REPRESENTATION AND INCONSISTENT MULTIPLICITY: CANTOR'S ROOTS IN ALAIN BADIOU AND CORNELIUS CASTORIADIS

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ABSTRACT: Philosophy attributes to mathematics the exclusive capacity of *constructing* pure knowledge – i.e. the thinking (of ideas) – reserving for itself the modes of its representation. In the first part of the article, we briefly trace the reverberations of representation stemming from mathematics in the thought from Descartes, Kant to Heidegger, and investigate how they unfold and influence the contemporary philosophies of Alain Badiou and Cornelius Castoriadis. Although the two share a common ontological root in Cantor's naïve set theory, this aspect of their thought remains relatively unrelated. In the second part, we closely examine the respective usage of the notion of *representation* and its transmutation to a mathematical concept of *inconsistent multiplicity*, consequently arguing for a rare, but particularly important point of convergence of the two thinkers. It is this contradictory inconsistent multiplicity that represents an abstract concept for thinking *Magmas* (Castoriadis) or the *Absolute* (Badiou) – both conceiving it as the *place* in which Truth(s) are either *ex-nihilo* created or eternally residing.

KEYWORDS: Badiou; Castoriadis; Inconsistent multiplicity; Representation; Set theory

INTRODUCTION

The still prevailing metaphysical understanding of representation (captured by the early Heidegger) posits the Self as being-in-the-world. It purports our mental representations to interact with (a mediated) external reality as part of the whole "world-picture" subject/object dichotomy. It can be said that one of key

challenges of contemporary philosophy is to somehow overcome this knot.[1]

Representation is a relatively modern conception that gains philosophical significance fairly late, in early modern philosophy. It is also widely held that representation remains *the* problem for modern (post-Kantian) philosophy, which is today still entangled in a generalised crisis of thinking representation.[2] Brought forward by Descartes' theory of ideas, it comes in full zenith with Kant's notion of *Vorstellungen*. Thereafter it finally succumbs to the split in philosophical traditions of the twentieth century; epitomized by Wittgenstein's account of language in *Tractatus Logico-Philosophicus* and continuing with his break in *Philosophical Investigations* on the one hand, complemented by Heidegger's ontological difference emerging from *Being and Time* on the other. The contemporary philosophical traditions consequently follow different paths; the *analytical tradition* opts for formal logic and mathematical calculi of languages and instils the idea of understanding meaning and content through representations (the path of *Tractatus*). While the *metaphysical and pragmatist traditions* move away from deriving meaning in terms of logics of linguistic structures, closing in on *Philosophical Investigations*, and focus rather on the uses and functional modes of language's lived experience in the openness of the world.

There is, however, a line of (contemporary French) thought that cuts right across the apparent divide of analytic (utterances, meanings and judgements – ontology of language) and continental (poetic uncovering and historical *bringing-forth* of truth – ontology of being) traditions, fountainheads of which are Wittgenstein and Heidegger. Furthermore, their aim is a traversing of the political, philosophical and socio-historical obstacles, by running their course against a meta-re-conceptualization of representation. This line is concurrently represented by the meta-ontological stance of Alain Badiou and his *philosophy under conditions*, but also Cornelius Castoriadis' *politico-philosophical anthropology* – both of which ground their philosophies on mathematical (set theoretic) approach to ontology. The philosophical concept of representation yet again becomes reconfigured, whence comes also yet another variation in our understanding of the applied notion of representation in political, socio-historical,

[1] See Slavoj Žižek, *Sex and the Failed Absolute*, London, Bloomsbury Academic, 2020, p. 259.

[2] See Alenka Zupančič, 'The Fifth Condition', in *Think Again: Alain Badiou and the Future of Philosophy*, Peter Hallward (ed.), London, Continuum, 2004, pp. 197–198.

artistic or other discourses. Moreover, it finds itself in the middle of the unsettled debate in contemporary philosophy when it comes to thinking the Truth(s), the Absolute, the Ego, the social imaginary or the State.

How so? Sharing a common root in 20th century France, one would expect of the two philosophers to converge, granted, with a certain degree of nuances separating them, but nonetheless sharing a common trajectory. This does not seem to be the case at all[3]. We will argue that a major division between the two lies in their unique interpretation and utilization of Georg Cantor's core concepts since the inauguration of set theory and its object-entities – multiplicities. Retraced to their very fundamentals and definitions in set theory, the notions of *inconsistent* and *consistent multiplicities* unveil a margin for difference when fused together with the challenges posed by contemporary philosophy, psychoanalysis or historical sequences. These matters only amplify the dissonance within the latter coextensive frameworks of thought. With this article we aim to investigate the arising divergences by enacting an analysis of some key concepts in set theory applied in the works by Badiou and Castoriadis.

In what follows, the next section provides a general historical and genealogical outline of influences on the thoughts of Badiou and Castoriadis, particularly in relation to the concept of representation. We start of from modern philosophical names of Descartes and Kant, further emphasizing the role of Heidegger on one side and mathematical thought on the other as major influences on both thinkers. The second section investigates Cantor's concept of *inconsistent multiplicity* and the role it plays for Badiou (the place of the Absolute, forming into the count-as-one, etc.) and Castoriadis (*Vorstellungsrepräsentanz* – representation in Freud, proto-meaning in magmas, radical imagination, etc.), respectively. We conclude with a section on the convergence between the Absolute (Badiou) and Magmas (Castoriadis) and outline a starting point for additional investigations into the compatibility of their respective philosophical

[3] Surprisingly, there have not been many attempts to frame a comparative study of the philosophical approaches in Badiou and Castoriadis. In this respect V. Tasic's paper represents an important delineation of mathematics in Badiou and Castoriadis, For more see Vladimir Tasic, 'Mathematics and Revolutionary Theory: Reading Castoriadis after Badiou', *Cosmos and History: The Journal of Natural and Social Philosophy*, vol. 8, no. 2, pp. 60–77. On comparison of Badiou's and Castoriadis's conception of politics see Gerasimos Karavitis, 'On the concept of politics: A comparative reading of Castoriadis and Badiou', *Constellations*, vol. 25, no. 2, 2018, pp. 256– 271.

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WHERE THERE IS REPRESENTATION THERE IS ALWAYS ALSO MATHEMATICS – THE ROUTE FROM DESCARTES AND HEIDEGGER TO BADIOU AND CASTORIADIS

There can be no doubt that the Ancient Greeks were already fully cognizant of the presentation/representation problem. Think only of Plato's Theory of Ideas (εἶδος) or Aristotle's *hylomorphism* (ὕλη and μορφή). They are in opposition, but clearly show the Greeks' full awareness of the problem. However, their accounts of the relation between appearance and reality were still relegated to sharing descriptive properties. It was more a theory of resemblances involving colours, shapes, functionalities, etc. than an intra-philosophical meditation. However, this changes with Descartes, as modern philosophy attains a more abstract reflection on the idea/representation. Ideas become separated into different kinds – i.e. innate, adventitious, and invented (factitious) – implying that the former two belong to an independent reality outside of the mind, while the latter are the product and continuous reshaping of the mind alone.[4] Descartes then consequently also conceives the former as *primary ideas* – things that exist independently of the mind – whereby he employs the distinction of formal(actual)/objective(representative) reality to invoke the operation of representation.[5] Take the representation of an (*primordial*) innate idea, e.g. of God, which is represented as God in the objective reality, i.e. in our minds, *only if* it finds support for it in the formal reality (i.e. God being an actual infinite substance found in external reality). Apart from God, Descartes also counts Geometrical ideas as innate[6] – the famous example of a triangle having three angles that equal two right angles is an example of an innate idea and an eternal truth – to the extent they can be assessed by the mind at contingent will, but cannot be content-wise reconfigured into anything (existentially) else. As a corollary, there is one

[4] René Descartes, *The Philosophical Writings of Descartes, vol. II*, Cambridge, Cambridge University Press, 1984, p. 26.

[5] Ibid., pp. 28–29.

[6] A scientific account of innate ideas has recently been put forward by the Blue Brain Project at the École Polytechnique Fédérale de Lausanne. For more see Rodrigo Perin Rodrigo, Thomas K. Berger and Henry Markram, 'A synaptic organizing principle for cortical neuronal groups', *Proceedings of the National Academy of Sciences*, vol. 108, 2011, pp. 5419–5424.

other aspect of Descartes' mode of representational inference that becomes crucial for our argument; it is not the immediate introspection of mind and representational mechanisms, but rather Descartes' deployment of mathematical transposing of geometry into algebra, i.e. the introduction of analytic geometry, that is at stake here. This operation introduces an unprecedented representational mode of deploying algebraic analysis to formalize the geometric structures, thereby formulating anew the relation between reality and appearance. It is the *isomorphism* between two different modes of thought, algebra and geometry, that promotes the pure form, i.e. a representational relationship, without invoking any kind of semantic connotations. As Enlightenment philosophy brought the first modern divide in philosophy between Rationalist and Empiricists, it was Kant's reconciliatory gesture for the two camps that has consequently, but also profoundly, rearticulated the concept of representation. Let us permit a very simplistic description: Kant thought two distinctive kinds of representations[7] – image-like sensations and sentence-like thoughts – but he had to add a specific type of representational properties to allow for his synthesis of Empiricism/Rationalism into a (empirical/transcendental) *schemata*: (1) empirical concepts and (2) pure concepts of understanding (Kant's categories) are supplemented with (3) pure sensuous (mathematical) concepts. What is of interest here is precisely how Kant also "sutures" *the mathematical* onto his Transcendental Analytic by calling the first class of concepts of pure understanding *mathematical*, while the second are named *dynamical*.[8] In the midst of Kant's arguing about representation, we therefore once again find the discipline of mathematics[9], the latter *exclusively* operating in the realm of pure intuitions (space and time), entwined with concrete sensory objects of representation (in mathematics, i.e. geometric shapes, etc.). Mathematics thus operates with the *construction* of concepts (as opposed to reason's *cognition* of concepts in philosophy) as the non-empirical, *a priori* general representation, which is universally valid for all possible intuitions of any such object of cognition in sensuous objectivity.

In his reading of Kant in *The Question Concerning the Thing*, Heidegger links the principles of pure understanding with the way we access the object of experience.

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[7] Immanuel Kant, *The Cambridge Edition of the Works of Immanuel Kant*, Cambridge, Cambridge University Press, 1998, A51, B75, p. 193.
[8] Ibid., B110, p. 215.
[9] Immanuel Kant, 'Prolegomena', in *The Cambridge Edition of the Works of Immanuel Kant*, Henry E. Allison and Peter L. Heath (eds.), Cambridge, UK, Cambridge University Press, [1783] 2002, pp. 77–78.

He says:

> For Kant, the thing accessible to us is the object of experience. For Kant, experience means the humanly possible, theoretical cognition of beings. This cognition is twofold. Hence, Kant says: "With us *understanding* and *sensibility* can determine objects only *in combination*" (A258/B314). An object is determined *as object* by way of [*durch*] combination, i.e., the unity of what is intuited in intuiting and thought in thinking.
>
> That the determination of the essence of the object as such takes place by way of principles is not evident without further ado. It becomes intelligible, however, when we attend to the traditional direction of the question of the thing in Western philosophy, according to which the basic mathematical trait is decisive: the return to axioms in every determination of beings.[10]

Somewhat later on, when analyzing the mathematical and dynamical categories – the principles of pure understanding with which we access the thing in nature as an object of experience –, Heidegger sees them exactly as an obfuscation of metaphysics in the form of "mathematical determinateness of a natural object"; here, the mathematical is understood as intuitions of space and time represented in nature. "This designation does not mean that the principles are themselves mathematical, i.e., that the principles belong to mathematics, but that they are related to the mathematical character of the natural body, as are the metaphysical principles that lay the ground for it."[11] For Heidegger, one of the pressing issues of modernity remains the unfulfilled answer to "What is a thing?", one sufficiently "cleansed" of mathematical and metaphysical fusing into unity of thing-ness – opposing a world of mathematical categories qua *quanta*, i.e. unity, plurality, totality. On the other hand, Heidegger fountainheads the phenomenologically experienced realm of concrete events supported by acting subjects in the course of history in the French connection between formal logics and mathematics on the one side and metaphysics on the other. He does so by articulating Being as coming-to-be-in-the-world of beings, yet concealed, but manifesting itself through language and subjects – coming forth as *Dasein*. In his lecture on "*What is metaphysics?*", he subverts the sole concern of thinkable things or beings to the question of *nothing-ness*, i.e. un-thinkable Being or non-Being, of

[10] Martin Heidegger, *The Question Concerning the Thing: On Kant's Doctrine of the Transcendental Principle*, London, Rowman & Littlefield International Ltd, 2018, pp. 127–128.
[11] Ibid., p. 137.

which "[…] science wishes to know nothing of the nothing. Ultimately this is the scientifically rigorous conception of the nothing. We know it, the nothing, in that we wish to know nothing about it."[12] The nothingness or the void comes to represent the primordial source of presentable things or beings – a predicateless concept, "sutured" to every presented being. The void becomes a node for connecting Heidegger with the science of Cantor's Set Theory, the meta-mathematical theory most famously formalized by Ernst Zermelo and Abraham Fraenkel, grounded on the first axiom – *the axiom of the empty set* or *the void*. Once this transposition is done, (Badiou's) meta-ontological postulate – "mathematics is ontology" – can supersede Heidegger's concurrently prevailing doctrine of onto-poietic metaphysics.

The presuppositions of a (modern) science, one arching from Descartes, Newton and Leibniz to Einstein, entail a specific mode of thought and are in opposition to observational particularities, for they are grounded on universalistic/deductivist scientific theories – i.e. on principles, axioms, theorems, lemmas, etc. In order to do such "cleansing", according to Heidegger, one needs to tackle precisely the (mathematical) axiomatic core of knowledge form-ation in science. The prime examples of such axiomatization range from the time Descartes formalized the representation of analytic geometry, Spinoza outlined mathematic-axiomatic representation in *Ethics*, a thinking of the infinite, or when Leibniz further extended Descartes' idea of *mathesis universalis*.

It is against this background that one must approach the mathematical meta-ontology of Alain Badiou and Cornelius Castoriadis. It is the specific constellation of the mathematico-philosophical setting, taking place in the first part of 20th century France, that experiences significant influence by the German phenomenological currents of Husserl and Heidegger, giving headwinds to phenomenologists, such as Maurice Merleau-Ponty, or philosophers of

[12] Ibid., p. 84.

mathematics like Jean Cavaillès[13]. He, along with Albert Lautman[14] and Jean-Toussaint Desanti, are the representatives of the philosophically aspired mathematical spirit hovering over the young groups of grooming philosophers (Badiou among others) in the Paris of the 1960s. However, there were also other great names that had influenced the climate of the time. In the case of Castoriadis, these were Émile Borel, the Nicolas Bourbaki group, and René Thom. Although from very different backgrounds[15], the respective ontological projects of Badiou and Castoriadis intersect in a peculiar fashion by fusing together the ideas brought forward by Heidegger and Cantor. Consequently, Cantor becomes the main interlocutor when it comes to disentangling the indeterminacy of Being from the presented multiplicities of beings. However, both Badiou and Castoriadis seek in mathematics an ontological vehicle to repudiate the convictions of unsoundness in contemporary metaphysics. But they approach it from different angles: Badiou's stance is an affirmative dialectics of merging mathematics with metaphysics aiming to reaffirm philosophy's transcendental reasoning in an anti-metaphysical fashion – i.e. without the One –, while for Castoriadis, it represents a critical assessment of traditional transcendental thought. For the latter, it is a meshing of the logical and ontological dimensions of our understanding when brought in relation with objective reality, which is further represented through what he calls *ensemblistic-identitary* or *ensidic logic*. At the most elementary level of ontology, the difference comes down

[13] His two doctoral theses bear the titles: *Remarks on the Development of Abstract Set Theory* (minor thesis) and *Axiomatic Method and Formalism* (major thesis), opting for Hilbertian formalist approach to mathematics. It was the problematic of mathematical foundations, i.e. the question of the transfinite, that also preoccupied the aspiring French philosophers of the 1930s. The source of their studies was once again Kant and his positing of mathematical concepts as pure sensuous concepts.

[14] Lautman's theses were even more philosophically inclined: Essay on the unity of the mathematical sciences in their present development (minor thesis) and Essay on the notions of structure and existence in mathematics. I. The schemas of structure. II. The schemas of genesis (major thesis); they dealt with the dialectics of formalizing mathematics through structures represented in the dichotomic ideas, such as local/global, intrinsic/extrinsic, discrete/continuous, etc.).

[15] Castoriadis, (born 1922 in Greece) endured the social and political upheavals of his native country in the 1920s and 1930s, living through the Metaxas regime in 1936 and finally emigrating in December of 1945 to Paris, France. Badiou, on the other hand, was born in Morocco in 1937, coming from an intellectual French family of teachers, his father a professor of mathematics and incumbent socialist mayor of Toulouse during the Second World War and up until 1958, and his mother a professor of French literature, all three alumni of the École normale supérieure.

to Cantor's designated distinction between *consistent* and *inconsistent multiplicities* to which the above two logics conform; the philosophical issue imported from mathematics therefore becomes that of indeterminacy/determinacy (Castoriadis) and finite/transfinite/infinite (Badiou). This in essence amounts to the initial problem of representing Being and beings in both respective ontologies. For Badiou, however, it presents consistent multiplicities as a consistency of presented situations, i.e. of experienced objects[16] in the world, while the inconsistent multiplicity occurs as the solemn place of the Absolute where Truths emerge and are harboured.

How does this purely mathematical elaboration of ontology come to mediate the problem in the case of e.g. political representation? For a new generation of philosophers, Heidegger remained bound to the onto-theological thinking of a supreme Being, a God-like transcendent and infinite entity, being both consistent and complete in totalizing the One. Its sovereignty manifests itself through an ordered sequence of events [*Ereignis*], while the latter are encroaching reflexive subjects sustained in time (history). The French[17] saw the paramount task of withdrawing and salvaging the Event from these "traditional" theological contours – of Oneness – thus rather re-making it into an *inaccessible* and *contingent multiplicity*. In this way, the Event comes under the Law of Chance and is determined by the underlying contingent institutions, e.g. Badiou's generic truth procedures, Deleuze and Guattari's nomadic war machine, or Castoriadis' creation *ex nihilo*, a creation of a new praxis and its perpetuation moving in a dialectical relationship. We encounter either the institutions "producing" a sequence of acts culminating in an Event/sequence of events (such as Marx's case of class struggles and the consequent revolutionary events or the May 68 civil unrest), as is the case of a nomadic war machine or creation *ex nihilo*, or conversely, we encounter historic Events, e.g. the French Revolution, that produce and sustain the institutions created by the faithful subjects – the case for generic truth procedures (Badiou). These representational sequences are encapsulated with the

[16] These objects obey the rules of set-theoretic multiples – they are the compositions of different elements (as multiplicities again) – however, each of them is also a counts-as-one closed multiple, whereas Being is understood uniquely as an uncountable-as-one.

[17] Ranging from such diverse names as M. Foucault, J.-F. Lyotard, J. Derrida to G. Deleuze and A. Badiou, but to a lesser degree also C. Castoriadis.

powerful axioms seeking grounds for the philosophical inscription of Truth, whereas for: (a) Badiou – "All truth is post-eventa*l*", (b) Castoriadis – "the Greeks *create the truth* as the interminable movement of thought", i.e. they *reflect on events* in their democratic philosophy of the polis in the form of autonomous and lucid citizens. Political truths are withdrawn from everyday political representation of *doxa*, of political parties, opinion polls or the "State's counting of parts of the social body", by confirming their *self-reflexive* character through the laborious work of autonomous and faithful subjects in the course of history.

How to think the onto-logical schemata and site of these truths will be addressed in the next section, where we deal with the formal relationship between Events and their designated "mathematico-ontological" operators common to both Badiou and Castoriadis. We will examine this ground, common to both thinkers, and elaborate on the irreducible divergence of their respective consequences.

CANTOR'S INCONSISTENT MULTIPLICITIES – THE PLACE OF THE ABSOLUTE (BADIOU) OR AGGLOMERATE (CASTORIADIS)

> A multiplicity can be such that the assumption that all of its elements 'are together' leads to a contradiction, so that it is impossible to conceive of the multiplicity as a unity, as 'one finished thing'. Such multiplicities I call absolutely infinite or inconsistent multiplicities. As we can readily see, the 'totality of everything thinkable', for example, is such a multiplicity; later still other examples will turn up. If on the other hand the totality of elements of a multiplicity can be thought of without contradiction as 'being together', so that they can be gathered together into 'one thing', I call it a consistent multiplicity or a 'set'.
>
> Cantor in a letter to Dedekind, August 1899

We can now proceed to the fundamental notion for both Badiou and Castoriadis – the *(in)consistent multiplicity* – the former's ontological gesture of set theory and the latter's critique of it. This distinction between the two, however, pans out in a mutual attempt to present a meta-ontological stance of either subtraction of any representation from ontology (Badiou) or ontology devoid of any determinacy (Castoriadis).

Badiou

Let us first have a look where Badiou's appropriation of inconsistent multiplicities begins in the first place and where he eventually ends up. If we succumb to the above thesis that ontology is in fact not representational, i.e. is not a representation of different objects, sets, multiplicities, etc., how can we then affirm the mathematical ontology of *in*different multiplicities – Being not thought in any form of unity, i.e. counted-as-one consistent multiplicity? It is precisely this trait of Being, the indifference to any unity, the difference of *this* and *that*, which poses the problem of putting ontology into consistent (viz. representational) terms. Badiou heavily defends the inconsistent character of ontology (of being *qua* being) to avoid it from shifting into a consistent/representational onto-theology, the philosophy firmly in place until after Heidegger. This is also why Badiou maintains a strict distinction between presentation and representation, i.e. of first and second count of multiples. He posits the notion of presentation as a counting operation which subsumes the indifferent multiplicities into the realm of "consistent situations". These are simply the compositions of consistent multiplicities or "count-as-ones" (e.g., a dog, a formula, a stone, a chemical element, etc.). The dialectical interplay of ontological inconsistency and presentational consistency in this sense echoes Cantor's prescription of "potential infinite", "actual infinite or transfinite multiplicities", and "absolutely actual infinite or inconsistent multiplicities".[18] These different infinities are themselves inscribed and handled in the world and the axioms of set theory. It goes that the infinite is irreducible to the count-of-the-One, and therefore remains "inconsistent", i.e. uncountable. For Badiou, it involves retroactively working through consistent multiplicities of different (well-ordered) cardinalities, allowing us to descend towards the "inconsistent" and appropriable Being. He identifies this Being as the Void, or in the language of set theory, the existence of *the null set*. But it is not just the matter of locating the "subtraction" of the Being-void; working through different cardinalities and moving in a determinate space, we inevitably also encounter the Evental-sites and the Truths that emerge from them – due to the incompleteness of any imaginable set theoretic universe and the existence of non-constructable sets. Is the Void then an inconsistent multiplicity? Absolutely yes, even an initial one. Once counted-as-one, it (the Being) acquires

[18] Georg Cantor, 'Mitteilungen zur Lehre vom Transfinitem', in *Gesammelte Abhandlungen Matematischen und Philosophischen Inhalts*. Berlin, Springer, 1932, pp. 401–405.

its proper name and the mark ∅ - it is in the process of the count-as-one of consistency we find also the inconsistent Void. What about presentation and representation, how are they distinguished in formal set theory? Presentation obeys the single most elementary operation in set theory, the relation of belonging (∈) of elements to a set. Representation, on the other hand, is associated with subsets, sets residing in other sets via the relation of inclusion (⊆). While the presentation is called the first count of all multiples in a situation, the representation is the second count – counting all the combinations of multiples as subsets of a determinate situation *on itself*. Indeed, following set theory and *Cantor's theorem*, where the *power set* always exceeds the initial set measured by its cardinality – there exists an irremovable rift –, it follows that representation always necessarily differs from presentation – even if by a minimal excess of including only the void, the null set. This is where Badiou evokes the metaphorical parallel with the State, positing that the representational count invokes a "state of situation", hence the *power* of the State. However, there is something that the State always forgets to count – *the excluded* (e.g. *les sans papier*, immigrant workers, etc.). As for ontology, it is the void *qua* inconsistent multiplicity that is always subtracted from the count; it is its inclusion as the subset {∅} that renders the situation consistent – driving the dialectic of inconsistency and consistency into motion. Moreover, for Badiou, the notion of representation accounts for more than just the infusion of (infinite) cardinalities that remain however immeasurable in the second count of the Void, imposed by a particular (State's) register of knowledge.

In his oeuvre it has much rather become a transtheoretic concept, linking together ontological and phenomenological planes with the *physis* of situations experienced in politics, the arts, science or love, thereby inscribing Truths in the Absolute place (i.e. the set Universe, V[19]).

[19] The so-called von Neumann Universe is a hierarchy of sets, denoted by V, that treats hereditary well-ordered sets as classes starting from the empty set and building an ascending cumulative hierarchy of transfinites. It is an alternative approach to axiomatic set theory's basic ontological paradox – the inexistence of the set of all sets. Von Neumann, following Zermelo, has proposed the introduction of classes of sets to avoid the positing of the absolutely closed Set. Among the two options: (1) Zermelo: there exist only sets without any ontological status of the set of all sets, (2) von Neumann-Bernays: a collection of all sets is called a class or any collection of sets is a class – informally, a class A is a set if it is included at some level in the hierarchy V_α. Until *The Immanence of Truths*, Badiou staunchly held to the first option, only recently opting for both after introducing the Absolute as the place of Truths.

In order to catch the above thesis in the most minimal dispositive, let us consider the following two propositions by Badiou. The first dating back some 30-odd years (*Peut-on penser la politique*, 1985) and the second coming from his recent work (*L'Immanence des vérités*, 2018), they capture the relation between subject, event, and truth via representation and (in)consistent multiplicities:

> In all these cases, the break with representations connects with a generic hypothesis as to the existence of a procedure in which truth circulates without ever being represented. It is a hypothesis with regard to the capacity for truth: proletarian political capacity (Marx), popular capacity for sovereignty (Rousseau), capacity for finding salvation (Pascal), capacity of the absolute Book (Mallarmé), capacity of the subject in truth (Lacan). And in the very place of the initial symptom, where thinking introduces the break (insurrection, poem, liberty, scission in abyss, act of the signifier), this hypothesis retroactively institutes the subject for whom such a capacity coincides with the process of existence itself: the proletariat, the crowd, the people, the Christian, the unconscious. […] Let us reflect indeed that if dialectical thinking breaks with an order of representations, it never has any guarantee of the real except its own experience. The breakthrough, which authorizes the making of a hole, is a singular event.[20]

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> Rather, it should be said that *V* is the absolute place where all the possible forms of being qua being "reside," forms that are actualized—exist—in particular worlds, whether we know it or not, and resulting not from *V*'s absoluteness but from the events that punctuate the existence of a science completely different from ontology, namely physics, which is always tied to experimentation. The experimentation of what? Of the fact that a certain possible form of being is indeed the form of this or that existent.
>
> I will therefore maintain that *V*, the absolute ontological referent, although not in the possible form of a multiplicity, "is" nonetheless, as the place where the possibility of all multiplicity is thought—what a Platonic thinker would no doubt call the "realm of the intelligible," even though it is more a question of the way in which the organization of the thinking of all the possible forms of the multiple was formalized throughout the history of mathematics..[21]

As Badiou explains in an accompanying interview to *The Immanence of Truths*,

[20] Alain Badiou, *Can Politics Be Thought?*, Durham NC, Duke University Press, 2019, p. 88.

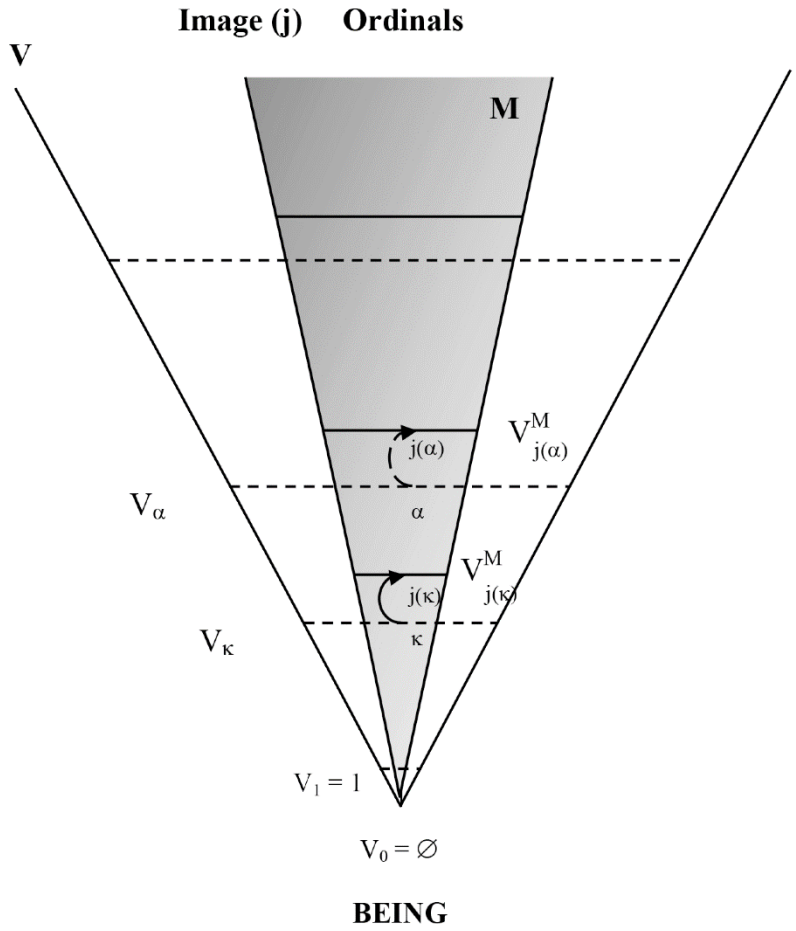
[21] Alain Badiou, *The Immanence of Truths*, London, Bloomsbury, 2022, p. 44.

the Platonist "intelligible realm", i.e. the absolute ontological referent, is the "non-representable place within which all representation is deployed."[22] In mathematical terms, we again encounter a familiar concept: "Mathematicians call such an inconsistent place V, the Great Void [*grand Vide*], which is inconsistent as a set."[23] In other words, an inconsistent multiplicity. Of course, the references and analogies to Spinoza and Leibniz abound; however, putting these aside, we can understand how Badiou's entire oeuvre vacillates elliptically precisely around the notion of inconsistency (multiplicity). More concretely, the project of the three volumes of *Being and Event*, but again also more broadly with his political, aesthetic, or general writings, retains the search for the place of harbouring of truths – in a true Platonist gesture of seeking the domain of all Forms (*Eide*) – sustained by faithful subjects to an Event. The subject is the fixating operator of consistency for an Event and, on the other hand, the inscriber of a truth onto the absolute referent, the universe V; Truths therefore are: (1) absolute, (2) eternal, (3) ontologically determinate as generic multiplicity and localised in a given world, (4) a-subjective, i.e. universal. *Technical note*: The universe V is a hierarchy of cardinalities and has a model (class) of this universe M with mapping function (elementary embedding) and operating upon a mathematical object called *non-principal ultrafilter*; j: V → M – which for Badiou represents *a* given Truth of some determinate cardinality[24] – is in mathematics depicted with the following (simplified) diagram:

[22] Badiou interviewed and cited in Jana Ndiaye Berankova, 'The Immanence of Truths and the Absolutely Infinite in Spinoza, Cantor, and Badiou', *Filozofski vestnik*, vol 41, no. 2, 2020, p. 351.

[23] Alain Badiou, L'immanence des vérités, *Séminaire d'Alain Badiou (2012-2013)*, Available at http://www.entretemps.asso.fr/Badiou/12-13.htm [Accessed 18 January 2022].

[24] In *The Immanence of Truths*, Badiou distinguishes four types of infinities/cardinalities: (i) infinity of transcendence/strongly inaccessible cardinal, (ii) infinity defined by indivisibility/Ramsey cardinal, (iii) infinity of big parts/measurable-complete cardinal, (iv) infinity proximate to the absolute/complete cardinal. See Badiou, *The Immanence of Truths*, 2022, p. 247–340.



INCONSISTENT MULTIPLICITY

To summarize: for Badiou, the Absolute designates a hierarchical place of all possible forms of being *qua* being, accessible to everyone and for everyone. More technically, it is a set theoretic universe, a cumulative hierarchy of sets, where the possible forms of "infinite" multiples are distributed and ordered. Being hierarchical, it gives us a *determinate measure* to evaluate different cardinalities of infinities that reside in it, i.e. in line with Badiou's interpretation, to measure the "absoluteness of a truth". What is crucial for our present discussion is the fact that the Absolute in-consists, it is a *place qua inconsistent multiplicity* grounded on the void-

null set growing ever larger indefinitely. Badiou says that: "Cantor's ontological thesis is evidently that inconsistency, mathematical impasse of the one-of-the-multiple, orientates thought towards the Infinite as supreme-being, or absolute."[25] The unfolding of Truths via generic truth procedures and uncovered by Events, thus incorporates, or rather *forces*, the Absolute to figure as a determinate place, not the other way around. *The Absolute is the place where thinking and being converge – it is a Universe of thought, not a mathematical entity in itself, but much more an "object" from which mathematical objects, i.e. multiplicities, are abstracted.* Now let us turn to a different interpretation of (in)consistent multiplicities and representation expounded by the concepts put forth by Castoriadis.

Castoriadis

Before we can move frontally into the notion of magmas and their relation to set theory and inconsistent multiplicities, we must swiftly delineate Castoriadis' ontology[26]. We also need to explicate on the complex usage of the notion of representation[27] in Castoriadis' philosophy. In his magnus opus, *The Imaginary*

[25] Alain Badiou, *Being and Event*, London, Continuum, 2006, p. 42.

[26] One of most recent lucid elaborations of the relationship between magmas and ontology along with the broader consequences for Castoriadis's project is brought forward by Vangelis Papadimitropoulos. *Cf.* Vangelis Papadimitropoulos, 'The Radical Freedom of the Imaginary in Castoriadis', *Cosmos and History: The Journal of Natural and Social Philosophy*, vol. 16, no. 1, 2020.

[27] This type of interpretation relating to the notion of *inconsistent multiplicity* is also identified by Suzi Adams: "Yet despite the thoroughgoing inability of ensemblistic-identitary logic to grasp the being of representation, mathematical metaphors creep into Castoriadis's analysis. […] The meaning of a representation and meaning in general is located also in the psyche and then *only* as a representation, which, although in the tradition of the real/rational interpretation, the imaginary mode of being is reduced/eliminated." *Cf.* Suzi Adams, *Castoriadis's Ontology: Being and Creation*, 1st ed, New York, Fordham University Press, 2011, p. 88.
Similarly, Vincent Descombes explicitly links inconsistent multiplicities with magmas and consequently traces Castoriadis's examples of paradoxes inherent in representing such multiplicities. *Cf.* Vincent Descombes, 'Un renouveau philosophique', *Revue Européenne Des Sciences Sociales*, vol. 27, no. 86, 1989, pp. 81–82.
Jeff Klooger takes his angle of approach to that of indeterminate multiplicity, a synonymous term used by Castoriadis, and posits it through a mathematical lens: "Mathematical objects are *presentations*—they are 'imaginary' in the sense I have outlined already—which may be put to use in representation. Representations are also imaginary in the sense that they are creations, but inasmuch as they are submitted to the task of representing something beyond themselves, they are no longer 'imaginary' in this more limited sense. […] The imaginary (mathematical) object, on the other hand, is inseparable from the thought/imagining which brings it into being." *Cf.* Jeff Klooger, *Castoriadis: Psyche Society Autonomy*, Leiden, Brill, 2009, p. 259.

Institution of Society, one can track down his elaboration of Being approached from three different angles: (1) the *physis*, (2) the psyche, and (3) the social-historical, with the corresponding modi being (i) self-creation, (ii) radical imagination, and (iii) *nomos* (social imaginary significations). In a world of significations, there is the "First natural stratum"[28], the *physis*, where we find the living (organic) and the non-living (inorganic). The latter, a non-living being, can be reproached by reason only through the *ensemblistic-identitary*, i.e. *ensidic logic* of (naïve) set theory, while to the former living being there is to add additional attributes: intentionality, drives/affects, and representation. We will not go further into the vast crossroads of Castoriadis's philosophy, but will rather investigate his critique of *logic-ontology* resting on *ensidic logic* and its relation to the ontology of magmas. Castoriadis deployed his critique against ensidic logic from two complementary aspects; *first*, he opposes traditional ontologies in their determinateness of Being, and *second*, he exposes a creative incongruence between the two properties of ensidic logic, namely, of difference and otherness. Let us first delve into the problem of determinacy/indeterminacy. For Castoriadis, every autonomous (self)creation, whether of a living-being or society, is an act of changing form(s), i.e. of the perpetual transformation from indeterminacy to determinacy, both synchronically and diachronically. On the other hand, the particular mode of Being is entrapped by our Reason into a "construed" and "determinate" Being. What enables our Reason to "entrap" the Being in determinacy? Castoriadis puts it like this:

> For identitary logic is the logic of determination which particularizes itself, depending on the case, as a cause and effect relation, as means and end or as the logic of implication. It can operate only by positing these relations as relations between the elements of a set (in the sense that these terms have in contemporary mathematics, but that is already at work from the start of the institution of legein and teukhein). This is what is essential and not the fact that it defines the mode of being of these elements as that of physical entities or logical terms. Because, for it, just as for the ontology that follows from it, to be means to be determined, and it is only starting from this assertion that the oppositions develop concerning what truly is, that is to say, what is truly, solidly and fully *determined*.[29]

It is this underlying logic, modelled on the mathematical theory of sets that entrenches the Reason, that enables an ensemblization and determination of

[28] Cornelius Castoriadis, *The Imaginary Institution of Society*, Cambridge, Polity Press, UK, USA, 1997a, p. 229.
[29] Ibid., p. 175–176.

different objects posited as sets, introducing the count-as-one(s) as an ensemble of wholes. Once multiples are collected into wholes, this count not only makes them discrete and separate, it also introduces difference among these objects. In this sense, difference presupposes that these objects as multiples are determinable beforehand and have the capacity to be counted-as-one. Castoriadis traces ensidic logic both to institution of the social and to the imaginary dimension of the individual, only to find it utterly inadequate to handle the creative and productive aspects of both dimensions. He acknowledges the need for such a logic to enable the transfer of meaning created by these institutions, simultaneously seeing the creative meaning-process, the formation and presentation of new forms, irreducible to such a logic. This inadequacy of failing to accommodate the indeterminate features of being led him to seek out an alternative "logic", i.e. the "*logic*" *of magmas*, for the handling of first natural stratum/the physical world, the human psyche (the imaginary) and the social-historical (the symbolic, social significations). He defines a magma in the following way:

> A magma is that from which one can extract (or in which one can construct) an indefinite number of ensemblist organizations but which can never be reconstituted (ideally) by a (finite or infinite) ensemblist composition of these organizations.[30]

And further axiomatically defines it as follows:

> For this, one must introduce a primitive (undefinable and undecomposable) term/relation: the marking [repérer] term/relation, whose valence is both unary and binary. So, let us suppose that the reader unambiguously understands the expressions: 'to mark X'; 'X marks Y'; 'to mark X in Y' (to mark a dog; the collar marks the dog; to mark or locate the dog in the field). In using this term/relation, I 'define' a magma by the following properties:
>
> M1: If M is a magma, one can mark, in M, an indefinite number of ensembles.
>
> M2: If M is a magma, one can mark, in M, magmas other than M.
>
> M3: If M is a magma, M cannot be partitioned into magmas.
>
> M4: If M is a magma, every decomposition of M into ensembles leaves a magma as residue.
>
> M5: What is not a magma is an ensemble or is nothing.[31]

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[30] Ibid., p. 343.

[31] Cornelius Castoriadis, *The Castoriadis Reader*, David A. Curtis (ed.), Oxford, Blackwell Publishers, UK, 1997b, p. 297.

Just a brief overview: M1 basically introduces the coexistence of magmas and sets, showing how we can find a set in a magma – it is a bridge of meaning and knowledge; M2 posits the existence of sub-magmas, i.e. $N \subseteq M$, $N \neq M$, that magma is an ur-element and therefore an indefinite and indivisible potentiality, it is an indefinite "space"; M3 postulates the *in*existence of a schema of separation[32], meaning magmas cannot be defined or named when marked; M4 states that magma is always "in excess" of the largest marked set in it (Cantor Theorem); M5 just follows from M1-M4 – but does however, and in context of Badiou, provocatively push nothing(ness) to the forefront. These properties (Castoriadis explicitly abstains from positing them as axioms) are indeed questionable in terms of their formalization, for they appear both contradictory and inconsistent (e.g. M1 with M4 and M5). One could eventually bypass the ambiguous formalization by substituting magmas with mathematical *classes*, as is done in the von Neumann-Bernays axiomatic formal system to circumvent the Russell paradox. This would introduce a kind of modestly structured, stratified, and bounded hierarchy of magmas. But the axiomatically closed-in and consistent structure of magmas is precisely what Castoriadis wants to avoid at all costs, wishing to retrain them from any paralleling with ensemblistic overdetermination. Therefore, a close reading of Castoriadis gives clues to his conceptual ambitions with regard to magmas; in *Figures of the Thinkable*, he proposes that "[i]t can yet again be said that $\mathbb{R}$ furnishes an imperfect model of a magma: one can extract therefrom, or construct therein, an indefinite number of ensemblistic organizations; but it absolutely is not constructible via ensemblistic operations."[33] Taking $\mathbb{R}$ as an example hints that he could be flirting with the idea of endorsing the concept of tangled hierarchy or a tangled loop[34] (as opposed to

[32] The axiom (schema) of separation in set theory posits that given a set *A* and a predicate *P*, we can find a subset *B* of *A* whose members are precisely the members of *A* that satisfy *P*.

[33] Cornelius Castoriadis, *Figures Of The Thinkable*, translated from the French and edited anonymously as a public service, 2005, p. 407.

[34] A tangled or strange loop is a cyclical action in a hierarchical organized system of different levels, where no maximum or minimum level is defined. When one moves from one level to the next, one just might find oneself back at the starting point. Convoluted structures, as in the non-orientable surfaces of the Möbius strip, the Klein bottle. or M. C. Escher's drawings, are a case of tangled hierarchies. A strange loop is a concept proposed by Douglas R. Hofstadter in his books *Gödel, Escher, Bach: an Eternal Golden Braid*, New York, Basic Books, 1979 and *I am a Strange Loop*, New York, Basic Books, 2007, whereas Žižek succinctly expounds on non-orientable surfaces. *Cf.* Žižek, *Sex and the Failed Absolute*, 2020.

ensidic logic complying with nontangled hierarchies), which would also explain his wanting to maintain the contradictory and inconsistent structure of axioms grounding the magmas – to stay in line with Cantor's basic definition of the inconsistent multiplicity. The way Castoriadis posits the *magma* leads us to speculate that he thinks of them as a meta-structural *state of affairs*. *We, the living beings endowed with Reason, can access these states of affairs by using the only means available to us as Subjects – the individual or collective, psyche, or a society, i.e. mediated through representations and the formal language of the logic-ontology of sets*.

If this is so, what are then representations *qua* forms that show us these magmas? For one, there is most definitely the social (a Society), or rather the *social-historical* and its *imaginary significations*. The latter are most intimately interlinked with yet another magmatic entity, *the psyche* and its *representations*. Another magma connected to the two former is language, but decomposed into two: Language as *langue*, as significations, is a magma, but Language as *code*, its assembling and dissembling syntax (such as contemporary linguistics) corresponds to the ensidic logic. Yet another stratum of magmas is the physical word; Castoriadis gives an example of colours as a specific magmatic mode of being and how the human mind has to use the ensidic logic, (i.e. in nature there are no actual colours, only electromagnetic waves and frequencies that the human mind needs to transcode) in order to perceptibly differentiate among the various forms of the notion of "colour".[35]

We are closing in on the concept that (dis)connects Badiou and Castoriadis – Cantor's idea of *inconsistent multiplicity*. Castoriadis, in his single mention in *The Imaginary Institution of Society* and in reference to the "mode of being of the unconscious", says that "[w]hat representation gives us is »inconsistent multiplicity« to borrow Cantor's term: a type of being which not only is both one and many, but for which these determinations are neither decisive nor indifferent."[36] Here, representation is understood as a psychoanalytical concept, as a structuring imaginary mechanism of different images in the unconscious (i.e. dreams and the subject's phantasy installing the radical imaginary; the logic of the signifier and *jouissance* in Lacan) and the symbolic it structures. In

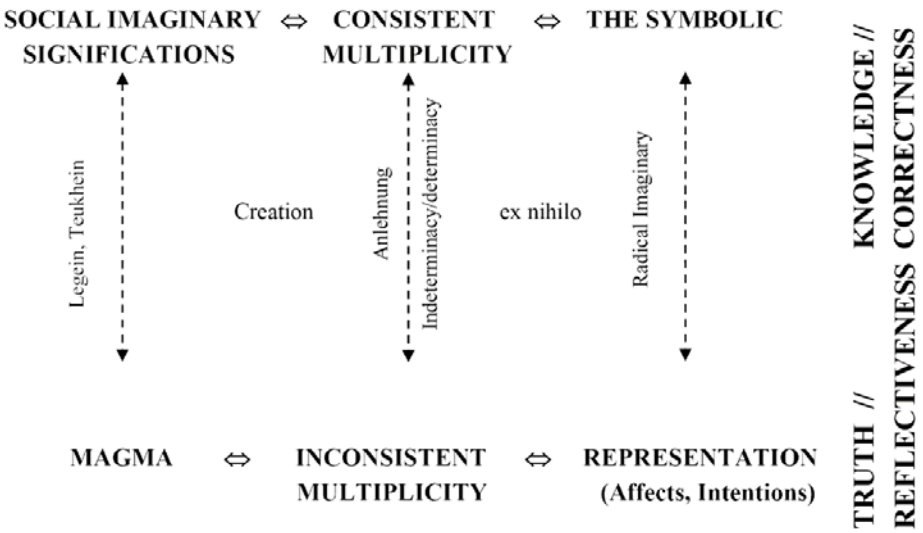
[35] Castoriadis, *The Castoriadis Reader*, pp. 323–325.
[36] Castoriadis, The Imaginary Institution of Society, p. 277.

psychoanalysis in general, representations are there to signify the drive's [Der Trieb] sliding from something to something else – they tirelessly and endlessly hover somewhere between determinacy and indeterminacy. Consequently, "[i]nstitutions and social imaginary significations are creations of the radical social instituting imaginary"[37], in effect, of magmas, the representative psychic activity that precede the emergence of social imaginary significations of individuals as subjects. It is the boundless creative power of the radical imaginary as magma that Castoriadis wishes to retain for the creation of new forms (eide) – operating in the topsy-turvy realm of inconsistent multiplicities. What needs to be emphasized is the fact that the representations are first and foremost the product of the psychic monad, along with affects and intentional inclinations that erupt forms in a continuous flux of radical imaginations; as a consequence, the closed representational nature of the psychical monad is ruptured by the very presence of social imaginary significations.

Let us present our interpretation of Castoriadis's usage of the notion inconsistent multiplicity in relation to *truth* and *knowledge*[38]:

[37] Cornelius Castoriadis, *World in Fragments. Writings on Politics, Society, Psychoanalysis, and the Imagination*, David A. Curtis (ed.), Stanford CA, Stanford University Press, 1997c, p. 131.

[38] See Cornelius Castoriadis, *Philosophy Politics Autonomy*, David A. Curtis (ed.), New York NY, Oxford University Press, 1991, p. 160.



CONCLUSION: INCONSISTENT MULTIPLICITY AS THE HOMELAND OF TRUTH(S)

From the above, we can conclude with a twofold question: (a) How is the notion of inconsistent multiplicity related to representation and (b) how is this knotted relationship interpreted by Badiou and Castoriadis?

For Badiou, representation comes as a multifaceted notion; for one, it is the dialectical thinking that breaks the logic of representations (knowledge) and introduces a hole, a singular Event and the emergence of a Subject of Truth (i.e. political, scientific, amorous or artistic). Ontologically, it comes down to the set theoretic operation of second count, viz. the Power-set axiom, introducing an excess of representation over presentation (inclusion of parts over belonging of elements), which Badiou exemplifies through the metaphor of the State, counting only "accredited" parts of the social body – exercising power. What happens with the eruption of a *singular* Event, i.e. the self-reflexive inconsistent multiplicity, is the "measuring" of the excess of representation over presentation, previously undetermined, and if some *singular* Truth consequently arises from this act it is inscribed in the *absolute referent*, the *representational sp(l)ace* of Truths, the Absolute, the other inconsistent multiplicity for Badiou's philosophy. We have it – two singularities and inconsistencies – the Event and the Truth. How we mediate between one and the other is sketched in the above V-schema, where M

represents a model of V; a particular attribute of the absolute, caught by the subject of truth and representationally inscribed as a *sub-class* M of the absolute place V. M can be a given example of an infinitely large set that is affected by given determinate functions j (elementary embeddings); i.e. the inscription/embedding of some given singular attribute of V onto a "tangible" sub-class, consequently representing a particular Truth (scientific, artistic, amorous or political). These embeddings occur with the onsets of different Truths whose absoluteness, is represented by difference in cardinalities of such infinite sets. What is crucial for out argument here is that we attain a contingent stratification of the Absolute via inscribing differently huge models $M_1 \ldots M_n$, bestowed by the varying absoluteness of Truths. In *The Immanence of Truths* the separation of the Absolute from the set theory ontology of 1988 proposed in the *Being and Event* marks the most fundamental modification of Badiou's thought. It introduces a Spinoza inspired definition of Substance/Absolute by technically distinguishing between the *potentiality of what is* (classes, classes of functions, models M_n, the Absolute) and the *(effective) possibility of what exists* (sets). It is something that is that can become, via the mediation of the Subject, something that (effectively) exists.

With this gesture in *The Immanence of Truths* Badiou actually makes a decisive step towards congruence with Castoriadis. Just consider the latter's central tenets of the ensemblist-identitary logic, i.e. the (proto)institutions *legein* (distinguish-choose-posit-assemble-count-speak) and *teukhein* (assembling-adjusting-fabricating-constructing). They presuppose a *determinateness* of Being, because the model on which it is premised, set theory, always already determines its objects and multiplicities – they are always already made consistent, counted-as-one, or made whole. The institutions of *legein* and *teukhein* (derived from teukhos, tukton; tools) can be said to pose a rough equivalent to Badiou's usage of presentation and representation of a situation, although in a different direction. While *legein* works mainly through language, relegating it's prime effects to the radical imaginary of the psyche (Ego), *teukhein* accounts for the ubiquitous presence in social doing; both poised to give sense to the chaotic nature of raw representations, its formlessness. What our psyche as understanding cannot evade is the primordial symbolization of our representations stemming from the external world as social imaginary significations of the social-historical on the one

hand, and on the other of sublimating its underlying logic-ontology, the ensidic logic coming from psychic constitution (Freud, object of desire, pleasure principle, etc.). Castoriadis finds it necessary to distinguish the determining logic of ensembling and identity from the "true" ontological edifice, which he calls *magmas* – invoking the metaphor from geology and from the Ancient Greek term μαγμα itself. This is where Badiou's gesture discussed above comes most closely in parallel with Castoriadis. As we have already shown, ontologically magmas are representations *qua* inconsistent multiplicities, they follow a different "logic" of tangled hierarchies going back and forth, up and down in a stratified place – just like the formation of truth: "We must call truth not a property of statements, or any result whatsoever, but the very movement that breaks closure as it is each time established and that seeks, in an effort of coherency and of *logon didonai*, to have an encounter with what is. If we give this meaning to the truth, we have to say that it is the social-historical, the anthropological in the true sense, that is the site of the truth."[39] "[…] On the philosophical plane, it imposes a new idea of the truth as an open relationship between an interrogation and its results, as a *sui generis* movement going back and forth between processes and pauses, between excavation and encounter ('correspondence')."[40] The "site" of the truth, the social-historical, is a magma of representations, i.e. an inconsistent multiplicity.

To be sure, contemporary (continental) philosophy's take on mathematics and set theory is not limited to the enhanced usage proposed by Badiou and Castoriadis. It is also a nexus point in the linguistic turn of the 20th century, i.e. pertaining to the intrinsic (logical) paradoxes of language – namely, the problems of nameability, self-reflexivity, meaning and truth. As for the (in/consistent) multiplicity itself: it was brought into philosophical discourse by Husserl and Bergson, only to be later adopted and discussed by a wide range of thinkers, such as Agamben[41], Deleuze and his epistemology of mathematics with axiomatics and problematics, Žižek in relating inconsistency with the Lacanian Real[42], or Luhmann's paralleling inconsistent multiplicity with the notion of chaos in a

[39] Cornelius Castoriadis, *The Rising Tide of Insignificance*, translated from the French and edited anonymously as a public service, 2003, p. 199.
[40] Castoriadis *Figures Of The Thinkable* , 2005, p. 253.
[41] *Cf.* Giorgio Agamben, *The Coming Community*, 6th ed., Minneapolis, Univ. of Minnesota Press, 2007.
[42] Cf. Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism*, London, Verso.

social system. The article argues that the innovative approach and proposed solution to this problematic (of the fallacies and inconsistencies of the linguistic turn) was most extensively developed precisely by Badiou and Castoriadis. The importance of securing a place for truth(s) via Cantor and set theory cannot be emphasized enough for either of the two thinkers; they obviously devoted an immense portion of their reflections to this matter (spanning at least three decades – Castoriadis from late 1960s to 1990s and Badiou form the *Being and Event* lectures of 1980s to 2010s) in the hope of tackling the relationship between set theory (multiplicities), truth(ful) statements, and the place of their emergence and residence. Oversimplifying here, one could say that the *implied infinite attribute of the inconsistent multiplicity renders palpable the potentiality of either the Absolute or the ex-nihilo creation*. This is far from a trifling matter. However, it took its unfolding to the very latter day, when Badiou finished his *Being and Event* project with a third volume, that we could juxtapose his final position with Castoriadis. We can therefore see this step as a potentially crucial pivot point for contemporary philosophy, particularly if the "(neo)mathematical turn" stands the test of time. If this is the case, then Castoriadis and Badiou would become two of the main references of this era.

Finally, we can further conclude that there is a conditionally bridgeable gap, but with serious caveats, between Badiou and Casotriadis when it comes to their roots in Cantor's inconsistent multiplicity. Although they are diametrically opposite when it comes to their masters, i.e. for Badiou: Plato, Marx and Lenin, Sartre, Althusser and Lacan, while for Castoriadis: Aristotle, Freud, Merleau-Ponty, post-Marx, Husserl with Heidegger and Francisco Varela, they unite in a mathematical figure of Georg Cantor. The ambiguous contours of the notion inconsistent multiplicity, especially in mathematics and the contradiction it contains, surprisingly shelters the homeland of truths for the both of them. Either as "absolute ontological referent" where all possible representation is contained (Badiou, *The Immanence of Truths*) or that it is "the social-historical, the anthropological in the true sense, that is the site of the truth" [43] perceived as a magma of representations or significations (Castoriadis). We get the generic procedure of forcing change as a model M of the universe of truths V (Badiou

[43] Castoriadis, *The Rising Tide of Insignificance*, p. 199.

with Paul Cohen) or we get an imposition of new forms (eide) of the same, as otherness, in radical and social imaginary, deploying a change-creation in institutions of the social-historical (Castoriadis). For them to meet precisely at the site of the truth could indeed be a symptom of their unpresentable proximity, but also of mathematical persistence for conditioning philosophy.

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