Fall 2009 Badiou course / John Protevi / Department of French Studies / Louisiana State University
www.protevi.com/john/Badiou/BE_Part1.pdf / protevi@lsu.edu

NOTES ON *BEING AND EVENT* (PART I)

AUTHOR'S PREFACE (TO ENGLISH TRANSLATION: 2005).

After sketch of late 80s philosophical situation (see *Manifesto* and *Ethics* for B's take on this in more detail), B identifies four "affirmations" he makes in BE:

1. Situations in their being are "pure indifferent multiplicities." No norms in situations. Truths are "indifferent to differences."
2. Truths only come from "ruptures" of situations, that is, from "events."
3. Subject = "active fidelity to event of truth." Subject = "militant."
4. Being of a truth = "the generic." Truth procedure = generic procedure. Subject = "local active dimension of a truth procedure."

B's identification of math with ontology puts him on side of analytic philosophy's formalism. On the other hand, B also takes poetry seriously as do "continental philosophers." So he wants to mark the "nullity" of the CP / AP distinction.

INTRODUCTION (TO FRENCH EDITION: 1988)

1)Analysis of current philosophical situation; B's intervention; definition of philosophy.

- a) Three elements of current situation: Heidegger, math-logic and scientific rationalism, post-Cartesian "practical" subject (Marx, Lenin, Freud, Lacan).
  - i) Agreement: closure of an epoch of thought: speculative systems are impossible, and a "doctrine" of the being/non-being/thought "knot" is no longer possible as a "complete discourse." But that's what BE will attempt.
  - ii) Disparity re: position of science; possibility of emancipation.
- b) B's intervention:
  - i) A "diagonal" through this conjuncture.
    - (1) Agrees with Heidegger that philosophy must deal with ontology
    - (2) Agrees with AP that math-logic of Frege-Cantor is key to new thinking
    - (3) Agrees that we must think new form of subject
  - ii) Produces "entangled periodizations"
    - (1) 3rd epoch of science: a new form of mathematics
    - (2) 2nd epoch of subject: post-Cartesian ("void, cleaved …")
    - (3) "new departure" for truth (vs. "veracity" of situations / facts)
  - iii) B's "initial thesis": ontology has existed since Greeks, but only today do we know this (i.e., philosophy as meta-ontology now knows math = ontology)
- c) B's definition of philosophy as establishing conceptual framework demonstrating "compossibility" of condition of philosophy.

2)Relation of math = ontology and the subject.

a) B's current thesis that math = ontology sheds new light on his *Théorie du sujet*. There he had assumed existence of subjectivity, but couldn't think its relation to ontology. He wanted to avoid a naturalism that equates dialectic of nature and dialectic of history.
b) His early research in math-logic was caught in "logicist thesis" that made referent of math into either an (empiricist) abstraction from experience or a super-sensible Platonic Idea. But this didn't square w/ Lacan's idea that the real is the "impasse of formalization."
c) So he had to say the Multiple is the real of mathematics, whose internal gap and impasse (inconsistent multiplicity) are "deployed" by theory. So he comes to his thesis: "math writes that which, of being itself, is pronounceable in the field of a pure theory of the Multiple."
d) So if that's the case, he has to reverse Kant. It's not the case that a transcendental subject grounds pure mathematics. Rather, given that math = ontology, how then is a subject possible?

3) Cantor as the "decisive break" that reveals to philosopher that math = ontology.
a) All math objects are pure multiples built up on null set; relation of math and being is axiomatic; that the ZF axiom system has always been in crisis shows important consequences of math / language connection when we admit math = ontology.
i) No need to look for foundation of mathematics other than in being as pronounced in ZF axioms.
ii) No need to worry about status of math objects; there are no math objects for B, for math only presents presentation (not that which is presented).
iii) No need to worry about application of math to natural science, e.g., physics.
b) Philosophy / math relation:
i) Two poles
(1) Model of (subjective) certainty
(2) Example of (objective) identity
ii) Hence oscillation btw
(1) Admiration of rationality of mathematics
(2) Distrust of status of math objects compared to Nature, Good, God, Man
iii) Aristotle accuses Plato of crypto-Pythagoreanism: being is mathematical
c) Badiou however says math = ontology. This is "thesis not about world but about discourse." This grates on philosophers, who pose the question of ontology (but can't answer it).

4)Philosophy doesn't like that math = ontology; it robs them of what they thought was the center of their discipline.
a) Consider the case of Heidegger, who "dominates" contemporary philosophical "ontology." H considers contemporary omnipresence of science / math to be sign of nihilism. Math is foreclosure of thought by knowledge; it is hallmark of turn of thought away from attunement to Being as veiling / unveiling and toward contriving ways to produce and guarantee full disclosure of beings.
b) Three points of debate btw B and H
i) H as poetic ontology: "haunted by dissipation of Presence and loss of origin."
ii) B proposes subtractive ontology: being is subtracted from all presentation.
iii) Greek birth of philosophy is not poetic, but mathematical.

5)Mathematicians are not impressed with B's meta-ontological statement that math = ontology.
a) Working mathematicians just want to do math.
b) Many mathematicians (e.g. Dieudonné) don't think philosophers know enough math.
c) But BE is NOT a work of ontology; it is a work of meta-ontology.
i) So it's okay if ZF axiomatic set theory (AST) isn't cutting edge or foundational.
ii) But B does claim that ZF AST is a "symptom" that shows math = ontology.

6)Establishing that math = ontology is NOT the goal of BE; that goal is to think how the domain that "supplements" being, i.e., the domain of "what-is-not-being-qua-being" (ce-qui-n'est-pas-l'être-en-tant-qu'être) is organized by "truth" and "subject."
   a) Not the ancient link of truth and subject (full plenitude of truth to subject = certainty, so that subject is support or origin of truth) but subject as "fragment" of truth procedure.
   b) "Generic" is key. Cohen's proofs "resonate" beyond math, opening thought to "subtractive seizure of truth and the subject." So "generic" is key term for B's philosophy as conceptual framework for compossibility of conditions of philosophy in the four truth procedures.
   c) JP: as I've been noting, this is the whole ball of wax: if you don't think that math findings can "resonate" in poetry, politics, and love, then B is closed to you. It's just a forced analogy: e.g., excess of "state of situation" over situation = power set in math and State in politics.
7)More on the generic; an overview of the book's trajectory; status of BE.
   a) The generic is the key
      i) Links diverse domains
         (1) Four generic procedures
         (2) Allows traversal of categories
            (a) Of being (multiple, void, nature, infinity)
            (b) Of the event (ultra-one, undecidable, intervention, fidelity)
         (3) Does not allow an image
         (4) Is bound to problem of indiscernable, unnameable, indeterminate
            (a) Generic multiple is subtracted from knowledge
            (b) But can be demonstrated (Cohen)
      ii) The generic procedures
         (1) consequences
            (a) "coming to light of an indiscernible of the times"
            (b) That which "detains in its multiple-being all the common traits of the collective in question."
            (c) This is "the truth of the collective's being."
         (2) Irreducibility of these either to
            (a) Empirical conditions (social / political / technical / sexual)
            (b) Or to the transcendent One
         (3) Contemporary thinking of them that is indeterminate AND complete
            (a) Occupies gaps in "encyclopedias" of knowledge
            (b) Manifest the "common-being" of situation
      iii) So a subject is finite moment of a generic procedure
   b) The trajectory of the book explains links of being, event, truth.
   c) BE is not epistemology or phil math. It explores how it is possible to "cite" math as indicative of generic as contemporary "symptomatic torsion of being."
8)Typology of meditations; plea for mathematics; types of math used in BE
   a) Three types of mediations
      i) Conceptual
      ii) Historical / textual
      iii) Mathematical / meta-ontological
   b) Math gets a bad rap; all you need for the math in BE is patience and concentration
   c) 5 kinds of math in BE
      i) Axioms of set theory (Cantor / ZF)
      ii) Ordinal numbers
      iii) Cardinal numbers

iv) The "constructible" (Gödel)
v) The "generic" and "forcing" (Cohen)

PART I: BEING: MULTIPLE AND VOID: PLATO / CANTOR

Meditations 1 and 4 are conceptual; 2 and 6 are historical; 3 and 5 are mathematical.

MEDITATION 1: THE ONE AND THE MULTIPLE: *A PRIORI* CONDITIONS OF ANY POSSIBLE ONTOLOGY

1)The one and being.
- a) Fundamental experience of traditional ontology: multiplicity of what presents itself (beings) and unity of what is presented (being). While reciprocity of one and being is fundamental, the denial of being to multiplicity leads to the impasses set out in Plato's *Parmenides*.
- b) B will wager that "the one is not" (*l'un n'est pas*) but "there is Oneness" (*il y a de l'Un*). The One is not, but exists only as "operation," as "count-as-one." The multiple is that which presents itself. So *stricto sensu*, being is neither one nor multiple (the multiple is only the "regime of presentation" [see below, Med. 4: the void is subtracted from one / multiple dialectic]).

2)B's system
- a) Terminology:
  - i) Situation = any presented multiplicity.
  - ii) Structure = that which prescribes, for a situation, its "count-as-one."
- b) The multiple is "retroactively legible" as anterior to the count-as-one. "What will have been counted as one" is the multiple. All situations are structured (subjected to a count), so presentation as such is multiple. The multiple is "inevitable predicate of what is structured."
- c) Splitting of the multiple:
  - i) Inconsistent multiple: "retroactively apprehended" as what has been counted
  - ii) Consistent multiple: what is, as counted in the situation

3)Ontology is a situation (and mathematics is precisely that situation). The statement "ontology is a situation" = "math is ontology." You don't have access to being-qua-being otherwise than through math, though you can have access to the "collective being" or "generic being" of political, artistic, and amorous situations via the other truth procedures.
- a) Initial quandary
- b) Great Temptation: to deny that ontology is a situation and to affirm that only an experience of fullness beyond structure allows us to access to veiling of Being's presence. Cf. Plato: Idea of Good is "beyond being" (επεκεινα τησ ουσιας).
  - i) Conceptual: negative theology
  - ii) Experience: mystical annihilation
  - iii) Poetic language
- c) B insists that ontology is a situation; he will thus refute ontologies of presence
  - i) Conceptualization will be formal and positive
  - ii) Experience will be "deductive invention" and result will be transmissible
  - iii) Language will not be poetic but ideographic.

4)Ontology as the "theory of inconsistent multiplicities as such."
- a) What are the conditions for ontology as situation? That is, what is the structure of ontology, its count-as-one?
  - i) Every multiple = multiple of multiples
  - ii) Count-as-one = conditions through which multiple can be recognized as multiple
- b) So the count-as-one, the structure of ontological situation = mathematics (e.g., ZF AST)

i) That is, ontology must "discern" the multiple w/o making a one out of it
ii) But neither can it define it

c) That which manipulates w/o definition = an axiomatic system

5) Recap. "Axial theme" of ontology = inconsistent multiplicity.

a) ZF AST makes inconsistent multiplicity "consist, as an inscribed deployment … of pure multiplicity, presentation of presentation." So it makes inconsistency consistent.

b) On the other hand, working backward from consistency w/in situations, what is counted-as-one in the situation ("impure multiplicities") is purified and seized in its pure inconsistent multiplicity prior to the count, as that which has been counted. ZF AST therefore also makes consistency inconsistent.

MEDITATION 2: PLATO

This is a really wonderful exercise in philosophy. B reads a key Platonic text (the *Parmenides*) and a key Platonic concept (participation) in terms of his ontological scheme, specifically, the "axiomatic decision" of the "non-being of the one." NB: the French reads literally "the ontological decision whence originates my entire discourse" (*La décision ontologique où tout mon propos s'origine*, *soit le non-être de l'un*). The work here is precise, daring, and concise. It's really just plain brilliant. Also note some interesting resonances with Derridean readings: locating a "symptom" in the text, and then focusing on the difference between the inability to think a concept and that concept being named nonetheless.

1) The end of the *Parmenides* comes to a "general ruin of thought" based on the hypotheses dependent on the thesis "the one is not" (*l'un n'est pas*).

a) But B will interrupt at a "symptomatic" point:

i) When Plato discusses the non-being of the one, it's just a deduction from his general thesis about non-being; thus nothing is said about the concept of the one.

ii) But about the "other-than-one": when we discuss them under hypothesis of non-being of the one, then we learn about the multiple.

b) The demonstration of the symptom.

i) We find the familiar claim that non-being entails that something "be not-being" (*cette participation minimale à l'etre qu'est l'être-non-étant* [το ειναι μη ον]. But there's nothing here about the concept of the one; this is a deduction from a general theorem about non-being. So it's not really a paradox of the one.

ii) w/r/t the "others" (that which is not one), we find "complete theory of the multiple."

(1) What is not the one (αλλα) must be grasped in its heterogeneity.

(2) This is a "thought of pure difference" or Plato's thinking of inconsistent multiplicity or pure presentation.

(3) απειρος πληθει = multiplicy w/o limit in its "multiple-deployment"

iii) But Plato can only think this as appearing "as if in a dream." This is the mark of Platon's "pre-Cantorian" status, since for him, inconsistent multiplicity is unthinkable as such, since thought presupposes situations and consistent multiplicity.

2) But Plato seems to undercut this "pure theory of the multiple" at the end of the *Parmenides*, when we are thinking the thesis "the one is not." Under this condition, Plato denies that the alterity of the "others" can be thought as multiple, because, w/o the one, you can't have a thought of the multiple.

a) But if we look at the Greek, we find our clue: ουδεν εστιν is better said as "the nothing is" [*rien est*] rather than just "nothing is" [*rien n'est*]. So "nothing" is "the name of the void."

b) Following this clue we see in Plato the difference btw inconsistent / consistent multiplicity:

i) Inconsistent multiplicity = πληθος

ii) Consistent multiplicity = πολλα

c) Thus Plato's aporetic conclusion to the *Parmenides* is an "impasse of being" at the "deciding point" btw inconsistent and consistent multiplicity.

d) So we can read "if the one is not, (the) nothing is" as thought of the non-being of the one revealing name of void as presentation of what is unpresentable support (i.e., inconsistent multiplicity) of structured presentation (i.e., consistent multiplicity as result of count-as-one operation).

3)Plato is driven to aporia bcs he cannot think gap (*l'écart*) btw being of the one and its "there is."

a) IOW, Plato can't think difference btw the one as ontological fundament and the one as operational result.

b) But if he can't think it, nonetheless the gap is "named" many times in his work (*oeuvre*) as "participation."

i) The Idea is intelligible being. But it must also support participation, that is, that I think beings on its basis, that I unify them, that I think "existing multiples as one."

ii) So there is a split in the Idea, btw the pure identity of its being, and its effect in allowing us to think beings, that is, its "one-effect" on those beings, which would otherwise fall into irreparable, unthinkable, disseminative multiplicity.

iii) So we now understand why there is no Idea of the One. The One is only there as operative in each Idea. So "there is" Oneness in each Idea, and this is what splits inconsistent (πληθος) and consistent (πολλα) multiplicity.

MEDITATION 3: THEORY OF THE PURE MULTIPLE: PARADOXES AND CRITICAL DECISION

B begins by noting the difference btw the solidity of reasoning of a theory (which enables its future development) and the "precariousness" of its initial concepts. So for instance, the first two definitions of set (by Cantor and by Frege) are both undone by future developments.

1)Cantor's definition of a set as "grouping into a totality of objects of intuition or thought" was rethought by Frege / Russell as extension of a concept. Thus all multiples had to be presented on basis of well-constructed language. But the paradoxes of set theory show this to be false. The multiple cannot be prescribed by language alone.

2)It's at this point that Cantor developed his ontotheological notion of the "absolutely infinite" (= God) as opposed to the mathematical transfinite. But we can also say Cantor "wavers" btw ontotheology and mathematical ontology. Here we see the point of decision leading to ontologies of presence: beyond the multiple is the one (remember that for B, "the one is not": the one is an operation of count-as-one).

3)The real effect of the paradoxes is seen in ZF AST:

a) No definition of sets.

b) No paradoxical sets: what AST says is a set, is a set.

c) No concept of multiple (the multiple doesn't imply being of the one).

4)Characteristics of ZF AST

a) Only one relation, belonging. Symbol = ∈. This designates an "element" of a set.

b) All is multiple; everything is a set.

c) Any multiple is a multiple of multiples. A set can be formed on the basis of a property only when there is already a presented multiple. This is Z's axiom of separation.

i) The discussion here is about relation of language and being. Frege claims that for every well-made formula, the existence of a multiple is guaranteed: the multiple gathering all terms

validating the formula. But Russell's paradox showed that fulfilling one well-made formula (self-membership in a set) results in contradiction, i.e., destroys consistency of the language.

ii) Zermelo's axiom of separation says only that IF a set is supposed to exist then a particular consequence (a sub-set constituted on the basis of a particular property) follows. There is no direct conclusion as to the existence of the consequence (the sub-set) from a well-founded formula defining the property.
   (1) So you can't infer existence from language; rather, language separates out, from w/in a supposed multiple, the existence of a sub-multiple.
   (2) IOW, the axiom of separation is materialist: language presupposes existence upon which it operates; it doesn't guarantee existence.
   (3) So what Zermelo restricts is "the presentative pretensions of language."

5)So, what is this presupposed existent multiple on which language operates? What is the "absolutely initial point of being"? This is the problem of the "subtractive suture of set theory to being qua beind." That is, it's the problem of the void and the name of the void, which we encountered in the reading of Plato, and to which Meditation 4 is devoted.

MEDITATION 4: THE VOID: THE PROPER NAME OF BEING

This is a conceptual meditation, spelling out the philosophical ramifications of the presupposition of inconsistent multiplicity as that upon which language and the count-as-one operates.

1)Inside a situation all you ever find are counted elements; you never find inconsistency.
   a) Inconsistency is only the "presupposition that prior to the count the one is not."
   b) Thus inside a situation, according to the knowledge encyclopedia it sets up, Leibniz's equation of unity and being holds: "what is not *a* being is not a *being*" [ce qui n'est pas *un* être n'est pas un *être*].

2)But even though inconsistency is never presented w/in a situation, the "there is" of the one (i.e., that the one is an operation) leaves a "remainder" [*ce "il y a" laisse en reste*] such that the operationality of the one is discernible.
   a) The counted ones "mark out" [*pointe*] a "must-be-counted" such that the situation "wavers" toward the "phantom" of inconsistency.
   b) But of course this phantom is never presented in a situation. So w/in situations, pure multiplicity "is nothing"; but this is not the same as "inconsistency is not."
   c) Inconsistent multiplicity is the "base" [*ce dont se soutient*] of situations.

3)We can't go looking for some little bit of pure multiplicity the count-as-one has forgotten but that we can fasten onto in intuition (that's what poetry tries to do).

4)Nonetheless, there is a being of nothing, as form of the unpresentable [*il y a un être du rien, en tant que forme de l'imprésentable*].
   a) The form of the unpresentable is the gap btw one as result (consistent multiplicity) and the one as operation (acting on inconsistency to produce consistency).
   b) IOW, upholding the ontological / axiomatic decision that the one is not requires the presupposition of inconsistent multiplicity as that which, looking backward from presentation, was there as what will have been counted.

5)The nothing is neither a place nor a term of the situation; it is only "the name of unpresentation in presentation."
   a) What isn't counted in a situation is the necessity of the operation of the count-as-one.

b) So the nothing , as naming the gap between structured presentation (consistent multiplicity) and its presupposition (inconsistent multiplicity) is like Plato's errant cause in the *Timaeus*, that is, it's difficult to think, appears as in a dream, etc.

6)The "void" is the name for that which "sutures" a situation to its being; every situation "unpresents" its void as the "subtractive face" of the count. "Void" is more primordial that "the nothing," bcs it is "the name of being—of inconsistency—according to a situation."
   a) Now no term in the situation designates the void (so Aristotle [see Meditation 6] is correct to say "the void is not").
   b) An event is necessary for the void to be localizable at the level of presentation, for it to be "retroactively discernible."

7)Ontology needs a theory of the void, since ontology is theory of structured presentation, and from w/in a situation, the void is the name of the subtraction of originary inconsistency from the count. But ontology can't have a concept or definition of the void, bcs then it would be counted-as-one.
   a) So all the terms of a situation must be composed from the void alone.
   b) Since all multiples are multiples of multiples, "first" multiple must be multiple of nothing.
   c) Ontology theorizes inconsistent multiplicity as presupposition of all situations, that is, multiplicity subtracted from any particular count-as-one. Inconsistency from w/in situations is nothing, so the "absolutely primary theme of ontology is the void."

8)So ontology is the presentation of presentation, the presentation of that which is subtracted from any particular presentation. As taking up the standpoint of the void, ontology presents the pure multiple, but this "multiple of nothing" is "subtracted from the one / multiple dialectic."
   a) Why then retain the term "multiple of nothing" for the void?
   b) Bcs ontology is a situation and it must therefore name everything according to its law whereby everything is a multiple of multiples.
      i) What we have here is a "pure act of nomination" that is "self-consuming," such that the void is the "proper name" of the "unpresentable as such."
      ii) Once ontology sets out its axioms of multiplicity it begins with this pure and arbitrary name of being.

MEDITATION 5: THE MARK Ø

[NB: I'm using the closest possible symbol I can easily find in Word. Disregard the diacritical mark.]

This is a meta-ontological meditation, that is, an interpretation of AST as ontology. B begins by noting that only one axiom is existential (the null-set axiom). The others are operational.

1)Axiom of Extensionality (same and the other).
   a) Identity of sets is founded on the "indifference" of belonging. The formula on 61 reads: "for all gamma, the equivalence of 'gamma belongs to alpha' and 'gamma belongs to beta' implies the equality of alpha and beta."
   b) Thus there is a "purely extensional" character of the same and other in AST. There can be no particular quality that differentiates sets, only pure quantity.
   c) But there is no existence requirement here.

2)Axioms under condition. Again, there is no primary existential positing here; these axioms only concern operations on sets presumed to be existent: IF such and such a set exists, then you can produce another set following these rules. The key : None of these axioms begin w/ an existential quantifier, but only w/ a universal quantifier: "for all alpha, there exists a beta such that …"
   a) Powerset (set of subsets)

i) The subsets of a set form a set.
ii) "Beta is included in alpha" (beta is a subset of alpha) is an abbreviation of "For all gamma, 'gamma belongs to beta' implies 'gamma belongs to alpha'".
iii) The distinction between belonging (being the element of a set) and inclusion (being a subset or "part" of a set) will be critical to B.

b) Union (the inverse of the powerset operation)
i) Powerset says you can count-as-one all parts (subsets, regroupings) of a set
ii) Can you count-as-one all the decompositions of a set (can you unify its dissemination)?
iii) Yes. For every set, there is a set of all the elements of the elements of that set.
iv) This means that in direction of both dispersion or gathering there is only multiplicity counted-as-one.

c) Separation
i) Previously studied in Med 3.
ii) Concerns the dependence of language on presupposed existence. ("materialism")

d) Replacement / substitution
i) You can replace the particular multiples of a set with others w/o making a difference.
ii) Because set membership is purely consistent multiplicity w/o reference to the particularity of the elements.
iii) IOW, we only care about the manner of holding together, not what is held together.

3)Void; subtractive suture to being.
a) Now ontology is a situation; mathematics has a language, a count-as-one, a structure.
b) For its primary existential posit, ontology must avoid granting being to the one (the one is not) nor can it focus on the results of the operation of the one (that is, consistent multiplicity).
c) So it names "void" as that which is nothing w/in a situation. So with the arbitrary choice of a proper name, ontology posits the unpresentable alone as existent. "The unpresentable is presented, as a subtractive term of presentation of presentation."
d) Now this "proper name" picks out the void as "unique," but it doesn't thereby submit it to the rule of the one (which would be self-defeating). This is precisely because there is nothing to differentiate the void from anything else: the void has no qualities that can be distinguished from the qualities of other sets. This means the "void" is not a common name, but a proper name: there is not a multiplicity of voids each with its own quality; rather there is only one void [*il n'y a pas « plusieurs » vides, il n'y en a qu'un*]. Thus "it is because the one is not that the void is unique."

MEDITATION 6: ARISTOTLE

Another wonderful reading in the history of philosophy. The key is that B insists on following A's thought to its "point of impossibility." That is, because of his naturalist "ontological" presuppositions, A cannot "positively" think the void; only B, because of his meta-ontological identification of mathematics = ontology, can do so. Because B posits math = ontology he can disqualify A's thought of *phusis* as ontological: nature is a "non-ontological" situation for B.

1)A physicist, for A, studies nature as the realm of intrinsic movement and rest.
a) Nature is not the law of movement (an extrinsic position); it is movement, or better the principle ($\alpha\rho\chi\eta$) and cause ($\alpha\iota\tau\iota\alpha$) of intrinsic movement and rest.
b) For A, a natural situation is "place" ($\tau\circ\pi\circ\varsigma$), that is, natural self-movement presents itself as occurring in places; natural beings are enveloped by place; thus a void would be a place w/o a natural being.

2)A's first demonstration disqualifies the void from nature by showing that the void is "in-different, in-finite, and un-measured."
   a) For B, this three part insufficiency is important.
      i) It shows the "errancy of the void, its subtractive ontological function and its inconsistency with regard to any presented multiple."
      ii) B likes that A cannot locate the void based on his naturalist "ontological" presuppositions. Because B doesn't think the void exists in a straightforward naturalist way either.
   b) In detail:
      i) In-difference.
         (1) Aristotle: Difference presupposes a count-as-one.
         (2) Badiou: void names inconsistency as that which is prior to the count-as-one.
      ii) In-finite.
         (1) For A, the in-finite cannot exist. Only that which is limited can exist.
         (2) For B, "the void is the point of being of the infinite."
         (3) That is, once named in situation the void
            (a) infinitely exceeds the situation
            (b) shows up everywhere in the situation
            (c) pursues its own trajectory
      iii) Un-measure:
         (1) For A, each motion is measurable; nature (φυσις) is "ratio-nal" (λογος)
         (2) For B, the void is in-numerable; with the void, there is always an "irruption of inconsistency" that propagates at "infinite speed" in the situation.
3)So for A, the void cannot be natural. Is it thereby "unnatural"? There are three formulas here. We'll just note the last one, where B accepts that which A rejects: the punctuality of the void. This is the "point of impossibility" of A's thought.
   a) "Symptomatic" reading: The point is not a place; all nature occurs in place; so if, contra Aristotle and per Badiou, the void is punctual, then it is the non-place, the "outside-place" on the basis of which place envelopes natural beings and provides the horizon for naturalist ontology.
   b) Meta-ontological reading: the void is that which sutures situations to being insofar as it names, from w/in the mathematical / ontological situation, inconsistent multiplicity as that unpresentable which "founds" and "haunts" structured presentation.