the *Critique of Judgement* Kant explains in which manner contingent things or events can also be considered necessary. Even if the judgment of taste ('*Geschmackurteil*') is based on the subjective and empirical feeling of pleasure or displeasure, it can still legitimately claim to be universally and necessary valid: "An individual judgment of experience, e.g, one made by someone who perceives a mobile droplet of water in a rock crystal, rightly demands that anyone else must also find it so [...]. In jest the same way, someone who feels pleasure in mere reflection on the form of an object, without regard to a concept, rightly makes claim to the assent of everyone else, even though this judgment is empirical and is an individual judgment."[43] We can understand subjective and empirical states of things as necessary and objective. That is in open contradiction to **iv.** and **v.**

In this sense, Kant distinguishes between three different main forms of necessity: "Now this necessity is of a special kind: not a theoretical objective necessity, where it can be cognised *a priori* that everyone will fell this satisfaction in the object called beautiful by me, nor a practical necessity, whereby means of concepts of a pure will, serving as rules for freely acting beings, this satisfaction is a necessary consequence of an objective law and signifies nothing other than that one absolutely (without a further aim) ought to act in a certain way. Rather, as necessity that is

41 *KrV*, B 5 and *AA* 5: 174. What a coincidence! It can be seen that this kind of contingency (here for example the emergence of exactly the same expression '*empirisch, mithin zufällig*' in two sections in the same place in two different books) expresses the meaning that is commonly given to the word 'contingency' today. Kant never takes this sense of the word into consideration.

42 See for example *AA* 5: 179-180, 5: 183-184, 5: 388.

43 Einleitung VII, *AA* 5: 191.

thought in an aesthetic judgment, it can only be called exemplary, i.e., a necessity of the assent of all to a judgment that is regarded as an example of a universal rule that one cannot produce."[44] The exemplary and subjective necessity (which is peculiar not only in the judgment of taste, but also in the teleological judgment in general, which appeals to ends and goals in our understanding of nature) is based on the paradox that we have to define the necessity even there, where necessary rules and laws are not given. We have to find universality and necessity even if we don't see it. Kant's system of philosophy excludes in this sense all forms of contingency, and the *Critique of Judgment* is the systematic achievement of this exclusion.

44 § 18, *AA* 5: 236-237.

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A Defence of Aristotle's 'Sea-Battle' Argument

RALPH SHAIN

An enormous amount of philosophical energy has been devoted to reducing contingency in favour of the eternal, the necessary—in other words, the timeless. Remarkably, such efforts continue, as one can see in contemporary attempts to respond to, or even to ignore, the first argument offered to establish the reality and irreducibility of contingency: Aristotle's 'Sea-Battle' Argument. Aristotle argues that the supposed atemporality of the laws of logic—specifically the law of the excluded middle—is refuted by the fatalism which is implied by the truth-value of sentences about the future.

The purpose of this paper is to defend Aristotle's 'Sea-Battle' argument against the most important arguments which have been offered against it. After briefly presenting Aristotle's argument,[1] I will respond to five of the responses which have been offered, each of which purports to show that the simple future tense is not inconsistent with the claim that the future event described is contingent. In other words, these responses argue that future factuality is compatible with future possibility. An examination of Aristotle's argument provides the best indication of how one might begin to examine contingency: as an asymmetry between past and future.

1 There are a number of different interpretations of the argument, but the alternative interpretations are attempts to avoid what these interpreters take to be a serious error imputed to Aristotle by the standard interpretation. As I believe that the standard interpretation is not at all in error, there is no need to consider the alternative interpretations. For questions of interpretation, see R. Sorabji, *Necessity, Cause, and Blame* (Ithaca: Cornell University Press, 1980), pp. 91-96.

I. Aristotles's Argument

The argument for logical determinism attempts to show that the belief in the truth or falsehood of future tense sentences has fatalistic consequences. If it was always true (if I may use examples other than sea-battles) that Obama would be elected in 2008, then it would appear that nothing could have been done to prevent Obama's election; hence, there was no genuine possibility[2] that it could have been otherwise. This conclusion is obviously false. A number of contingencies (e.g., Obama's choice of an alternative career, election fraud) might have intervened to prevent Obama's election. But if it would have been true to say in 1908, "Obama will be elected President in 2008," then, according to Aristotle's argument, Obama's election happened of necessity.

Aristotle states the problem as follows:

> Hence, if in the whole of time the state of things was such that one or the other was true, it was necessary for this to happen and the state of things always to be such that everything that happens happens of necessity. For what anyone has truly said would be the case cannot not happen; and of what happens it was always true to say that it would be the case.[3]

The attribution of necessity follows directly from the primary meaning of necessity, as given by Aristotle in the Metaphysics: "what cannot be otherwise."[4] Aristotle points out that it doesn't matter whether anyone actually makes the statement that "x will happen" as it is not

2 I use the term 'genuine possibility' to mean 'what anyone or anything is capable of doing,' excluding the epistemological sense of possibility ('for all I know') and logical sense of possibility ('not self-contradictory'). Arguments will be provided to justify these exclusions over the course of the paper.

3 Aristotle, 'De Interpretatione,' in *"Categories" and "De Interpretatione"*, trans. J.L. Ackrill, (Oxford: Clarendon Press, 1963), pp. 51-52.

4 Aristotle, Metaphysics, V.v.3-4 (1015b), Volume I, trans. Tredennick (Cambridge MA: Loeb, 1933), p. 225.

because of the saying of the statement that it is true.[5] Nor does it only apply to statements involving human actions such as the engagement in a sea battle; it applies to any change whatsoever:

> Again, if it is white now it was true to say earlier that it would be white; so that it was always true to say of anything that has happened that it would be so. But if it was always true to say that it was so, or would be so, it could not not be so, or not be going to be so. But if something cannot not happen it is impossible for it not to happen; and if it is impossible for something not to happen, it is necessary for it to happen.[6]

The problem arises from giving truth claims about the future the same ontological (i.e. descriptive) and logical status as truth claims about the past. They have the same ontological status because, on such views of time in which time involves no intrinsic asymmetry, past events and future events do not differ ontologically.[7] Because past and future events are undifferentiated ontologically, statements about them are undifferentiated logically. Usually such statements are thus thought of as timeless in some manner, perhaps as 'tenseless'[8] or 'eternal' sentences.[9] Any asymmetry between the future and the past would be purely epistemological.

If it is now true that some event, x, will happen tomorrow, and has ever been true, then it is not in anyone's (or anything's) power to prevent x from happening. This would be so for even the most casual of events, those that we think are most dependent on our decision. The situation parallels that of statements about past events. If it is true now that x happened yesterday, then there is nothing anyone (or anything) can ever do to make it so that x didn't happen. Richard Taylor's point, in his famous paper 'Fatalism', is that if we give truth claims about the future the same logical and ontological status as those about the past, and differentiate

5 Aristotle, "De Interpretatione," op. cit., p. 51.
6 Ibid., pp. 50-51.
7 I use the traditional, not the Heideggerean sense of 'ontological'.
8 D.H. Mellor, *Real Time* (Cambridge: Cambridge University Press, 1981)
9 W.V. Quine, *Word and Object* (London: MIT Press, 1960)

between them only epistemologically, then truth claims about the future carry the same implications for the efficacy of human action as those about the past.[10] Ackrill thus calls the necessity that Aristotle deduces 'temporal necessity' – the unalterability of whatever has happened.[11]

Usually it is claimed that the fatalist conclusion is not validly drawn, and thus the falseness of the conclusion does not require that one reject the premise that future tense statements have truth value. The standard response is that the fatalist conclusion of the logical determinist argument is based on a modal mistake. In order to block Aristotle's inference, it is asserted that actuality and possibility are not incompatible modes of future-tense descriptions. Thus, Aristotle would be wrong to say that if something "would be so, it could not not be so, or not be going to be so." Instead, it would be perfectly consistent to say that x will happen but might not, or x might happen but won't. Future events on this view remain contingent in spite of the truth of the assertion of their occurrence prior to their occurrence.

There is, indeed, one sense of 'possibility' which doesn't conflict with actuality. This is the sense of 'possible' which means 'I do not know' or 'for all I know' or 'I don't know, but it is consistent with everything I do know'. This is the sense of possibility as uncertainty, not of possibility as contingency. That 'x is possible' in this sense does not establish that there is a genuine possibility that x could be otherwise. If someone asks me if Kathmandu is in Nepal, and I say "it's possible" because I do not know (and I don't have any beliefs suggesting otherwise), then if I am wrong there is nothing anyone can do about the location of Kathmandu. Appealing to this sense of possibility fits in with the picture of the future as somehow already there, but merely unknown. Precisely for this reason, it fails to establish the contingency of future events.

The ordinary meaning of possibility as contingency conflicts with actuality. The claim that something will happen conflicts with the claim

10 R. Taylor, 'Fatalism', in *The Philosophy of Time*, ed. R. Gale (London: MacMillan, 1968). pp. 221-231.
11 J.L. Ackrill, *Aristotle's "Categories" and "De Interpretatione,"* op. cit., 133.

that it might (or might not) happen, and one can easily conceive of an argument based on the distinction.[12] Consider the following claims:

Blue Ribbon will win in the third race.
Blue Ribbon might win in the third race.

The latter claim denies the first because it suggests that Blue Ribbon might not win and the two predictions have different consequences for action. Only a gambler with a metaphysical system would say "Blue Ribbon might not win, but he will" or "Blue Ribbon might win but won't." As a gambler, one is not interested in horses which might win but won't; in taking action, one is not interested in possibilities which might happen but won't. The sort of possibility which is compatible with actuality is not connected with action. Genuine possibilities are possibilities which might happen in the ordinary sense of 'might' which conflicts with the claim that they won't.

12 Rogers Albritton considers this argument in a very interesting reply to Taylor's paper on the sea-battle, and states it in a compelling manner. But he backs off from the argument for reasons that are obscure. On the one hand, saying that "x will happen and x may not happen" seems to be an "obvious contradiction" but on the other, "In the technical sense which the argument requires, however, these opaque combinations of words do not express 'contradictions'." 'Present Truth and Future Contingency,' Philosophical Review 66 (1957): 29-47, 46. What is this technical sense of contradiction? Could it depend on a two value logic, in which a denial that something will happen means that it won't, which of course is distinct from saying that it might or might not? If so, then Albritton's reply would beg the question.

Albritton's general line on Taylor's paper is an attempt to show that Taylor's position is meaningless except to the extent that it depends on a spatial conception of time. This analysis is quite interesting and in fact one that I would accept. (Continentalists will recognise a resonance with Bergson here.) But Albritton fails to take into account the fact that the sea-battle argument is a reductio. One who wishes to reduce an argument to absurdity is unlikely to care whether the view opposed is false or meaningless. Albritton fails to show that the spatial picture of time which he finds in Taylor's argument is not contained in the view that Taylor is opposing. I think it is.

Finally, Albritton's appeal to ordinary language fails to the extent that ordinary language fails to distinguish between the epistemological and ontological senses of 'possible'.

Or consider the following example adapted from the opening of Virginia Woolf's *To the Lighthouse*. A child asks, "Shall we go to the lighthouse tomorrow?" The mother says, "We might go to the lighthouse tomorrow." The father says, "We shall not go to the lighthouse tomorrow." The child then says, "We will go to the lighthouse tomorrow." Each of these is a distinct view incompatible with the other two. The father's claim is not merely in conflict with the child's, but also with the mother's. Again, the claim that something might happen conflicts with the claim that it won't.

In the next section, I will be responding to five arguments which have been offered to respond to logical determinism. Each purports to show that the simple future tense is not inconsistent with the claim that the future event described is contingent: future factuality is compatible with future possibility. Three offer definitions of contingency. The fourth draws a distinction. The fifth proposes a counter-analogy.[13] The failure of these five responses establishes that the truth-value of future sentences (the actuality of future events) does indeed imply fatalism, a false consequence. Thus Aristotle's sea-battle argument shows the asymmetry between past and future.

13 There are two arguments which I will not deal with here. (1) One is that the sea-battle argument is based on, as Susan Haack puts it, "a straightforward modal mistake". (*Deviant Logic* (Cambridge: Cambridge University Press, 1974, p. 78) This view depends on reconstructing the argument—and finding the error in one's own reconstruction. (I mention this view because I find it to be the prevalent view among analytic philosophers *who do not specialise in the philosophy of time*. We do so much want the advances in formal logic to be of some value.) I take such reconstructions to be faulty, but leave the demonstration for another paper since establishing that a reconstruction is faulty is a different sort of enterprise than replying to an argument. Here I will only note that it is always possible to reconstruct a reductio as a fallacy. No such reconstruction will be persuasive which fails to deal with the modal issues above.

II. Replies to the Responses

(1) Contingency means "not logically necessary"

Leibniz claimed that future events are contingent because the statements describing them are not logically necessary, that is, their denial is not self-contradictory.[14] This sense of possibility fails to make an event's occurrence a genuine possibility because it holds as well for all past events; but their non-occurrence is not now a genuine possibility. It is unclear why we should reduce our sense of contingency as genuine possibility to mere logical possibility, aside from the urge to read all of our metaphysics out of logic.

The contemporary version of this view holds a statement to be contingent if it is consistent with some specified set of sentences (which describe actuality) – possible world semantics. A complete consideration of this approach is beyond the scope of this paper, but its problems are easily seen. If these worlds are real, as Lewis believes, then to say that an action is a genuine possibility for me is to mean that someone very much like me (my 'counterpart') on another world actually does this action. This seems wildly implausible.[15] Furthermore, the entire notion of contingency disappears, since all 'possibilities' turn out to be actualities in actual but alternative worlds.

If 'possible worlds' are simply sets of specified descriptive sentences, then contingency turns out to be equivalent to the epistemological sense of 'possibility' discussed earlier, and is inadequate for the same reason.

(2) Contingency means "counterfactuals (or conditionals) which involve the non-occurrence of the event are true."

14 G.W. Leibniz, 'Discourse on Metaphysics,' in *Discourse on Metaphysics/Correspondence with Arnauld/Monadology*, trans. P. Janet (La Salle: Open Court, 1902), p. 20-23.

15 I am referring to the semantic implausibility; this is in addition to, although probably related to, the empirical implausibility of a realistic belief in 'possible' worlds.

On this view, an event is contingent because counterfactuals which involve its non-occurrence are true. But supporting counterfactuals no more makes an event's non-occurrence a genuine possibility than does consistency. True counterfactuals involving the non-occurrence of an event (if you don't y then x won't happen) only make the occurrence of x a genuine possibility if doing y is a genuine possibility. Reliance on counterfactuals involving the nonoccurrence of y, when y occurs prior to x, only leads to an indefinite regress; it does not establish that any particular event is a genuine possibility.

The ingenuity of Richard Taylor's argument in 'Fatalism' is that he shows that claims about the non-occurrence of past events can support true counterfactuals even when y occurs later than x. For example, "if I don't read about the Bears' loss in this morning's paper, then they didn't lose yesterday." But their victory yesterday is not today a genuine possibility.[16] Taylor gives an example of a true conditional where the consequent is not a genuine possibility, so supporting such conditionals is not sufficient to make the consequent a genuine possibility.

(3) Contingency means "not compelled or causally determined."

This view isn't so much an alternative view of contingency as a claim that proponents of the validity of the fatalist inference is based on a confusion. This argument, mentioned by Leibniz and pushed by David Pears[17], does grant that there is some sense of necessity to the occurrence

16 Taylor, 'Fatalism', op. cit. Formal models don't help to save this view. Robert McArthur has argued that when modelling modal tense logic (aka 'possible world semantics'), one cannot differentiate between the factual future tense (Fp) and the modal future tenses (Fp or vFp). McArthur shows that if Fp is true now, then it collapses into Fp. vFp merely states a logical possibility "with no ontological claims whatever." Robert P. McArthur,'Factuality and Modality in the Future Tense,' *Nous* 8 (1974): 285.

17 Leibniz, "Discourse on Metaphysics," 49; D. Pears, 'Time, Truth and Inference,' in *Essays in Conceptual Analysis*, ed A. Flew (London: MacMillan, 1956), pp.228-252. Although he doesn't grant any sense of necessity to the occurrence of future events, Paul Horwich also charges the proponent of the sea-battle argument with confusing physical cause and descriptive reference. P. Horwich, *Asymmetries in Time* (London: MIT Press, 1987).

of future events (call it ontological or preordained necessity) but that the fatalist confuses this kind of necessity with causal necessity, and it is only physical compulsion which removes events from our control. But this response is mistaken on both counts. First, logical determinism takes no stand on the question of causal determinism. Causal determinisms, whether physical, biological, chemical, psychological, sociological, or economic, are entirely separate problems from logical determinism; they need to be dealt with on their own terms.[18] Second, it is not only physical compulsion, but also the passage of time, which places events beyond our control.[19] Past events are beyond our control whether or not they were causally determined by the events which preceded them.

The logical determinist doesn't believe that the future-tense proposition's being true at an earlier time *makes* the event occur or *causes* the event to occur. (No more than anyone believes that the truth of a past-tense statement made the event referred to happen.) Nor does the fatalist believe that the proposition's being true at an earlier time refers to events in the past which make the event occur or causes it to occur. The truth of future conditionals simply shows that the alternatives are not genuine possibilities, as it treats the future as actual, that is, as capable of being described.

(4) Drawing a distinction: 'Hard' vs. 'Soft' Facts

This view, following Ockham's treatment of the problem of divine foreknowledge, doesn't try to explain the concept of contingency. Rather it

18 On this point I differ from Richard Taylor, who claims that Aristotle's argument depends on a denial of universal causal determinism. 'The Problem of Future Contingencies,' *Philosophical Review* 66 (1957): 66. Instead the asymmetry between past and future supported by Aristotle's argument affects our conception of causal laws in such a way as to undermine the doctrine of universal causal necessity to the extent that the doctrine follows from the concept of causation alone. However, the point made above concerning specific causal determinisms still hold. Such determinisms might conceivably challenge our concept of deliberation or action in a way that makes it rational to believe that, even though statements about the future have no present truth value, such events are not within one's control.

19 In the Metaphysics, Aristotle explicitly distinguishes these senses of necessity. Metaphysics V.v and VI.ii.vi.

tries to block the inference to logical determinism by drawing a distinction between so-called 'hard' and 'soft' facts. Facts such as (S1) "In 1908 it was true that Obama would be elected in 2008" are said to differ from facts such as (S2) "In 1908 Lincoln was many years in the grave". The latter is a 'hard fact' (relative to 1908) – and hard facts are characterised in two ways: as facts which are "really" about the past, and as facts which it is not within anyone's power to change (or to change the truth-value). 'Soft facts' then are facts which are not really about the past, and they are within someone's power to change.

Responses to this distinction have focused on showing that the definitions proposed are inadequate because they lead to counterintuitive results, such as the fact of God's existence turns out to be a soft fact.[20] Here I want to give two different sorts of response. The question that needs to be posed is: Why is this distinction not *ad hoc*? If the distinction is introduced simply to save the present truth-value of future contingents, then it would indeed be *ad hoc*. However, the distinction is thought to have intuitive plausibility because of certain kinds of sentences which are ostensibly about the past, but in fact are not. Sentences like (S3) "Lincoln died more than a century before Obama was elected", if stated in 1908, looks like a statement about the past, according to proponents of this distinction, but in fact is not because it is partly about the future. As a 'soft fact', it is one which someone (or many someones) could have done something to change. Hence, the truth of future statements is compatible with agents having the power to change those events, even after the events referred to.

The analogy between these two types of sentences ((S1) and (S3)) is not a very good one. Sentences like (S3) are partly about the past and partly about the future, although it might be better to say that they are about the (temporal) relation between past and future events or states of affairs, and of course this is something that can be altered in the present.

20 Counterintuitive—and embarrassing—for proponents of this distinction, since it is introduced only to try to save belief in the existence of God from the problem of divine foreknowledge, an argument related to Aristotle's sea-battle argument. See M. Adams, 'Is the Existence of God a 'Hard' Fact?' in *God, Foreknowledge, and Freedom*, ed. J. Fischer (Stanford University Press, 1989), pp. 74-85, as well as the other papers in this collection.

So one must say that 'soft facts' like (S1) are about (or express) a relation between past events (or states-of-affairs) and future events. So it turns out that "Obama will be elected in 2008" expresses a relation between 2008 and another (earlier) time, but "Obama was elected in 2008" expresses no such relation to another time, but is simply about 2008. So the effort to avoid one kind of asymmetry, that of past and future, requires that one accept another asymmetry, between the way factual descriptive statements refer to time. And this latter asymmetry is one which strikes me as having no intuitive plausibility.[21]

(5) Counter-analogy: Past events are unproblematically considered to be factual as well as contingent.

Those responding to the logical determinist reply that we accept that contingency and actuality are compatible attributions of past events. Why not of future events as well? No one denies the coherence of saying that "x did happen but it might not have." So why not accept "x will happen but it might not"?

The answer is that the parallel between past and future is only apparent. This can be most easily seen by drawing on Hans Reichenbach's analysis of the temporality of sentences. As Reichenbach pointed out, there are three temporal aspects of a sentence – the time of the utterance (S), the time of the referent (E), and the temporal point relative to which the speaker refers to the referent (R).[22,23]
A statement with the simple past tense would be symbolised (E—S,R):

21 As we will see in the next section, it is characteristic of the subjunctive mode that it refers to a time prior to the time of the event at issue. So a different way of putting the above objection is to say that the concept of a 'soft fact' is an attempt to surreptitiously claim that advantage of the subjunctive—contingency—while maintaining the designation of factuality.
22 (R) controls what is usually referred to as the 'aspect' of a sentence.
23 I take Reichenbach's analysis from J.R. Lucas, *The Future* (London: Blackwell, 1989), pp. 18-25. I am not claiming that these are the *only* three temporal aspects of language. One may also consider the historicity of words and temporal assumptions of genres. But these are the temporal aspects relevant here. (It was Heidegger's later philosophy which focuses on the historicity of words; for an account, see my 'Language and Later Heidegger: What is Being?', *Philosophical Forum,* Winter 2009, pp. 489-499.)

<----------x----------x----------->
E (S,R)

Pursuing the counter-analogy, the statements in question are:

X did happen but it might not have.
X will happen but it might not.

Each is a conjunction; the first conjoins a statement with the simple past tense with one in the past subjunctive (or past contingent), the second conjoins a simple future tense with the future subjunctive (future contingent). The first conjuncts of each statement are perfectly symmetrical with each other. The simple future refers to a future event relative to the moment of utterance, just as a simple past refers to a past event relative to the moment of utterance.

But the parallel breaks down with the second conjunct. The future subjunctive/conditional refers to the future event relative to the moment of utterance, just as the simple future does. However, the past subjunctive/conditional refers to the event relative to a moment at some time prior to the event. The future subjunctive is symbolised as (S,R—E),[24]

<----------x----------x----------->
S,R E

whereas the past subjunctive is symbolised as (R,E,S):

<----------x-----x----------x----------->
R E S

To say "x might not have happened" is to say that at some time prior to x (usually just prior), it was possible that x would not happen.[25]

24 Note the symbolism is unable to capture modal distinctions, such as the difference between the simple future (future actual) and future subjunctive (future contingent).
25 Cf. Mondadori and Morton, 'Modal Realism: the Poisoned Pawn' in *The Possible and The Actual*, ed. M. Loux (Ithaca: Cornell University Press, 1979), p. 243 n.16: "Tenses like 'might have' are a sort of future in the past, just as the future perfect tense is a past in the future." This is also the basic idea underlying V.H. Dudman, 'On

III. Conclusion

As a *reductio ad absurdum*, Aristotle's argument establishes that formal logic cannot apply symmetrically to statements about the past and statements about the future. I think it is important to see that the argument has this general conclusion, even if Aristotle himself qualified this conclusion by stating that it only applies to some statements. Aristotle grants truth-value for statements about future events which will come about according to natural necessity. It is worth pointing out that this latter point doesn't follow from the sea-battle argument itself; as noted earlier, the argument does not appeal to or concern matters of causal necessity. Claims to reduce contingency in cases of causal necessity will face serious problems arising from Hume's problem of induction. I believe that Hume's arguments could be used to show that contingency cannot be reduced in the face of timeless laws of nature, just as Aristotle's argument shows that contingency cannot be reduced in favor of timeless laws of logic, although that would require another paper.

Beyond the irreducibility of contingency, Aristotle's argument points the way to a consideration not merely of contingency, but of time itself. It is the asymmetry between past and future which poses a threat to the reality (or primacy) of the timeless, whether timelessness is to be found in the laws of logic, laws of nature, or a transcendental being (ego or God). The asymmetry of past and future may be taken as an intrinsic characteristic of time. In doing so, we can draw two conclusions which may serve as directions for future research. First, one traditional way of conceiving the difference between time and timelessness—in which time is pictured as a river as opposed to a static timelessness—is inadequate. No spatial image of time can be accurate, because spatiality erases the asymmetry between past and future. Second, we need to see that, even though it is presented in *De Interpretione*, Aristotle's 'Sea-Battle' argument is every bit as much a discussion about time as the so-called 'Treatise on Time' in Aristotle's *Physics*. In determining Aristotle's views on time, one needs to try to determine how these two 'Treatises on Time' fit together—or fail to. So far as I know, no one has yet done so. If

Conditionals,' *Journal of Philosophy* 91 (1994): pp. 113-128.

analytic philosophers have ignored the Sea-Battle argument by considering it to be a trivial modal mistake, Continentalists have ignored it by—ignoring it.[26]

26 The most prominent example would be Derrida's '*Ousia* and *Gramme*: Note on a Note from Being and Time,' in *Margins of Philosophy* (Chicago: University of Chicago Press, 1982), pp. 29-67. Derrida's article is a tour de force, reading Heidegger reading Hegel reading Aristotle. But 'reading Aristotle' on time here means reading the Physics, not the Sea-Battle argument. I know these brief remarks will not persuade followers of Derrida, who can plausibly claim that time motivates every aspect of his project. I am currently working on a comprehensive study of Derrida's treatment of time in in order to follow up these remarks.

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From a 'History of Being' to a 'History of the Present': Radical Possibility in Heidegger and Foucault

J. D. SINGER

I. Introduction

Whether pre-reflective or thematic, whether mute or uttered, the awareness I have of 'my' existence is borne by a certain antecedent setting and unfolding of existence – a certain pro-duction and con-duction of possibilities, a certain given-giving field of possibilities, a certain situation or open region, a certain narrative of becoming – that is older than 'myself' and that possesses me more than I possess it, that enables me *to be* and that therefore has a claim on me, a claim on my being and on the world (or on the 'present') that I inhabit, a claim on the 'time and place', on the 'here' (or 'there') and 'now' in which – or *that* – I am, a claim on nothing less than my being-in-the-world. We are given to think a "perpetual pregnancy and parturition"[1] of possibilities, a primitive (though not 'simple' or unitary) onto-genetic opening *of* the world – and an opening of ourselves *upon* the world - that will always outstrip our thinking.

In this paper I hope to show that such a thinking of possibility – that such a thinking of *radical* possibility or that a *radicalisation* of possibility, that a thinking of the possibility (or of the 'possibilisation') of all past, present, and future possibilities – is central to Heidegger's and Foucault's thought. This radicalisation of possibility – this thinking of the hitherto unthought and perhaps, in a sense, 'unthinkable' coming-into-being and unfolding of ourselves and of our present field of possibilities – is the endless task of both fundamental ontology and genealogy; it is precisely

1 M. Merleau-Ponty, *The Visible and the Invisible*, trans. A. Lingis, (Evanston, Ill: Northwestern University Press, 1968), p. 115.

what is at stake in Heidegger's 'history of Being' and in Foucault's 'history of the present'; indeed, it is the kindred *ethos* of both philosophical projects.

It is this originary unconcealment or pro-duction of possibilities that both Heidegger and Foucault work to 'unconceal'; they both undertake to bring us to an encounter with that radical (which is to say *originary*) anteriority – that originarity which is not a simple, prelapsarian origin – that is not merely 'behind' us but that is the very *element* in which we always already find ourselves. It is that pre(con)figuration of possibilities that can never, indeed, be directly or exhaustively known, for it is that which enables any thought, response, or act of reflection to happen in the first place.

In short, the ('radical') question that animates both Heidegger and Foucault, then, is this: *whence* these possibilities toward which we are always already comported? Whence this present field of possibilities in which we find ourselves? We necessarily find ourselves some*where* and some-*when*, but whence this 'where' and this 'when'? What enables (and at the same time forecloses) our possibilities? In Heidegger and Foucault, this question is the question of radical possibility; it is the radicalisation of the ancient and perennial question of 'origins'. Traditionally we have sought answers to this question in simple origins or thaumaturgical 'first causes', in discrete and unmoved *archai*, in pure identities or essences, in an *ens realissimum* or thing-in-itself, in ultimate grounds or in a predestined *telos*, but for Heidegger and Foucault such answers – such 'metaphysical' (or 'onto-theological') answers and constructions – are no longer viable. In brief, such notions only push the question at stake farther back: they reduce Being and origination to some kind of unitary being or origin, but this only bypasses the question of the Being of beings, the question of the originarity of every putative 'origin' and of the 'possibility' of any already present space of possibilities. For Heidegger and Foucault, then, we must confront and think the abyss (*Abgrund*) that yawns beneath every ground, the an-archic becoming of all *archai*, the clearing or prefiguration, the 'im-possible' (or 'hyper'-possible) becoming of our possibilities.

As I mentioned above, Heidegger and Foucault radicalise the question of possibility. More specifically, this means that Heidegger and Foucault radicalise (or 'ontologise') the question of our *facticity*, the question of our *having-been* and of our *being-there*. To radicalise the question of possibility is, again, to think the 'possibilisation' (or becoming-possible) of our possibilities, and to radicalise the question of facticity is, similarly, to think the 'fact-ification' (or becoming-factical) of our facticity. For Heidegger, this radicalisation of possibility entails a thinking of Being as the "quiet force of the possible", as that possibility (or 'possibilising' movement) that subtends and inaugurates the very distinction between the possible and the actual, as that presencing that is at the same time absencing, as that advental/evental giving – as that giving (or gifting) of the given - that is at the same time 'appropriation', as the originary possibility of the 'there-is', which is to say as the 'there-ing' that enables anything *to be*. And for Foucault, to radicalise the question of possibility is to think Being as 'Power', or to think 'Being' as the complex unfolding and interplay of power relations, as the pro-duction of possibilities and as the con-duction of conducts. Foucault, of course, does not articulate genealogy as a thinking of 'Being', but he does sometimes articulate it as an 'ontology of ourselves' or as a 'history of the present', and I hope to show that such an ontology is already fundamental ontology, that such a 'history' is already what Heidegger calls a 'History of Being'; conversely, Heidegger's thinking of Being as *Ereignis* ('event of appropriation') at least strongly anticipates Foucault's thinking of Being as 'Power'. Terminological considerations aside, I think that Heidegger and Foucault both think Being as radical possibility and that, moreover, they both think radical possibility (or radical facticity) as 'throwness'; they both think Being as the (pre-subjective and pre-objective) 'throw-ing' (generative emergence or dissension) of possibilities and as the throw-ing of our-selves into our thrown possibilities. We are, again, not merely beings that 'have' possibilities; we are those beings whose being *is* openness to possibilities, but we do not enable our own possibilities. We do not make our own possibilities possible, and this is precisely why we are always in some way 'appropriated' and dispossessed by Being; and this is also precisely why – for Heidegger and for Foucault – we need to radicalise our thinking of possibility, for we are called to think a kind of possibility which is not merely one possibility among others, a possibility

for which we are not responsible but which nevertheless calls for our response. I will now proceed to elaborate this thinking of radical possibility - this thinking of Being as throwness, this thinking of Being as the pre(con)figuration or originary possibility of the very field of possibilities into which we are thrown – that we find in Heidegger and Foucault.

II. Being as Radical Possibility in Heidegger

For Heidegger, we *are* only insofar as we are in a world, only insofar as there is a world (or a *there*) – an antecedent *clearing* or 'open region' – that enables us to be, that enables our attentive comportment toward beings and possibilities. That we find ourselves '*there*' – *there* in the world, *there* amidst others, *there* caught up in the skein of things and concrete, everyday tasks, *there* borne and constrained by an ensemble of factical conditions – means that 'there' must have been – that there will have always already been – an originary 'there-ing' of this 'there', an anterior clearing of the 'there' in the nearness (or in the element) of which we dwell, a coming-into-being of the *there* into which we are thrown. For Heidegger, this is the 'ek-stasis' of Being: a pro-jection older than every project, a throwness older than every thrown situation, a 'clearing' prior to all spatiotemporal conditions; it is a possibility older than every possibility, for it is the very possibility (or 'possibilisation') of the 'possible', the *Ur*-possibility that first makes possible the distinction between essence (*essentia*, or *potentia*) and existence (*existentia*, or *actus*), between the possible and the actual. Thus, Being is the *radix* of our possibilities, the natal bloom of every bud, the 'enabling-favouring' power that grants 'essence' and 'existence':

> To embrace a 'thing' or a 'person' in their essence means to love them, to favour them. Thought in a more original way, such favoring means the bestowal of their essence as a gift. Such favouring is the proper essence of enabling[...]. It is on the strength of such enabling by favoring that something is properly able to be. This enabling is what is properly "possible", whose essence resides in favoring[...]. Being is

> the enabling-favoring, the "may be". As the element, Being is the "quiet power" of the enabling-favoring, that is, of the possible.[2]

Here, we clearly see that Heidegger thinks Being as radical possibility, as that which precedes and institutes the very distinction between essence (possibility) and existence (actuality); and for Heidegger, only this understanding of Being overcomes 'metaphysics', for metaphysics essentially takes the distinction between essence and existence to be ontologically primary. This distinction between essence and existence – and moreover the priority accorded to essence over existence – structures the very logic of metaphysics as well as, and for that very reason, the logic of our classical 'logic':

> [O]ur words *möglich* [possible] and *Möglichkeit* [possibility], under the dominance of "logic" and "metaphysics", are thought solely in contrast to "actuality"; that is, they are thought on the basis of a definite – the metaphysical – interpretation of being as *actus* and *potentia*, a distinction identified with that between *existentia* and *essentia*. When I speak of the "quiet power of the possible" I do not mean the *possible* of a merely represented *possibiltas*, nor *potentia* as the *essentia* of an *actus* of *existentia*; rather, I mean Being itself[...].[3]

Thus, for Heidegger the Being of beings is neither 'essence' nor presence but rather that which *bestows* essence and presence. If we must say that Being (*qua* originary possibility) is a kind of essence, then we must (as Heidegger suggests in other places) refer to it as a 'verbal' essence (*Wesen*), as the coming-into-presence of every essence, as an 'essencing' that antecedes and enables the traditional distinction between essence and existence.

2 M. Heidegger, 'Letter on Humanism', in *Basic Writings*, trans. and ed. D.F. Krell, (London: Routledge, 1993), p. 220.
3 Ibid., p. 220.

Here we see the crux of Heidegger's critique of Sartre. We well know that the *Letter on Humanism* is largely a reply to the basic thesis of Sartre's *Existentialism is a Humanism*, the thesis that the 'existence' of the human being precedes its 'essence'. For Sartre, this means that the human subject does not come into the world antecedently defined (as, say, a tool comes into being according to the antecedent plan of an artisan): the human subject has no predetermined 'human nature' and must therefore ceaselessly define itself. This is not the place to expand on Sartre's argument, but Sartre claims to have reversed Platonism and thus to have overcome metaphysics, for according to Plato (and apparently according the Western philosophical tradition that follows him) essence always precedes existence. For Heidegger, however, such a 'reversal' of Platonism does not really overcome metaphysics but in fact uncritically concedes its logic and therefore re-inscribes it. "The reversal of a metaphysical statement", Heidegger tells us, "remains a metaphysical statement."[4] Thus, the answer to metaphysics – or the answer to 'Platonism' – is not simply to in-vert the relationship between essence and existence but to 'go under' or, in a sense, sub-vert it; it is to think the primordial (or 'radical') possibility of this very distinction, a possibility which is not an essence that precedes existence but an 'essencing' that precedes, enables and exceeds the traditional distinction between essence and existence.

Thus, we might want to clarify Heidegger's claim in *Being and Time* that "higher than actuality stands possibility."[5] If we read this statement according to the traditional, metaphysical definition of possibility as 'essence' and of actuality as 'existence', then here Heidegger would seem to be a Platonist, for we would have to take this statement to mean that "higher than existence stands essence". Such a reading is, of course, absurd. In *Being and Time* Heidegger certainly undertakes to radicalise possibility, and this means that, in a certain sense, possibility for Heidegger is indeed higher than actuality, but we need to clarify what Heidegger means there by 'possibility'. The *Letter on Humanism* is, I submit, just such an attempt to clarify this point; it is in this work that Heidegger more fully develops the conceptual vocabulary necessary to

4 Ibid., p. 232.
5 M. Heidegger, *Being and Time*, trans. J. Macquarie (Oxford: Blackwell, 1962), p. 63.

overcome the categories of traditional metaphysics: the language necessary to think and articulate radical possibility. If we interpret Heidegger's claim from *Being and Time* in light of the *Letter on Humanism*, then it becomes clear that the kind of possibility Heidegger always labours to think is not only higher than 'actuality' but 'higher' (or deeper) than the classical distinction between possibility and actuality: it is not a determinate 'essence', but a '*verbal*' essence; not the inner possibility of a thing, but the very possibility of all possibilities.

We see, then, that for Heidegger, Being is radical possibility; it is the very possibility (or possibilisation) of the distinction between 'possibility and actuality', a distinction that we can now no longer take to be ontologically primary; it is also an 'outside' prior to and, in a certain sense, 'outside' the 'outside', an outside that subtends and institutes the very distinction between the 'inner' and the 'outer', between interiority and exteriority; it is, finally, an absence older than every presence, which is to say an absence that is never present: it is an absence that is neither merely an absent presence nor a present absence, for it is that oblivion – that negativity which is not merely the reciprocal opposite of positivity – that makes way for anything (even ordinary absences) to emerge; it is the presencing - or the possibility of the presencing - of everything that comes to presence and it is therefore never itself present. And yet, paradoxically, it is also nearer to us – or more profoundly present to us - than any-thing, nearer to us than we are even to our-'selves': neither objectively present nor objectively absent, we might say that it is 'hyper'-present or 'im-possibly' present. This clearing or absencing is the giving of the given, but the giving of the given cannot itself be given (as one given 'thing' among others), for "the "it" that here "gives", Heidegger writes: "is being itself. The 'gives' names the essence of being that is giving, granting its truth. The self-giving into the open, along with the open region itself, is being itself."[6] Thus, Being *as such* is neither an object nor a subject, for it is that by virtue of which all objects and subjects *are*, that which enables, subtends and exceeds any relation between a subject and an object. As Heidegger puts it, "the openness of being...first clears the "between"

6 M. Heidegger, 'Letter on Humanism', in *Basic Writings*, trans. and ed. D.F. Krell, (London: Routledge, 1993), p.238.

within which a "relation" of subject to object can "be."[7] Now, if 'presence' is the presence of an object to a subject, then Being – as that which antecedes and enables all subject-object relationships – is *radically* absent (which is to say not merely a *present absence*); and yet, paradoxically, it *is* in a certain way given or dis-closed to those beings who we are, those beings who are not only *in* the world but who are comported toward their world, those beings who are comported towards their very Being (or towards their there-ness), those beings who exist towards their possibilities and who exist in the element of the possible, in the element of elemental possibility. But if presencing is always correlatively absencing, if unconcealment is always at the same time concealment, then this dis-closure of Being to those beings who we are - not only the gift of Being, but the gift of an understanding of Being – comes at a price.

If there is a 'turn' in Heidegger's thought – a turn from *Being and Time* to the *Letter on Humanism*, a transition from the program of '*Destruktion*' to that of a 'History of Being' - it is ultimately nothing else than a reckoning with this price, which is to say a clearer thematisation of the 'limits' of fundamental ontology. This reckoning of the limits of fundamental ontology, however, is not its 'critique'; it is, in fact, its very fulfilment (which is not to say its completion), for we come to see that its limits are not cognitive but rather ontological in character. In other words, if we truly understand the limits of fundamental ontology then we understand something 'essential' about the character of Being itself, and just such an understanding is at the same time the very task of fundamental ontology and its surer path forward, a surer path for the future of thinking.

The task of fundamental ontology is to articulate or unconceal the meaning of Being, to bring to expression our mute understanding of Being. Thus, Being is always already in some way and to some extent dis-closed to us (for otherwise we would not even be able to interrogate it in the first place), but it is also in some way – indeed in many ways - concealed from us (hence the need to interrogate it, or the call to think it). In Heidegger's early work, this means that fundamental ontology must

7 Ibid. p. 252.

seek to overcome these concealments: if we are to un-cover the meaning of Being, we must un-cover the deep and persistent ways in which the meaning of Being has been covered over or distorted. Now, traditional metaphysics (that is to say, subject-object thinking, or any interpretation of Being in terms of beings and their qualities) is what has primarily kept Being in obscurity; it has primarily kept what is nearest to us farthest from us: it has imprisoned Being in the deepest (hence darkest) oubliette of implicit 'knowledge'. This is precisely why fundamental ontology must undertake a 'destruction' (or de-structuring) of the history of metaphysics. In order to unconceal the meaning Being – or in order to bring the meaning of Being to explicit knowledge – we must liberate it from its metaphysical concealments, which is to say we must liberate it from those concealments that we ourselves have imposed on it. We must expose, de-sediment and 'go under' the metaphysical categories and oppositions that have veiled and distorted the meaning of Being.

However, what exactly do we expect to excavate once we have de-sedimented the history of metaphysics, once we have unsettled and 'gone-under' subject-object thinking? What, exactly, do we expect to find once we have broken open that 'columbarium of concepts'[8] in which Being has been interred? We cannot presume that Being will lay down its concealments, unmask itself, and array itself before us in full transparency if only we disabuse ourselves of certain metaphysical errors, for (as Heidegger comes to realise) these errors are not merely 'errors': they are specific ways in which Being conceals *itself*, and Being always in some way conceals itself:

> ...Metaphysics recognizes the clearing of being either solely as the view of what is present in "outward appearance" or critically as what is seen in the perspect of categorial representation on the part of subjectivity. This means that the truth of being as the clearing itself remains concealed for metaphysics. However, *this concealment* is *not a defect of metaphysics* but a treasure withheld from it yet held before it...[9]

8 See Nietzsche's 'On Truth and Lying in a Non-Moral Sense'

Thus, the history of metaphysics is not primarily the history of false ideas but a history of Being itself, a history of the ways in which Being has simultaneously revealed and concealed itself in and through metaphysical thinking. We cannot hope that someday we might draw Being forth into a pure and radiant light of revelation, for Being – as that which draws anything (even itself) into light – is that which is always at the hither side of the light, that which always recedes behind those things it draws forth into the light presence. We cannot expect to attain an awareness of Being without remainder, for Being *is* this remainder: as the *element* of the possible – as the pre(con)figuration of every possibility, as the originarity of every origin, as the giving of every given, as the 'outside' of every relation between the inner and the outer, as the clearing or absencing that enfolds and aliments us – it is that which subtends and hence exceeds anything that comes to presence, that which withdraws itself behind everything that it gives to thought (even if it gives itself to thought). This does not mean that we cannot cultivate a new, more rigorous (or 'post-metaphysical') thinking of Being, for this is precisely what Heidegger calls us to do; but it does mean that thought will never fully be able to think (or reveal) Being, for Being is always 'behind' every thought, and this means that thought can never 'get behind' Being in order to know it. As the elemental possibility of thought, Being is the *punctum caecum* of the 'mind's eye'.

We now see why Heidegger's early project of '*Destruktion*' is inadequate to the task of fundamental ontology. We may to a certain extent overcome metaphysics, but this does not mean that we can ever overcome the concealment(s) of Being, that we can ever, as it were, recover a supposedly lost coincidence with Being; indeed, we cannot do so *in principle*, for coincidence with Being is in fact non-being: a being that would totally coincide with Being would be undifferentiated from Being, but *a* being *is* only insofar as it is differentiated from Being, or only insofar as Being differentiates itself from *it*. Thus, we cannot totally unconceal Being, and we cannot do so *not* because Being in its totality is epistemically inaccessible to us but rather because Being *as such* is *self-concealing* (which is also to say self-differentiating). At the end of his

9 M. Heidegger, 'Letter on Humanism', in *Basic Writings*, trans. and ed. D.F. Krell, (London: Routledge, 1993), p.235.

essay *On the Essence and Concept of Phusis*, Heidegger briefly discusses Heraclitus' claim that 'Being loves to hide itself':

> What does this mean? It has been suggested, and still is suggested, that this fragment means that being is difficult to get at and requires great efforts to be brought out of its hiding place and, as it were, purged of its self-hiding. But what is needed is precisely the opposite. Self-hiding belongs to the predilection of Being; i.e., it belongs to that wherein Being has secured its essence. And the essence of being is to unconceal itself, to emerge, to come out into the unhidden. Only what in its very essence *un*conceals and must unconceal itself, can love to conceal itself. Only what is unconcealing can be concealing.[10]

Thus, Heidegger comes to insist that all concealments of Being – even and especially its metaphysical concealments – are not intrinsic to human subjectivity but are intrinsic to Being itself; they indicate not the finitude of our access to Being but rather something integral to Being itself. Yes, Being dis-closes beings, and it dis-closes itself to us in and through beings; but Being dis-closes itself only at the same time that it withdraws itself. Being withholds and dis-places itself, dissembles and refracts itself.

Being, then, is analogous to the *Gestalt* (foreground/background) configuration of the experiential field: a thing can only be perceived if it stands out against a background that gives way to it, and perception itself is ultimately only possible on the basis of a background that cannot itself be directly perceived, a background that must efface itself in order for anything to come to presence in experience. This differentiation (*not* opposition) between foreground and background is the generative spacing/temporalising – or, yes, differing/deferring – dynamic ceaselessly at work in living experience: it is always *there*, nearer to us than any object of perception and for that very reason farthest from us or, as it

10 M. Heidegger, 'On the Essence and Concept of Phusis in Aristotle's Physics, BI', translated by Thomas Sheehan in *Pathmarks* ed. William McNeill (Cambridge: Cambridge University Press, 1998), pp. 229-230.

were, concealed from us; and yet we *can* think it, we can attend to it, we can gesture to it, we can show it and, in a certain sense, we can (and do) 'see' it. The same is true of Being *as such*; indeed, we might say that the 'ontological difference' (the difference between Being and beings) is the primordial *Gestalt*. Being reveals beings only insofar as it conceals itself; it is, again, that absencing that enables – or that simply *is* – presencing. Thus, just as it would be a mistake to consider the recession of the background behind every foreground as some sort of 'perceptual error' to be dispelled (since it is in fact essential to perception itself), so too is it a mistake to consider the various concealments of Being (metaphysical or otherwise) as errors *derived* from human subjectivity (since these concealments are essential to Being itself). If Being enables beings to be – that is, if Being is always the Being *of* beings – then it must conceal itself. Moreover, we see that this self-concealment of Being is also its self-differentiation, and (as I suggested above) to think Being as intrinsically self-concealing is already to think the ontological difference. That is, the ontological difference is not a 'static' difference (or a mere 'contrast' between objective complementarities): it is irreducible, generative differentiation (or differenc*ing*). Being can 'let beings be' only insofar as it differentiates itself from them, and this is precisely why Being *as such* cannot be thought as an 'ultimate ground': every ground must be differentiated from (or must differentiate itself from) that which it grounds. There must be an irreducible heterogeneity – an irreducible spacing or separation (*écart*) - between ground and grounded, and this means that the 'possibility' of every ground – that the possibility of every supposed ground of beings and possibilities – is not itself a 'ground' but is rather this very heterogeneity between ground and grounded itself: not a ground but an *Abgrund*, not a ground but that which differentiates every ground from every ground*ed*, not 'a being' but the difference or differentiation between Being and beings, the very difference or differentiation that is, in fact, Be-ing 'Itself'. There is 'something rather than nothing' only because Being '*others*' *itself* in and through beings. Thus, the coming-into-being of beings is the self-othering movement of Being itself, and this self-othering movement of Being is the 'Truth' of its self-concealment: Being conceals itself because it others itself, because any-thing that 'is' must be other than 'It'. The self-absencing (or self-othering) of Being – which is to say, the ontological difference, or the

dehiscence of Being into beings - is the abyssal possibility of presence; the self-concealment of Being is the radical, onto-genetic possibility of all beings and possibilities.

It is a truism that all light has its source in obscurity, but it is one that is seldom taken as seriously as it demands to be, one whose consequences are seldom thought. This is what is at stake in Heidegger's transition from '*Destruktion*' to a 'History of Being', for the latter project no longer attends to the metaphysical concealments of Being as impositions of human reason but as modes or expressions of Being itself, as specific ways that Being has concealed itself:

> This 'there is/it gives' rules as the destiny of Being. Its history comes to language in the words of essential thinkers. Therefore the thinking that thinks into the truth of being is, as thinking, historical. [...] Thought in a more original way, there is the history of Being to which thinking belongs as recollection of this history, propriated by it. [...] Being comes to its destiny in that It, Being, gives itself. But thought in terms of such destiny this says: It gives itself and refuses itself simultaneously.[11]

We see, then, that Heidegger's 'History of Being' decentres human subjectivity: it decentres human subjectivity in order to clear the path upon which fundamental ontology may properly pursue its task. We now see that the history of metaphysics is not a history of the various ways in which *Dasein* has concealed Being: it is a history of the various ways in which Being has *concealed itself in and through Dasein*, the ways in which it has disseminated and dissembled itself in and through the "language and words of essential thinkers." Thus, if the task of fundamental ontology is to articulate the meaning of Being, then it must articulate the meaning of Being *as* concealment, for concealment is 'essential' to the Truth of Being (and to the Being of Truth). This is precisely what it means to undertake a 'History of Being': to think Being as that 'quiet' concealing-revealing 'force' at work in the world, and to think the history of metaphysics as a part of that work.

11 Ibid., p. 255.

In short, Being *is* dis-closure, but dis-closure entails concealment. Being dis-closes beings – and dis-closes itself to Dasein in and through beings – only to the extent that it also conceals itself, for as the element of unconcealment it is always in some manner concealed 'behind' what emerges into unconcealment; as the Ur-'condition' of dis-closure, it retreats behind what comes to be dis-closed; it is that radical, abyssal absence that yawns behind anything that comes forth into presence. In other words, concealment and unconcealment are the two moments of the movement or event we call 'Being', and this means that we can never divest Being of its concealments: if Being is the presencing of beings, then it is also at the same time the absencing of itself. We are always already comported towards Being, but Being – as that which enables us to be – is always at hither side of our comportment toward it. Insofar as we *are*, we can never 'get behind' or outstrip our Being in order to take hold of it, for it is always there at the hither side of our grasp, always 'there' as that from which we surge toward it. This does not mean that fundamental ontology is impossible because we are finite; it means that we must think Being as self-concealing, that we must think the concealments of Being as, indeed, concealments *of* Being, as concealments spun not from a web of conceptual abstractions or reifications but from the very movement, from the enabling-favouring, clearing-revealing gesture of Being itself. If we are to think Being, we must attend to its concealments not as errors to be dispelled but (perhaps paradoxically) as expressions of its Truth, as ways it destines itself to thought.

Thus, we come to see that the task of fundamental ontology is not an impossible one, but an infinite one. Being *can* be thought; indeed, it calls to be thought, but it calls for a new kind of thinking, a new ethos for thinking. Being is that to which we owe our being, that to which we ourselves are owed. This is why we cannot totally 'com-prehend' or 'appropriate' Being, for Being is what appropriates *us*, and Being *as such* is the 'appropriation' of whatever comes to be. Thus, insofar as we *are*, Being is what has a claim on us. Being calls us to think it, and yet thinking can never recuperate or coincide with it. For Heidegger, then, a thinking of Being is only possible if we become more responsive to the claim that Being always already has on us.

II. Power as Radical Possibility in Foucault

Heidegger, then, shows us that we *are* only insofar as we find ourselves thrown into a world, only insofar as we owe ourselves to a certain milieu that sustains all of our concerns, commitments and accomplishments: an anterior facticity that can never be wholly unveiled, recuperated or outstripped, a dawn of possibilities at the hither side of light and shadow, an originary clearing (but not a unitary origin) that gives the world its depth, a depth without which nothing would present any meaning or 'truth' to us, without which nothing would be *possible* for us and without which, therefore, we would not *find ourselves* in the world (or anywhere) at all. And for Foucault, that we *do* find ourselves always already involved in a world and with others means that we find ourselves implicated in a certain history or narrative of 'descent' – which is to say, a certain contingent, discontinuous and overdetermined development (or 'event-ualisation') of attitudes, imperatives, knowledges and practices - that makes our present involvement – that makes the present that presents itself to us and the present - the very '*there* and now' that we in fact *are* – possible. It is precisely this immanent unfolding, this restless contest of ethical and political, personal and interpersonal, discursive and epistemic possibilities and pressures – it is precisely this 'quiet force of the possible' which, following Foucault, we might rearticulate as a 'quiet' (which is not to say 'calm') ensemble and interplay of 'forces' – that enables but also limits what and how we think and see, act and desire, dwell and relate; it subtends, envelops and inscribes (but never *totalises*, never *determines* without remainder) the open region in which we find ourselves and the truths, identities and relationships we forge there.

Foucault labours to radicalise the question of our facticity, to reveal and to think what is concealed and un-thought in the most mundane (and hence most easily overlooked) dimensions and details of our being-in-the-world, to bring to expression that 'quiet' welter (or 'agon') of contingencies and intensities, of pressures and counter-pressures, of disciplinary techniques and modes and sites of resistance, of heterogeneous causalities or 'conditionalities', of past and present transformations implicated in our everyday existence. Foucault aims to understand the present that articulates 'who' and where 'we' are.

For Foucault, the task of the genealogist is to 'invent' (or 'fiction') a cogent narrative of the coming-into-being of our present possibilities; it is *not* to inventory 'facts' about the past or to 'represent' a linear and continuous course of our development, for the past has never been – and in principle never could be – fully 'present' to us such that we can ever 'objectively re-present' it, and the course of our development is not a linear, continuous progression from some singular and insular womb of 'Nature' towards the fulfilment of an essence or end endowed at the moment of conception. The task of the genealogist is to think the complex, *undecidable* emergence and unfolding of our-selves, the formative inter-actions of contingencies and impulses, of disciplines and agencies that pre(con)figure and throw us into our cares and our tasks, our 'identities' and our relationships; it is nothing else than to think the possibility (the 'clearing' or possibilisation) of our present field of possibilities, and this is also nothing else than the radicalisation of possibility, the radicalisation of the question of origination:

> Why does Nietzsche challenge the pursuit of the origin (Ursprung), at least on those occasions when he is truly a genealogist? First, because it is an attempt to capture the exact essence of things, their purest possibilities, and their carefully protected identities; because this search assumes the existence of immobile forms that precede the external world of accident and succession. This search is directed to "that which was already there", the image of a primordial truth fully adequate to its nature...However, if the genealogist refuses to extend his faith to metaphysics, if he listens to history, he finds that there is "something altogether different" behind things: not a timeless and essential secret, but the secret that they have no essence or that their essence was fabricated in a piecemeal fashion from alien forms...What is found at the historical beginning of things is not the inviolable identity of their origin; it is the dissention of other things. It is disparity.[12]

12 M. Foucault, 'Nietzsche, Genealogy, History', in *The Foucault Reader,* P. Rabinow ed., (London: Penguin, 1986), p.78-79.

Thus, Foucault's thinking of possibility begins from a thinking of 'beginnings' that is not a thinking of simple origins or messianic ends. For Foucault, in order to radicalise the question of origination we must dispense with discrete 'origins' and 'identities': we must think the 'dissension' and 'disparity' - the overdetermination, the undecidability or radical contingency – at the basis of 'who', 'where' and 'when' we are, at the bottom of how we think, feel, relate and behave. For Foucault, genealogy attends to the 'descent' (*Herkunft*) and 'emergence' (*Entstehung*) of our-selves, to the historical *be(com)ing* of our present possibilities and styles of existence:

> The search for descent is not the erecting of foundations: on the contrary, it disturbs what was previously considered immobile, it fragments what was thought unified, it shows the heterogeneity of what was imagined consistent with itself...*Entstehung* designates emergence, the moment of arising. It stands as the principle and the singular law of an apparition. As it is wrong to search for descent in an uninterrupted continuity, we should avoid thinking of emergence as the final term of a historical development.[13]

Thus, it is important to underscore here that 'descent' does not mean emergence from a hearth of creation and that 'emergence' does not mean ascension toward a predetermined *telos*. What Foucault calls the 'history of the present' does not proceed according to a simple principle, an eternal *logos* or pure *arche*; it does not unfold from a discrete site or moment of origination and it is not harnessed to an 'end': in order to think 'the present' – in order to think our being-in-the-world (and indeed in order to think Being itself) – we must think between the earth and the heavens. Like Heidegger, Foucault argues that the 'ground' (or Ur-possibility) of our possibilities is certainly not a ground; he argues that heterogeneity and accidentality – not transcendental unity and necessity, not ultimate first or final causes – subtend and engender our possibilities and relations, our 'descent' and 'emergence', the history of our having-been of our being-there (or of our 'present').

13 Ibid., p. 82-83.

In the interview 'What is Critique?', Foucault articulates the coming-into-being of our facticity – the historical becoming of 'the present', the 'descent' and 'emergence' of our present field of possibilities – as '*eventualisation*.'[14] 'Eventualisation', of course, does not mean 'eventuation', or the inevitable unfolding of a certain 'result'; it does not mean that our present possibilities would have 'eventually' emerged, that our present situation would have always come into being just as it is. This ordinary usage of the term 'eventual' is, in fact, caught up in the very classical metaphysical model of causation that Foucault and Heidegger reject; it treats the present as the necessary effect of a certain determinate concatenation of causes, as the result of a chain of causes that would stretch back to an unconditioned 'first cause' and that would perhaps point and continue onward toward a consummate *terminus ad quem*. Thus, this sense of the term 'eventual' is not what is meant in Foucault's term 'eventualisation', for eventualisation does not mean the eventual (which is to say, necessary or inevitable) genesis of the present. We need to read the term 'eventualisation' as hyphenated, but not as 'eventual-isation'; rather, we need to read it as '*event*-ualisation'. That is, for Foucault 'eventualisation' refers to the *event*al coming-into-being of the present, to the present not as the necessary 'effect' of a determinate series of causes but as an undecidable 'result' (and field) of undecidables. This means that the radical possibility of the present is in fact its radical contingency: the present emerges not from an *a priori* or universal causal order but rather from a dynamic, multilayered nexus of interactions, from a complex, situated interplay of institutions, relations, sedimented mechanisms of subjection and novel elements. Thus, Foucault hastens to insist that a genealogical account of the present does not reject causality, for such an account in fact

> ...requires the deployment of a complex and tight causal network, but presumably of another kind, the kind which would not obey this requirement of being saturated by a deep, unitary, pyramidal and necessary principle...Here there is a need for a multiplicity of relationships, a differentiation between different types of relationships, between different forms of necessity among connections, a deciphering of

14 M. Foucault, *The Politics of Truth* (London: MIT Press, 2007), p. 65.

> circular interactions and actions taking into account the intersection of heterogeneous processes. There is, therefore, nothing more foreign to such an analysis than the rejection of causality.[15]

We can say, then, that Foucault does not reject 'causality' but rather *radicalises* it. In the broader ancient Greek sense (of *arche* or *aitia*), a 'cause' is what is responsible for the being of a thing; it is the *originary possibility* of a thing. And Foucault (like Heidegger) radicalises our thinking of possibility, our thinking of the 'cause(s)' of things. Since the originary possibility of the present is not to be found in a 'simple origin' – since the becoming of the present does not follow upon a discrete first or final cause that antecedently necessitates it – then the origination of the present is far from 'simple': it is, above all, *complicated*, but this is not to say 'chaotic'. The radical possibility of the present – that is to say, the matrix or radix of our present clearing of possibilities – is a nexus of multiple synergic and divergent elements, relationships and practices, of sedimented causalities and irruptive contingencies. As I will now proceed to elaborate, 'power' cannot be '*a*causal', for it is only efficacious insofar as it employs itself in and through specific mechanisms and tactics of subject(ificat)ion. For Foucault, in order to radicalise our thinking of possibility we must attend to the multiple causalities and power-relations that have (*contingently, not* necessarily; *historically, not* 'transcendentally') determined (or 'event-ualised') the present field of possibilities in which we find ourselves, and more specifically this means that the question of radical possibility – that a 'history of the present' – must "displace the historical objects familiar to historians towards the problem of the subject and the truth about which historians are not usually concerned."[16]

Thus, in *Truth and Power* and *The Subject and Power*, Foucault interrogates 'Truth' and 'the subject' precisely in order to radicalise the fundamental question of our facticity, the question of who and where we are and of how we have *come to be* so, of how we have come to be 'here' (or 'there') and 'now'. These two questions (the question of truth on the

15 Ibid. p. 64.
16 Ibid. p. 56.

one hand, and the question of the subject on the other) are not, however, separable questions, for the question of truth is already the question of the subject (and vice versa). That is to say, insofar as truth is traditionally (and abstractly) defined as a relationship of *correspondence* between subject and object, the conditions that enable and precipitate such correspondences in the first place – which is to say, the conditions under which or from which such correspondences and subject-object relations emerge – are the very 'conditions of the possibility' of 'truth' (and falsehood). In other words, the becoming-subject (or subjectification) of the subject and the correlative becoming-object (the presencing or 'objectification') of the object are the two moments of the event of 'Truth'. The 'Truth' (or Being/becoming) of truth is the becoming of those subject-object relations by virtue of which any relationships of correspondence can manifest or take hold in the first place. And for Foucault, power relations are indissociable from the constitution of truth and subjectivity; they are inextricably bound up with the 'Truth' of truth and with the 'Truth' of 'the subject'; they pre(con)figure the space within which anything can emerge as propositionally 'true' or 'false' or within which any 'subject' can comport itself toward an 'object' (even if this object is itself). Thus, it is obvious that the common term in the titles of both essays here under consideration is 'power', and it is clear that this common term is also the 'mediating' term.

In *Truth and Power*, Foucault makes the following claim:

> One has to dispense with the constituent subject, to get rid of the subject itself, that's to say, to arrive at an analysis which can account for the constitution of the subject within a historical framework. And this is what I would call genealogy, that is, a form of history which can account for the constitution of knowledges, discourses, domains of objects, etc., without having to make reference to a subject which is either transcendental in relation to the field of events or runs in its empty sameness throughout the course of history.[17]

17 M. Foucault, *Power/Knowledge* (London: Vintage, 1980) p. 117.

Foucault does not mean here that we must abandon the question of the subject; rather, we must only 'get rid of' the *constituent* subject in order to radicalise this question, for the 'subject', indeed, is never wholly 'constituent' (or self-constitutive) at all; and we must radicalise this question of the subject in order to radicalise the question of Truth. We need to disabuse ourselves of the notion of a detached, self-transparent 'epistemological subject' that bootstraps itself into existence and surveys the world from everywhere and nowhere. For Foucault, 'the subject' implicated in any relationship of correspondence cannot be taken for granted as a bare ego that stands over and against a brute object: the subject is always already caught up in and formed by a complex ensemble of contingencies and power dynamics that enable anything to show up as 'true' for it in the first place, and this means that in order to understand 'Truth' we cannot undertake any reduction to a supposedly 'pure' transcendental interiority: we can no longer understand 'Truth' and meaning as the simple, immanent and ideal contents or accomplishments of a sovereign intentional consciousness. For Foucault, a genealogical account of Truth necessarily decentres subject-object relations and any attendant correspondence model of 'Truth' because it attends to that complex, antepredicative, historically and culturally situated interaction of factors that enables any subject-object relations to emerge at all; it attends to the 'constitution' – to the overdetermined, politically invested becoming - of putatively constituent subjects and objects, which is to say that its aim is to disclose the power dynamics at work in the advent/event of subject-object relations, the shifting axes of *a*symmetry along which truths (or even the simplest propositions) are articulated.

In general, I take the question of 'Truth' (which is to say, the question of the 'Truth' of truth) – the question that Foucault takes up in *Truth and Power* – to be this: how do certain claims come to have a claim on us? How do certain objects of knowledge become visible for us? How do certain *doxa*, certain commitments and habits of thinking and seeing become sedimented and implicated in even the most mundane dimensions of our lives? Conversely, how do these same beliefs, truths, commitments and practices become de-sedimented, uprooted and finally supplanted by others? How do we come to assent or repudiate certain claims, and moreover how is it that a certain range of claims becomes available for our

possible assent or repudiation in the first place? These questions direct us 'below' the level of propositions and re-presentational correspondences: they direct us toward that 'quiet' fund of possibilities and relations from which we draw what we say, think, and know. For Foucault, this means that in order understand the 'Truth' of our 'truths' – if we are to understand how it is that anything can become true for us – we must attend to those pre-propositional procedures that subtend and *govern* the formulation and verification of our propositions, to the effects (and, I would add, *affects*) of power that fold into and precondition our knowledge-practices:

> By truth I do not mean 'the ensemble of truths which are to be discovered and accepted', but rather 'the ensemble of rules according to which the true and false are separated and specific effects of power attached to the true'.[18]

Thus, 'Truth' (with a capital 'T', if I may strategically refer to such a thing) for Foucault is not fundamentally a set of 'adequate' correspondences between subject and object – not a collection of 'justified true beliefs' – but rather an antecedent criterion or set of criteria – an originary criteriology or 'criterio-*logic*' – that structures what can show up or count as true or false, that pre(con)figures the possibilities of signification and legitimation. Since this way of putting it may sound a bit too 'structuralist', I hasten to emphasise that for Foucault these systems of rules that govern our knowledge-practices are not fixed, *a priori* frameworks of categories and regulative principles but dynamic, decentralised and historically embedded sites of emergence and convulsion; they stage the interactions of contingencies, mechanisms, and effects of power that mark and motivate how we comport ourselves in the world and that render certain things available (and unavailable) to our attentive comportment.

It is instructive to compare Foucault's account 'Truth' with Heidegger's, for I think that Heidegger's influence here is clear. For Heidegger, propositional, correspondence schemas of Truth are only abstract and partial, for they overlook the dynamic, worldly conditions of

18 Ibid. p. 132.

possibility (or of presencing) by virtue of which any proposition can be formulated and either correspond or fail to correspond with its object. Thus, in *On the Essence of Truth* (and elsewhere) Heidegger distinguishes the 'True' from the merely 'correct', the presencing of things in the 'open region' and our bearing toward them from later-order propositional articles of knowledge or formal correspondences. Thus, Heidegger argues against the Platonic notion that the essence of a thing is captured by its adequate definition, for the real essence (or 'Truth') of a thing is, as Heidegger puts it, its essence in the 'verbal' sense (i.e. its '*Wesen*'), which is to say its complex, worldly conditions and style of emergence. I think that Heidegger's distinction between the 'True' and the 'correct' 'corresponds' to Foucault's distinction between the historically situated contingencies and power relations at work in our knowledge practices and the 'objective' truths - the verified or falsified propositions - that such contingencies and relations enable. Thus, it seems that Heidegger's account of Truth is Foucault's point of departure. That is, Foucault certainly seeks to articulate Truth beneath the level of predication and correspondence, beneath the merely 'correct'. We might say that Foucault deepens Heidegger's account, for he attends to the complicated ways in which effects and techniques of power are implicated in the comportment of every subject and in presencing of every object.

We see, then, that for Foucault, Truth and power are internally, reciprocally entangled and co-conditioning:

> ...Truth isn't outside power, or lacking in power: contrary to a myth whose history and functions would repay further study, truth isn't the reward of free spirits, the child of protracted solitude, nor the privilege of those who have succeeded in liberating themselves. *Truth is a thing of this world*: it is produced only by virtue of multiple forms of constraint. And it induces regular effects of power. Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which *enable one to distinguish true and false statements*, the means by which each is sanctioned...[19]

'Truth', Foucault tells us (in anti-Platonic and perhaps good Heideggerian fashion), is 'a thing of this world', and for Foucault this means that Truth is intrinsically related to 'power', that power is the 'originary', generative possibility of Truth. That Truth is *internally* - in its very 'essence' (*Wesen*) - related to power means that it is not transcendent but *immanent*; moreover, this means that Truth is not only 'immanent' but also *not primarily immanent to a subject*. This latter point is key, for power relations and knowledge practices are not fundamentally legislated or exercised by autonomous subjects; rather, subjects (or subjectivities) are formed in and through these relations and practices. As I mentioned above, power enables and engenders subject-object relations; it subjectifies subjects and 'objectifies' objects. Thus, 'Truth' (again, with a cautiously capital 'T') is not the accomplishment of a bare, self-transparent and sovereign ego. Truth is indeed immanent, but it is *radically* immanent, which is to say not transcendentally immanent or *immanent to* a constitutive subject. Thus, Foucault's account of Truth does not render truth 'subjective', for power dynamics are operative prior to any opposition between 'subjectivity' and 'objectivity'; to borrow a term from Merleau-Ponty, power is operative at a 'pre-objective' (and hence also pre-subjective) register. Foucault, then, does not deny 'truth' or 'objectivity' but only brings them back down to earth. This earth, however, is not the pure, Edenic soil of an ultimate ground but a surface composed of multiple strata and fissures, of shifting borders and topographies; it is not a reservoir of eternal knowledge but a landscape much harvested and contested, one marked by geological traumas and traces of past erosions.

We see, then, that for Foucault power relations antecede, inaugurate and enfold our propositional truths, attitudes and significations, and this means that a genealogical account of Truth attends to a nexus of interactions, techniques and phenomena – to a 'politics of Truth' - that subtends and suffuses our discursive and epistemic practices. Thus, the 'question of Truth' is a question of those relations and procedures that

19 Ibid. p. 131; emphasis mine.

'condition the possibility' of 'objective' correspondence or verification; it is *not* a question of the imposition or interference of an *external* form power, of a set of mechanisms that would conspire to occlude or distort, influence or suppress certain otherwise 'brute' or independent 'facts', certain otherwise 'clear and distinct' truths; it is, rather, the question of a regime of power (or of a 'governmentality') *internal* to Truth itself; it is not a question of *what* is true and false but of the complicated emergence (and dissolution) of those schemes of intelligibility and visibility according to which anything can ever count or show up as either true or false in the first place.

For Foucault, that power is *intrinsic* to Truth (much in the same way that concealment, for Heidegger, is intrinsic to Truth and Being) means that we need to reconsider (or at least curtail) two traditional and widespread conceptions of power. Foucault argues that power *as such* cannot be understood according to a reductive ideological or juridical model. The reduction of power to forms of ideology retains the fantasy of a kind of Truth that would be independent of power, of an unalloyed Truth that would be accessible beyond the veil of 'false consciousness'. Now, this is not to say that power is never exercised in and through systems of ideology, or that no such systems of ideology even exist: such claims are, of course, false, and Foucault does not hold them. Foucault only argues that power is not *exclusively* ideological.

More important, however, is the distinction that Foucault draws between power as such and its *juridical* manifestations. On a narrowly juridical model, power is essentially a set of *repressive* mechanisms, a system of laws or apparatuses employed by a State that *prohibit* certain actions or practices. Thus, this is a purely *negative* and hierarchical conception of power, for power here is only understood as the legislation and enforcement of a body of laws that prevent certain behaviours. For Foucault, however, this model of power fails to honour the full reach (or 'power') of power, the full range of ways in which power operates and manifests in our lives:

> ...The notion of repression is quite inadequate for capturing what is precisely the productive aspect of power. In defining the effects of power as repression, one adopts a purely juridical conception of such power, one identifies power with a law which says no, power is taken above all as carrying the force of a prohibition...I believe that this is a wholly negative, narrow, skeletal conception of power, one which has been curiously widespread. If power were never anything but repressive, if it never did anything but to say no, do you really think one would be brought to obey it? What makes power hold good, what makes it accepted, is simply the fact that it doesn't only weigh on us as force that says no, but that it traverses and produces things, it induces pleasure, forms knowledge, produces discourse. It needs to be considered as a productive network which runs through the whole social body, much more than as a negative instance whose function is repression.[20]

Power does indeed operate through laws and juridical apparatuses; indeed, such negative manifestations and effects of power are those that are the most 'obvious' to us; those are *not* the most obvious, however, are those that in fact *produce* or *induce* certain ways of thinking of behaving. Thus, for Foucault the kind of power internal to Truth (and internal to subjectivity as well) is more fundamentally diffuse and productive; it is not centralised in any institution and it is not externally imposed from on high; in fact, negative, centralised and hierarchical forms of power only operate on the basis of a distributed field of in-ductive (or con-ductive) relations, pressures and intensities, of pro-ductive, emergent and overlapping causalities and strategies, desires and knowledges. A shortsighted juridical model of power mistakes an exemplary, more conspicuous form of power for its primary and most pervasive form. It is also worth mentioning that such a negative conception of power seems to be at the basis of negative conceptions of freedom, for a negative conception of power naturally leads us to conceptualise freedom as a kind of "escape" from power, as a kind of flight from 'the system'. We know, however, that power runs far deeper than institutions and repressive mechanisms can ever reach, far too deep ever to be 'escaped':

20 Ibid. p. 119.

> It's not a matter of emancipating truth from every system of power (which would be a chimera, for truth is already power) but of detaching the power of truth from the forms of hegemony, social, economic and cultural, within which it operates at the present time.[21]

Thus, insofar as we 'stand in the clearing of Truth', we can never take flight from power; we can, however, forge new 'lines of flight' within the field of power relations in which we find ourselves. We cannot seek to decouple Truth from power, but we can seek to release it from particularly oppressive appropriations. Since power *as such* is integral to Truth and to the subjectification of subjectivity, a reductively negative, juridical account of power only conceals from us those productive, pre-juridical or extra-legal modes of subjection at work in our lives. Such an account only keeps those forms of power that are most concealed from us – those that are 'nearest' to us and that cannot be 'escaped' – in concealment; and only insofar as we attend to the reciprocal investment of Truth and power – only insofar as we attend to the ways in which power produces Truth, circumscribes us within certain horizons of intelligibility and invests us with certain styles of comportment – can we ever attain the 'power' to think or see the 'Truth' (which is also the power to think or see otherwise).

In *The Subject and Power* Foucault offers a fuller account of the productive nature of power, an account that requires him to take up the relationship between power and agency. We have seen that power is essentially internal to – and internalised in and through – our everyday practices, relationships, epistemic commitments and self-concepts. However, if this more 'positive' or non-juridical conception of power rules out any entirely 'negative' conception of freedom, it would seem to rule out freedom altogether, for on this account power runs far deeper than those more visible repressive mechanisms, laws and State apparatuses that structure our social existence. We can no longer dream to escape from power, for power invades even our dreams; power relations and effects of power are at play in our most quotidian thoughts, drives and habits, entrenched in the smallest details and most private aspects of our being-in-the-world. It would seem, then, that there is no space for freedom, for

21 Ibid. p. 133.

there is no space beyond which power *as such* cannot (or does not) trespass. For Foucault, it is indeed the case that we can never tear ourselves free from power, for power is endemic to the constitution of the self, endemic to the becoming-subject of the subject; but Foucault does not argue that this fact – that this fundamental, 'inescapable' fact of our facticity – denies our freedom; on the contrary, he insists that it *presupposes* our freedom:

> In itself, the exercise of power is not a violence that sometimes hides, or an implicitly renewed consent. It operates on the field of possibilities in which the behavior of active subjects is able to inscribe itself. It is a set of actions on possible actions; it incites, it induces, it seduces, it makes easier or more difficult; it releases or contrives, makes more probable or less; in the extreme, it constrains or forbids absolutely, but it is always a way of acting upon one or more acting subjects by virtue of their acting or being capable of action. A set of actions upon other actions...when one defines the exercise of power as a mode of action upon the actions of others...one includes an important element: freedom. Power exercises only over free subjects, and only insofar as they are "free".[22]

In this passage Foucault defines power as a "set of actions on possible actions", as a set of relations and tactics that can only operate on an open field of possibilities, as an ensemble of forces that affect (or 'effect') only subjects that "dwell in the element of possibility"; it is not a set of covariant mechanisms and variables in which the subject would be indistinguishable from any object or merely one controlled variable among others. That power is 'pro-ductive' means that it works to actualise certain *possible* behaviours among others; it works to *direct* our attitudes, commitments and modes of comportment along certain vectors of possibility.

22 M. Foucault, 'The Subject and Power' in *The Essential Foucault*, P. Rabinow ed. (New York: The New Press, 2003) pp. 138-139.

Thus, for Foucault power *as such* acts only *indirectly* on subjects; it subjects or subjectifies subjects only insofar as it pre(con)figures and addresses but does *not totalise* or *eliminate* their possibilities, and this means that it operates only on 'free' subjects. That is, if power acts on the possibilities of a subject, then power (by definition) presupposes subjects that actually '*have*' (or *exist* toward) *possibilities*. We do not typically say that we exert 'power' *over* automata or cogs in a machine, and if indeed we ourselves were nothing but automata or cogs in a machine we would not be 'subjects'; and if there were no subjects, then nothing would be 'subject' to power, for power is precisely what 'subjectifies' subjects.

For Foucault, then, power and freedom are internally (perhaps we might even say 'chiasmatically') intertwined. Power is never a force or ensemble of forces externally opposed to an agent, and if it channels itself through such forces it can never do so to the extent that it completely extinguishes the agent's freedom:

> Where the determining factors are exhaustive, there is no relationship of power: slavery is not a power relationship when a man is in chains, only when he has some possible mobility, even a chance of escape…Consequently, there is not a face-to-face confrontation of power and freedom as mutually exclusive facts (freedom disappearing everywhere power is exercised) but a much more complicated interplay.[23]

Power effaces our possibilities or annihilates our freedom only insofar as it annihilates itself as 'power'. As we have seen, power influences or polices but cannot *absolutely* compel our actions, for where there is no resistance or no possibility of resistance there is no 'power'. In short, this means that power is not, in a sense, *absolutely everywhere*, for if power were *absolutely* everywhere then it would equally be *nowhere* (and it is worth mentioning that Merleau-Ponty makes exactly – or reversibly – the same point about freedom in the final chapter of the *Phenomenology of Perception*); or to put the point another way (as Foucault himself does), power is 'everywhere' only if *freedom* is also

23 Ibid. p. 139.

everywhere[24], for power and freedom are intertwined. Power cannot reign to the exclusion of freedom, nor can freedom overcome all power: power and freedom are internal to one another; they make each other possible. That is to say, power can only appear amidst a field of open possibilities, and freedom can only appear amidst a general field of non-freedom. Power and freedom are synergistically entangled: there is no 'absolute', omnipresent power on the one hand and 'absolute', unconditioned freedom on the other; there is only 'power-freedom'. "We therefore recognise", Merleau-Ponty writes, "around our initiatives and around that strictly individual project which is oneself, a zone of generalized existence and of projects already formed, significances which trail between ourselves and things…".[25] We must recognise that every 'free' project sublimates and surges up amidst a field of non-freedom, and that this very field of non-freedom presupposes and *is already* a field of freedom, that forces outside our free agency can only operate on a field of open possibilities, a field in which we are in some measure 'free'.

Thus, Foucault argues that a relationship of power is not, as it were, an *antagonistic* ('master-slave') dialectic that either resolves itself in death or a higher synthesis; it is what Foucault calls an 'agonism', which is to say an *internal*, co-conditioning dynamic between two irreducible terms, two terms (i.e. power and free agency) that overlap or fold into but never coincide with or totalise one another, two terms whose identities are differentiated and maintained by a limit that is also always the frontier (or 'non-space') of a possible reversal:

> Every power relationship implies, at least in potentia, a strategy of struggle, in which two forces are not superimposed, do not lose their specific nature, or do not finally become confused. Each constitutes for the other a kind of permanent limit, a point of possible reversal.[26]

24 'The Ethic of the Care of for the Self a Practice of Freedom', in *The Final Foucault*, J. Bernauer (ed.), (London: MIT Press, 1988), p. 12.

25 M. Merleau-Ponty, *Phenomenology of Perception*, trans. C. Smith (London: Routledge, 2002) p. 450

26 M. Foucault, 'The Subject and Power', in *The Essential Foucault*, P. Rabinow ed. (New York: The New Press, 2003) p. 142.

As I have just tried to suggest, Foucault's definition of the relationship between power and freedom is very close to Merleau-Ponty's definition of 'reversibility' (and I think that Merleau-Ponty has an unthought or at least tacit presence in this text). If it were not enough that Foucault speaks here of an ever possible 'reversal' between power and freedom, he also speaks of power and freedom as irreducibly distinct from one another in virtue of a differentiating limit that makes such a reversal between them – and that makes their internal relationship or contact – possible. 'Free' action and action-upon-action – possibilities for action and actions upon these very possibilities, 'interiority' (openness to possibilities, or the virtuality of present possibilities) and 'exteriority' (factical involvement) – are reversibly enveloped. There is no freedom that does not belong to a field of power relations, and there is no free subject that does not belong to – no subject that is not always already 'subjected' to or that is not always already subjectified in and through – a factical world. If, as Heidegger tells us, "the essence of Truth is freedom" – and if, as Foucault tells us, power is intrinsic to Truth – then it should not surprise us to see that power is bound up with freedom and that freedom is the condition of power. For Foucault, we must respond to the claim that power has on us so that – within the space that enables this response and within the space that this response opens up, within that critical distance which is, as Merleau-Ponty puts it, a "distance consonant with proximity" – we may "promote new forms of subjectivity"[27], so that we may dis-cover, cultivate and enact new possibilities for thinking and thriving.

So far I have discussed Foucault's thinking of 'Power', and along the way I have suggested that Foucault indeed thinks *Being* as Power. What, then, are we to make of Foucault's claim that he is not concerned with Power *as such* but only with power *relations* (relations that always only subjectify and obtain between subjects), that in fact there is no 'Power' in-itself (or no Power with a capital 'P') and that there are only ever relations of power?[28] We seem to confront here a major tension in Foucault's work: on the one hand Foucault certainly seem to offer an account of Power *as such*. When, for example, Foucault distinguishes relations of power from relations of communication and relations of

27 Ibid., p. 134.
28 See Ibid. p. 137.

capacity – or when he distinguishes power from violence and from its negative juridical manifestations, or when he offers a definition of power as "a mode of action upon the actions of others" – he certainly seems to offer us something like an account of Power (with a capital 'P'); but on the other hand Foucault denies that we can think anything like Power in-itself and that the task of the genealogist is only to attend to specific sites and relations of power. Indeed, it does often seem as though Foucault's project is more 'ontic' in character. Foucault, after all, claims that genealogy is an "ontology of ourselves", and at best this would seem to qualify genealogy as only a 'regional ontology'. I do not, however, think that this is the case. That is, I think that Foucault's claim that genealogy is only concerned with power *relations* is in fact not only consistent but also bound up with a thinking of Power *as such* (and with a thinking of Being as Power).

In order to resolve this apparent tension in Foucault's philosophy, I would briefly like to suggest that we relate Foucault's thinking of 'Power' to Heidegger's thinking of the ontological difference. Foucault likely rejects the idea of Power with a capital 'P' because he does not want to transform power into a transcendental signified, because he does not want to conceptualise or theorise power as a kind of 'ground'. However, we can (and indeed must) speak of Being with a capital 'B' (or of Being *as such*) even though we no longer (following Heidegger) think Being as a 'ground'. We have seen that 'Power' antecedently pre(con)figures and suffuses the present field of relations and possibilities in which we find ourselves, and this understanding of Power is very close to Heidegger's understanding of Being. Following Heidegger's thinking of Being *as* the ontological difference – that is, following Heidegger's thinking of Being as that originary self-othering and self-concealing movement that enables beings to be, as that movement through which Being differentiates itself from beings – we might say that Foucault thinks Power in a similar way. Foucault's claim that there are only 'power relations' might superficially strike us as untenable as the claim that there are only beings, for just as there must be something by virtue of which all beings *are* (namely, Being *as such*), so too must there be something by virtue of which all power relations are, indeed, relations *of power* (namely, Power *as such*). I think, however, that a more generous and compelling reading of Foucault's claim

here is available. For Heidegger, Being *as such* manifests and others itself in and through beings; and for Foucault, 'Power' *as such* likewise manifests and others itself in and through specific relations, mechanisms and causalities, and we can only think Power *as such* insofar as we attend to the historical becoming (or 'event-ualisation') of those power relations that pro-duce, in-duce and organise our present milieu of possibilities. Power generates valences of difference in the world: differentials (hinges and fulcra, thresholds of visibility and invisibility, surfaces of intensity, 'permanent limits' and 'points of possible reversals') along which our relationships, possibilities and concrete projects are articulated. In short, Power only ever reveals itself as a *trace*, which is to say it only ever reveals itself in and through the marks it leaves on (or *as*) even the smallest details of our being-in-the-world, for indeed it is the very historical coming-into-being (or eventualisation) of these details. Thus, we can only think power in and through power relations for precisely the same reason that we can only think Being in and through the history of Being (or only in and through the ways in which Being reveals and conceals itself). Foucault's genealogy – his 'ontology of ourselves' or 'history of the present' – is not a retrograde ontic gesture; it is an ontology that in fact decentres 'our-selves' in order to radicalise the question of 'our' possibilities. Genealogical ontology and phenomenological (or fundamental) ontology are kindred projects.

IV. Conclusion

'Who', then, *are* 'we'? *Where* are we? And how have *we come to be* who and where we are? What are the contingent and heteronymous (not 'necessary' or '*a priori*') conditions of the possibility of the present field of possible experiences in which we find ourselves? Or to put the question in an even less transcendental fashion, what an-archic (which is not to say 'meaningless' or 'chaotic') assemblage and play of determinants and tactics, of intensities and singularities, what technologies of subjection (or of subjectification), what economy of disciplinary and counter-disciplinary practices and possibilities, what shifting axes of truth, value, and discourse are enmeshed and implicated in how we live, think and feel,

in how we relate to the world, to ourselves and to others? And how might we live, think and feel otherwise? These questions are central to Foucault's philosophical project, and they not only qualify Foucault as a philosopher but also, I would venture to add, as an ontologist (and thus as a kind of 'phenomenologist') as well. In short, Foucault radicalises the question of our facticity; he pursues all of these questions in order to interrogate the present style(s) of comportment - the present horizons of living and knowing – into which and within which we find ourselves thrown; he seeks to confront our situation and situated-ness with lucidity, to reveal the most concealed layers of our life, layers which are concealed from us precisely because they are nearest to us, precisely because they operate in and through even the smallest, most mundane details of our being-in-the-world. Thus, Foucault's genealogy does not abandon ontology but only accords the question of facticity its rightful place in ontology, for it is indeed a question not to be overlooked or bracketed. As Merleau-Ponty argues in many places (and as I am sure Foucault would agree), the 'transcendental reduction' can never be completed, for it must always implicitly draw upon the very factical world that it brackets, and thus it can only ever presuppose and distort what really needs to be elucidated. For Merleau-Ponty, this means that we need to develop a new kind of reflection in order express the character of living experience, a kind of reflection (difficult and paradoxical indeed) that does not suspend what we live in order to know it; and I would submit that Foucault's genealogical account of the power relations at work in the crucible of human experience is just such an alternative kind of reflection, a kind of 'eye' for the most easily overlooked details of everyday existence that takes its perspective and orientation in the midst of it, in *medias res*. I think that this is what it means to write a 'history of the present', for to write a history *of* the present means to write a history *from* it and engaged with it, to dispense with that dream of a 'view from nowhere' or with what Merleau-Ponty sometimes calls 'high-altitude thinking'.

In closing, we might say that Heidegger's History of Being is the history of our-selves (or of 'the present') writ large, for how we comport ourselves toward the Being of beings has everything to do with how we comport ourselves towards ourselves, toward our 'present' and toward others. Heidegger and Foucault both take up this astonishing 'there is',

this field of possibilities into which we are thrown and with which we must come to grips, this setting of our lives within which we must find and create ourselves. For Heidegger and Foucault, the human 'subject' (if we may strategically refer to such a thing) is a being open to possibilities, a being whose being *is* its openness to possibilities. For Heidegger and Foucault, however, these possibilities have not been legislated by the fiat of a transcendental consciousness; we find ourselves open to possibilities only insofar as these very possibilities and this very openness are themselves first, in some way, 'possible'. As Heidegger argues at length, we are always already ahead of ourselves, always already comported toward possibilities; and as Foucault argues at length, we 'freely' take up possibilities only insofar as we are always already formed or inscribed by an ensemble of possibilities that have not been 'freely' taken up or 'projected'; and for both Heidegger and Foucault, our free comportment toward possibilities presupposes a situation (or situated-ness) we cannot outstrip, an 'open region' that is always already *there* at the hither side of our 'free' comportment. This 'always already-ness' – this 'there is' that is always already 'there', this 'there-ness' that we always already *are* – is our *facticity*, our 'present', our anterior being-in-the-world; and if we think it through – if we radicalise it – we see that it is not just an extant field of possibilities but the very opening, the very coming-into-presence of this field, that it is the possibility of those possibilities toward which we are comported; we see that it is (or that it discloses) the 'Ur-possible': whether we call it 'Being' or 'Power' – whether we call it the 'event of appropriation' or the 'eventualisation of the present' – it is the possibilisation (or becoming-possible) of our possibilities. For both Foucault and Heidegger, we must dispense with simple, prelapsarian origins and immutable foundations: we must find and stake our footing elsewhere, we must think our footing otherwise. We must confront the groundlessness of our Being and give up the search for a sure edifice that would withstand the vicissitudes and upheavals of history. We must, indeed, face the abyss, an abyss that gazes back at us insofar as it reflects us back to ourselves, back to the mortal though inexhaustible question that is ourselves, a question to which (to borrow yet another phrase from Merleau-Ponty) no 'Objective Being'[29] (no God, no ultimate ground, no

29 Here, I am borrowing from the closing of the chapter of *The Visible and the Invisible* (Chicago: Northwestern University Press, 1968) titled "Interrogation and Dialectic", p. 104.

synthetic or architectonic totality, no transcendental interiority, no empyrean eidos or telos) answers.

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From the First to the Second Non-Philosophy[1]

FRANÇOIS LARUELLE

Non-Philosophy's Generic Turn and its Quantum Realisation

Non-philosophy was and remains based on two main principles that appear to contradict each other. The first principle is that of the real specified in terms of a radical immanence, symbolised by the One rather than by Being. This radical immanence is distinguished from the absolute or infinite immanence associated either with Spinoza or Deleuze. The second is a principle of method or syntax, which functions as a duality said to be unilateral and so not a reciprocal or reversible unity. They have functioned together as 'dualysis', a method that is neither analysis nor synthesis. Despite these 'principles' it could *appear* as a crime of *lèse*-philosophy, an assassination of Parmenides that extends to his entire family, i.e. all who are for us philosophers. The non-philosopher does not just take himself to be a child of Parmenides, he complicates the philosophical filiation by showing himself to have an ancestry other than a Greek ancestry affected by Judaism, as in the 20th Century. He is the complex descendant of philosophy, of modern science par excellence, quantum physics and of a certain religious affect introduced by Christianity. Since then I have given a more precise, less abstract content to radical immanence, to the method of dualysis that exploits it, and other similar positions that go under other names. Non-philosophy has always wanted to position philosophy under a determinate scientific condition in-the-last-instance so as to make it a problem, rather than a question, for itself and above all as a method of invention rather than of history. This is what I now call a 'Generic Science' [GS] of philosophy, only utilising

1 Translated by Anthony Paul Smith and Nicola Rubczak.

quantum positivity and philosophical spontaneity under the condition of their 'generic' suspension, or even a 'non-standard philosophy'.

The two principles of non-philosophy have an affinity with the two main principles that one finds in quantum physics: radical immanence with what is called 'superposition' and unilateral duality with what is called 'non-commutativity'. Two wave phenomena necessarily are superposed when their addition produces a third of the same nature or an idempotent result (1+1=1), a result that is neither analytic nor synthetic. Non-philosophy can make use of Quantum Mechanics as a model and only as a model which does not exhaust its meaning but represents one possible use. Both call into question the traditional philosophical categories in a way that is completely new compared with the critical method and its extension in deconstruction. A new way also opens up, more rigorous, more intuitive, for a second version of non-philosophy. The problem is to find a conceptual equivalent or natural language for the mathematical operator (essentially algebraic) of this physics. An equivalent use of philosophy, which nevertheless allows it to function while at the same questioning its 'sufficiency'. At the same time acknowledging that there are quasi-quantum phenomena in philosophy (the undulatory flash of the *Logos* and the Heideggerian sendings of Being, the corpuscular One and Identity as the form of concepts, the spin and rotation of concepts, the oscillating and resonance machines of Deleuze) that now render probable an explicit quantum of philosophy.

Additionally, another old but universal theme of non-philosophy, that of Determination in-the-last-instance of philosophy by humanity as an ultimatum addressed to it, has gained support from a new thematic that brings together all the oppositions to the classical practice of philosophy. This thematic is that of the generic, from both a mathematical (P-J Cohen then Alain Badiou) and philosophical (Feuerbach and particularly Marx) background. All the classical objectives of non-philosophy are found there: human beings as subjects of a generic nature, the non-metaphysical unity of science and philosophy as variables combined in a humanity function called a last-instance, philosophy placed underneath the under-determinate condition of science. The last figure of non-philosophy is that

of a plastic and open discipline which would make it resemble the unexpected synthesis of quantum mechanics and Marxism.

'Generic' signifies that science and philosophy are no longer more than means or predicates having lost their disciplinary sufficiency and autonomy, bodies of knowledge forced to abandon their specific purpose in order to take up another that is generic, a form of universality that traverses their traditional domains of objects as modalities of the philosophical Whole. So let this be the formula of non-philosophy renewed or renamed as GS or non-standard Philosophy: *the fusion of science and philosophy under science, fusion under-determined in-the-last-instance by science, specifically quantum physics.* This is our guiding formula, that which we call the generic matrix.

Taking an image from physics, the generic matrix is an experimental chamber that allows for a struggle or collision of physical and philosophical particles in order to produce new knowledge. In other words, the generic matrix is a concept collider, more modern than other colliders like the Parmenidian Same, the Cartesian *Cogito*, the Fichtean Imagination, and the Nietzschean or Deleuzian Eternal Return of the Same [ERS]. A collision assured by the chamber of radical immanence, accelerating the speed of conceptual particles provided by unilateral duality. This injection of quantum means into the former non-philosophy gives it a physicist colour, but paradoxically not mathematical or calculating. The science of philosophy is a *quasi* quantum physics of concepts. But more generally it is a confrontation of two players or two mirrored bodies of knowledge, but a confrontation in which one, the quantum and not the philosophical, forces its specularity to fade away under the form of the Real or in immanence. In other words, our descriptions follow the suggestion of the quantum rather than those of perception.

The New Image of Thought, 1: The Undulatory Aspect

The deconstruction of 'representation' by contemporary thinkers is an overly general critique, because the signifier, the molecular, alterity, difference, the simulacrum, etc., remain in general in a simultaneously corpuscular and realist spirit, two characteristics that only the quantum can detect and call into question. Why? Philosophy is not at all as simple as these philosophers implicitly suppose it to be, and so is not thoroughly criticised by these sorts of operators which allow the essential presupposition to survive, a background horizon, a philosophical sufficiency that is alone autonomous and ultimately master of knowledge. This is always a specular doublet, a double layer, double stratum or double face, either parallel or in an Möbius strip. It is believed to criticise the whole of representation while it only in fact criticises one stratum. Hence the return of the doublets and specularity that obliges the criticism to start again and prohibits it turning into an activity of complete invention.

Non-philosophy brings about another experience of thought. The real is no longer made of objects, autonomous terms or in itself, neither is it any longer composed of elementary micro-objects (signifiers, partial objects) – this is the end of specular realism and even of the modern micro-fetishism that believes itself to have put an end to specular realism. The new model of the real is of a quantum kind; it is ultimately constituted by asymmetrical and strange dualities, continuous from one side and discontinuous from the other, as uni-lateral quanta. These entities are sometimes apprehended as dualities, sometimes as unifacial phenomena; sometimes bifacial, sometimes unifacial. They are not doublets or modalities of a complete circle, a basic cosmic model that impregnates every philosophy and persists in the modern Möbius strip. They are the Real in the state of a half-circle, therefore in one face as a wave configuring a particle that is inseparably within it. It is the undulatory *morphē* as an inseparable correlation ('unilation') of the curve of thought and its contents, a curve with which the object aims to coincide, in excess over it and inclusive in it at the same time.

Thus the wave defines itself by its amplitude or its wavelength, and not by objective aim the right of objects in themselves, that is by

corpuscular representations. The amplitude is the periodic variation of the interval's maximal value. Therefore it distinguishes itself from phenomenological or ecstatic distance. This comes close to a complete circle, the depth that extends in front of the subject is a circle crushing in on itself, the identity of a going/return which can laterally open up and ends by crossing and reversing itself (Lacan). But the amplitude is not ecstatic, just semi-ecstatic, in a single section or a single face without return or closing. The wave is an apparently unfinished form, simply initiated, if need be it is finished by its object as being identical to its object (which in itself it is not). It is no longer phenomenological distance possibly reversed, closing on or making a return to itself. The wave ends in its objects but without making a return to itself or in itself as a large object. In the same way, if the curve is finished as curve but not closed, its object, the particle that carries and transports the wave, is partial as a half-whole, a semi-object to one side, which is the culmination of the wave. The wave is the beginning of the object and the object the culmination of the wave. In the strict sense of these terms the wave and the particle are two halves of a half-circle that they divide.

First difference with Deleuze: *the undulatory-particulate real is made of unilateral machines rather than molecular, oriented rather than disoriented.* The wave-particle or unilateral machines are complexes of non-separability and inexchangeable separability or what cannot permutate, the undulatory flux *is* as well but in a single sense, not reciprocally, the objective *morphē* of the particle. In reality, Deleuze's wave-flux machines presuppose from the start the multiple 'in itself' of partial objects or breaks and introduce different types of their reversibility, including the Body without Organs [BWO]. This retains a priority of the multiple or of the empirical at the heart of the continuity of the One-All that it molecularises, and this accepts an inversion between the particulate and the undulatory, an inversion included in the BWO. The generic model invested in the quantum imposes a shift in relation to the philosophical One-Multiple, the priority is no longer of the wave over the particle or inversely, but there is a priority of the single wave over the particle only as *a priori* and a prior-to-priority of the wave-particle as an inseparable block of unilateral duality over the corpuscle (or the wave) assumed in themselves, and which are the same duality but seen from the other side,

from the side of the particle. The dualities or unilateral machines only make sense or have intelligibility in the 'complete' generic matrix.

The New Image of Thought, 2: The Vectorial Aspect

One can come back to the source of the wave as undulatory-particulate *morphē*. If the wave is a half-circle, one can still divide and isolate a quarter of the circle or of the turn in which the Real is now concentrated. The quarter represents not an arithmetic number but a complex or imaginary number that the quantum uses in order to define the quarter and generate the wave. Thought's essence is no longer specifically the still-too-intuitive curve, but the vector proper to Hilbert space and which characterises the typical imaginary number of the wave function. The vector is an even more elementary machine than the wave, but it repeats the generic structure, it is a quasi atom of thought, an inseparable fusion of the arrow and the angle, of the module and the phase. If the wave form was noematically oriented as *a priori* over the particle, the vectoral form is noetically oriented towards the subject as Last Instance.

In anticipation of that which will follow and in order to indicate the stakes, we will say that the curve is the *a priori* form of thought as quantum and philosophy mixed, giving place to an undulatory aesthetic, not corpuscular in Kantian fashion, but in the sense that the vector is in the first approximation the real condition of possibility, even of the Real, of quantum experience insofar as 'transcendental' can be said provisionally in the conventional manner. But it is evident that our matrix *qua* generic forbids us from remaining in that traditional solution. All the more so since it defines a theoretical strategy of the invention or design of concepts, of philo-fiction, and not only of the struggle against philosophical sufficiency. The matrix stipulates the fusion of the quantum and philosophy (this is what we have done) but under or in a dominant quantum regime and not under philosophical dominance (as it remains for us to do). So we must now cut out the excess of philosophy that we no longer want, and *in the same gesture* give to the vector or to the 'quartile' object their proper consistency and genetic ability. The fusions and the distinctions that have been asserted are brought about in the quantum

regime. This is the reversal of the primacy of philosophy of science, but that does not lead to a positive science of philosophy, since the reversal is made by means that are philosophised quantum means and that are the enactment of generic unilateralisation. It is about making a unilateral transfer or break, by subtraction and addition, of cutting transcendence's excess, which bathes the vector, and thickens its immanence according to a distribution that follows the division of the circle but by a unilateral duality. Inversely, philosophy of the quantum is a counter-transfer of generic science.

Dualysis as Practice of Unilateral Dualities: From the Quantum to the Generic

Like in Platonic division, there is in dualysis a principle of choice for the most real half (or the 'best'). Instead of dismembering the Whole into its terms or of differentiating it into Being-beings or another difference that is not (quantically) scientific but philosophical, we have geometrically divided by two the symbolising circle of the Whole, but in having chosen each time one of the sides as a carrier of the Real (or of immanence), thus of the One rather than of Being. The Real is a sort of coefficient symbolised by the One. The other side is not denied or abandoned but one will say that it is determined in-the-last-instance by the real-One without us even knowing what is behind this expression of the 'last instance'. It is now the quarter which is the real-One and it determines the wave in-the-last-instance. It is this that must be thought generically for itself.

The generic takes the ways and means of making the quantum as far as possible but in order to turn them against themselves. For its problem is that of acting on everything that philosophy suggests and of separating the Real's load, without analysing them and without synthetically producing them once again. It is about cutting out of the Whole that which is in excess or excessive over itself, so pretension or sufficiency over the Real, impoverishing the function of the Whole in the sphere of the Real without absolutely destroying it (radical, and not absolute, deconstruction of the Whole); but also, and complimentarily, of

'forcing' the terms which, being under its law not in their singularity but in their indivi-duality, forcing them into uni-laterality and no longer into totality. The indivi-duality (or uni-laterality) is not the more or less corpuscular individual, it is at once non-separable from self or immanent and at a distance semi-ecstatic (of) self, it is thus in a relationship indirect (to) self which is neither phenomenological distance nor its opposite affective interiority. The generic does not reinforce the mediation of singularity by the Whole (the universal singular), to the contrary, it raises the terms of mediation, raising them to the state of means or mediates in their very existence which is the Real. The generic is the process of a 'broken transfer', a continuous or discontinuous operation, of consistency, of the power of determination, and from those of philosophy towards the indivi-duality, from transcendence towards complex immanence, from the particle towards the wave and finally from these towards the quarter turn. But this is not the same reality that will be passed on or exchanged or which switches from one side to the other. This is not an equivalent redistribution of wealth but a radical redistribution of the means of production. Or even of reality's capacity towards the Real. From the side of reality one subtracts, from the side of the Real one adds or totals, though this is not the same thing. This method is dualysis.

Second difference with Deleuze: *there is not a BWO or an ERS but a Last Instance*. Not ending the treatment of the Whole in a simple half-circle or in the wave, that would be to remain within the orbit of the philosophical circle or the Whole (or the Spinozist One-All). It is about taking up an experience of thought that is extreme and perhaps fictioning, so it is about introducing the generic into the sequence by quantum means, a quarter of the circle or an imaginary number and not as a simple half-circle of which one could not hold the genetic key. Deleuze, on the other hand, is very close to the quantum but as a positive science that he wants to philosophise, it is the generic sequence that he lacks and thus the quantum also in so far as it allows that sequence. Expressing the themes of the One-All, of the BWO and the ERS, of the twisting plane of immanence, which folds up on the desiring machines, the constant practice of the certainly un-metaphysical doublet (the disjunctive synthesis) but very insistent, the empirico-transcendental style in general. Non-philosophy has always opposed unilateral duality or unilateral

complementarity to the disjunctive synthesis and these are no longer doublets centred on transcendence but superpositions centred on immanence. *The matrix is not just structuralist or mathematic, neither philosophical nor transcendental, it is uni-lateral and every doubling is a complimentarity, though unilateral.*

From the Vector to Vectorality, From the Imaginary to Invention

The wave itself is not sufficient, even mathematically rooted in the quarter turn, it is only an *a priori* level that physics reaches. In the two successive unilateral breaks, principally in the second that frees the quarter, it is necessary to add a supplementary operation that will address it or the imaginary as generic, that which the quantum does not do since it constitutes a positive use. We transpose to that new object, this time the quarter, our matrix and it asserts the fusion of the imaginary and the philosophical (and so also the geometric and the physical) under or in an imaginary or complex regime. The fusion of the vector and its philosophical interpretation must be determined as vectorality of the vector, it is generic this time, neither geometric nor transcendental.

We must now cover the inverse of the previous path. Instead of winding up the wave in the quarter turn, one can wind down the quarter but by the force of the quarter itself towards or as the wave. Why? Because the generic becoming still forms itself via quantum physics, i.e. the superposition or the excess proper to immanence. We pass beyond the imaginary by the imaginary itself in a sense, but that is not a reflection of the quarter on and in itself, this is not a reflexive subject, a consciousness, and not even a transcendental ego filling itself (Henry). It is a superposition of the quarter and the wave, which is possible since the quarter is that which engenders the wave. In that operation, *in its superposing with the wave the quarter superposes with itself, fills itself.* The quarter is not exhausted by the wave but is only known or thought by and as wave, the essence through existence. *It is not handed over to the wave as to alienated exteriority, but it only reaches its effectivity, only actualises itself on the condition of being re-started as immanent or superposed with itself, thus from agreeing to receive a solicitation or*

impulse from the wave. The Last Instance as 'generic subject' is a causality that only awakens with an occasion but alone this 'decides' that there may be occasions to act. As generic or superpositional (of) self, the quarter thus captures a consistency that undoubtedly is no longer absolute or closed on itself but concluded each time in the sense that the wave only falls (again) into itself in order to go further since forced or sloped by the quarter superposed with itself. We also call this, the ultimate and highest point that non-philosophy can reach, generic messianity.

Third difference with Deleuze: *the plane of generic or transfinite immanence is also the plane of scientific reference*. There is even a plane of immanence called a 'generic plane' or of messianity. It transcends or 'rises', identical to the transcendence of the wave before falling 'into itself'. But that itself is not an infinite self or the band of a BWO, the wave is broken or arrested before having 'looped' around a turn of the circle, Deleuze conserves the circle as Whole and molecularises it rather than unilateralises it. So the wave can only repeat itself without ever closing itself in a circle and even an infinite one will differ, it is transfinite and comes out of its own quarter immanence. Even closing itself in the infinite is not possible here for a very simple reason; the plane of immanence is at the same time a plane of reference or a scientific plane and not absolute. On a circle or a whole, what can we do? Cutting the whole from itself thus supposing that it remains still a whole = -1 even if one molecularises it in a disjunctive way. Against the double of representation, Deleuze correctly simplified the Whole in the state of the One-All, but does not pass by the quantum which ends by demolishing, without fail, philosophical sufficiency any more than philosophy is able to do itself. Deleuze does not introduce science, here algebra, into the quarter and does not achieve a rigorous imaginary, a generic and scientific philo-fiction. As if that could disperse or molecularise the human Last Instance in all-ideology. That which he calls 'non-philosophy' is an auto-simplified philosophy, but that hardly allows more than what we find in Michel Henry, who skips by science, it is only an absolute-generic and not a radical-generic. It always consists of the grand macroscopic object, the BWO, and not the broken system of the indivi-duality, of the undulatory quarter as uni-lateral. This Last Instance is vectorality, *the generic messianity is 'our' infrastructure*. How and with what can those without-

philosophy work? We understand the ultimate vectorality of thought as the messianity proper to humanity of the-last-instance or generic. Messianity is the only honesty in itself, and yet indirectly, capable of totalling itself. It is a transfinite task, neither finite and closed nor infinite.

Who Is a Non-Philosopher?

One of the motivations of non-philosophy is the eternal question of "what is to be done"? And what with? The present situation in front of the excess of communicable knowledge is, potentialised by philosophy become *doxa*, now plagued rather than alienated. Plato was defined by the *doxa* of his epoch, we are no doubt also penalised by these forms of knowledge of which but the precarious truth mixed up in philosophy gives a toxic and particularly unstable mixture as a new *doxa* more complex and of a higher degree. Human beings as individuals posses a universal resource of premier disciplinary bodies of knowledge that make their ground in cosmic inhumanity, as a prodigious mythology pervading life, the new unconscious of the Moderns, a knowledge that they have but of which they do not make good use according to their generic humanity. Acquired knowledge participates in philosophy, which is the universal mediator that allows itself to be dragged into a certain corruption, that of communication as universal mediation. But the mediator or the mediate that is without-mediation is still something else: Man-in-person and his messianity. Only this other type of mediator can save us from the corruption of cosmic *doxa* that is philosophy.

Non-philosophy is the manual regarding the means to be used in order to face that Platonic situation which demands a non-Platonic solution. You open the notebook to a blank page or turn to a blank computer screen, you have to decide that nothing is written there, even software is materiality, nothing more. Do not forget that even you are no longer that subject immediately consistent and assured of itself which you have believed yourself to be, but also a machine almost empty of purpose and that your only option is make denser or superpose the other machines and not just connect them. You have to make the best use of that which is no longer a blank slate, but a paired interior containing other interiors. It is

from this inventive expectation, this action, indirect from a distance, which is also those of the robots, do not forget, that you will become that which you only virtually are, or that you will fill or accomplish as generic subject.

Philosopher, scientist, artist, or theologian, there is no subject in this sense that can be understood in the first place as belonging to the non-philosopher, which would define itself by a repertoire of knowledge according to the map of the encyclopaedia. The non-philosopher has no place between philosophy and anti-philosophy – she is a mediator of transformation, not transmission –, her only mission is to transform, not to transmit the plagued acquired knowledge by simple means, what for? For the invention of her own generic humanity, human in-the-last-instance and not individual. The generic is a strategy of thought that uses means taken elsewhere or even already exploited, which is not its problem, like the imaginary number or quantum immanence, in order to actualise the understanding of acquired knowledge that one is. Generic humanity is condemned by knowing itself only indirectly, by interposed *mediatum* and not by the transparency of an interiority. The task for the philosophical subjects that we spontaneously are is to become a generic human being that we are only virtually, not actually. This is why we are condemned to an ethics and a practice of means, not of means raised to a undignified dignity of ends, but rather weak in everything that touches a possible and imposed purpose. Generic ethics overthrows the ends and separated subject to the benefit of the means and their proper immanence, it consists in correctly understanding the specific and original purpose of the means in so far as they no longer exceed the former but are only the phenomenon of their immanence of superposition.

Science and philosophy are the extreme means that limit the others and allow human beings themselves to forge a knowledge (of) self adequate and real, not in contradiction with their being-generic. The understanding of self as generic indivi-duality is indirect by a process and transformation, and mobilises the means instead of immediately thinking them directly or even objectively. Mathematism precisely like philosophism has a will to act too directly via positivity and spontaneous sufficiency. But human beings fulfil or participate in the real by inventing;

invention being the great means of struggle against the pretention of acquired and transmitted knowledge. So for masses who take hold of theory as a means and develop this understanding (of) self, it is necessary that they superpose themselves with it, that the masses 'fuse' with theory as Marx said, with theory *but this time under theory*. Non-philosophy is the thought of those who have suspended their philosophical faith and found out how to carry out the means of the generic end that is their own. It allows for the absolutely poor to be distinguished, those who are stripped of all their predicates but fill the plagued image of Capital as a universal predicate or the philosophical Whole. And the radical poor are only stripped to the point of making apparent their human root, of being able to use their dispossession and turn inside out their destitution against that image itself; that is to say, they escape from it.

This situation is not without a practical paradox of theory, the non-philosophers who proclaim a certain poverty of knowledge, and especially of philosophy, need to multiply acquired knowledge, to control philosophy, in order to subtract from them their spontaneous excess so that the non-philosopher can produce understanding. The generic can establish the form of excess or invention but also the form of insufficiency or weakness that suits human beings as they must abandon it, that is to say transforming the predicate of 'everything'. It is necessary that the philosophers make their way through 'all' acquired knowledge, at least two, but do so as if they do not possess them or as if they were without philosophy, which is to say without the spontaneous faith in transcendence, it will remain for them the immanent faith of poverty inventive of thought.

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François Laruelle, the One and the Non-Philosophical Tradition

NICK SRNICEK

In entering into the difficult thought of François Laruelle, two primary problems present themselves. The first problem, simply, is the unfamiliarity of the framework Laruelle seems to be working in – which I want to argue is ultimately more indebted to ancient philosophy than to modern philosophy. References to 'the One' and the way in which the One relates to the sensible and intelligible world reach back to the Neoplatonists and seem to be operating more within their metaphysical framework than anything else. Obviously these types of questions aren't unheard of in continental philosophy, but Laruelle works deeper within that framework than most.

The second problem is the proliferation of new terms: concepts like 'the force (of) thought', 'unilateralisation', 'given-without-givenness', 'nonautopositional', 'vision-in-One', 'philosophical decision', etc. all form an imposing initiation into Laruelle's work.

The wager of this paper is that by combining these two problems, some measure of progress can be made for the new Laruelle reader. This involves trying to resolve the two problems to some degree by aligning nonphilosophy with Neoplatonism and showing the ways in which Laruelle responds to some of their questions. The more familiar aspects of ancient philosophy can be used to shed light on nonphilosophy, and some of the terms Laruelle uses can be explicated from that basis.

To help guide this paper and to keep in mind the complex system Laruelle develops, I've included a map of the concepts involved (see below, at the end of this paper). Obviously when discussing metaphysical

issues, mapping out concepts into spatial relationships is intrinsically problematic, though for introductory purposes it has its uses. So take this map as a heuristic, and a tool to be tossed aside once entrance has been gained into Laruelle's work.

Neoplatonism

We begin then from Neoplatonism. Like Platonism, Neoplatonists organise the world into a metaphysical hierarchy. The bottom level is the sensible, material level of the everyday world, whereas the eternal aspects of reality form the highest, more pure and most real aspects of reality.

Beginning from the lowest levels of reality – our sensible bodily experience – Neoplatonists attempt to use reason to derive the highest levels. Since knowledge, for them, must be universal and eternal knowledge, the fluctuations of everyday reality are incapable of providing a ground for knowledge. There must be something more stable. As a result, Platonists and Neoplatonists look to extract the intelligible principles lying behind the material world. The result is a hierarchy of metaphysical levels, with each higher level encompassing more of reality, and simpler than the complex realities below them.

At the highest level, one ultimately reaches what is called the One – the highest principle from which everything derives. Now there are a number of reasons why this highest level must be one – meaning singular, unified and simple. The first basic reason is that if it weren't simple, then it could be decomposed into its constituent parts. The highest principle of reality must not admit of multiplicity, but must instead be the singular principle that itself explains multiplicity. Now as a simple principle, it must be impossible to predicate anything of it. To apply a predicate to it would be to make it many and to separate the predicates of the One from the One itself, invoking a separation within what is supposed to be a unified principle. The One is ultimately ineffable for the Neoplatonists.

Now the second reason for the One being one and not many is that the oneness of beings – meaning the fact that we see unified entities in the

world – is argued to be the most basic principle. As Pauliina Remes puts it,

> without oneness nothing can exist: what is, is one, and without oneness it is impossible to conceive of the many. [...] Not having oneness means, according to Plotinus, losing the status of being a thing or entity, and therefore being one is primary. It is both essential for being and ultimately prior to being in the metaphysical hierarchy of things. For this reason, unity must be connected to a first principle.[1]

So we can see here that the One for Neoplatonists is both simple and incapable of being predicated. Furthermore it is required for beings in the world to first have oneness, and is therefore itself transcendent to being.

The next major step for Neoplatonists is to explain how this simple One can produce the many entities we experience every day. We've derived the highest principle, and now we have to work our way back down the metaphysical hierarchy. Their answer is to argue for a theory of emanation: lower levels of reality *emanate* from the One. Now there are numerous problems with this theory, but the approach here will be for merely a descriptive level of what the Neoplatonists say, rather than a critical approach pointing out their flaws.

The basic metaphor of emanation might be considered as an overflowing of the One. Just like water might overflow from a spring, so too it is argued that lower levels of reality can overflow from the perfection of the original One. As John Rist has put it, in emanation,

> [Intellect] proceeds from the One [...] without in any way affecting its Source. There is no activity on the part of the One, still less any willing or planning or choice [...]. There is simply a giving-out which leaves the Source unchanged and undiminished. But though this giving-out is necessary, in the sense that it cannot be conceived as not happening or as happening otherwise, it is also entirely spontaneous: there is

1 P. Remes, *Neoplatonism* (Berkeley: University of California Press, 2008), p. 38.

> no room for any sort of binding or constraint, internal or external, in Plotinus' thought about the One.[2]

This overflowing produces the next level, the Intellect, which is then argued to turn back towards its source and recognise its separation from the One. In doing so, the level establishes its separation and establishes the beginning of the Many from the One.

Similar operations occur at each level, but for now there are a few key points to note: first, the One remains the same throughout emanation. It does not act, nor is it affected by its product. Second, the product is a degradation of the original perfectness of the One. Lower levels are less perfect and less simple than the One. Third, as a result, emanation is the transition from the One to the Many.

Nonphilosophy

We can turn now to Laruelle's project, and try to set it within the framework just established. In particular, the focus will be on the same two key points. The first point is about the nature of the One in nonphilosophy – or better, not what the One *is*, but what the One *does*. The second point will be the theory of determination-in-the-last-instance set in opposition to the theory of emanation. Finally, we'll see what nonphilosophy in particular aims to do.

The first important point to make is that nonphilosophy resolutely abandons the idea that it should aim at knowledge of the One. Laruelle argues that it has been the downfall of philosophy to invariably aim at grasping the One, or more generally the Real, itself. In doing so, philosophy has always framed the Real in its own philosophically-saturated terms, rather than letting the Real itself act. Nonphilosophy, on the other hand, abandons this project of trying to know the Real, and instead of trying to grasp the Real, it attempts to think about philosophy from the *perspective* of the Real. Different philosophies then become

2 J.M. Rist, *Plotinus: The Road to Reality* (London: Cambridge University Press, 1967), p. 67.

objects in the world, they become 'material' for nonphilosophy. In this way, philosophy provides nonphilosophy with what Laruelle calls its 'occasional cause'. Once a philosophy is given, nonphilosophy can then suspend that philosophy's theoretical authority and use it as an axiomatic instance of the One. So what, then, is the One for nonphilosophy?

To begin with, unlike the Neoplatonic One, the nonphilosophical One is not a principle of unity nor of numerical oneness. Each of these characteristics is itself already a philosophical determination of the nature of the One, which nonphilosophy precludes. The nonphilosophical One is what is already-given prior to any sort of thought of it, or conceptualisation of it.

But this is not to say that the nonphilosophical One is non-conceptualisable; rather it is that which is infinitely conceptualisable. Each set of concepts, each philosophical system, is already a perspective on the One by virtue of the One having determined-it-in-the-last- instance.[3] Thus each philosophical system provides an alternative name for the One – it can equally be multiplicity, difference, unity, oneness, and any number of other names. The nonphilosophical One is ultimately that instance of immanence which allows for the very possibility of these philosophical names to arise in the first place.

Yet while the One can be named and axiomatically described, it can never be encompassed by any particular philosophy. Its naming and its conceptualisation can never be exhausted. Laruelle will say it is foreclosed yet entirely immanent to philosophy and to Being.

As foreclosed to philosophy and to Being, the One, to quote Ray Brassier,

> is not an exception *to* Being; nor a folding or a placeholder *of* Being; nor even a fissure or hole *in* Being; but rather that radically immanent foreclosure which functions as the last-instance determining all thinking 'of' Being.[4]

3 Ibid., pp. 117-8.

How then does the One determine philosophy? This is where we get the functional equivalent of Neoplatonism's theory of emanation. In nonphilosophy this is the determination-in-the-last-instance, or DLI for short. Laruelle will argue that

> the necessity of the DLI is understood through the essence of the One: how can a radical immanence, which does not escape from itself or alienate itself, act upon an exteriority or a non(-One)? [...] The DLI is the causality of philosophically unforeseeable (non-definable and non-demonstrable) theoretical and pragmatic emergence.[5]

So the One acts upon philosophy through the determination-in-the-last-instance. Like Althusser's Marxist use of the concept, the DLI is what creates the horizon for a particular philosophy without necessarily prescribing its particular contents. The DLI therefore names the unilateral determination of philosophy by the One. But since this is a unilateral relation, the One determines a philosophy, without the philosophy in any way determining it. The DLI therefore forms the non-ontological transcendental condition for philosophy. Three characteristics distinguish it from a theory of emanation. First, there is no sense in which what it determines is some sort of degradation. Since there is no conception of perfection here, there can be no measure against which particular philosophies would be a degradation of the One. Second, there is no metaphorical use of overflowing being used to explain the operation. The question is not 'what is the One and how does it operate?', but rather 'with philosophy being an object determined by the One, what can be done with it?' And third, it is not a transition from the One to the Many since such a binary is already a philosophical determination of the Real.

So if the DLI determines philosophy, what is the specific nature of philosophy that Laruelle has in mind? For Laruelle, philosophy is formed

4 R. Brassier, *Alien Theory: The Decline of Materialism in the Name of Matter* (Warwick University PhD Dissertation, 2001), p. 23.

5 F. Laruelle, *Dictionary of Non-Philosophy,* trans. T. Adkins (2009, PDF available at http://speculativeheresy.wordpress.com/2009/03/25/dictionary-of-non-philosophy/), p. 11.

by what he will call a 'decision'. A decision in this sense is not a psychological event, but rather the operation which establishes a philosophy while remaining constitutively external to it. It does this by instituting a fundamental binary separation – the type which Jacques Derrida was an expert at analysing. A division between the One and Many, Being and beings, the virtual and the actual, etc. Since a decision is external, any particular philosophy is incapable of thinking its own decision; rather the decision is its blindspot. Yet it is on the basis of this decision that philosophy can claim self-sufficiency and ultimately its ability to philosophise everything. Philosophy can claim that it isn't in need of justification from something outside of itself.

From this understanding of philosophy, we can say that what nonphilosophy does is suspend the decisional authority of philosophy. It is significant to recognise that this is a suspension, and not a negation – which the prefix 'non-' is apt to wrongly suggest. Whereas philosophy argues that it is self-sufficient on its own and that reality itself is philosophisable, nonphilosophy suspends this absolute autonomy and opens philosophy itself onto its own transcendental determination by the One. Nonphilosophy effectively turns philosophy into just another object in the world – an object which can be analysed and explained like any other object.

From this basis, nonphilosophy can discern the transcendental conditions of a particular philosophy. This is where nonphilosophy really begins to function, in the operation of cloning whereby a particular philosophy is used as material for nonphilosophical thought. Philosophy as self-sufficient system is cloned as nonphilosophical material. In this process, philosophy's concepts become not a matter of adequation to the Real, and instead a matter of pragmatic effects. Moreover, with the horizon of a particular thought suspended, nonphilosophy can experiment with philosophies and try to open thought up beyond its current constraints.

It does this by taking the DLI and effectuating it within philosophy itself, bypassing decision's constitutive exclusion of the DLI. Taking the perspective of the One (what Laruelle calls the vision-in-One), the DLI is

effectuated *within* philosophy as the particular force (of) thought that provides the immanent and transcendental conditions for a specific philosophy. So from the Real conditions of thought we pass over to the transcendental conditions of thought – the line traced by 'effectuation' on the diagram included with this paper. This is a properly nonphilosophical thought – a thought which is not of the Real or about the Real, but rather a thought according to the Real.

From this basis Laruelle will then extract the universal conditions of thought proper, what he will eventually name as 'Man'. This is a properly non-predicable instance of thought, foreclosed to the transcendence of the philosophical world. And as such, Man is without-essence and without-being; Man is not predicable and ultimately non-human insofar as the human designates some specific traits.

This then is one of the final points of nonphilosophy's position: Man is axiomatically asserted as a name for the Real – a sort of radically immanent, non-phenomenological instance from which the thought-world of philosophy is determined-in-the-last-instance.

So to summarise, while Neoplatonism and nonphilosophy operate in a very similar framework, there are a crucial set of differences:

1) For Neoplatonists, the One is singular and simple. For nonphilosophy, the One is foreclosed to the one/many divide and is instead already-given prior to any conceptualisation.

2) Unlike the Neoplatonist One, the nonphilosophical One is not ineffable, but rather infinitely effable. It provides the basis for an infinite number of names for itself.

3) For Neoplatonists, the One operates through emanation. For nonphilosophy, the One operates through determination-in-the-last-instance.

4) For the Neoplatonists, the One is beyond Being. For nonphilosophy, Being is beyond the One. The relation of immanence and transcendence is reversed between them. Nonphilosophy's radical immanence *encompasses* the separation of immanence and transcendence that philosophy institutes.

5) This entails that while Neoplatonism has to strive to reach the transcendent One, for nonphilosophy we are always already within the immanent One.

6) And as a result, Neoplatonists aim to know the One. Nonphilosophy meanwhile aims to think in accordance with the One.

Gnosticism and Science

So with the strong structural parallels between Neoplatonism and nonphilosophy set out, we can turn to a final open question. Namely, what justifies our knowledge of the One as the determination-in-the-last-instance? Which is to say, not what do we know *about* the One, but what justifies our acceptance of nonphilosophy and the relation of the One to philosophy? What would compel a philosopher to accept nonphilosophy over one's own philosophies? The traditional Neoplatonic answer is focused on knowledge of the One and says that we have such knowledge through self-reflection on the aspects of the One within ourselves. Self-knowledge becomes the path to knowledge, which ultimately leads to a sort of mystical union with it. Since the One refuses all predication, it cannot be represented in language, but must rather be experienced as such. Plotinus' biographer, for example, says that he knew Plotinus to have had four mystical experiences in his lifetime. Despite Plotinus' polemics against the Gnostics, Neoplatonism is ultimately justified on the same sort of unpresentable, non-communicable form of individual mysticism. We know the One not through any representation of it, but rather through an experience of it.

Turning to nonphilosophy, in a somewhat infamous debate with Derrida, Laruelle at one point is asked to answer the question of justification. As Laruelle paraphrases the question, "Where do I get this

from?"[6] What, in other words, allows him to justify this complex system? Immediately, Laruelle says he cannot give a philosophical answer, which "would be to say: having reflected upon the philosophical decision and the ultimate prerequisites for transcendence, for the mixture of transcendence and immanence, I concluded that philosophy assumed something like the One and that the One had always been presupposed by philosophy but the essence of the latter had never been elucidated by philosophy."[7] This type of answer, Laruelle argues, is foreclosed because it operates on the basis of all the philosophical assumptions and tropes that nonphilosophy is attempting to avoid.

Now in response to Derrida's question, Laruelle provides an apparently quite problematic and unsatisfactory answer. Having already refused the traditional philosophical means of justification, Laruelle answers the question of 'where he gets his nonphilosophy from' by answering with the succinct and obscure claim that "I get it from the thing itself."[8] And further on he says, "We start from the One, rather than arriving at it. We start from the One, which is to say that if we go anywhere, it will be toward the World, toward Being."[9] All of this suggests a sort of immediate, direct, nonphilosophical, and immanent position within the Real. Ultimately, then, it appears that Laruelle relies on an experience of the One in order to justify it.

But despite this claim, which recurs in a few places throughout Laruelle's work, there's another option that he temporarily experiments with, although eventually dropping it. This is the idea that science provides some unique and privileged form of access to the One. Or perhaps more accurately, it's not that science provides *access* to the Real, but rather that science operates immediately from the Real, in such a way that refuses the imposition of a philosophical decision. And in fact, in his debate with Derrida, Laruelle does bring up this alternative justification as well. As he says,

6 J. Derrida and F. Laruelle, "Controversy over the Possibility of a Science of Philosophy," trans. R. Mackay, p. 8.
7 Ibid.
8 Ibid.
9 Ibid., p. 12.

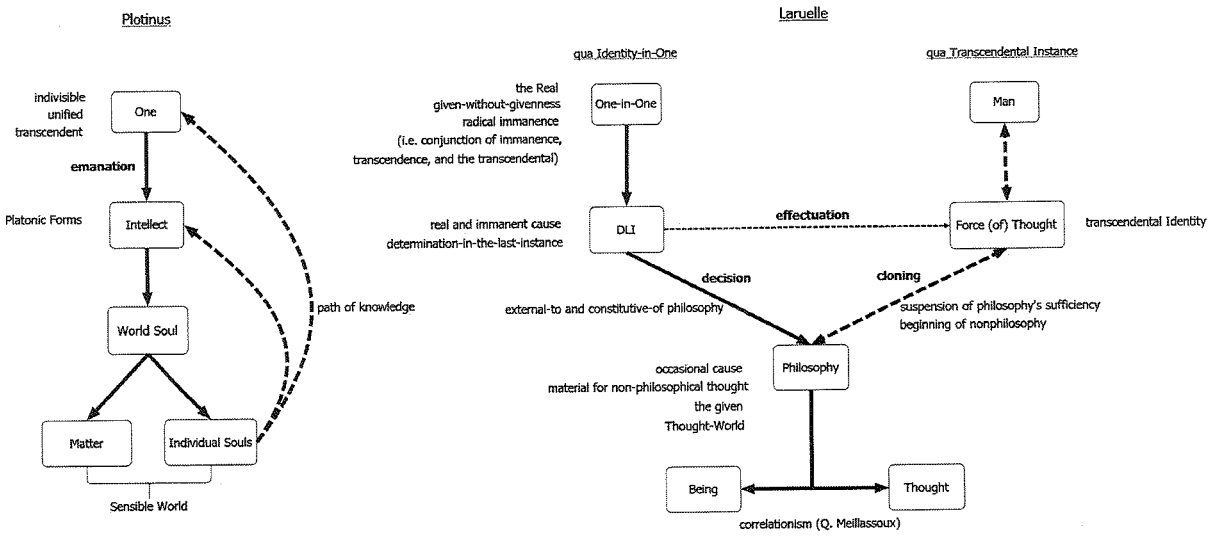
> If I continually oppose the One of science, which from my point of view explains scientific thought's profoundly realist character, its blind aspect, its deafness to the logos, its unbearable character for philosophy; if I distinguish this particular One from philosophical unity, this is for reasons that are relatively precise, ones which provided the starting point for these investigations.[10]

Four characteristics of science are outlined here: first, its realist character, the fact that it speaks the Real, independently of any humanist or philosophical conceits. Second, its blind aspect, which suggests its non-teleological and non-functional aspects. Science is not looking forward and aiming at anything; the progress of science is contingent, nonlinear, and ultimately non-intentional. The third characteristic is science's deafness to the logos, that is to say, its radical annihilation of a meaningful universe. Science does not reveal a meaningful world, but instead systematically destroys these notions. Finally, the last characteristic is science's unbearable nature for philosophy – its exemption from traditional philosophical tropes and its irreducibly distinct mode of operation.

Now while in his later work Laruelle eventually drops the uniqueness of science in favour of a more general consideration of the universal qualities of thought, it's possible to read two strains of nonphilosophy from this. The one is the more, arguably, gnostic strain that Laruelle has carried on. The alternative is the more scientific strain that Ray Brassier has been developing. Neither is particularly friendly to philosophy, and both argue for a realist vision of reality, but their difference lies precisely in the ways in which these respective commitments are justified.

10 Ibid.

Neoplatonism versus Nonphilosophy



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As the body of knowledge generated by the natural sciences advances with ever-greater speed and proficiency, questions of Life come to the fore. How we relate to our own biology and how we think the biological as such hold a central position in this regard. Can life itself be thought purely in biological terms or do we require an alternative, broader notion of nature? Is man ultimately reducible to life, or is life a separate domain in need of ontological investigation? For the next volume of Pli (23) we invite papers that approach the matter of Life and Ontology from within a variety of traditions and disciplines.

> Rather this φύσις, this prevailing of beings as a whole, is experienced by man just as immediately and entwined with things in himself and in those who are like him, those who are with him in this way. The events which man experiences in himself: procreation, birth, childhood, maturing, age, death, are not events in the narrow, present-day sense of a specifically biological process of nature. Rather, they belong to the prevailing of beings, which comprehends within itself human fate and its history. We must bring this broad sense of φύσις closer to us in order to understand this word in *that* meaning in which the philosophers of antiquity used it, who are wrongly called 'philosophers of nature'.
>
> Heidegger -*Fundamental Concepts of Metaphysics*

> That life is a kind of mechanism I cordially agree. But is it the mechanism of parts artificially isolated within the whole of the universe, or is it the mechanism of the real whole? [...] Analysis will undoubtedly resolve the process of organic creation into an ever-growing number of physico-chemical phenomena, and chemists and physicists will have to do, of course, with nothing but these. But it does not follow that chemistry and physics will ever give us the key to life.
>
> Bergson - *Creative Evolution*

Possible topics include:

- Naturalism and the nature of life
- Being vs. Life as the horizon for thinking
- The (ir)reducibility of life to mechanism
- Life-philosophy – Bergson, *Lebensphilosophie*, Dilthey
- The vitality of vitalism: Canguilhem, Deleuze, Nietzsche
- Nietzsche's biologism
- Ancient Naturalism
- German Idealism and life

Submissions should be articles no longer than 8,000 words, accompanied by an abstract, and sent by email to: plijournal@googlemail.com as a Word, ODT or RTF file. Include an e-mail address for future correspondence. The deadline for submissions is the 1st October 2011. Before submitting an article, please ensure you have read the Notes for Contributors on the Pli website, as we will only accept submissions that are formatted in accordance with these guidelines.

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- Submissions should be sent to plijournal@googlemail.com
- They should be double spaced in rich text format or word document format.
- Accepted submissions will be printed from the electronic copy supplied. References and notes should be given in the form of footnotes. Book titles and non-English terms should be italicised, and British spelling should be used throughout. All articles should be submitted in Times New Roman.
- Footnote references should conform to the style of the following examples:

  I. Kant, *Critique of Pure Reason*, trans. by N. Kemp Smith (London: Macmillan, 1929), hereafter *CPR*.
  G. Deleuze, *Foucault* (Paris: Minuit, 1986), p. 24.
  D. W. Conway, 'Genealogy and Critical Method', in, *Nietzsche, Genealogy, History*, ed. by R. Schacht (Berkeley: University of California Press, 1994), pp. 318-33, esp. p. 320.
  D. Sedley, 'Epicurus, On Nature Book 28', *Cronache Ercolanesi* 3 (1973), 5-83, p. 56.

In general, submissions should follow the guidelines outlined in the *MHRA Style Guide*, 2nd edition (London: Modern Humanities Research Association, 2008).