

ALAIN BADIOU: PROBLEMATICS AND THE DIFFERENT SENSES OF BEING IN *BEING AND EVENT*¹

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Much ink has been spilt, both in France and in the English speaking philosophical world, over Alain Badiou's controversial reading of Gilles Deleuze and his accusation that Deleuze's "univocal ontology" does not so much think the being of the multiple as it does that of the "One-All."² My intention here is not, however, to leap once more to Deleuze's defense. Rather, I would like to examine Badiou's ontology on its own terms and bring to light a little perceived aspect of it, namely, that it presupposes what can be called a "philosophical problematic."³ Readers of Deleuze will of course realize that Deleuze's ontology is often couched in terms of a general theory of problems, particularly in *Difference and Repetition*, but there will not be space here to draw out all of the implications of this fact. I shall rather concentrate on clarifying what is meant when I say that Badiou's philosophical enterprise in *Being and Event* refers to a prior problematic and examine some of the consequences of that presupposition.



The ontological situation, for Badiou, is the situation that offers an account of the "one" of situational being in general. As Badiou says, the ontological situation, which is here to be understood as set theory, "presents presentation."⁴ That is to say, it counts as "one" what is presupposed by and counted in every situation: inconsistent multiplicity, formalized within set-theory ontology as the void set. And this is so even if, at the limit, this "one" must be thought of as a universal "for all" or an open "generic multiple" as opposed to a finished totality.⁵ For Badiou, Cohen's mathematico-ontological proof, within the Zermelo-Fraenkel axiom system (ZF), of the essential inconsistency of multiple-being, reproduces within mathematical ontology the generic or "one"-truth of inconsistent multiple-being in general.⁶

That ontology is itself a situation that presents situational being in general is, of course, another way of saying that Badiou's ontology is an immanent ontology. Possessing such an immanent ontology, then, one would expect that "being" is a univocal concept in Badiou's philosophical system. And here, all that need be understood by "univocal being" is that "being" means the same thing for everything that "is." In other words, if, as is the case for Badiou, "there is nothing apart from situations," and if "ontology...is a situation" (BE 25/33), one would expect that ontology "is" in the same way as any other situation. However, when one examines how Badiou effectively develops the thesis that mathematical set theory is ontology, one sees that something more and altogether different is required. This "something more" is what can be called a philosophical "problematic"; and it is only in relation to this problematic that the thesis, "ontology = mathematics," can be developed (this problematic, it must be said, runs deeper than Badiou's meta-philosophy which, as will be seen, already operates according to different laws than those which govern situations in general). What seems crucial, then, is that the requirement of this "supplement" means that one can *only* affirm that set-theory ontology "presents

presentation” according to *another*, prior presentation: a presentation of the presentation of presentation, as it were. In other words, the ontological situation cannot present itself as the presentation of presentation. But then this is finally to say that being is equivocal in Badiou’s system. Being is said in at least two different senses: once *for* the situation that is ontology itself and once again *by* ontology.

In what follows, in order to flesh out my argument that there is an equivocity of being in Badiou’s philosophy, I have broken matters into two sections. First of all, I will examine Badiou’s meta-philosophy and its requirement of a relation of “compossibility” between philosophy’s conditions: an extra-ontological relation which is a necessary (if not sufficient) requirement for establishing the status of set-theory ontology. I will then move on to an examination of *Being and Event* in order to show that the affirmation “ontology = mathematics” is effectively determined only insofar as set theory is capable of providing solutions to a series of various historico-philosophical or ontological problems, usually expressed in the form of yet-to-be-determined relationships between contrary notions: the one and the multiple, Nature as pre-Platonic poem versus Nature as Idea, the finite and the infinite, the continuous and the discrete, and so on. As will be seen, Badiou’s method here closely follows the work of Albert Lautman. At the end of this study, it shall be seen that Badiou’s assertion that “ontology = mathematics” implies an equivocal concept of being. In other words, it will be seen that being is said: *once* for this assertion in accordance with what I have called a philosophical problematic which incorporates both the relationship of compossibility among philosophy’s conditions and the ideal of a resolution of certain contrary notions; and *once again* for what ontology can say of being in general *in accordance with* this philosophical problematic. Having established this point, by way of conclusion, I shall turn to examine several disadvantages that such an equivocal conception of being presents.

BADIOU’S META-PHILOSOPHY

For an account of Badiou’s “meta-philosophy,” one must turn to his *Manifesto for Philosophy*,⁷ originally published in 1989, just one year after *Being and Event*. I will here give a schematic outline of the theses advanced in this text in order to clarify certain propositions on the nature of the relationship that Badiou establishes between philosophy and the “ontological situation.”

What must be said first of all is that philosophy, for Badiou, has a determined relationship to its *outside*. That is to say, since its way of being is *discontinuous* in time and space, philosophy *must* have certain extra-philosophical “conditions” which determine it to begin, or indeed, to begin again.⁸ These conditions, which are of four types, are the “generic” or “truth procedures” resulting from major upheavals or “events” in the fields of science, politics, art and love (MP 33-36/13-16). The specific role of philosophy, then, is to propose a unified conceptual space for—or, as Badiou elaborates, to think the *compossibility* of—its contemporary conditions (MP 37/17-18).

On the other hand, following Badiou, philosophy since Descartes and up until Heidegger has *internally* maintained (though obviously with modifications) certain “nodal concepts” which organize the thinking of these external and diverse conditions within the same conceptual space. These nodal concepts are: “being,” “Truth” (with a capital “T”) and “the subject” (MP 32/12). These concepts evidently have their specific correlates, depending on the particular philosophical conceptual family under consideration (thus, for Badiou, one finds: the situation, the State, the undecidable event, the indiscernible multiple, etc.). But what is crucial is that Badiou argues that the *meaning* of all of the concepts in his system is grounded, in the final analysis, in certain contemporary events in the four domains listed above (MP 79-80/59-60). In other words, philosophy’s external conditions somehow clarify and orient the task of philosophy, even in the concepts which philosophy internally deploys. And this is so even if the ultimate determination of these concepts in a given philosophy must necessarily be different from whatever way they might be thought of in the external conditions.

What, then, are the conditioning events for the nodal concepts of the subject, Truth and being, and for which Badiou must think the compossibility? Firstly, after May 68, the Chinese Cultural Revolution and the advent of Lacanian psychoanalysis, we have witnessed the collapse of classical Marxism and the traditional figure of

love to the benefit of a new “dialectics” – a new figure of the “Two” – which need not presuppose any objective class or sexual essence for the political or amorous *subject*. With the poetry of Mallarmé and Celan, among others, we see the destitution of the category of the object, that is, we arrive at the idea that *truth* – that is, poetic truth – does not entail an object. Finally, in the order of the matheme, the development of set theory from Cantor to Paul Cohen breaks with the traditional alternative implicated in the “gathering of multiple-being” (nominalist thought *or* transcendent thought) and provides a rigorous concept of the indiscernible as a “generic multiplicity,” allowing one to approach the truth of the *being* of any given multiple (MP 79-96/59-78).

How, then, do the nodal concepts of philosophy – and their correlates in Badiou’s system – organize the thinking together of these events (even as these events clarify the meaning of said concepts)? Briefly, it is by affirming, firstly, that a *truth* has no need of an object precisely because it is the result of an infinite procedure or generic multiple. Secondly, it is by arguing that the Two or dialectics, rather than having an objective foundation, is founded upon an undecidable event which supplements a multiple-situation and leads to the production, *within multiple-being itself*, of the truth of this event-supplemented situation as a generic multiplicity. Finally, it must be said that while there is no object, there is indeed a *subject*, which is itself a finite moment of this infinite generic procedure (MP 95-96/77-78, 108/91). It is in this schematic way that Badiou’s philosophy thinks the compossibility of the truth procedures which have their origin in the aforementioned contemporary events in the domains of science, politics, art and love.

One should also be careful to note here that it is altogether excluded that philosophy itself produce truths (with a small “t”). Rather, for Badiou, philosophy declares that there are truths (scientific, political, etc.) which condition it and organizes their thinking together under the empty but operational, philosophical category of Truth (with a capital “T”).⁹ Indeed, if philosophy did generate truths, be this The Truth of truths, it would have to deny the existence of those truths which, *as truths*, impress themselves upon philosophy and condition it. Thus, it must rather be said that instead of producing truths, philosophy “seizes” truths. It seizes truths by means of demonstrative proof (whose schema is borrowed from the sciences), rhetorical devices (borrowed from art), political considerations, and the singular intensity of love without an object, and in turn causes these truths to “seize us,” in the sense of “amaze” and “captivate” (MP 123-127/C 65-69).

Finally then, what can be said about this strange notion of “compossibility”? It is widely known that this notion comes from Leibniz where it names a principle of “differential consistency” between the different things – possible in themselves – to which God will grant existence. God, in other words, seeing all of the different possibles that he conceives of in his understanding, brings into existence, and in strict accordance with his perfections (God is all good, all wise, all powerful, etc.), the “richest” or “best” series of such different possibles. But what is important to remember here, as Leibniz says, is that not all that is possible in itself is com-possible with other, different things. Thus, the possibles which are *in-compossible* with the chosen world, while remaining possible in themselves, will not be brought into existence. It follows, therefore, that the sort of consistency implied by the relationship of compossibility between possibles in no way results from an evident “totalizability” of possibles which would necessitate God’s choice. Indeed, God must be free to choose, as befits his concept.¹⁰ But this in turn means two things. On the one hand, it means that God remains essentially distinct from the matter at stake in his choice (indeed, God is perfect and the series of things that make up the existing world are necessarily imperfect). On the other hand, it means that the richest and best series of compossibles do not form a necessary totality so much as *infinitely converge toward a limit which is nothing other, from the finite point of view of existing individuals, than the ever vanishing difference between the perfections implied in the concept of God and the apparent imperfections of the world to which God grants existence.*¹¹ One can, therefore, say that Leibnizian compossibility is a consistency which, while determined, remains distinct from its determinant which is in any case not a necessary totality but an infinite limit for the convergence of differences in general: that is, not only for the differences between possibles, but also the difference between the perfections attributed to God and the imperfections of existence.

Similarly, then, examining Badiou's meta-philosophy, one can see that it is precisely this fourfold definition of compossibility that is at work, even if it is no longer God but philosophy that compossibilizes; and that it compossibilizes, not possible things, but truth procedures. This can be seen, first of all, in that, in order to compossibilize its conditions, philosophy must provide a conceptually *unified* thinking of its conditions (MP 37-38/17-19). This "thinking together" of the conditions, however, due to the conditions' fundamentally heterogeneous natures, can in no way amount to a *totalization* (MP 37/18, 88/69). Thirdly, philosophy will remain *independent* of its conditions to the extent that it is not "sutured" to any single one of them, thereby handing over the freedom of its thought to that particular procedure (see MP 61-67/41-48).¹² Finally, it can be said that the *difference* between the truths that condition philosophy and the empty philosophical category of Truth (with a capital T) forms a type of limit toward which *truths, insofar as they can be thought together "in Truth", converge without ever reaching*. This is because multiple truths could only condition philosophical Truth to "seize" them as truths insofar as they *converge upon but without ever reaching the point of determining The Truth of truths*.¹³ In other words, the systematic explanatory power of consistent truths must be sufficient to condition Truth to convincingly "seize" them all and declare their existence as truths, but not enough to make this Truth into "The Truth of truths" and thereby deny the existence of a plurality of truths.¹⁴ Badiou affirms this fourfold definition of "compossibility" when he describes philosophy as a "system" which carries out "a complete configuration of the four generic conditions of philosophy...by means of an exposition that also exposes its expository rule," but without recourse to any "supreme signifier" (MP 66/46). And indeed, it has been outlined above how Badiou's system, beginning with the idea that any philosophy necessarily has certain conditions, both defines and is defined by the compossibility of its contemporary conditions.

Some conclusions can now be drawn from this discussion. What must first of all be said is that if philosophy is not a truth procedure, nor is it a "situation." On the one hand, it seems to be irreducibly *inter-situational*: it does not strictly speaking "present" or even "re-present" its conditions; it is rather *between* them, un-sutured as it were. On the other hand, having no "master signifier" and not being a truth procedure (philosophy cannot have the sort of being that corresponds to a truth), philosophy has no articulable structure which would "count-as-one" its matter. Philosophy, it seems, is entirely unique and operates according to a law—that of the compossibilization of its conditions—which is totally unlike the laws that govern situations in general. Indeed, and this will here form the crux of my reading of Badiou, would it not be possible to describe this law of compossibilization within the framework of a "*problematics*," a problematics that would precede any ontological "axiomatics"?¹⁵ In other words, to the extent that philosophy is therein determined to resolve the forever open problem implied in the articulation of truths to determine Truth to seize them as such, does not compossibilization appear to be irreducibly problematic? I shall examine in greater detail this notion of the "problematic" in the following section.

The second conclusion that can be drawn relates more specifically to how Badiou must think the relationship between philosophy and the "ontological situation," which here corresponds to the event of set theory. It is known that the philosophical designation of the event of set theory as ontology *must result* from the way in which philosophy's external, evental conditions—bearing on the internal nodal concepts of "being," "Truth" and "the subject"—can be thought together as compossible. In a necessary (but, as will be seen, not sufficient) sense then, it is only because of the *prior* demands of philosophy's conditions that *Being and Event* will set out to show how the development of set theory from Cantor to Cohen can provide the general framework for thinking being *qua* being. But now, it should also be clear that, insofar as this "prior demand" is articulated in the work of compossibilization, it is nothing other than the demand of a *prior problematics*: the problem of articulating philosophy's conditions to determine Truth to seize them as truths. I shall return to this point. For now, let us turn to an examination of the first half of *Being and Event*—the "*Being*" section as it were—in order to clarify how Badiou effectively establishes therein the thesis "ontology = mathematics." As will be seen, Badiou's method here goes beyond the scope of his meta-philosophy.

PROBLEMATICS IN *BEING AND EVENT*

I would like to show in this section that the affirmation that set theory *is* ontology emerges as a response to a series of more or less traditional metaphysical problems (and this quite apart from Badiou's meditations, which will not be dealt with here, on various figures in the history of philosophy). These problems are expressed in the form of pairs of contrary notions or dialectical couples: the one and the multiple, Nature as pre-Platonic poem versus Nature as Idea, the finite and the infinite (the distribution of being-in-totality) and the continuous and the discontinuous. I shall demonstrate below exactly how the ZF axioms which "found" Badiou's set-theory ontology (BE 499/536) together resolve this series of dialectical couples. But first of all, let us briefly examine the work of Albert Lautman, since Badiou's method here seems to be in accordance with Lautman's theses, and since Badiou openly declares that what he owes to Lautman's writings, "even in the very foundational intuitions for this book [i.e., *Being and Event*], is immeasurable" (BE 482/522).

Lautman and the Dialectic of Ideas

The philosopher of mathematics, Albert Lautman, distinguished several layers of mathematical reality. Apart from mathematical facts, entities and theories, Lautman also argued for the existence of a "dialectic of Ideas" which governs the development of theories and provides them with their unity, meaning and philosophical value.¹⁶ This dialectic, following Lautman, is constituted by pairs of opposites (same and other, whole and part, continuous and discontinuous, essence and existence, etc.), and the Ideas of this dialectic present themselves as the *problem* of establishing relationships between these opposed notions (MIRP 229, 243, 260, 276). As prior "questions" or "logical concerns" relative to possible affirmations of existence within mathematical discourse, these problematic Ideas are thus *transcendent* with respect to mathematics and can be posed outside of mathematics. Indeed, many of the pairs of opposites analyzed by Lautman can be found in the history of philosophy. However, since the Ideas, in order to be thought concretely, require an appropriate "matter" in which they can be thought, any effort to respond to the problems that they pose is to effectively constitute mathematical theory. In this sense, therefore, the dialectic must equally be said to be *immanent* to mathematics (MIRP 66, 229, 243-244, 262).

In order to avoid the charge of a naive idealism (indeed, Lautman's "Platonism" bears little resemblance to that which is ordinarily labeled Platonism in mathematics), Lautman is careful to qualify the transcendence of Ideas as simply the *possibility* of experiencing concern for a mode of connection between two ideas (MIRP 229). The anteriority of Ideas is here rational, logical or ontological as opposed to psychological or historical (MIRP 260). And this is precisely why Lautman argues that mathematics not only incarnates traditional metaphysical problems; it can also give birth to problems which could not have been previously posed. The philosophy of mathematics does not, therefore, consist so much in finding a classical metaphysical problem within a mathematical theory, as grasping the overall structure of a theory in order to extract the logical problem which is at once defined and resolved by the very existence of this theory (MIRP 229). Nevertheless, as Lautman goes on to argue, just as, in the very meaning of these terms, "intention" must precede "design" and the question the response, the existence of established mathematical relations necessarily refers to the *prior*, positive Idea of the search for such relations (MIRP 242). Or to put it another way, because the sufficient reason for the diversity and development of mathematical theories, along with their progressive integrations and interferences, cannot be found within mathematics itself,¹⁷ one is obliged to affirm the prior existence of something like the dialectic of Ideas. In short, to conceive of the historical development of diverse mathematical theories and their "mixes"¹⁸ as responses or solutions to problematic Ideas is to give *unity and meaning* to these theories.

It is of course clear that Badiou's concern is not that of the unity and meaning of mathematics in Lautman's sense. However, it is the contention of this essay that there is something like a dialectic of Ideas that traverses *Being and Event*, and that it is precisely this dialectic that allows Badiou to make the claim that "ontology = set theory." Or to put it another way, it is only because Badiou shows set theory to be capable of providing a systematic response to a series of dialectically opposed notions which can be found in the history of ontology

(and philosophy more generally) that set theory can be said to be ontology. Indeed, it has already been seen at a meta-philosophical level how the development of set theory, insofar as it is taken up by Badiou as one of his philosophy's conditions, must be understood as providing, in its compossibility with other such conditions, a partial resolution to the problematic relation between "the particular and the universal" such as this applies to what falls under Badiou's philosophical conception of truth. But it is to uncover the functioning of some other problematic pairs of opposites at work in *Being and Event* that we must now turn.

The One and the Multiple.

Being and Event begins by outlining and then advancing a solution to the problem of the "one and the multiple." This is a problem, Badiou argues, that any possible ontology will have to deal with. It can be unpacked as follows. Firstly, any presented concrete thing must be *one*. It is, after all, *this* thing. Secondly, however, it is obvious that presentation itself is *multiple*: it is only ever a more or less confused manifold that is synthesized or counted as one. When it is asked whether being is one or multiple, therefore, one comes to an impasse. For, on the one hand, if being is one, then the multiple cannot be. On the other hand, if presentation is multiple and there cannot be an access to being outside of all presentation, then the multiple must be. But if the multiple is, then being is not equivalent to the one. And yet there is a presentation of *this* multiple only if what is presented is one. Badiou then says that this deadlock can only be broken by a decision which he does not hesitate to make: that the one, strictly speaking, is *not*, it can only be a *result*, a presented multiplicity which has been *counted for one*. Badiou calls such a consistent multiplicity a *situation*, and every situation must have a *structure* which prescribes the regime of its count-for-one (BE 23-24/31-32).

The picture that ensues from this decision is the following: every identifiable being is in situation. Every being is, in other words, a consistent multiplicity, counted-for-one. Indeed, what is not in situation, what is not counted-for-one as this or that thing, could only be qualified as *no-thing*. "There are" only situations, that is, consistent one-multiples, and these situations must all be downstream from a structuring or count-as-one operation (whatever this may turn out to be). Indeed, even ontology must be a structured situation. However, at the same time, to say as I did above that the one is a *result* must mean that *upstream* from any possible count-as-one there must be, and could only be, inconsistent multiplicity. In the final analysis, then, if the one is always already only a result, inconsistent multiplicity—this *no-thing* which is outside of any situation—must necessarily be presupposed as the very "stuff" that is counted and hence the pure unqualified being of any possible being (BE 24-25/32-34).

But now, since being is presented in every presentation, and since everything that "is" must be in situation, this unqualified being could itself "be" only in presentation. So, then, what could be the structure – the science – of this inconsistent or unqualified being *qua* being? In other words, what could ontology be? It must be a situation capable of presenting inconsistent multiplicity *as* that from which every in-situation "thing" is composed. It will "present presentation" in general (BE 27-28/35-36). The only way that ontology can do this, following Badiou, is by showing in its very structure that this no-thing exists, and that everything in the ontological situation is composed out of it, but without thereby giving it any other predicate other than its multiplicity. And for Badiou, *it is the axioms of set-theory which fulfill this prior structural necessity*, since they only give an implicit definition of what it operates on: the pure multiple (BE 28-30/36-38, 52-59/65-72). In short, then, for Badiou, *insofar as set theory alone can respond to the above analyzed ontological problematic, it is the only possible ontology*.

So how exactly do the ZF axioms fulfill ontology's *a priori* requirements, the requirements which, it is evident, correspond to nothing *internal* to set theory? First of all, it reduces the one to the status of a relationship, that of simple *belonging*, written \in . In other words, everything will be presented, not according to the one of a concept, but only according to its relation of belonging or counting-for-one: 'something = α ' will thus only be presented according to a multiple β , written $\alpha \in \beta$ or ' α is an element of β .' Secondly, the theory has only one type of variable and hence does not distinguish between "objects" and "groups of objects," or between "elements" and "sets." In other words, to be an element is not an intrinsic quality in ZF. It is a simple relation: to-be-an-element-of. Thus, by the uniformity of its variables, the theory can indicate without definition that it does not speak of

the one, and that all that it presents in the implicitness of its rules are multiples of multiples: multiples belonging to or presented by other multiples. Indeed, and thirdly, via the “axiom of separation,” the system affirms that a property or formula of language does not directly present an existing multiple. Rather, such a presentation could only ever be a “separation” or sub-set of an already presented multiplicity. A property only determines a multiple under the supposition that there is already a presented multiple (BE 43-48/54-59). Everything thus hinges on the determination of the initial pure multiple. But as was seen above, as a necessary consequence of the decision that the one results—called for by the paradoxical relationship between the one and the multiple—there must be, upstream from any count, inconsistent multiplicity, and it is this which is counted. It appears, then, that this inconsistent multiple—the void, the unrepresentable of presentative consistency—is the absolutely initial multiple.

But now, how can the void have its existence assured, and in such a way that ontology can weave all of its compositions from it alone? As Badiou says, it is by making this nothing *be* through the assumption of a pure proper name: \emptyset (BE 66-67/80). That the void is presented – named – is not to say, of course, that the void is thereby one. What is named is not the one of the void, but rather its *uniqueness*, its “unicity.” In what sense is the void unique? Another axiom of ZF tells us this. This is the “axiom of extensionality” which will fix the rule of the difference or sameness for any two multiples whatsoever; that is, according to the elements which belong to each. The void set, then, having no elements—being the multiple of nothing—can have no conceivable differentiating mark according to this axiom. But then, if no difference can be attested, this means that there is a unicity of the unrepresentable within presentation. There cannot be “several” voids: the void is unique and this is what is signaled by the proper name, \emptyset (BE 67-69/80-83).

So how does set-theory ontology weave its compositions out of this proper name? What is crucial to this operation is the “power-set axiom” or “axiom of subsets.” This axiom guarantees that if a set exists, another set also exists that counts as one all the subsets of this first set, thereby regulating or counting as one the *internal compositions* of a given being or situation. It has been seen what belonging means: an element (a multiple) belongs to a situation (a set) if it is directly presented and counted for one by this situation. Inclusion, on the other hand, concerns subsets or parts of a situation rather than directly presented elements. In other words, elements directly presented by a set can be re-presented, that is, grouped into subsets that are said to be included in the initial set. Inclusion is written $C: \alpha \subset \beta$ or α is a subset (a part) of β .¹⁹ The power-set axiom gathers together and counts as one all such inclusions, all of the sub-compositions of internal multiples. It says that if a set α exists, there also exists the set of all its subsets: its power set $p(\alpha)$ (BE 81-84/95-98). What, then, can be said of the void from the point of view of the difference between belonging and inclusion?

It has already been seen that the void is never presented: it never belongs to another multiple. What is more, since the void is the multiple of nothing, nothing belongs to the void. However, it can be shown both that the void is a *subset* of any set – it is universally *included* – and that the void *possesses a subset*, which is the void itself (BE 86/100). Indeed, it is impossible for the empty set *not* to be universally included. For, following the axiom of extensionality, since the set \emptyset has no elements, nothing is marked which could deny its inclusion in any multiple.²⁰ Furthermore, then, since the set \emptyset is itself an existent-multiple, \emptyset must be a subset of itself (BE 86-87/101-102).

One can now begin to see how the laws of being will weave its compositions out of the void. The argument is as follows: since the void admits at least one subset, itself, the power-set axiom can be applied. The set of subsets of the void, $p(\emptyset)$, is the set to which everything included in the void belongs. Thus, since \emptyset is included in \emptyset , \emptyset belongs to $p(\emptyset)$. This new set, $p(\emptyset)$, is thus “our second existent-multiple in the ‘genealogical’ framework of the set-theory axiomatic. It is written $\{\emptyset\}$ and \emptyset is its sole element”: $\emptyset \in \{\emptyset\}$ (BE 89/103). Now, let us consider the set of subsets of $\{\emptyset\}$, that is $p(\{\emptyset\})$. This set exists, since $\{\emptyset\}$ exists. What, then, are the parts of $\{\emptyset\}$? There is $\{\emptyset\}$ itself, which is the total part, and there is \emptyset , since the void is universally included in any multiple. The multiple $p(\{\emptyset\})$ is thus a multiple with *two* elements, \emptyset and $\{\emptyset\}$. This is, in fact, woven from the void, “the ontological schema of the Two,” which can be written $\{\emptyset, \{\emptyset\}\}$ (BE 92/106-107, 131-132/150-151).

It becomes clear that this is where the unlimited production of new multiples begins, woven from the void in accordance with the laws of being (and particularly the power-set axiom). For, since this set, $\{\emptyset, \{\emptyset\}\}$, exists, one can consider its power set $p(\{\emptyset, \{\emptyset\}\})$, etc. ... This process can obviously be repeated indefinitely and it is in fact in this way that one can generate our counting numbers, our “natural” or “ordinal” numbers (also called Von Neumann ordinals):

$$\begin{aligned} 0 &= \emptyset \\ 1 &= \{\emptyset\} = \{0\} \\ 2 &= \{\emptyset, \{\emptyset\}\} = \{0, 1\} \\ 3 &= \{\emptyset, \{\emptyset, \{\emptyset, \{\emptyset\}\}\} = \{0, 1, 2\} \dots^{21} \end{aligned}$$

Nature as Pre-Platonic Poem or Nature as Idea.

Indeed, it is from this generation of “natural” numbers, all woven from the void in accordance with the axioms of being, that Badiou will establish his concept of “Nature.” Or more precisely, that Badiou understands Nature in this way is *the result* of the way in which set-theory ontology provides a resolution of the tension, highlighted since the work of Heidegger, between Nature understood poetically as appearance or the poetic coming-to-presence of being (the pre-Platonic poem), and Nature interpreted as Idea, subtracted from all appearance (in the manner of Plato) (BE 123-129/141-147; on Plato see also BE 31-37/41-47). In other words, within the perspective of a set-theoretical ontology, Badiou will be able to find another arrangement of these two opposed orientations. In short, following Heidegger, he will maintain that Nature is “the stability of maintaining-itself-there” within the opening forth of its immanent coming-to-presence. On the other hand, he will mathematize the Platonic subtraction of being from appearance. Or again, he will develop a concept of Nature as a network of multiples which are interlocking and exhaustive without remainder, but which are also woven entirely from what is subtracted from all presence: the void. The point is, of course, that *without* reference to the opposing conceptions of Nature belonging to Heidegger and Plato, the assertion that natural or ordinal numbers formalize the being of natural things would appear somewhat arbitrary or as a play on words. Certainly, nothing within set theory itself authorizes such an ontological appropriation of the generation of ordinals.

Let us follow Badiou as he formulates his concept of Nature in the wake of this dialectical couple. On the one hand, conceding the stability of Nature to Heidegger, a multiple α will be said to be *natural* (also called normal, ordinal or transitive) if every element β of this set is also a subset or part (that is, if $\beta \in \alpha$ then $\beta \subset \alpha$), *and* if every element β of α is itself natural in this way (that is, if $\gamma \in \beta$ then $\gamma \subset \beta$). This doubling of belonging and inclusion guarantees that there is nothing uncounted or unsecured in natural multiples which might contradict their internal consistency and concatenation. Just as Nature can never contradict itself, natural multiples remain homogeneous in dissemination. Every natural multiple is here obviously a “piece” of another, for, by the definition of inclusion, if β is included in the natural multiple α , every element γ that belongs to β must also belong to α , and so on (BE 123-129/141-147).

On the other hand, mathematizing Platonic subtraction, it can be said that the name of the void *founds* the series of natural multiples, conceived of in the way that has just been seen, in the double sense of formalizing its concept and acting as its indivisible limit or atom. As examined above, an unlimited series of natural multiples can be generated from the void and the laws of ontology. For not only does the element $\{\emptyset\}$ have \emptyset as its unique element, since the void is a universal part, this element \emptyset is also a part. Furthermore, since the element \emptyset does not present any element, nothing belongs to it that *is not* a part. There is thus no obstacle to declaring it to be natural. As such, the power set of $\{\emptyset\}$ — $p(\{\emptyset\})$ or the Two: $\{\emptyset, \{\emptyset\}\}$ —is natural, and all of its elements are natural, etc. Ordinal numbers thus both formalize the concept of natural multiples within set theory and are themselves existing natural multiples. And what is more, the name of the void is the ultimate natural element or atom which founds the entire series, in the sense in which the void is the “smallest” natural multiple. In other words, if every natural multiple is a “piece” of every other, the void is the only natural multiple to which no further element belongs (BE 130-140/149-159).

Needless to say, however, in Badiou's set-theoretical concept of Nature, there can be no possible formulation of Nature *in itself*. For Nature in itself would have to be a multiple which makes a one out of all the ordinals. But since this multiple would itself have to be an ordinal to make a one out of all the ordinals that belong to it, it would have to belong to itself. However, since no set can belong to itself, Nature in itself can have no sayable being (BE 140-141/159-160). Indeed, that no founded or consistent set can belong to itself is a fundamental presupposition of set theory. The ZF axiom system can even be said to have arisen in response to the paradoxes induced by self-belonging, such as those demonstrated by Russell (BE 40-43/51-54). In fact, the ZF "axiom of *foundation*" was formulated in order to exclude the introduction of sets which belong to themselves. This axiom says that a set is founded if it has at least one element whose elements are not themselves elements of the initial set, that is, if it contains an element which has no members in common with the initial set. It is thus obvious that no set founded in this way can belong to itself (BE 185-187/207-208).

The Finite and the Infinite: the Distribution of Being-in-Totality.

This last point leads to a further problem, even if Badiou does not pose it in quite this way. What is crucial here is that this problem corresponds to that of the ontological problem of being-in-totality. It has been seen that there cannot be a set of all sets which would govern the total count. But this does not in any way dispense with the task of examining the operation of the count. For precisely, when one turns to examine it, one notices something strange: because the one is not, because the count-as-one is only an operation, something always escapes the count-as-one and threatens thereby to ruin consistency. This "something" is nothing other than the count itself, and this is true of natural as much as non-natural situations (BE 93-94/109-110). In other words, because the "one" is only an operational result, if the count-as-one is not itself counted for one, it is impossible to verify that 'there is Oneness' is also valid for the counting operation. "The consistency of presentation thus requires that all structure be *doubled* by a metastructure which secures the former against any fixation of the void," that is, against any inconsistency (BE 93-94/109). This metastructure of a structured set—what Badiou also calls the *state of the situation* (BE 95/111)—is precisely the power set which counts as one all of the initial set's parts. That is to say that it counts all of the possible *internal compositions* of the elements of the initial set up to and including the "total part": the composition of elements that *is* the initial set. "The completeness of the initial one-effect is thus definitely, in turn, counted as one by the state in the form of its effective whole" (BE 98/114).

Be that as it may, one cannot dispense in this way with the problem of the completion of the count of one-results without also dealing with a second historico-philosophical problem, a problem which can be phrased as: what is the relationship between being-in-totality and the finite/infinite couple? Or again: in the shadow of the problem of being-in-totality, what does it mean to say with the moderns that Nature is *essentially* infinite (BE 143/162)? Following Badiou's reconstruction of the history of the relationship between being-in-totality and the finite/infinite couple, one observes first of all that Aristotle's ontology was a finite ontology, since he refused to accept the existence of anything *actually infinite* or "nontraversable" in physical nature. Indeed, for Aristotle, infinity could only be "potential." Medieval ontology, for its part, kept the finite Aristotelian ontology and supplemented it with an infinite being: God. Being-in-totality was thus here distributed into finite and infinite beings, God representing the punctual limit of what finite beings cannot know (BE 142-143/161-162). Now, however, with the moderns, the concept of infinity shifts from God to Nature. But this does not mean that Nature is likened to a de-punctualized God. Indeed, as shown in Kant's antinomies, the one of Nature is illusory. Thus, following Badiou, since the one is not, *that Nature is infinite must necessarily mean that presentation itself is infinite*, and indeed infinitely infinite. If the one is not, there cannot be any one-infinite-being but only, as will be seen, numerous infinite multiples. The recognition of the infinity of Nature, the infinity of being, is the recognition of the infinity of situations: the count-as-one, even of a finite natural multiple, concerns an infinity of infinite multiples (BE 143-146/162-165).

What does it mean exactly when Badiou says that Nature or the count-as-one concerns infinite multiples? To say that situations are *essentially* infinite must mean that the finite is itself derived from the infinite. For, precisely, would not the *succession* of finite natural multiples or ordinals have need of the infinite in order to qualify it as the

one-multiple that it is, that is, in order to form-one out of *all* of its terms? This is what the “axiom of infinity” declares: there exists an *infinite limit ordinal*, ω_0 , and for all α , if α belongs to this limit ordinal and if α is not void, then α is a finite, natural successor ordinal (\emptyset of course is the initial existent multiple, not a successor). One can thus see that infinity counts-as-one all of the successor ordinals insofar as it is the “support-multiple in which all the ordinals passed through mark themselves, step by step” (BE 155-156/175).

Strictly speaking, however, infinity is not simply equivalent to the limit ordinal ω_0 , for one can also generate infinite successor ordinals for it such that, precisely, $\omega_0 \in S(\omega_0)$ (also written ω_1) (see BE 275-277/304-306).²² So, then, an ordinal is infinite if it is ω_0 or if ω_0 belongs to it. An ordinal is finite if it belongs to ω_0 (BE 158-159/177-178).

It is thus in this way that Badiou can affirm, *with* the moderns but also *within* his set-theory ontology, that Nature is infinite. Or again, that being *qua* being is infinite. Or finally, that what can be said of being *qua* being – the presentation of inconsistent multiplicity or of what would be presentation in itself – essentially concerns infinite multiples and indeed, since one can always generate further infinite successor ordinals, an infinite number of infinite multiples (see BE 275-277/304-306). Yet this is not the end of the problem of the distribution of the finite and the infinite within being-in-totality. For it must now be asked: what here becomes of the necessary re-securing relationship between presentation and re-presentation—between the count and the count of the count—with respect to this understanding of the essential infinity of natural presentation? For a finite set of n elements, the power set is obviously equivalent to 2^n , but what could the power-set of an *infinite* set possibly amount to?

The Continuous and the Discrete.

In fact, the more precise question that Badiou asks is the following: is the power-set $\mathcal{P}(\omega_0)$ —that is to say, the count-as-one of all possible sub-sets of the complete series of finite natural numbers, sufficient for a complete numerical description of the geometrical continuum—equivalent to ω_1 , the smallest infinite natural multiple which directly succeeds and counts-as-one ω_0 ? This is Cantor’s famous “continuum hypothesis” (see BE 295/327). The importance of this hypothesis is that, if it were true, we would have a “natural measure” for the geometrical or physical continuum. Or in other words, we would have a quantitative knowledge of being *qua* being. For, if the continuum could be numerically measured, every discrete multiple could be quantitatively secured therein. The “great question” of Badiou’s set-theory ontology, translating the problematic couple continuous/discrete, is thus: is there an essential “numerosity” of being (BE 265/293)? The answer is: we possess a natural measuring scale (the succession of ordinals), but it is impossible to determine where, on this scale, the set of parts of ω_0 is situated (BE 277-278/306-307). Or more precisely, following the work of Cohen and Easton, it appears that

it is deductively acceptable to posit that [$\mathcal{P}(\omega_0)$ is equal to] ω_{347} , or $\omega(\omega_{0+18})$, or whatever other cardinal as immense as you like...Easton’s theorem establishes the quasi-total errancy of the excess of the state over the situation. It is as though, between the structure in which the immediacy of belonging is delivered, and the metastructure which counts as one the parts and regulates the inclusions, a chasm opens (BE 280/308-309).

To recap: On the one hand, The One is not and being *qua* being essentially concerns an infinite number of rigorously defined, infinite, natural multiples, all woven from the void (BE 269/298: “*being is universally deployed as nature*”). On the other hand, the ‘there is Oneness’ of the presentation of such multiples—the count of the count—must be completely secured in order to render these discrete “one”-beings consistent (BE 93-94/109-110). But now this means that, if one had a measure for this void-less *continuum* one would also have a quantitative knowledge of being *qua* being. This measurement cannot, however, be fixed. This “un-measure,” that is to say, this variant on the enduring metaphysical *problem* of the relationship between the discontinuous and the continuous – itself the more general expression of the question of the distribution of the finite and the infinite within being-in-totality – is what Badiou calls the “impasse of ontology” (BE 279/307).²³ To resolve it, Badiou will be led to a consideration of what, within Cohen’s “ontological” technique of *forcing*, corresponds to the

meta-ontological notions of the event, the subject and truth.

I cannot examine in detail these further developments. Suffice it to say that the *event* will be an unfounded multiple (inscribed in ontology by the supplementary signifier \mathcal{Q}) which supplements the situation for which it is an event. It will be a self-founding “supernumerary” something – named or posited as existent – whose place cannot be recognized in the situation as given, even though it can come to belong to or be counted within that situation, giving thereby the general “one-truth” of said situation. This supplementation by the event will call for a *subject* who asserts and then verifies—by examining one by one the connection of the infinite number of in-situation multiples to the event—the existence of the supernumerary event in the situation. This subject “is” here nothing other than a finite multiple or “fragment” of an infinite procedure of verification, a finite fragment which maintains a law-like relation to the aforementioned “one-truth” which can be articulated in ontology (forcing). Finally, the *truth* of the situation will be the “indiscernible” or “generic” multiplicity which will have resulted from the necessarily infinite procedure of verification which groups as “one” all of the terms of the situation that are positively connected to the name of the self-founding event.

Or again, to put it more “ontologically,” Cohen’s technique shows that sets of conditions of a generic subset \mathcal{Q} can be constructed which force, in a generic extension, the number of parts of ω_0 to surpass an absolutely indeterminate cardinal δ given in advance (see BE 420-426/459-466). This is the effective “ontological proof” of the “un-measure” of the continuum. But at the same time, as Badiou argues, this proof produces within ontology a “one” account of inconsistent being *qua* being. How? In short, it constructs an infinite generic multiple by collecting, *starting from the void*, series of multiples attached to a supplementary, eventual signifier \mathcal{Q} . But because it is not itself “discerned,” this generic multiple sets no limits to what it can rigorously collect as one and is thus, in the final analysis,

composed of terms which have nothing in common that could be remarked, save belonging to *this* situation; which, strictly speaking, is its being, *qua* being...It is rightfully declared *generic*, because, if one wishes to qualify it, all one can say is that its elements *are*...[This is] the truth of *the entire situation*, insofar as the sense of the indiscernible is that of exhibiting as one-multiple the very being of what belongs insofar as it belongs (BE 338-339/373-374).

Be this as it may, what is important here—quite apart from noting that the “resolution” of the dialectical couple continuous/discrete contributes to the determination of these formulations as ontological—is that ontology can only come to present this generic “one-multiple” via a subjective intervention or practical truth-procedure (BE 18/25: “the saying of being occurs...as a truth”). The “ontologist,” as it were, must choose to intervene in the ontological situation in order to construct the generic multiple. In other words, to return to my remarks on Badiou’s meta-philosophy, the determination of these ontological formulations requires a *prior* comprehension of what is at work in *any* truth-procedure: the event, the subject and truth. But then this is also to say that, following the arguments above, it is only in relation to the *problem* of articulating various “particular” truths (or truth-procedures) to determine a kind of “quasi-universal” Truth to seize them as such, that the development of set theory from Cantor to Cohen can be shown to provide the general framework for the thought of being *qua* being.

◇

Ultimately then, it appears that the ontology outlined in *Being and Event* is determined only in relation to the ideal of a resolution of a series of dialectical couples in the Lautmanian sense: the one and the multiple, Nature as pre-Platonic poem versus Nature as Idea, the finite and the infinite, the discrete and the continuous and, finally, at a meta-philosophical level, the particular and the universal such as this applies to truths. Badiou’s ontology “presents presentation,” therefore, only in relation to another, prior presentation: as a response to a series of problems. Indeed, since nothing internal to set theory marks its ontological vocation, such a problematic supplement seems absolutely necessary. But then this is also to say that being is equivocal in Badiou’s system.

Being is said *once for ontology* in accordance with what I have called a philosophical problematic; and it is said *once again* for what ontology can say *of being* in general *in accordance with* this philosophical problematic.

Of course, Badiou would reply to this that if having an equivocal conception of being is what is required in order to think the particular, compossible truths that he wants to defend, then he is happy to bear the criticism. As he writes in *Deleuze: The Clamor of Being*, although in relation to a reading of his system that differs from the one presented here, except in relation to the charge of equivocity:

Deleuze always maintained that... I fall back into transcendence and into the equivocity of analogy. But, all in all, if the only way to think a political revolution, an amorous encounter, an invention of the sciences, or a creative work of art as distinct infinities – having as their condition incommensurable events – is by sacrificing immanence (which I do not actually believe is the case, but that is not what matters here) and the univocity of Being, then I would sacrifice them.²⁴

But what disadvantages does such a conception in fact present? The first disadvantage, of course, is that Badiou does not have a single or unified concept of being. It is true that, in the history of ontology, being has often been said in different senses: in Aristotle, for example, but also in the work of various Medieval philosophers, for whom God “is” in a different way from the way in which his creatures “are” (Duns Scotus here being the notable exception). Nevertheless, Ockham’s Razor could apply here, leading one to prefer an ontology in which being is said in a single sense of all there is.

A second disadvantage would be that, because Badiou’s ontology presupposes a prior philosophical problematic, *but does not itself think the nature of this problematic*, it cannot think its relation to another philosophical system which presents itself as a different but equally systematic solution to the same problems which Badiou’s ontology resolves, *except as irreducible subjective conflict pure and simple*. Again, this would not concern Badiou, who has a militant conception of the subject. But perhaps it would be of concern for those seeking a more supple approach to thinking the relations between the antagonistic subjectivities—political, scientific, and so on—which can fall under different philosophical world views.

Thirdly, and following on from the second point, it appears that Badiou cannot welcome those novel truths—in the fields of science, art, politics and love—which would be *impossible* with those which make up his own philosophical system. Of course, that such “impossible truths” could exist *as such* remains to be demonstrated. However, one can surmise that, should they exist, their relation with other eventual truths would more easily be thought in terms of a general, philosophical theory of problems. In terms of this theory, whether compossible or impossible, such truths, along with the subjective truth procedures they give rise to, could only be said to “solve” and “dissolve” an underlying “problematic base” in an ongoing and related way, as opposed to being pitted against one another.

In short, then, taking these three points together, one can ask oneself the following critical question: can a univocal conception of being be conceived of if it is based on problematic alone, that is, if beings in general emerge as solutions to this problematic, and in such a way that the various antagonistic subjectivities and eventual novelties which characterize our contemporary world can be thought together without irreducible conflict? I believe that Gilles Deleuze, another follower of Lautman, has developed such an ontology, particularly in his *Difference and Repetition*. As Deleuze writes:

The problem is at once transcendent and immanent in relation to its solutions. Transcendent because it consists in a system of ideal liaisons or differential relations between genetic elements. Immanent, because these liaisons or relations are incarnated in the actual relations which do not resemble them and are defined by the field of solution. Nowhere better than in the admirable work of Albert Lautman has it been shown how problems are first Platonic Ideas

or ideal liaisons between dialectical notions, relative to 'eventual situations of the existent'; but also how they are realized within the real relations constitutive of the desired solution with a *mathematical, physical* or other field.²⁵

Such a conception, it would seem, might offer a way around some of the difficulties associated with Badiou's fascinating project. Nevertheless, the justification of this claim cannot be dealt with here.

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NOTES

1 My thanks go to Simon Duffy and Daniel W. Smith for their insightful comments on an earlier version of this article. An expanded account of some of the more technical aspects of this article can be found in my review essay of Badiou's *Being and Event* and *Metapolitics*, "Alain Badiou: From Ontology to Politics and Back" *Bulletin de la Société Américaine de Philosophie de Langue Française* 15:2 (2005), 67-93.

2 See primarily Alain Badiou, *Deleuze: The Clamor of Being*. Trans. Louise Burchill. Minneapolis and London: University of Minnesota Press, 2000, originally published in French as *Gilles Deleuze: La clameur de l'Être*. Paris: Hachette, 1997. See also Badiou's "L'événement selon Deleuze" *Logiques des mondes: L'être et l'événement*, 2. Paris: Seuil, 2006, 403-410, translated by Jon Roffé as "The Event in Deleuze" *Parrhesia* 2 (2007), 37-44; "L'ontologie vitaliste de Deleuze" *Court traité d'ontologie transitoire*. Paris: Seuil, 1998, 61-72, translated by Alberto Toscano as "Of Life as a Name of Being, or Deleuze's Vitalist Ontology" *Pli (Warwick Journal of Philosophy)* 10 (2000), 191-199; and "Un, Multiple, Multiplicité(s)" *Multitudes* (March 2000), 195-211. For contributions to the Badiou/Deleuze debate, to cite but a few, see: Todd May, "Badiou and Deleuze on the One and the Many" and Daniel W. Smith "Badiou and Deleuze on the Ontology of Mathematics" *Think Again: Alain Badiou and the Future of Philosophy*. Ed. Peter Hallward. London and New York: Continuum, 2004, 67-93; Justin Clemens, "Letters as the Condition of Conditions for Alain Badiou" *Communication and Cognition* 36:1-2 (2003), 73-102; Ray Brassier, "Stellar Void or Cosmic Animal? Badiou and Deleuze" *Pli (Warwick Journal of Philosophy)* 11 (2001), 200-229; Adi Ophir and Ariella Azoulay, "The Contraction of Being: Deleuze after Badiou" *Umbr(a)* (2001), 107-20; Eric Alliez, "Badiou/Deleuze," Arnaud Villani, "La métaphysique de Deleuze," and José Gil, "Quatre méchantes notes sur un livre méchante" *Futur antérieur* 43 (1998), 49-84.

3 I am thus in complete agreement with Jon Roffé when he writes that: "In the encounter between these two philosophers [i.e., Badiou and Deleuze], it is not always the explicit grounds provided for the *differend* that are significant, but a range of more subterranean concerns." See his review on *Collapse* in *Parrhesia* 4 (2008), 79-80.

4 Alain Badiou, *Being and Event*. Trans. Oliver Feltham. London and New York: Continuum, 2005, 27; originally published in French as *L'être et l'événement*. Paris: Éditions du Seuil, 1988, 35-36. All future references to this text will be given as BE, followed by the English and then the French pagination. Badiou's definition of ontology is given in the "glossary" of *Being and Event*: "Science of being-qua-being. Presentation of presentation. Realized as thought of the pure multiple, thus as Cantorian mathematics or set theory" (BE 517/551).

5 See in particular on this: Alain Badiou, "Eight Theses on the Universal" *Badiou: Theoretical Writings*. Ed. Ray Brassier and Alberto Toscano. London and New York: Continuum, 2006, 143-152. Originally published as "Huit thèses sur l'universel" *Universel, singulier, sujet*. Ed. Jelica Sumic. Paris: Kimé, 2000, 11-20.

6 This is a subtle point which is worth unpacking here. At the beginning of *Being and Event*, Badiou maintains that the "one," strictly speaking, "is not." What there is, therefore, is only inconsistent multiplicity, and the "unicity" of this inconsistent multiplicity can be "named" within set-theory ontology as the void set. Nevertheless, every in-situation being must be a consistent multiplicity or the result of a "count-as-one." What set-theory ontology—the science of being-qua-being—must show, therefore, is how what is counted-as-one for every in-situation being is inconsistent multiplicity. And it is the ZF axioms of set theory which define the operation of the count of the void set, in the form of infinite infinities of natural or ordinal numbers. There is a problem, however, with this counting operation: Cohen proved that the power-set $p(\omega_0)$ —that is to say, the count-as-one of all possible sub-sets of the complete series of finite natural numbers, sufficient for a complete numerical description of the geometrical continuum—cannot be equivalent to ω_1 , the smallest infinite natural multiple which directly succeeds and counts-as-one ω_0 . What this means is that the count-as-one of inconsistent multiplicity cannot be secured, thereby putting into question the idea that consistent multiples can be axiomatically woven from the void. However, as Badiou argues, Cohen's proof of this "un-measure" of being in fact produces within set-theory ontology a "one" account of inconsistent being qua being. How? In short, it constructs an infinite generic multiple by collecting, starting from the void, series of multiples attached to a supplementary, evental signifier \mathcal{Q} . Because it is not itself "discerned," this generic multiple sets no limits to what it can rigorously collect as one and is thus, in the final analysis, "composed of terms which have nothing in common that could be remarked, save belonging to this situation; which, strictly speaking, is its being, qua being... It is rightfully declared generic, because, if one wishes to qualify it, all one can say is that its elements are... [This is] the truth of the entire situation, insofar as the sense of the indiscernible is that of exhibiting as one-multiple the very being of what belongs insofar as it belongs" (BE 339/373-374). I expand upon various aspects of this highly condensed argument throughout the article.

7 Alain Badiou, *Manifesto for Philosophy*. Trans. Norman Madarasz. Albany: State University of New York Press, 1999.

Originally published in French as *Manifeste pour la philosophie*. Paris: Éditions du Seuil, 1989. The two further essays included in the English edition, “The (Re)turn of Philosophy Itself” and “Definition of Philosophy” were originally published as “Le (re)tour de la philosophie elle-même” and “Définition de la philosophie” in *Conditions*. Paris: Éditions du Seuil, 1992, 57-82. All future references to these texts will be given in the body of the essay as MP (or C), followed by the English and then the French pagination.

8 Philosophy’s conditions should not be confused with the “conditions” which provide the material for a generic set and which Badiou talks about in Meditation 33 of *Being and Event*.

9 Indeed, because its central category is Truth, philosophy has a specific adversary: the Sophist. This is because the Sophist declares that there is *no truth*, that all is relative, that there are only different language games, etc. The philosopher, however, can never finally be finished with the Sophist; for this would require that philosophy declare its access to The Truth, thus denying the existence of those truths which, precisely, condition it (MP 143-144/C 81).

10 On compossibility and God’s bringing into existence the “best” or maximally compossible series of possibles, see G.W. Leibniz, *New Essays on Human Understanding*. Trans. Peter Remnant and Jonathan Bennett. Cambridge: Cambridge University Press, 1996, III, vi, §12; *Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil*. Trans. E.M. Huggard. London: Routledge, 1952, §201; and “Leibniz to Bourguet, December 1714” *Philosophical Papers and Letters of G.W. Leibniz*. Trans. L.E. Loemker. Dordrecht: Reidel, 1969, 661-662. See also Christiane Frémont’s commentary on this letter in *Principes de la Nature et de la Grâce, Monadologie et autres textes 1703-1716*. Paris: GF Flammarion, 1996, 269-272.

11 This is precisely what is at stake in Leibniz’s *Theodicy*. See generally on this, Christiane Frémont, *Singularités, individus et relations dans le système de Leibniz*. Paris: Vrin, 2003.

12 One might be tempted to say that Badiou’s philosophy is sutured to its scientific or mathematical condition, inasmuch as Badiou equates ontology with mathematics. But for Badiou, ontology belongs *fully* to set theory. It is rather the pronouncement that “ontology = mathematics” that is philosophical, that is, within the space of thought that must account for the compossibility of *all* of philosophy’s eventual-conditions (See BE 13/20).

13 In line with these geometrical metaphors, in *Manifesto for Philosophy*, Badiou talks of disposing of the “trajectories” of truth procedures as compossible (MP 38/19). He also speaks of “Truth” as a kind of “limit,” and describes the relation between truths and Truth in terms of a “pincers” of truth which is formed by a relation between two “branches” (incorrectly translated as “limb” by Madaraz) (MP 68, 130/C 68, 71).

14 Badiou describes this two-way condition/conditioned relation between Truth and truths when he writes that “philosophy seizes truths. This seizing is its act. By this act, philosophy declares that there are truths, and works in such a way as to have thought seized by this ‘there are.’ This seizure by the act testifies to the unity of thought” (MP 141-142/C 79).

15 For a very interesting analysis of the difference between problematics and axiomatics in the work of Deleuze and Badiou, see also Daniel W. Smith, “Mathematics and the Theory of Multiplicities: Deleuze and Badiou Revisited” *Southern Journal of Philosophy* 41: 3 (2003), 411-49.

16 See the collection of Albert Lautman’s works, *Les mathématiques, les idées et le réel physique*. Paris: Vrin, 2006, 223. All future references to this text will be given in the body of the essay as MIRP, followed by the page number. On the question of the “meaning” that the dialectic of Ideas imparts to the theories, see in particular Jean Petitot, “Refaire le ‘Timée’ – Introduction à la philosophie mathématique d’Albert Lautman” *Revue d’histoire des sciences* 40: 1 (1987), 79-115. For an introduction to the work of Lautman in English, see Charles Alunni, “Continental Genealogies. Mathematical Confrontations in Albert Lautman and Gaston Bachelard” *Virtual Mathematics – The Logic of Difference*. Ed. Simon Duffy. Manchester: Clinamen Press, 2006, 65-80; and Simon Duffy, “Deleuze and Lautman” *Deleuze’s Philosophical Lineage*. Eds G. Jones and J. Roffe. Edinburgh: Edinburgh University Press, forthcoming.

17 Nor can we find this sufficient reason in the theories’ greater or lesser abilities to appropriate an already given empirical real. See Catherine Chevalley, “Albert Lautman et le souci logique” *Revue d’histoire des sciences* 40:1 (1987), 61.

18 The terms *mixtes* is Lautman’s. See MIRP 197-210.

19 It should here be noted that inclusion is not really another primitive relation, to be added to that of belonging. Rather, inclusion can be defined on the basis of belonging, for $\beta \subset \alpha$ is equivalent to saying $(\forall \gamma)[(\gamma \in \beta) \rightarrow (\gamma \in \alpha)]$, or again, for all γ , if γ belongs to β then γ belongs to α (BE 82/96).

20 See also Alain Badiou, *Le nombre et les nombres*. Paris: Seuil, 1990, 84.

21 Taken from Peter Hallward, *Badiou, A Subject to Truth*. Minneapolis and London: University of Minnesota Press, 2003, 103.

22 And not only infinite successor ordinals, but also infinite limit ordinals. Consider the series: $\omega_0, \omega_1, \omega_2, \dots, \omega_n, \omega_{n+1}, \dots, \omega_{\omega_0}$.

$\omega_{s(\omega)}$, ... $\omega_{\omega\omega\omega}$, ... (BE 275-277/304-306).

23 On the admitted importance of “the famous ‘problem of the continuum’” for Badiou, see BE 5/11, 281/311.

24 Badiou, *Deleuze*, 91-92.

25 Gilles Deleuze, *Difference and Repetition*. Trans. Paul Patton. London: Athlone, 1994, 163-164. One can further note in relation to the conception of the problem that, for Deleuze, the irreducibly “negativity” of conflict is only “an illusion, no more than a shadow of problems” in which beings ultimately find their reason. See Deleuze, *Difference and Repetition*, 202.