Filozofski vestnik Volume/Letnik XXVI • Number/Številka 2 • 2005 • 97–111

DOUBLES OF NOTHING: THE PROBLEM OF BINDING TRUTH TO BEING IN THE WORK OF ALAIN BADIOU

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> At first, when I had freed myself from the yoke of Aristotle, I took to the void and the atoms, for that is the view which best satisfies the imagination.
>
> Gottfried Leibniz

> And there need exist nothing for me to embrace it
> and believe in it totally
> Nothing – nothing.
>
> Stéphane Mallarmé

1. Nothing resists

It is striking that, for a philosopher whose system is founded on the equation *mathematics = ontology*, responses to Alain Badiou's work often attempt to circumvent the very precise scope, status, and strength that he assigns to mathematics. These circumventions are immediately apparent from even a glancing acquaintance with the secondary materials, though they can take – as one might expect – rather different forms. Often mathematics is treated as if it were a mere support for Badiou's positions and propositions; that is, as if one could simply quibble with what Badiou says without having to pass through mathematics at all; or as if his mathematical demonstrations were simply one possible way in which his theses might be presented. I believe this has been the dominant genre of responses to date and, as such, is fundamentally ideological (and not, therefore, properly philosophical). It is a response shared by some otherwise respectable thinkers, who do not need to be named here. In any case, it seems to me that such a response fails to come to terms with Badiou's philosophy, whatever other justifications might be found for it. Of course, this doesn't mean that such commentaries may not have interesting points to make – only that they do not touch on Badiou's *philosophical* enterprise.

Other responses have been more complex, evading the consequences of Badiou's mathematics by seeming to grapple with it. Take, for example, a number of the essays collected by Peter Hallward in *Think Again: Alain Badiou and the Future of Philosophy*. There we find some very fine, interesting and forceful analyses of Badiou's philosophy by a number of thinkers. What many of these analyses share is their admirable recognition of the *intrinsic* nature of mathematics in and for Badiou; that, for Badiou mathematics cannot be instrumentally deployed by thought without loss of being (in all senses of that phrase).

Nevertheless, it is striking that these analyses also exhibit strange, often minute, turbulences in the course of their elaboration, little turbulences that are finally symptomatic of an attempted evasion. Balibar, for instance, has this to say: "Badiou is attempting *to use meta-mathematical means* – that is, mathematics applied to mathematics itself – *actually to construct a definition, theory or concept of truth*."[1] Perhaps I am misunderstanding or being too ungenerous to Balibar in essaying the following correction: no, it is not "a definition, theory or concept of truth" that Badiou derives from "meta-mathematics," but an idea of the *being* of truth that *philosophy discerns* in mathematics. In this context, moreover, Balibar's distinction between "mathematics" and "meta-mathematics" is imprecise. For Badiou, mathematics itself *is* always already meta-mathematics in the sense that the axiomatic establishment and deductive fidelities of mathematics proceed by a series of immanent ruptures; in another sense, philosophy is meta-mathematical for Badiou (as Balibar also notes).[2] These are not merely terminological quibbles. On the contrary, I would suggest that there is a *resistance to mathematics* that goes so deep in contemporary thought its very partisans are sometimes incapable of eluding it.[3] This resistance is integrally also a *resistance to nothing*.

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[1] E. Balibar, "The History of Truth: Alain Badiou in French Philosophy" in: P. Hallward (ed.), *Think Again: Alain Badiou and the Future of Philosophy*, Continuum, London and New York 2004, p. 30. Balibar's emphases.

[2] Balibar first states that Badiou's "meta-mathematics" is "my term for the 'matheme of the indiscernible' that Badiou extracts from set theory" (p. 29), then states "I am not going to spend too long justifying that indicative term" (p. 30), before treating meta-mathematics as designating a construction of truth that evades "syntactico-semantic correspondence." All fine, but where's the actual mathematics?

[3] Is it then any surprise that the least-cited work of Badiou's post-*Being and Event* remains *Le Nombre et les nombres*, Seuil, Paris 1990? That this dedicated exploration of the consequences of modern mathematical thought of number goes officially untranslated, when the ethics, the aesthetics, the anti-theology, and many selected essays stream into foreign languages like a waterfall?

So if, as Desanti remarks, "a careless reader would be wholly incapable of reading Badiou: whoever enters into this text [*Being and Event*] either abandons it or else grasps its movement and perseveres with it,"[4] one needs to ask a further question: why do *careful* readers also find themselves retreating from the project of *Being and Event*? This question calls for a tracing of the *limits* of the mathematical in Badiou; its answer depends on the surprisingly many species of *nothing* to be located there.

2. Mathematics as the trebuchet of being

Badiou opens his presentation "Philosophy and Psychoanalysis," collected in *Conditions*, with the following *captatio benevolentiae*: "I undoubtedly occupy the place of a son of philosophy itself, quickly said, a son of Plato, a son of a parricide."[5] What does it mean to be the faithful son of a parricide? The father himself has a father: Parmenides *genuit* Plato. But the father is disreputable, and the son is a killer. What does this mean philosophically, to be faithful to a killer? It means that, if Parmenides's utterance "Being and thinking are one and the same" remains foundational for philosophy, to engage in philosophy after Plato requires a rupture with the Parmenidean practice of poetry as the royal road to truth.

For Badiou, then, whence mathematics? It is a matter of fidelity to Plato. If this is a foundational requirement, it is also an operational requirement. This means: breaking with poetry by means of mathematics.[6] Why mathematics? For Badiou, mathematics is axiomatic and deductive. Mathematics is axiomatic: this means that mathematics makes fundamental ontological claims. This separates mathematics from logic, which rather *describes* the laws determining rational thought and proffers *definitions*: "Logic pertains to the coherence of appearance."[7] But the deductions of mathematics are at once

[4] J.-T. Desanti, "Some Remarks on the Intrinsic Ontology of Alain Badiou" in: *Think Again*, p. 63.

[5] A. Badiou, "Philosophie et psychanalyse" in: *Conditions*, preface F. Wahl, Seuil, Paris 1992, p. 277.

[6] Although all of Badiou's work is in some way bound up with this operation, see, above all, A. Badiou, *Being and Event*, trans. O. Feltham, Continuum, London and New York 2005 (forthcoming); all references to this work here will retain the page numbers from A. Badiou, *L'être et l'événement*, Seuil, Paris 1988. Also crucial here are the essays collected under "Section I. Ontology is Mathematics," in A. Badiou, *Theoretical Writings*, ed. and trans. R. Brassier and A. Toscano, Continuum, London and New York 2004.

[7] Badiou, *Theoretical Writings*, p. 15. And: "*philosophy must enter into logic via mathematics, not into mathematics via logic*," p. 15.

non-empirical and eminently rational. Mathematics does not equivocate. If its demonstrations can result in undecidabilities, this is only because mathematics is the epitome of "restrained action" (Mallarmé), which limits its own claims as it rigorously identifies the proper dilemmas on which it is necessary to decide. Moreover, following Lacan, the letters of mathematics are integrally transmissible.

As Badiou remarks, *contra* Russell, mathematics is the only discourse that knows absolutely of what it speaks. Its deductions can be recomposed and verified by anyone, anywhere, given the requisite elements. Neutral and universal, mathematical reasoning is independent of any given empirical situation and of any given natural language. Its non-empirical status means that its theorems and demonstrations are not theorems or demonstrations about empirical situations. Mathematics is not abstract, nor does it abstract from any situation. Deductive, it draws out, in the most rational, rigorous and impersonal fashion possible, all the consequences of its starting point. This means that mathematics is also radically *asubjective*, inhuman: no agent can arbitrarily decide to transform the strictures of mathematical thought (*pace* Descartes, not even God). Taken together, these aspects of mathematics render it essential for philosophy. If none of the alleged features of mathematics just listed diverge markedly from those assigned it by tradition,[8] the difference that Badiou makes is to take these features absolutely *literally*.[9] Mathematics *is* the place of the inscription of Being; the letters of mathematics *are* directly ontological.

This begs the question: *which* mathematics, and why? As is well known, Badiou chooses Zermelo-Fraenkel set theory (hereafter ZF) to provide him with his particular ontology. There are several reasons for this. It is crucial for Badiou that infinity, a key philosophical concept, only becomes a rigorous *ontological* concept with Georg Cantor. Before Cantor, infinity functions as a theological, speculative or literary conceit, unable to achieve the rigour of a true idea. ZF set theory, moreover, not only renders this concept consistent, but thereby reconfigures the entire philosophical apparatus of the multiple.

How, then, does Badiou treat the axioms of ZF set theory? He treats them as if they – together and apart – contributed to the delimitation and constitu-

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[8] For example, the remarks by Russell in regards to the independence of mathematics, its posing a "perpetual reproof" to mere opinion and private judgements, B. Russell, *Mysticism and Logic*, Unwin, London 1974.

[9] On the crucial role played in Badiou's thought by the letter, see my "Letters as the condition of conditions for Alain Badiou," *Communication and Cognition*, Vol. 36, No. 1–2 (2003), pp. 73–102.

tion of Being. Each axiom is transliterated directly into philosophical jargon. In fact, it seems to me that Badiou does nothing other but *transliterate* the axioms of set theory *directly* into such jargon: he genuinely permits mathematics to provide, to *think*, his ontology (as he constantly proclaims, in a fashion that may occasionally seem shrill, but only because philosophers remain notoriously hard of hearing). This transliteration can be given in tabular form (see Fig. 1, a derivation from Badiou's meditations in *Being and Event*). This transliteration enables Badiou to refound ontology in such a way as to avoid the difficulties of the linguistic turn. The rigours of such a transliteration, however, also create certain difficulties entirely irrelevant to mathematicians themselves.

Badiou shows how ZF set theory authorizes some surprising propositions: that there is only one fundamental operation, that of "belonging-to"; that there are no objects in such theory, only sets; that these sets are discerned by their elements, and these elements are in their turn sets; that set theory therefore speaks only of multiples of multiples; that this multiplicity rests not on the basis of the one, but on that of the void, the empty set. Indeed, "the only possible end point of the multiple, which is always the multiple of multiples (and never the multiple of Ones), was the multiple of nothing: the empty set."[10] In set theory, the void is included in every set; in Hallward's felicitous phrase, it is "a kind of ontological vagrant."[11] The void is unique, it has unicity, but it is not one. The "one" arises in ZF – not as foundation nor totality nor unifying force, etc. – but as a mere *result*.

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[10] A. Badiou, *Deleuze: The Clamor of Being*, trans. Louise Burchill, University of Minnesota Press, Minneapolis 2000, p. 46.

[11] P. Hallward, *Alain Badiou: A Subject to Truth*, University of Minnesota Press, Minneapolis 2003, p. 102. Despite Hallward's rigorous and faithful exegeses of Badiou's theses, there is something dubious about such statements as "In its quite literal insistence on the void, Badiou's ontology is perhaps the only consistent formulation of Lacan's purely symbolic register," p. 102. But Badiou's set theory ontology is not quite Lacan's symbolic, for a number of reasons: for Badiou, the void is the void of being, scripted by a mathematics which subtracts itself precisely from the divagations of the symbolic and of *lalangue*; for Lacan, the subject is a void, the correlate of a void object (*objet a*) fallen from the void of the signifier. These voids are logically distinguished by Lacan, very differently from Badiou. More compellingly, this is a distinction that Badiou himself treats towards the end of the section "Theory of the pure multiple: paradoxes and critical decision," where the real (void) is distinguished from the symbolic, as the institution of being is distinguished from what is discernible in language, *L'être et l'événement*, p. 58. It is possible that Hallward's detours – unnecessary to his exegesis and slightly misleading as examples – are symptomatic of the widespread "resistance to mathematics" that I began by noting.

Fig. 1. Tables of Axioms and their Ontological Schema

Axioms	Formal Notation	Ontological Schema
– *Extensionality*. A set is determined solely by its members. Two sets are the same if they have the same members.	$\forall\alpha\ \forall\beta\ \forall\gamma\ (\gamma \in \alpha \leftrightarrow \gamma \in \beta) \rightarrow \alpha = \beta)$	– The schema of "same" and "other."
– *Empty Set*. There exists a set which has no members.	$\exists\ \alpha\ \forall\beta\ (\neg\beta \in \alpha)$	– The empty set is the proper name of Being.
– *Separation*. Given a set α, there exists a subset β of elements of α which possess a particular, definite condition.	$\forall\alpha\ \exists\beta\ \forall\gamma\ (\gamma \in \beta \leftrightarrow \gamma \in \alpha\ \&\ \varphi(\gamma))$	– Being is prior to language. Or: presentation precedes discernability.
– *Union*. There exists a set whose elements are the elements of the elements of a given set.	$\forall\alpha\ \exists\beta\ \forall\gamma\ (\gamma \in \beta \leftrightarrow \exists\delta\ (\gamma \in \delta\ \&\ \delta \in \alpha))$	– The schema of the dissemination of multiples, which ensures the presentative consistency of those multiples.
– *Power Set*. There exists a set whose elements are the subsets of a given set.	$\forall\alpha\ \exists\beta\ \forall\gamma\ (\gamma \in \beta \leftrightarrow \gamma \subseteq \alpha)$	– The schema of the state of the situation.
– *Infinity*. There exists an infinite set. Or: there exists a limit-ordinal. (The first limit-ordinal is known as ω_0).	$\exists\alpha\ (\varnothing \in \alpha\ \&\ \forall\beta\ (\beta \in \alpha \rightarrow \beta \cup \{\beta\} \in \alpha))$	– Natural-being admits the infinite. The schema of the "Other-Place."
– *Replacement*. If a set α exists, there also exists a set obtained by replacing the elements of α by other existent multiples.	If $\forall\alpha\ \forall\beta\ \forall\gamma\ (\alpha \in A\ \&\ \varphi(\alpha, \beta)\ \&\ \varphi(\alpha, \gamma) \rightarrow \beta = \gamma)$ then $\exists B\ \forall\beta\ (\beta \in B \leftrightarrow \exists\alpha\ (\alpha \in A\ \&\ \varphi(\alpha, \beta))$	– Being-multiple (consistency) transcends the particularity of its members. Members are substitutable, and the multiple-*form* retains its consistency following such substitutions.
– *Foundation*. Every non-empty set possesses at least one element whose intersection with that set is empty.	$\forall\alpha\ \exists\beta\ (\alpha = \varnothing \vee (\beta \in \alpha\ \&\ \forall\gamma\ (\gamma \in \alpha \rightarrow \neg\gamma \in \beta)))$	– Of the event (which belongs to itself), ontology can say nothing: the latter deals only with well-founded multiples.
– *Choice*. Given a set, there exists a set composed of a representative of each of the non-empty elements of the initial set. With regards to infinite sets, such a "choice" set may not be constructible.	If $\alpha \rightarrow A_\alpha \neq \varnothing$ is a function defined for all $\alpha \in x$, then there exists another function $f(\alpha)$ for $\alpha \in x$, and $f(\alpha) \in A_\alpha$	– The schema of the being of intervention: the procedure by which a multiple is recognised as an event, and which decides the belonging of an event to the situation where it has its site. It involves giving a name to an unpresented element of the site.

One can immediately see how Badiou uses the axioms of Zermelo-Fraenkel set theory to provide a clear, distinct, and consistent ontology. Moreover, Badiou relies on the *necessary incompleteness* of such an ontology in order to found the possibility of ontology's supplementation by events (of which more below).

3. Atomic meditations

If analytic philosophy from Bertrand Russell to Michael Dummett has usually identified the axiom of infinity as opening onto existential problems, Badiou offers a rather different account. It is not the axiom of infinity that is determining for ontology, but the axiom of the empty set. This axiom, as can be seen from the table, posits the existence of a set with no members; it is, for Badiou, the only truly existential axiom of ZF. In tandem with the other axioms of ZF, infinite infinities can be generated out of the empty set itself. As we shall see, this is also the mark of Badiou's Parmenidean fidelity, for in ZF being and thought can indeed be rendered one and the same.

Such claims are compelling, if their elaboration proves tricky. After all, for a multiple to be registered as *a* multiple, it clearly must be – must *have been* – counted as one. What was it before it was counted? Nothing can be said of it, except that whatever it is (or isn't) must be prior to the very distinction "one" and "multiple." In Badiou's words:

> 'Multiple' is said in fact of presentation, retroactively apprehended as not-one from the moment that being-one is a result. But 'multiple' is said also of the composition of the count, being the multiple as 'several-ones' counted by the action of structure. There is a multiplicity of inertia, that of presentation, and a multiplicity of composition, which is that of number and of the effect of structure.[12]

Badiou names the first multiplicity "inconsistent," the second "consistent," and proclaims that ontology is ultimately a theory of *inconsistent* multiplicity, of the "presentation of presentation." Such inconsistency is what founds mathematics as ontology in the very gesture of its foreclosure. One cannot circumvent this "law of thought." This law – essentially an irreducible Fact of Reason – arises here precisely as a consequence of the transliteration of axioms from mathematical writing to philosophical concept. A logical deadlock supplements the mathematical axiomatic in order for philosophy

[12] Badiou, *L'être et l'événement*, p. 33.

to effect a transliteration into ontology. This immutable "law of the count-for-one" has certain consequences for the ontology itself.

The problem is this: inconsistent multiplicity cannot appear as such anywhere within a constituted situation (from which it is foreclosed), yet inconsistency continues to haunt the entirety of the situation. Badiou: "Every [*toute*] situation implies the nothing [*rien*] of its whole [*tout*]. But the nothing [*rien*] is neither a place nor a term of the situation."[13] And: "from the moment that the whole of a situation is under the law of the one and of consistency, it is necessary that, from the point of immanence of a situation, the pure multiple – absolutely unpresentable according to the count – be nothing [*rien*]. But being-nothing [*l'être-rien*] is distinguished as completely from non-being [*non-être*] as the "there is" [*il y a*] is distinguished from being [*l'être*]."[14] The imperceptible rift that is the nothing [*rien*] of a situation is to be distinguished from non-being [*non-être*] and from what is not [*pas*]. Indeed, this nothing, it turns out, is nothing other than being itself (and it strikes me that the *non*-appearance of the loaded Sartrean term *néant* is critical here). So if nothing ≠ non-being ≠ nothingness, then nothing = being = inconsistent multiplicity.

More precisely, nothing becomes "the proper name of being." This thesis, so redolent of classical ontologies, immediately encounters further terminological difficulties. It turns out that we have (at least) two possible proper names for the nothing. Indeed, "it is a question here of names, 'nothing' [*rien*] or 'void' [*vide*], because being, which these names designate, is not by itself either global or local. The name that I choose, the void, indicates precisely at the same time that nothing [*rien*] is presented, no term, and that the designation of this unpresentable 'voids' itself, without thinkable structural

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[13] *Ibid.,* p. 67.

[14] *Ibid.,* p. 66. Hence Badiou can also declare that the statement "inconsistency is nothing" is true, whereas the "structuralist thesis" "inconsistency is not [*n'est pas*]" is false, p. 67. But we should also underline the very peculiar distinctions made in this short passage. How is Badiou using the "*il y a*"? As he has earlier remarked "The power of language won't institute the '*il y a*' from the '*il y a*.' It is limited to positing what there is of the distinguishable in the '*il y a*.' Whence one marks the principles, differentiated by Lacan, of the real (*il y a*) and the symbolic (there is [*il y a*] some distinguishable.)" P. 58. Note the play between inverted commas and their disappearance. I am also reminded of a passage elsewhere, on Spinoza, where Badiou remarks: "When a proposition in the thought of being presents itself, outside mathematics, as originarily philosophical, it bears on the generality of the '*il y a*,'" *Court traité d'ontologie transitoire,* Seuil, Paris, 1998, p. 73. For Badiou, this situation requires 3 fundamental operations from a philosophy: 1) the construction and legitimation of the name(s) of the "*il y a*," names which bear on the juncture between one and multiple; 2) the unfolding of the relations by which the consistency of the "*il y a*" is evaluated; 3) grasping the relations which are supported by the names of the "*il y a*."

references."[15] Undoubtedly Badiou has also been swayed in his decision here by the French for the empty set axiom, l'*axiom du vide*.

Perhaps there is an almost-imperceptible wavering in Badiou's argument here. "Nothing" has been briefly characterised as more appropriate to characterising the global dimension of being, "void" the local. The (local) void is then denominated as primary, insofar as "nothing" implies a "whole" that comes after everything else. The being of a situation can thereafter be denominated as a delocalised, empty, local point: "The insistence of the void in-consists as delocalisation," says Badiou.[16] Badiou's conception of the void magnificently reconfigures the atomistic tradition here. On the basis of ZF, the void becomes *the* atom of being, as it is out of the void alone that ZF generates its infinities of infinite sets. There is no longer any absolute duality of "atoms" and "void." Moreover, as we will see, the local, punctual nature of the void is crucial for Badiou's transition to the event. The decision on the proper proper name is not and cannot be neutral in this context. As Badiou notes later in *Being and Event*, a proper name is a pure *quality*, hence, the act and fact of a situated decision.

What is also striking is that there are now at least two things in Badiou's ontological situation that cannot be counted for one. The first is, as we have seen, the void; the second is the count-for-one itself. This always-already-accomplished operation must, by definition, also be "subtracted" (one of Badiou's favoured verbs) from the count itself. Let us mark this as a first moment in the doubling of the void, at once mathematical and logical, of the production of inconsistency through an operational necessity of thought.

4. Ratiocinations upon and

As we have seen, philosophy: 1) identifies mathematics as ontology (the Platonic gesture par excellence); 2) presents the consequences of this in a meta-mathematical frame. But this double presentation does not exhaust the task of philosophy. Rather, such a task delimits mathematics as it turns philosophy towards truth and truths. Being and truth are at once disjoint for Badiou, and yet philosophy ensures their compatibility.

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[15] Badiou, *L'être et l'événement*, p. 69. Cf. also the preceding paragraph: "I say 'void' rather than 'nothing,' because the 'nothing' is rather the name of the void correlated to the *global* effect of the structure (*all* is counted), and it is more pertinent to indicate that the not-having-been-counted is also rightly *local*, since it is not counted *for one*. 'Void' indicates the failure of the one, the not-one, in a more originary sense than the not-at-all [*pas-du-tout*]." Pp. 68–69.

[16] *Ibid.*, p. 92.

So mathematics is not the whole or heart of Badiou's work: on the contrary. But one must pass through the defile of mathematics to capture its singularity. Rather, as for Jacques Derrida, Gilles Deleuze and Jean-François Lyotard in their very different ways, and as the title of Badiou's magnum opus *Being and Event* suggests, the real work of philosophy consists in transontological conjugations, in *ratiocinations upon* "*and.*" Philosophy is the conjugation of the disjoint. For Badiou, mathematics inscribes being, whereas science, art, politics and love are truth-processes in the wake of events, which fracture the closure of being.

This is, again, why Badiou favours the name "subtractive" as shorthand for his essential philosophical affirmation. "Subtractive" is what cannot be counted by mathematics, what escapes the law of the count-for-one, and philosophy must locate these powers and events through subtraction at the very limits of mathematics (rather than repudiating mathematics as a secondary form of thought). It is at the edges of deductive reasoning, in the places where such thought runs into an *aporia*, that a philosophy establishes itself and examines what becomes of its conditions there. Whence Badiou's theory of the event.

In Badiou's terms, an event gives rise to a truth that is indiscernible from within the situation itself. The event is paradoxical from the point of view of mathematics: it is not quite being itself, but "a vanishing surplus of being," "extra-being," etc. It can only be written as a paradoxical multiple, one which belongs to itself. The matheme of the event is thus this: $e_x=\{x\in X, e_x\}$. That is, the event makes one-multiple of one part of all the multiples that belong to its site, the other part is the event itself. From the point of view of established knowledge (i.e., ontology), then, an event is at once impossible and illegal, and, to the extent that it has any being whatsoever, it is pure illusion. At no point does an event have being. Every event is *punctual*, and takes place in a particular site, in a volatile historical situation. The eventual site itself *presents* no elements, and requires for its own identification a subjective intervention which gives a supplementary name to one of its unpresented elements. The site is unlocalisable from the point of view of beings; it is itself nomadic, unpredictable, hazardous. An event-site is the place of the void in a situation.

A event must also have a witness of some kind, and an intervention must be made: "The intervention's initial operation is to make a name of an unpresented element of the site in order to qualify the event by which this site is the site."[17] An intervention makes a supernumerary name of an unpresented element of an event-site, in a doubly undecidable fashion. On the one hand,

[17] *Ibid.*, p. 226.

it is undecidable whether the name belongs to the event itself (it may just be a subjective misapprehension, for instance); on the other, the intervention itself names on the basis of a prior, unnamed event. The intervention is therefore subtracted from the law of counting-for-one, because its procedure is linked to a foundational Two without concept (the unpresented element and its supernumerary name). The numeration of Badiou's thought of the event proceeds from zero to Two to the infinities – without ever passing through the (or a) one. But this movement, by recourse to the mathematics of forcing, captures the new knowledge in the real that is produced by truths, that is, a number-being – and thus the one, the one as result.

To recapitulate: an event is the re-emergence of the void as it rises to the surface of a situation. Precisely because the irruption of the void (a "fragment of being") cannot be thought according to the terms of the situation in which it arises, it can be "thought" only as a paradox, an emergence which belongs to itself (auto-belonging being strictly prohibited by ZF). The void founds any situation, but at the cost of its exclusion or subtraction. When it re-emerges into any situation, it can only be apprehended as an extra-rational apparition. The names it can be given are legion, if the *designatum* of such names is always the irruption of the void. This re-emergence cannot not be named, and this name must thus be thought as an irreducible, absolutely singular quality. An event is therefore thought philosophically as extra-mathematic: an event, quite simply, is the emergence-disappearance of the void in a particular situation, along with the supplement of its nomination. This extends Badiou's terms, to *rien*, *vide*, *néant*, *événement*, etc., and provokes the question: is this "event" Badiou's philosophical name for the nothingness or non-being that ontology excludes?

5. Avatars of the void

Let me reiterate: only if one maltreats Badiou's equation *mathematics = ontology*, is it possible to quibble with those propositions that he issues in a more familiar "philosophical" vocabulary, as if these were simply fodder for argument. If there is already abundant evidence of the diverse benefits gained by such maltreatment or misunderstanding, these benefits are not of the order of philosophical purchase. If, as Badiou holds, mathematics does indeed think being *intrinsically*, then the ontological propositions Badiou emits are essentially nothing more than terminological transliterations of the set-theoretical axioms. If one genuinely wishes to contest Badiou's ontological dictates, it seems to me that the major touch-points are restricted to the following:

1) To deny the legitimacy of the equation mathematics = ontology, or that mathematics is the *only* acceptable ontology;

2) To accept the equation, but deny that Badiou's own deployment of it is the (only) acceptable way of doing so;

3) To accept the equation, but deny that set theory is the (only) appropriate form of contemporary mathematics (e.g., what about category theory?);

4) To accept set theory, but deny that the form of set theory Badiou deploys is the (only) appropriate form of set theory (e.g., that there are variant forms of set theory that are at least equally acceptable);

5) To accept ZF set theory, but deny that Badiou's transliterations are the (only) acceptable transliterations thereof;

6) To provisionally accept Badiou's ontology *in toto*, but only in order to show how it harbours symptomatic gaps, contradictions, paradoxes, or inconsistencies.

Depending at which of these points one decides to intervene, the philosophical means and consequences will necessarily differ. It is therefore necessary to be extremely clear and careful about one's point of entry into such a system. Otherwise, it is more than likely that prospective critics will themselves fall into an implausible scattergun approach, and/or ensnarl themselves in contradictions. If 1), for instance, then one must junk Badiou wholesale; if 4), then it is necessary to prosecute the disagreement by way of positive constructions, on the basis of the specific variant of set theory one wishes to promulgate. Whatever the case, it will also be necessary to dispute Badiou's extra-mathematical arguments in support of his particular procedure – and these arguments, it seems to me, are all very strong.

In other words, any intervention in this context must beware the jaws of a dilemma. First, these "moments" I have identified are bound together by Badiou with an intricate and ramified argumentation, which shuttles between the historial, the polemical, the deductive, and the eventual. To give an example: we have already seen how the equation mathematics=ontology is at once historial (Platonic), polemical (rupturing with romanticism), and eventual (linked to the apparition and development of set theory from Cantor to Cohen). It can also offer an explanation of why, for instance, mathematics is *the* discourse necessary to found experimental science. Moreover, Badiou's subsequent deployment of this equation as if it conditioned a strict transliteration of mathematics into philosophy evades the hermeneutical problems endemic to language-turn philosophy. There are no longer "horizons," "dialogisms," or interpretations-endless-in-principle, and the question concerning language no longer precedes truth. Indeed, as he transliterates its terms into more classical philosophical ones, mathematics enables Badiou to reread philosophy according to the dictates of mathematics itself. *Being and Event* is accordingly also structured by ontological meditations upon Plato, Aristotle, Hegel, and so on – readings which are themselves part of the work, the hard labour, of thought.

Second, and despite the intricacy of his procedure, Badiou simultaneously declares his own argumentation *an inseparable act*: any attempt to intervene critically at any particular point entails exiting the system. Any putative critique is thus slung back to a position of exteriority, necessitating a clash of axioms. Badiou's system forces divergent thoughts to either meet its challenges at the most basic level, as irreconcilable enemies, or consign themselves to impotent quibbling. This is a crucial aspect of Badiou's construction of a genuine post-critical philosophy. Philosophy, as Badiou everywhere presumes (perhaps surprisingly, with such thinkers as Arthur Danto) is a *warring discourse*.

Although I believe that the current attempts to discern a residual Hegelianism in Badiou are deeply mistaken, one can certainly see how a first reading could discern a rather abstract consonance in the procedures of the two philosophers. As their arguments move or develop from moment to moment, the terms of each argument, as well as their very status, necessarily shift, implicating their antecedents and descendents at once. But such an analogy is ultimately just that, a loose analogy. It not only says nothing about what's singular about each philosopher, but implicitly attempts to reduce the antagonistic nature of philosophy by rendering the study of conceptual affiliations a matter of academic enumeration. In particular, it has to reduce Badiou's radical *coupling* of the thought of knowledge and being by mathematics and, simultaneously, his *separation* of truth from this knowledge-being exemplified by maths. Yet this separation is *only properly thought by passing through mathematics and then passing back again.* First, philosophy thinks the event as subtracted from onto-mathematical subtraction; second, philosophy thinks the being of a truth-process sparked by an event according to concepts derived from mathematics (in this case, of forcing). Neither scission nor recuperation, the work of thought to which Badiou has submitted himself is nothing other than the singular movement from meditation to meditation, from mathematics to philosophy to event-truth-process and back again.

If one follows Badiou in this, one finds that certain interesting problems continue to arise. As one might expect, it is nothing that poses the greatest difficulties in this regard. First of all, a hint of nothing arises in the very identification, by philosophy, that mathematics=ontology. Working mathematicians need not care at all for ontology; one presumes most would remain entirely unmoved if they were apprised of the allegedly existential dimensions of their activity. A separation thus emerges, between mathematics and philosophy. This separation is that of a pure *epistemic* cut: mathematics need not know itself ontology; philosophy must know and declare mathematics ontology, so that it might restitute the rights of mathematics. Such restitution therefore depends on a *knowing*. Despite Badiou's absolute hostility to the use of mathematics as epistemology, it seems to me that the effect of this hostility is to effectively short-circuit the gap between epistemology and ontology. What is the status of this (philosophical) knowledge, this *knowing that mathematics knows what it doesn't know*? For Badiou, there is an epistemic gap *within* mathematics, as there is a gap *between* mathematics and philosophy. Are these gaps avatars of the nothing, or rather of what Badiou calls "the unnameable" in his truth-process matheme? What, in any case, is the relation between the unnameable and the nothing? For Badiou, this relation must bear a subjective, ethical determination, for which he provides the Mallarmean slogan of "restrained action."

Moreover, how are such philosophical propositions articulated with the Parmenidean watchword, affirmed by Badiou, about thought and being being one and the same? This question is tantamount to asking: what is the being of philosophy? If philosophy is necessary to identify mathematics as the inscription of being, does mathematics also provide the resources necessary to capture the being of philosophy? Not quite. For Badiou, philosophy is an intervention, an act which corrals its truth-conditions. It cannot be simply an act of knowledge: the truth conditions are not "objects" and what philosophy does is not reducible to positive statements. Badiou therefore qualifies the philosophical act as a void, a nothing.[18] By the same token, this void of the philosophical act cannot be the same as the void of being that contemporary mathematics presents as the empty set. A doubling of the void: the void of being and the void of the act, ontology drilling a hole in the very knowledge that it founds, and knowledge incarnating itself in the hole it excludes.

So the void of being is not the void of the count-for-one. Neither void can be identified with the void *act* of philosophy, which, in turn, cannot quite be the void *place* constructed by philosophy to harbour the truths of its time. Neither can it be the same as the "holes" that a truth-process burrows into being. And given that Badiou builds into his event-subject-truth nexus an unforceable point of the real ("the unnameable") at the vector's arrow-head, I cannot see how this point isn't the void returning in another guise, as the

[18] Badiou, *Conditions*, p. 66.

apocalyptic *telos* of a form of thought. What interdicts totalization is precisely what thought must guard against: nihilistic terrorism, the drive of those seized by a truth to say it all. The void is thus the *alpha* and *omega* of Badiou's system, which begins by being named and ends by losing even its name. Nothing returns to nothingness. These features are not just indices of the system's necessary incompleteness, and thus of its possible consistency. Rather, they are indices of how the incessantly doubling void drives the system itself into inconsistency.