

Badiou's Symptom: The Subject of Science and the Shadow of Capital in the Descartes and Lacan Seminars

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Abstract: The article examines Badiou's materialist dialectic of knowledge as evidenced in Badiou's 1983 Descartes seminar and in the 1994-1995 Lacan seminar. I do so not to take this materialist dialectic as an end in itself, but to turn Badiou's readings back upon the object that constitutes the unarticulated Real of this thought, Marx's *Capital*. My contention is that, first, attention to Badiou's silence regarding status of science in Descartes can tell us much about Marx's repeated assertions that *Capital* is a "scientific" [*Wissenschaftlich*] work, and second, that Badiou's distinction between the matheme and the mathematizable in the Lacan seminar can clarify the increasing formalisation of knowledge of the capitalist social form in Marx's revisions to *Capital*.

Keywords: Badiou, Descartes, Lacan, Marx, *Capital*, Science

"Science, synonyme de savoir"—André Lalande, *Vocabulaire technique et critique de la philosophie*

"Il n'y a pas de route royale pour la science"—Marx, 1872

"Il n'y a pas question de s'y connaître [dans le réel], mais de le démontrer"—Lacan, *Radiophonie*

I wish to argue in what follows that aside from any intermittent discussion of Hegelian dialectics, Badiou's theoretical project constructs more broadly a materialist dialectic of knowledge that proceeds from the Cartesian and Spinozist scientific protocols (as evidenced in Badiou's 1983 Descartes seminar) to constitute what is perhaps the ultimate development of that scientific revolution in its theorization of the Lacanian subject of science and the matheme (in the 1994-1995 Lacan seminar), the latter a radicalization of the post-Cartesian, axiomatic scientific demand for the formalization of knowledge without a subject.¹ I do so not to take this materialist dialectic as an end in itself, but once again to turn Badiou's readings back upon the object that constitutes the unarticulated Real of this thought, Marx's *Capital*.

Simply put, I wish to propose here that while Marx repeatedly informs his reader that *Capital* is a work of science without specifying what he understands by the concept,² the apodictic presentation Marx constructs in *Capital* is clearly and evidently (even simply) Cartesian-Spinozist in its provenance, and, furthermore (and less evidently), to argue that Badiou's post-Cartesian understanding of Lacanian concepts such as the subject of science and the matheme can push the reading of *Capital* to encompass the impossible Real of the capitalist social form.³

In this manner, I will continue to read Badiou symptomatically, as Althusser wrote, to “relate [Badiou’s texts on Descartes and Lacan] to a different text [*Capital*], present as a necessary absence in the first,” present, that is to say, in the form of a silenced yet insistent symptom that must be constructed. I wish to ask Badiou’s texts to provide answers to a question they do not pose, and, indeed, uncannily—for this Marxist philosopher who never in his vast corpus explicitly reads *Capital*—repress: What is the logic of the capitalist world?⁴ This would require reading Badiou not for the manifest content of his texts, but instead to construct *Capital* as the repressed symptom (in the Lacanian sense) of Badiou’s general logics of worlds, the better to read *Capital* itself.⁵

Badiou’s insistence on tarrying with his philosophical influences in the seminars (here those treating Descartes and Lacan) continuously and intensively resounds not only on those thinkers themselves, but decisively as well on the work that Badiou’s silence steadfastly ignores, one that long ago constructed and presented the logic of our world: Marx’s *Capital*. In the current conjuncture in which science and knowledge are provocatively, even catastrophically called into question and debased, initially at stake is a return to Badiou’s presentation of Descartes and Spinoza’s scientific revolution and critique of the subject of knowledge, to argue anew for the fundamental parameters of certain, apodictic knowledge that Descartes and Spinoza first put forward, to proceed then to consider the radicalization of this scientific protocol and subject in Badiou’s reading of Lacan. My contention is that, first, attention to Badiou’s silence regarding status of science in Descartes can tell us much about Marx’s repeated assertions that *Capital* is a “scientific” [*Wissenschaftlich*] work, and second, that his distinction between the matheme and the mathematizable in the Lacan seminar is even more revealing when brought to bear upon *Capital* in a way Badiou himself never does.

Materialist Dialectic *selon l’ordre des raisons*

Unlike the specific, experimental scientific procedures of Galileo or Bacon, linked to specific domains of knowledge, Descartes’ novel method and return to the most basic and fundamental problems and procedures for knowledge was revolutionary in its universal scope, as Lacan’s close friend and mentor Alexandre Koyré famously argued, potentially applying to all human fields of thought. Coupled with Spinoza’s jettisoning of the Cartesian requirement for a proof of God’s existence in favour of an axiomatic form of demonstration, Badiou argues, this scientific revolution, coupled with its corresponding critique of the subject, continues to articulate into the present the most basic parameters of apodictic human knowledge, knowledge procedures potentially applicable to any domain beyond the hard sciences. As such, the Cartesian-Spinozist scientific revolution is not merely of antiquarian interest to scholars of

the 17th century, but constitutes the basis of certain knowledge and radical subjectivity for the two modern cases to I consider here: Marx's "scientific" critique of political economy and Lacan's reinvention of the Freudian science of the unconscious.

To speak of a materialist dialectic is quite simply to inquire into the fundamental parameters of any adequate knowledge of the real and the regime of necessity that governs a given world.⁶ The apodictic, mathematical proofs without determinate negation with which Alain Badiou constructs his demonstrations in the three volumes of *Being and Event* testify to this level of generality, one that refuses (all the while of course continuing to grapple with Hegel) to reduce the concept of 'dialectic' to the Hegelian metaphysics of totality, contradiction, and sublation, to the negation of the negation, to the knowing Subject of that knowledge (via instead what Badiou calls an "asubjective phenomenology"), nor even to traditional Marxism's understanding of the materialist 'inversion' of this Hegelian, contradiction-based logic.⁷

Badiou begins his 1983-84 seminar, the first third of which is dedicated to a close reading of Descartes' *Meditations*, with the indication that his interest will lie in "the question of the subject." He immediately stipulates, however, that the Cartesian articulation of the subject "is unthinkable outside the context of the Scientific Revolution." Aside from a passing, oblique evocation of Koyré's *From the Closed World to the Infinite Universe*, however, Badiou's interest indeed remains focused in these pages on the problem of the subject, as he prepares the first volume of *Being and Event* for its publication in 1988.⁸ Indeed, Badiou immediately indicates that he will treat Descartes as a philosophical rather than scientific figure: "Descartes ushered in the modern age of philosophy: his work was truly a revolution in philosophy."⁹

These initial comments already suggest a strange entanglement in Badiou's analysis, that of the problem of the subject with the distinct domain of apodictic, scientific knowledge (*savoir*), an entanglement that should be carefully parsed. On the one hand, and this can be briefly summarized as the manifest content of his seminar, Badiou proffers a Lacanian reading of the Cartesian subject, which he rejects in light of Descartes' reliance on a guarantee for scientific truth in the form of the (in)famous Cartesian proofs of God's existence. At the same time, Badiou repeatedly invokes Descartes' materialist dialectic, which famously took the form of an analytical demonstration according to what Descartes himself called *l'ordre des raisons* (the order of reasons), but without ever indicating the qualities of that dialectic.¹⁰ So what we find in Badiou's presentation is a familiar dismissal (of the Cartesian subject) coupled with a strange silencing regarding the actual parameters of Descartes' revolutionary invention of the modern scientific materialist dialectic.

The latter silence is odd, if not quite symptomatic, in that it is Descartes who puts forward—minus the proofs of God—a set of basic,

modern scientific knowledge-procedures to which Badiou, Marx, and Lacan continue largely to adhere, including: the rejection of sensuous empiricism as a basis for adequate knowledge; the priority of theory over empirical experimentation; the initial clearing away of inadequate received knowledge; the demand then to proceed systematically via initial intuition and subsequent deduction alone; the necessity of abstraction in this process; the corresponding exigency to proceed from the highest level of abstraction sequentially to greater degrees of concretion; minus any pretensions to totality, an implicit adherence to the Cartesian proposition of a *mathesis universalis*, in the sense that all domains of knowledge—including political economy and its critique for Marx, and psychoanalysis for Lacan, and not merely the hard sciences—stand subject to mathematical formalization; and, finally, the consequent assertion of mathematical formalization as the ultimate and necessary form of apodictic knowledge.

Here it is Alexandre Koyré whom both Badiou and Lacan repeatedly reference as having articulated the essential coordinates of Descartes' rationalist scientific revolution.¹¹ For Koyré, the status of Descartes' scientific revolution becomes perfectly clear and distinct not so much in his monumental, dauntingly footnoted and meticulously argued studies of Galileo, Newton, and Descartes himself, but instead in a small 1944 volume published in French in New York, made up of the text of three lectures Koyré gave in Cairo in 1938, the "Entretiens sur Descartes."¹² This condensation of Koyré's intensive research on Descartes offers an eloquent summary of the radical originality of Descartes' scientific revolution.

In the first lecture, Koyré argues that it is Montaigne's critique of superstition, fanaticism and error that brought 16th century European modernity to a point of despair and 'renunciation', finding firm ground neither in the empirical world nor in human experience itself. "Faced with this void," Koyré concludes, "what will Montaigne do? He will do nothing at all. He admits his failure." Koyré then proceeds to reject outright the consequent empiricism of Bacon: "Pure empiricism leads us nowhere. Not even to experience [*l'expérience*]. This because all experience presupposes a theory [*une théorie préalable*]. For an experiment [*l'expérience*] to pose a question to nature implies a language in which to pose it."¹³ This rejection of empiricism in favor of the autonomous construction of scientific concepts will form a constant from Descartes and Spinoza through Cavallès, Althusser, and Macherey, and this systematic rejection of empiricism holds true as well, I argued above, for the Marx of *Capital* as well.

The core of Koyré's argument, however, lies in his splendid second chapter, "The Disappeared Cosmos," where he himself renews the prototypical Cartesian gesture of the *Discours* and *Méditations*, clearing away centuries of commentary on the text, to focus with perfect clarity on the fundamentals of Descartes' scientific revolution. Given Descartes'

methodical rule—to discern the true from the false in the wake of the clearing that is the imposition of a rule of systematic doubt—Koyré identifies the consequent problem as the identification of an appropriate, axiomatic starting point: “But what are these ideas, ideas so clear and so distinct that present themselves to the mind so clearly and also so distinctly that there is no longer any reason to place them in doubt?” If the senses can only provide unclear, “obscure and confused” ideas, clear and true ideas—and here is the crucial point for Lacan and Badiou:

are above all mathematical ideas ... This because it is in mathematics alone that the human mind has attained clarity [*l'évidence*] and certainty and succeeded in constituting a science, a true discipline, in which it progresses with order and clarity from the simplest things to the most complicated constructions. (Koyré 65)

The point is familiar and simple, yet far-reaching. Yet the problem Koyré identifies for Descartes and his subsequent metaphysical inquiries, and which consumes the third his Cairo lectures, lies in the ensuing issue of identification: clear and distinct ideas in the wake of systematic doubt, all fine, but *which* ideas?

The problem of scientific knowledge, Badiou observes in light of Koyré’s analysis, takes the initial form for Descartes (as it will for Marx) of the difficult search for a “point of certainty” from which to begin, one that cannot be deduced but must instead take the form of a free yet certain intuition.¹⁴ Descartes famously finds this intuition in the certainty of the self’s existence. Since Descartes begins from a point of radical doubt, such that any possible statement remains subject to doubt as a mere fiction, Badiou insists throughout his presentation on the Lacanian distinction between statement (*énoncé*), any possible statement, and enunciation as such (*énonciation*):

The point of the One, my original truth, is prediscursive; it is prior to the general sphere of statements, which is undermined in its entirety by doubt. The point of the One is necessarily of the order of the immediate and does not tolerate the mediation of the statement. The totality of what is mediated, the whole of the statements, may be pure semblance. Only something extra-discursive can act as a limit to the fictional and to meaning. [...] The calling of everything into doubt had posited that there is nothing, that nothing that is sayable exists. It had posited that no “thing” exists. What is thought here as “something,” that which is, is pure, unqualifiable, unsayable existence, with respect to which no statement is possible.¹⁵

The Cartesian subject, in Badiou’s reading, is thus no substance, but rather an empty, ineffable point that grounds and initiates the possibility of

all statements. “The central statement,” Badiou continues, “might be put like this: ‘I cannot be nothing given that I think there is nothing.’ It is this ‘I cannot be nothing’ that Descartes calls ‘something.’ The ‘something’ that I am is the only possible point of excess over nothingness, that is, the expression of nothingness.” It is this “point of excess” that constitutes, Badiou argues, the Cartesian point of the real, the being there of enunciation, that there is enunciation as such (*il y a de l'énonciation*), the ground from which all possible statements arise.¹⁶

Given this proposition of the transient truth of this evanescent, empty subject in the moment of an enunciation at the very limit of the real, how then, Badiou continues, can this truth find its guarantee and criterion that Descartes manifestly requires to ground a universal science? Only, he observes, through an illegitimate *suturing* of this pointillist I to the big Other that guarantees it and all other statements: God.¹⁷ The suture, Badiou argues, occurs between the void that is the subject of enunciation, “the immediate existential,” and the infinite, from which can be constructed a theoretical space within which the order of reasons will hold. Badiou understands this Cartesian project, the foundation of all possible science, as the articulation of a field for the constraining truth of all possible statements: “Descartes’s project is as follows: to establish a place of truth in language. For if there is a guarantee, a place of truth with regard to language, then the statements that constrain me cannot deceive me.”¹⁸ God, then, is the traditional name Descartes gives to this novel guarantee, that the mathematical statement constrains and forces my thought to accept this as true:

Descartes’s fundamental approach will be to guarantee by God the self-evidence of statements of the type $2 + 2 = 4$, and, more generally, by the existence of the big Other, to establish a transcendent site of the truth of language, and in particular a guarantee for answers in conformity with the order of reasons, to the fundamental question, “what I am.”¹⁹

Having clearly articulated and rejected this limit-as-suture of the Cartesian project, Badiou reaches a fundamental point of inflection, between a refusal of the Cartesian demand for guarantees, and the subsequent post- and even anti-Cartesian Spinozist axiomatic procedure to which Badiou himself holds. It is Spinoza who for Badiou inaugurates the modern, axiomatic truth procedure as a rejection of all guarantees, proceeding instead from the contrasting position that there simply are truths, *il y a de la vérité*.

Perhaps the key moment in Badiou’s presentation of the subject of science in these lectures, the passage is worth citing at length:

Spinoza has a very different position from Descartes on the question we’re considering here, a position that, in its own way, is eventual.

In his *Treatise on the Emendation of the Intellect*, Spinoza says “we have a true idea,” and that’s all. This means that there’s no problematic of the guarantee of truth, no foundational problematic of the question of the guarantee of truth. We have a true idea: this is a situation, not a foundation. Spinoza ushers into the history of philosophy what I call the eventual figure of the problem of truth, namely that the problem of truth ultimately results in a “there is.” Truths have occurred, and we can’t go back prior to that time. On this basis, Spinoza develops an entirely different approach from Descartes’s, an approach consisting in determining the conditions under which we are in some way in fidelity with this “there is truth.” He will study the system of effects of truth rather than the question of its guarantee.²⁰

For Descartes, the truth of statements requires that God exist as guarantee of their truth. For Spinoza, one proceeds instead from a truth which is there and that we already possess, to follow through its consequences with all possible logical rigor. These two positions—one of which constitutes among the most archaic and feeble features of Descartes’ revolutionary philosophy,²¹ the other inaugurating the modern axiomatic of a materialist dialectic for thinkers including Marx, Lacan, and Badiou himself—each construct a dialectic of knowledge subject to the order of reasons, but do so in opposing manners that Descartes famously contrasts as the analytic vs. synthetic modes of demonstration.²²

This Cartesian/Spinozist contrast brings us then from the manifest content of Badiou’s presentation to its silences. For although Badiou begins these lectures by invoking the intensive imbrication of the Cartesian subject with the scientific revolution at stake in this philosophy,²³ he has very little to say about the contents and nature of this revolution. Focused on a critique of the subject, Badiou remains relatively uninterested in the criteria of modern scientific knowledge (*savoir*) that Descartes initiated and to which his own philosophical work remains subject. Badiou, in other words, is what *Logics of Worlds* will call a faithful subject not of the Cartesian subject, which he resoundingly rejects, but of modern science from Descartes to Cantor as a set of asubjective formalization principles for knowledge, a general procedure or methodology in which, as Lacan says, the subject supposed to know “*fait défaut*.” This faith, however, remains unacknowledged and implicit in these lectures, in contrast to Badiou’s constant readiness to contrast his own nascent philosophy of the subject with that of Descartes.

It is perhaps nothing more than the banal familiarity of these Cartesian criteria I listed above—in contrast for example to the Cantorian scientific revolution regarding which Badiou is so prolix—that explains this silence. Badiou does nonetheless address in these lectures two aspects of Descartes’ novel method of analysis and presentation: its strongly anti-

empiricist character and the Cartesian decision to present knowledge analytically rather than synthetically.

For Descartes, Badiou observes, existence is not a matter or object of experience, but of apodictic proof:

Descartes is profoundly antiempiricist: existence is in no way a complex given of which there is supposedly experience. [...] There is ultimately no experience other than the “I am,” which is in a sense an empty experience. God himself is not experienced but proved. [...] For Descartes, existence is a phenomenon of discourse rather than of experience. To assert existence is either a matter of the enunciation—this is the case of the “I”—or of a deductive procedure, to which no experience corresponds. [...] In this way, Descartes initiated a radical antiempiricist tradition [: ...] The being of discourse, which is the eclipse of the subject, is in no way an object of experience. As for the second existent, God, there is no experience of him; there is no Cartesian mysticism. God is not experienced but concluded.²⁴

Spinoza will sustain and amplify this Cartesian anti-empiricism, and it will remain a constant feature of French thought into the Twentieth century in thinkers including Cavaillès, Bachelard, Koyré, Gueroult, Canguilhem, Althusser, Macherey, and Badiou himself.²⁵

More importantly for my argument here, post-Cartesian anti-empiricism is also a fundamental feature of Marx’s scientific procedure in *Capital*. There, the critique of political economy, while materialist in its analysis of a real and not ideal object—the capitalist social form and the discourses that constitute it—nonetheless remains from start to finish the construction of a knowledge of this social form within the attribute of knowledge itself.²⁶ No matter how far back one may consider its contents and their origin, *Capital* derives from no originary sensuous encounter with or experimental observation of lived capitalism on Marx’s part, whether of lived acts of commodity exchange or social violence and injustice (though such experiences and anti-capitalist convictions obviously *condition* its critique of political economy), but at every moment from a critical analysis of discourses and concepts. Descartes’ radical and novel anti-empiricism, then, indicates a first and crucial sense in which *Capital* is a specifically Cartesian “scientific” work (as opposed, say, to a Baconian one).

Secondly, Badiou stresses throughout his presentation the Cartesian distinction between analytic and synthetic modes of presentation. If Spinoza would famously choose to present the *Ethics* “*ordine geometrico demonstrare*,” he did so in opposition to Descartes’ concerted and repeated affirmation of the contrasting analytic modality as that best suited to philosophical questions (as opposed to mathematical proof). Commenting on Descartes preference for the analytical method as that which “follows the movement of [philosophical] invention,” Badiou

observes that the distinction analysis/synthesis tracks a second distinction, between truth (*vérité*) and knowledge (*savoir*):

Descartes, for his part, explains why he is not very much in favor of a synthetic method, since it doesn't convey the actual process of truth but instead reconstructs it in a figure of knowledge. Underlying the analysis/synthesis distinction is thus the truth/knowledge distinction. Analysis is closer to truth, synthesis to knowledge, insofar as it is the putting into knowledge of something whose truth process is hidden, concealed. For Descartes, any systematically presented knowledge partly conceals the processes of its truth.²⁷

Now, given that the distinction between analysis and synthesis is not simply the essential methodological distinction between Descartes and Spinoza, but furthermore, that the corresponding distinction truth/knowledge will prove the key distinction Lacan and Badiou after him will draw in an analysis of the analytic act or event and the constitution of a subject of science, there is clearly something crucial at stake in the analysis/synthesis distinction. Badiou, however, merely notes this as a question of the Cartesian style or preference, remaining steadfastly uninterested in questions of method.

I would argue, however, that the radical Spinozist break with the Cartesian subject-based philosophy and its corresponding dependence on truth and the proof of God as guarantee is consubstantial with the decision to construct his argument analytically. One sees this for example in Descartes' famous fragment of a geometric proof in the *Réponses aux Secondes*, which crucially relies on the guarantee of a series of subjective "demands" Descartes places upon his reader: that they "consider how feeble are the reasons previously given to have faith in their senses and the corresponding judgements," that despite this, "[Descartes asks] that [the reader] consider their own mind [*esprit*]" and its capacity to conceive [*concevoir*] ideas clearly and distinctly, etc., etc.²⁸ Spinoza in contrast makes no such subjective demands on his readers in the attempt to guarantee their agreement with his demonstrations, but simply proceeds from an initial true idea or axiom to its consequences.

Spinoza soundly rejected all Cartesian fealty to truth, priority of the knowing subject, and dependency on God as big Other and guarantee of truth. Freely accepting the logical consequence of Descartes' extension of the principle of sufficient reason to God himself, Spinoza places God in a position of immanence, *Deus sive Natura*, and begins his demonstration *more geometrico* not from the Subject, but from Substance, only to arrive at his subject of beatitude *ex post demonstrate*, as a consequence of his ethics.

Though in his *Descartes selon l'ordre des raisons* he explicitly speaks only of Descartes, Gueroult is nonetheless much clearer and

more radical on the consequences and necessity governing the analytic/synthetic decision in Descartes and Spinoza (one constantly thinks of Spinoza, whose thought Gueroult knew so intimately, in these passages), and his commentary crucially expands on Badiou's scant analysis of this key distinction:

The order of analysis is the order of invention, thus that of the *ratio cognoscendi*; it is determined according to the demands of our certainty, and the chain of conditions that make it possible. The synthetic order on the contrary follows the order of science and its results. [...] It is thus the order of the *ratio essendi*, that according to which things are disposed in themselves [*en soi*] in their real dependency. [...] Thus according to the analytic order, one must begin from the certain knowledge of my self as first knowledge for the subject (*Cogito*). [...] If in contrast one takes the point of view of the order of things in their real existence [as does Spinoza], the first reality for me (*Cogito*) is subordinate to the first reality in itself (God [or Nature]) as the real cause of all things and from which one proceeds to the diverse works of creation: me, essences, the existence of bodies.²⁹

The contrasting methods of presentation in Descartes and Spinoza are inextricable from their contrasting philosophical positions. Explicitly and repeatedly siding with Spinoza against Descartes, Badiou nonetheless remains resolutely uninterested in drawing out the implications of the subject-based versus axiomatic method of presentation that subtends the analytic/synthetic distinction.³⁰

In a lengthy note to Chapter 15 of *Capital I* ("Machinery and Large-Scale Industry") regarding the distinction between animal and machinic power, Marx explicitly refers to "the method [Descartes] introduced in philosophy," before going on to cite from the *Discours de la méthode*.³¹ While nothing in the passage indicates that Marx himself adheres to this Cartesian method—in fact, he agnostically contrasts it with the empiricism of Bacon, Hobbes, and Locke—and whether he gleaned its aspects directly from Descartes or via their general diffusion in the theoretical, anti-empiricist vein of modern science, this footnote is telling: it is simply the case that Marx wholly adheres throughout *Capital* to the fundamental protocols Descartes first introduced to modernity in his scientific revolution.

Before moving then in my second section to Badiou's reading of Lacan and its implications for a reading of *Capital* that Badiou himself never initiates, I wish summarily to propose in conclusion that the scientific status of Marx's *Capital* holds simply from its adherence to the fundamental Cartesian criteria governing the production of clear and distinct knowledge. This in at least seven respects, in addition to the

rejection of sensuous empiricism and the corresponding priority of theory over empirical experimentation:

1. Descartes begins, of course, not simply by doubting the veracity of all empirical sense impressions, but also by clearing aside all acquired bodies of knowledge, “to be rid of [*me défaire de*] all the opinions I had come to believe, and to recommence everything anew from the foundations, if I wished to establish something firm and constant in the sciences.”³² This means not a total rejection of acquired bodies of knowledge, but rather implies that a reflexive scholasticism should never replace one’s own autonomous critique: “We must read the Classics [*les Anciens*, ... but] their teaching can never suffice.”³³ Marx, having worked through and critiqued the entire corpus of classical political economy and French socialist thought in his initial enquiry starting in 1857, proceeds analogously, beginning *Capital* not as a critical dialogue with that tradition, but from the single Archimedean point of certainty he has identified in that enquiry: the pure, nonexistent abstraction of a single commodity as such (as opposed to any particular, concrete commodity), devoid of all relations and particular qualities.

2. Above all, both Descartes and Marx adhere to the theoretical demand to proceed systematically via an initial intuition or axiom followed by subsequent deduction alone. For Descartes, this followed first from the proposition that “only two actions of our understanding [*entendement*] allow for the knowledge of things: intuition and deduction.”³⁴ If intuition indicates for Descartes “the conception by the mind [...] of the clearest and simplest ideas,” those which are not derived from others, deduction is simply “the necessary conclusion of one thing from [an] other known with certainty.” If Marx’s materialist critique begins not from a pure concept but from a real social fact—the actual predominance of commodities and their exchange—he nonetheless begins his analysis at an extreme level of abstraction, analyzing the characteristics of a single, isolated commodity without specific relations or qualities.³⁵

3. From this it follows that a demonstration must proceed only “from the simplest [idea]” to the more complex, initially “abstracting from everything.”³⁶ A demonstration must then proceed sequentially such that each deduction will be without exception the “necessary conclusion [following from] others known with certainty, [...] never joining one [deduction] to another without seeing the conjunction between them as absolutely necessary.”³⁷ An apodictic demonstration will thus consist in the disposition of these deductions “in a series” such that each “can be known from another

[from which it is directly deduced].”³⁸ For Marx in *Capital*, this procedure entails beginning from a certain minimally true idea or intuition of the capitalist social form as an “immense accumulation of commodities,” and to advance step by step to deduce from this the nature of the basic, simplest “cell-form” given in this intuition, the commodity, proceeding from its highest, initial degree of abstraction, to ever-more complex degrees of concretion.³⁹

4. For Descartes, the starting point of a demonstration, its “absolute” beginning point, must be “the simplest and easiest, [...] abstracted from all superfluous representations” with the entire secret or “art” of a science consisting not in the inherent difficulty of this starting point, but rather in its identification, ascertaining “what is this most absolute term” appropriate for the demonstration.⁴⁰ For Marx, the initial difficulty in beginning *Capital* correspondingly lay in the identification of the proper starting point and concept, which he only belatedly identified at the very end of the *Grundrisse* notebooks: the commodity, and its corresponding simplest, universal attributes of use value, exchange value, and value as such.⁴¹

5. Descartes understands apodictic demonstration positively, as the construction and conjugation of minimally simple, non-contradictory units linked together as in “the links of a long chain,” with “these simple natures each known by itself [...] in its entirety and containing no falsity.”⁴² While Spinoza developed this aspect of Cartesian method to the utmost perfection in the *Ethics*, Marx in turn intensively constructs his demonstration in the first chapters of *Capital* in precisely this Cartesian-Spinozist fashion, positively articulating one concept in its entirety—use-value, say, in the first four paragraphs of *Capital*—before moving to the next concept linked to it—exchange-value, in this case—without this movement being by impelled in the least by logical contradiction, sublation, reflections of determination, or other constituent features of the Hegelian negative dialectic.⁴³

6. An adherence to the universalist consequence of the Cartesian *mathesis universalis*,⁴⁴ such that *all* domains of knowledge—implicitly including not merely the hard sciences but both political economy and its critique and the psychic apparatus and its psychoanalysis—are subject to mathematical formalization as the ultimate horizon of absolute, apodictic knowledge. The various aspects complexly composing any object can each be “abstracted [and] reduced to the point [...] of certain quantities [*grandeurs*] to compare with one another.” Analysis thus consists in “nothing else than the reduction of these proportions to the point at which there clearly appears

an equation [*une égalité*] between that which is sought after and that which is known [...] as a proportion.”⁴⁵ Marx at various points throughout *Capital* condenses his analysis in a mathematical formalization of his natural language argument; the best example of this process as the culmination of Marx’s positive method of demonstration is undoubtedly the formula he constructs and inserts only in the 1872-75 French translation of Chapter 11 of *Capital I*, the final edition of *Capital* Marx personally revised, the extreme reduction of the book’s first ten chapters to a single formula:⁴⁶

$$S = \begin{cases} \frac{s}{v} \times V \\ P \times \frac{a'}{a} \times n \end{cases}$$

7. As such, this means nothing less, in Lacanian terms, than that the desire of *Capital* is a desire for mathematical formalization, a desire for the matheme.

Reading *Capital* after Lacan

The anxiety *du vieux* is palpable as he stands before the room of 20-year-old prodigy *normaliens* at the opening session of his seminar on November 13, 1968, Lacan’s first since the events of *mai*. Anxious not to be thrown in the dustbin as yesterday’s speculative *déchet*, Lacan dusts off his dog-eared copy of *Le Capital* to brandish before his audience, muttering something about how he would read it on the metro when he was their age.

Now, Lacan has not just been re-reading *Capital*, but makes clear that this sudden intensive reinterest on his part has arisen from his reading of Althusser reading *Capital* in the 1965 *Lire le Capital*, and its corresponding construction of a certain structuralist Marx.⁴⁷ The tonic of this anxiety has also paid off, most obviously in the novel concept of *Mehrlust* or *Plus-de-jouir* that he immediately introduces for his audience and future readers to gnaw over.

That said, and despite Lacan’s periodic but longstanding engagement with Marx and capitalism in the seminars—an engagement that only intensified after May ’68—as well as the intensive creativity of crucial Lacanian concepts such as *plus-de-jouir* and the matheme of capitalist discourse, it must be said that Lacan does not in fact read *Capital* itself well or even much at all. In short, when it comes to reading *Capital*, Lacan *déconne*.⁴⁸

As a case in point, it is shocking for even the most casual reader of *Capital* that Lacan would actually elect to publish in *Ecrits*, in the carefully crafted and resoundingly brilliant essay “Kant with Sade,” the following assertion: “The exploitation of man by man, definition of capitalism, as

one knows.”⁴⁹ By this measure, one would be hard pressed to identify a time and place in the history of *homo sapiens* in which capitalism had not existed. Marx, in contrast, clearly and carefully indicates that the object of his critique is historically limited to the predominance of the capitalist social form, and moreover, clearly, if minimally, defines capitalism in the first sentence of *Capital* as the social predominance of commodities and their exchange (as “an immense collection of commodities”), a social situation whose “locus classicus has been England [as opposed to the existence of the human species].”⁵⁰ The most charitable thing one might say about this Lacanian “definition” of capitalism is that he penned it some years before returning to his old copy of *Capital* upon joining Althusser at the ENS and subsequent events of May.

More problematic than what is admittedly a mere one-liner in an otherwise brilliant essay, when he does turn to *Capital* after May '68, Lacan, ever the Monsieur Jourdain among readers of *Capital*, appears not to see what's right plainly before him and which is (also) perfectly obvious to any mildly attentive reader of the first chapter of *Capital*. Since the *Discours de Rome* and throughout the 1960s, Lacan never tired of repeating to his listeners variations of the proposition that “A subject is what can be represented by a signifier for another signifier [*Un sujet est ce qui peut être représenté par un signifiant pour un autre signifiant*].” Now, in the present context, this should immediately remind any mildly attentive reader of the first chapter of *Capital* of Marx's famous discussion of coats and linen. There, Marx analyzes how one commodity (coats) materially represents and embodies the otherwise “spectral” value of another (linen), giving it existence as a commodity-subject.⁵¹ In Lacan's terms, one could say then that the value of the subject “linen” can and must be represented by another signifier (X value of linen) in another signifier (X concrete number of coats).

Lacan, however, never seems to notice this quite obvious parallel, leaving the impression that he has followed Althusser's notorious advice to skip the theoretical intricacies of the first chapter of *Capital*. Instead, he goes on to offer the following confusing and incorrect gloss:

Is this not drawn from the fact that, in what Marx deciphers, which is to say economic reality, the subject of exchange-value is represented by use-value? [*le sujet de la valeur d'échange est représenté auprès de la valeur d'usage*]?⁵²

While Lacan's meaning is ambiguous, the subject of exchange value is in any case emphatically not represented in Marx's analysis by the use-value of the *same* commodity (“auprès de la valeur d'usage” of the *same* commodity), but by *another commodity*.

Even more suggestively in this vein, again without Lacan ever noting the obvious parallel in Marx's argument, he observes in Seminar XVII that:

Mathematics is not constructible from what the signifier signifies in itself. The [variable] A that you have written once [cannot] be signified by its repetition as A. This position is strictly untenable, it constitutes an infraction of the rule regarding *the function of the signifier that can signify anything, except, assuredly, itself*.⁵³

If anywhere, this would be the moment to cite Marx's analysis of the commodity, as for example when he describes how in the simple form of value:

Two different kinds of commodities [...] play two different parts. The linen expresses its value in the coat; the coat serves as the material in which that value is expressed. [...] The relative form of value and the equivalent form are two inseparable moments, which belong to and mutually condition each other; but at the same time, they are mutually exclusive or opposed extremes. [...] *I cannot express the value of linen in linen*. 20 yards of linen = 20 yards of linen is not an expression of value. [...] The value of linen can therefore only be expressed relatively, ie. in another commodity.⁵⁴

Here Lacan expresses the same idea as Marx at a greater level of abstraction, that any object A (including the subset of all commodities for Marx) must express its value or equivalence in another object (B), A=A being a tautology.

If Lacan has little to say about the reading of *Capital* in his manifest discourse, his structural, analytic science of the necessity governing the psychic apparatus nonetheless has many important implications for understanding Marx's scientific critique of political economy. The first of these is the materialist status of Lacan's specific domain of scientific knowledge, the psychoanalytic analysis of a discourse as the analysis of the (unconscious) necessity governing the manifest material statements of an analysand.

That Lacan's is a materialist dialectic is clear through his unsparing critique of traditional *materialism* as a superstitious dogma based upon "an ideality [idéauté] of matter," an extreme form of idealism, whether that of Bossuet or the Soviet monist Marxists such as Plekhanov, whom Lacan calls "the only true believers".⁵⁵ In place of this monist faith in totality, Lacan continues in *L'envers de la psychanalyse*, "It is just, for us, that that's not enough. This because we have quite precisely *logical needs* [des besoins logiques]".⁵⁶

Lacan's is a materialist logic of the signifier, a materialism without matter that desires to replace idealism with a symbolic materialist science,

one that studies and constructs the logic of the unconscious via analysis of its matter, signifiers and their order and relation in discourse. To be a materialist, for Lacan, “consists in only admitting as existent material signs [*des signes matériels*],” to focus on what the word says, along with its corresponding and often uncanny associations, rather than pursuing a vain hermeneutic of its meaning. Lacan’s is a materialist science in which the general matter of signifiers generates necessary effects, possessing their own singular causal efficacy.⁵⁷

In the case of Marx, a crucial aspect of his materialist critique is an analogous analysis of discourse. While his biting and absolutely decisive critiques of classical political economy and nineteenth century socialism are well-known, rarely are these regarded as inherently *materialist*. Though this materialist discourse critique constitutes the general matter of the *Theories of Surplus Value* and innumerable footnotes throughout *Capital*, its densest formulation perhaps lies in the *Critique of the Gotha Program*.⁵⁸ There, Marx savages the Gotha socialist platform for its “unscientific” expounding of vague idealist principles, “ideological nonsense,” “loose notions,” “faith in miracles,” “empty, pious wish[es],” and “moral phrases,” in place of which Marx asks for “incontestable propositions,” “deductions,” “scientific answers,” “precise economic concepts,” “a common standard” for the scientific measure of labor, and a logical order and grammar of for a scientific socialist platform that would affirm the “real movement” of society.⁵⁹ Describing his own position as “the scientific view” regarding the contrasting price and value of labour-power as Marx presents it in *Capital*, he savages the vagaries of Lasalle, whose “fantasy [...] mistook appearance for reality”⁶⁰

The Cartesian culmination of this materialist critique of discourse for Lacan is that it is abstract mathematical formalization without a subject that constitutes the desired conclusion of the analytic act in Lacan’s science of the psychic apparatus.⁶¹ The second section of lecture 6 in seminar XVI is here paradigmatic:

Formalisation in mathematics is the attempt to submit discourse to a test [*une épreuve*] that we could define in the following terms [:] to function without the subject. [...] Consequently, nothing else than such formalization can constitute interpretation. In opposition to the fundamental equivocity of discourse, the function of isomorphism constitutes a certain number of domains as falling within [*tombant sous le coup*] the compass [*la prise*] of a single identical written formula.⁶²

In utmost contrast, however, to Descartes’ fetishistic cultivation of the subject of truth and cognition and its sutured subjection to a big Other (God), the radicality of Lacan’s intervention in the domain of analysis—both psychoanalytic and more broadly taken—is clear and compelling: given

the inherent fetishism and servility of the transference relation to the subject of truth that Lacan named the subject-supposed-to-know (*le sujet-supposé-savoir* or SSS), the goal of analysis must be fully to eliminate that transference and to reduce the knowing subject of truth to a mere “*déchet*” or refuse.⁶³ In place of the SSS, the psychoanalytic act requires instead a purely formal construction, one transmissible without a subject of enunciation: the *matheme*.⁶⁴

Badiou’s thesis in his 1984–85 Lacan seminar, focused on the Lacan of the early 1970s, takes this Lacanian intervention a step further, to propose that the *matheme* must be rigorously distinguished from the *mathematizable*. While the *matheme* is constructed as an asubjective knowledge (*savoir*) of *l’insu*, the “not-known,” this construction occurs precisely at the point of the *impasse* of an existing, constituted knowledge that is, to the limits of the real, properly and unambiguously *mathematizable*. The Lacanian act that is the construction of the *matheme* is, Badiou observes, eminently scientific, it is “*archi-scientifique*.” Badiou argues that the *matheme* names the construction of an integrally transmissible knowledge of the real, an impersonal *savoir* subtracted from the position and subjectivity of the analyst. For Lacan, Badiou comments, the *mathematizable* requires, “in order to be the most appropriate language for [a] scientific discourse, mathematics [as] science without consciousness.” The *matheme* in, contrast, is what Badiou calls “the real of the real” [*le réel du réel*]. There is for Lacan, Badiou continues, that which is teachable of the real [*ce qui s’enseigne du réel*]; this is the *mathematizable*. In contrast, the *matheme* constructs what is *dicible* [utterable]—and thus potentially thinkable—at the very point of the *impasse* of the *mathematizable*.⁶⁵

Here the enormous gap between Descartes’ science and that of Lacan becomes manifest: For Descartes, mathematics remains a mere paradigm of something else, a metaphysics that would remain truthful to the paradigm of “long chains of utterly simple and easy reasonings.”⁶⁶ In contrast, for Lacan, the *matheme* does not represent something else, nor is it a clear and evident knowledge of the real, but is instead a “*function*” of the real, taking its place in knowledge, such that truth and the knowing subject, discarded as a refuse (*déchet*), can be properly *situated* (as fetishistic, as idealist, etc.).⁶⁷ As Lacan says somewhat enigmatically, one does not know the real, nor does one *not* know it: instead, the real must be unambiguously demonstrated. Here is Lacan in *Radiophonie*:

The real differs from reality. This is not to say it’s unknowable, but that there’s no question of knowing about it, only of *demonstrating* it.⁶⁸

Demonstration, as *matheme*, will then present a formal construction of a logical *impasse*, an *impasse* that requires the leap or *salta* of the analytic act to pass over this void, beyond what is literally impossible within the

given, constituted logic of an existent world; the analytic act names the transformation of the impossible, of an impotence, into a construct of the real that can be integrally transmitted without a knowing subject of truth.⁶⁹

Here we can return in conclusion to the construction of a post-Lacanian reading of *Capital*. What becomes evident in light of Badiou's Lacanian distinction between the *matheme* and the *mathematizable* is that *Capital* contains two precisely corresponding forms or regimes of formalization. In Chapter Five of *Capital*, Marx carefully demonstrates the impotence of classical political economy in the form of its incapacity to answer the most basic of questions: if two commodities are fairly exchanged at their real, necessarily equivalent value, from whence arises the profit accruing in this exchange?:

However much we twist and turn, the final conclusion remains the same. If equivalents are exchanged, no surplus-value results, and if non-equivalents are exchanged, we still have no surplus-value. [...] Surplus-value cannot arise from circulation, and therefore, for it to be formed, something must take place in the background which is not visible in the circulation itself.⁷⁰

The (logical) transformation of money into profit-bearing capital results—to this crucial point in Marx's demonstration—in a logical contradiction, a contradiction the classical economists were impotently unable to resolve: this transformation must follow the necessary laws of commodity exchange, yet, apparently, this process “must, and yet must not, take place in the sphere of circulation.” It is at this crucial nexus that Marx then inserts his famous defiant exhortation to leap beyond this impasse: “Hic Rhodus, hic salta!”⁷¹

What is astonishing, however, is that Marx gives this impotence and impasse a purely and absolutely abstract form, as the famous formula that is quite literally a *matheme*: MCM' . To explain the nature of “buying in order to sell more dearly,”—which is to say, an exchange process in which a mysterious increment (“'”) appears appended as a surplus value whose origin remains a mysterious contradiction—requires that *Capital* enact, in its Chapters Six and Seven, the event of an analytic act, a leap or *passe* beyond the logic of the world of classical economics, via the construction of an entirely novel and radical concept: labor-power.

If there is not properly speaking a knowledge of the real, Marx's *matheme* MCM' nonetheless demonstrates that the function of the real can be scientifically constructed as a knowledge (*savoir*) that allows for and produces the *situation* of the truth of the unconscious.⁷² That said, MCM' does not construct a positive knowledge of the nature of the capitalist accumulation of surplus value via the exploitation of labour power—this is the work of the immediately following chapters Six and Seven. Instead, the *matheme* MCM' formally constructs a

positive demonstration of the known unknown, clearly and compelling demonstrating what the manifest discourse of classical economics did not adequately know it did not know.

In contrast to the *matheme MCM'*, however, the formula for the law governing the rate and mass of surplus value (LRMSV) that Marx inserts in the 1875 French edition of the rarely commented-upon Chapter 11 comes to constitute, in light of Badiou's distinction between the *matheme* and the *mathematizable*, the culmination of Marx's demonstration in the first eleven chapters.⁷³ Seen in this light, it becomes clear that it is not merely the *matheme*, but above all the *mathematization* of an impossible capitalist real that constitutes the fullest expression of the desire of *Capital*. In other words, the desire of *Capital* is to construct the adequate formalization of the capitalist unconscious, of the social form whose effects are manifest to every one of its subjects, but whose structure of necessity, what Marx called its capacity to effect a "mute compulsion" upon its subjects endlessly to valorise value, remains wholly unknown.

Clearly and distinctly to compose and thus at once to know and not-know this unknown structure via the *matheme MCM'* is already an enormous accomplishment on Marx's part. More than this, however, *Capital* undertakes to put the capitalist social form in its place, and fully to articulate as a novel *asubjective* knowledge the logic of this social form: There where the capitalist unconscious was, *Capital* will be. The culmination of this *asubjective* articulation, then, will be the *elimination* in *Capital* of "Marx" the authorial subject, with all his extraordinarily rich and varied stylistic devices, a manifold voice ultimately (if momentarily) killed in the dense *mathematization* that summarizes the first ten chapters of *Capital's* apodictic demonstration:

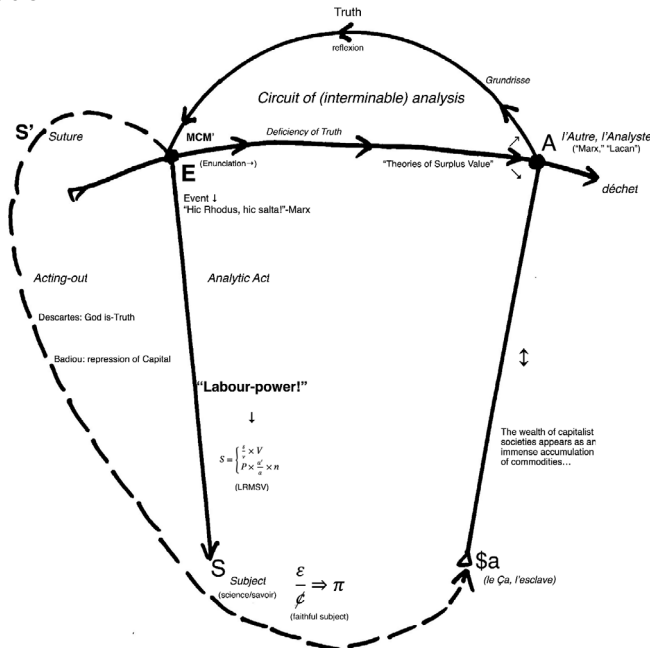
$$S = \begin{cases} \frac{s}{v} \times V \\ P \times \frac{a'}{a} \times n \end{cases}$$

If this is the case, *Capital* effectively reverses the order of attribution between *mathematization* and *matheme* as Badiou presents them. Badiou's tendency, a further expression of what I am calling his symptomatic repression of the reading of *Capital*, is to see *mathematization* as the mere logic of a constituted, existing world, and hence relatively uninteresting, compared to the *matheme*, which takes its place at the limits of a world, raising an impotence to impossibility, a point at the edge of the real where an event can flash up to illuminate a passage beyond that world. To take *mathematization*, as does *Capital*, as the consequent step beyond the koan that is the *matheme* is to refuse the event as suture, the dawn of the idea of communism in which all cows are red, a short-cut that would bypass a rigorous investigation of the unconscious logic of the capitalist social form. In contrast to

Badiou's endlessly repeated manifest disinterest in the analysis of the capitalist unconscious, ever faithful to its desire, *Capital* rigorously constructs the logic of that unconscious structure across its thousands of pages, throughout Marx's unfinished drafts, revision notebooks, and correspondence that constitutes this massive, sprawling, unfinished monument of knowledge.

If it is *Capital* and not "Marx" who is the faithful subject, what then is the event to which *Capital* remains faithful? Without a doubt, it is the discovery in 1857 of the concept of labour-power (or, as Marx first refers to it in Notebook III of *Grundrisse*, "Labour-power!")—the sole commodity capable of creating surplus value—in its strict categorial distinction to the transhistorical, anthropological notion of labour *tout court*.⁷⁴ *Capital* is the proper name of a fidelity to this event, which occurred long before the appearance of the first edition of *Capital I* in 1867, during Marx's years of systematic inquiry into political economy, at the moment of the initial, painstaking construction of the concept adequate to overcome the impasse of classical political economy: surplus value. *Capital* then comes to stand in the wake of this event—a discovery that decisively determines and allows for Marx's critique of political economy as a whole—as its trace, as the painstaking, endless and incomplete project of following through the manifold, even infinite consequences of this discovery, across the thousands of pages that will gradually become what we know not just as this three-volume work, but as the entire project still being published today as the MEGA² edition of Marx's *oeuvres complètes*.

In order to convey all this in a single formalization, an extrapolation of Lacan's famous graph of desire could be rewritten as the graph of the desire of *Capital*, the desire for the matheme and its consequent mathematization:⁷⁵



While much more could be said, a brief annotation would begin at the lower right (\$a) and proceed counter-clockwise. Within the $\$a \leftrightarrow A$ field, the suffering, enslaved subject of capital remains subject to the mute compulsion of a social form, to the big Other, and to the material force of capitalist ideology. An encounter with an Analyst (A) can occur, however, at which point an analysis can be initiated, taking the subject of out of mere unconscious subjection to the compulsion of ideology, to begin to make that unconscious structure of compulsion manifest. A long, even interminable construction of the subject's truth begins, looping endlessly back upon the vector of reflexion to rejoin the maelstrom of enunciations, with every truth revealed in analysis inevitably compromised by its partiality and incompleteness. As the infinite flow of statements carries away and spins the subject within this vortex, on each return, this riptide threatens to pull the subject back down in renewed subjection to the big Other, unless another session of analysis occurs—for Marx, this meant returning to the Reading Room at the British Museum—to restart the quest for Truth.

The culmination of an analysis, however, can result in the construction of a matheme (in the case of *Capital*, MCM'), which formalizes the known unknown of that subject's truth while simultaneously reducing the analyst to the status of *déchet*. At this point the analysis stubbornly bumps up against the limits of the real rather than looping back again to search for truth anew. The formalization of the matheme can then potentially hasten the suffering, impotent subject toward an Event (E), via a *passe* or *salta*, in an act that moves beyond the limits of that constituted world's logic and its contradictions (the enigmatic source of surplus value). In the case of Marx's critique of political economy, the discovery of the concept of labour-power ("Labour-power!") was such an event, and in its wake, *Capital* came to stand as the proper name for the subject faithful to this event, rigorously, systematically, painstakingly articulating its consequences as a new logic, from the novel concept of labour-power in 1857 to its ultimate formalization in the 1875 French edition of *Le Capital* as the Law of the Rate and Mass of Surplus Value (LRMSV).⁷⁶

This joyful trajectory, from enslaved suffering to the beatitude of the Faithful Subject, is not devoid of its perils, however, and the subject of analysis, repressing the laborious work of formalization, can instead follow the Siren song of the Suture (S'), a precipitous chute (as in "Chutes and Ladders") that carries that subject back once again to a renewed subjection to the \$a.

Reading *Capital* in the light of Lacan's science of analysis and its characterization in Badiou's seminar clearly demonstrates that the desire of *Capital* is directed to the analytic act that would—partially yet adequately—mathematize the real, as the construction of an asubjective,

formal, integrally transmissible knowledge of the capitalist unconscious. Beyond the familiar Cartesian coordinates, it is consequently this process of formalization that constitutes the fullest measure of what Marx repeatedly affirmed as the book's "scientific" status.

Badiou's corresponding repression of that process, however, which takes the form of an ever-renewed disinterest in Marx's critique of political economy, should in turn be understood as a symptom in the Lacanian sense, one that would require its own construction. This not in the form of a specious critique of the author "Badiou," but as an uncompromising engagement with the asubjective content of Badiou's extraordinary body of work itself, a manifest discourse that, given its astonishing scope, originality, and compelling force, must remain subject to an interminable analysis. Finally it becomes obvious, then, that in light of Badiou's presentation of Descartes, Lacan, and the palimpsest of *Capital* that haunts these works, it is Marx himself who has already in fact partially yet adequately constructed in 1875 the asubjective formalization of Badiou's symptom, in that extraordinary interpellation to the last edition of *Capital* that he personally revised:

$$S = \begin{cases} \frac{s}{v} \times V \\ P \times \frac{a'}{a} \times n \end{cases}$$

1 Badiou, 2016; Badiou, 2013. All subsequent translations are my own unless otherwise noted. Portions of this article were first presented at the Cornell University Romance Studies Annual Distinguished Lecture entitled "Reading *Capital* after Lacan," 13.3.25.

2 In his presentations of each of the three editions of the first volume of *Capital* that he oversaw, Marx repeatedly and emphatically asserts to his readers the "scientific" nature of his study: in the first, 1867 edition, where he writes, speaking of the difficulty of Chapter One, "beginnings are always difficult in each science [*jeder Wissenschaft*]," goes on to invoke "free scientific criticism," then famously observing that "in the analysis of economic forms neither microscopes nor chemical reagents are of assistance. The power of abstraction must replace both" and states in conclusion that he "welcome[s] every opinion based on scientific criticism"; Marx speaks repeatedly in the Postface to the Second, 1872 edition of the "science" of political economy; and in the 1872 Preface to the French translation he oversaw, he warns his readers that "Il n'y a pas de route royale pour la science" [There is no royal road to science] (Marx 1989, p. 17). In these and other comments, only the lone invocation of "the power of abstraction" gives some indication of what in Marx's view constitutes the scientific nature of his work, leaving the reader to infer this from the substance of Marx's critique of political economy (Marx 1976, pp. 89, 91, 95, 104, translation modified).

3 My question is thus not that of Marx's relationship to "science," i.e., the natural and theoretical sciences with which he actively engaged in his research (biology, chemistry, mathematics, etc.), but rather what makes *Capital* a "scientific" work at the most general level that takes *science* as simply synonymous with adequate knowledge as such. On the former, see for example among a large literature, Sheehan 2018 and Kohei Saito, 2017. The anti-empiricist Cartesian-Lacanian tenor of my argument is also fundamentally at odds with that of Daniel Little, who argues against E. P. Thompson that *Capital* is "a rigorous work of empirical social science." Little, Daniel, "The Scientific Standing of Marx's *Capital*". *Review of Radical Political Economics* 17:4 (Winter 1985, 72-94) 72.

4 Althusser et al., 2015, p.67. I initiate this symptomatic reading of Badiou in chapter five of Nesbitt 2024; here I wish further to interrogate the general argument of the Lacan seminar, rather than merely the few sections in the seminar explicitly discussing Marx that I considered in that previous study.

5 On the Lacanian symptom, see Bruno 2023.

6 The principal meaning of *dialectic* in English, according to the *OED*, is simply 'logical

argument', and in French (*Le Robert*), 'the art of reasoning in general.' I take the concept of "world" here in the sense in which Badiou develops it in *Logics of Worlds*.

7 Nesbitt 2024, pp.25-27. This article builds on the basic argument of that book, extending its analysis of the post-Althusserian, Spinozist materialist dialectic to here include Badiou's seminars on Descartes and Lacan and their implications for the reading of *Capital*.

8 Badiou, 1988.

9 Badiou, 2023, p.41.

10 Here Badiou presumably bases his comments on Martial Guerout's famous two-volume study *Descartes selon l'ordre des raisons* (Paris: Aubier 1992 [1953], to which I will refer below.

11 Badiou, 2016, p.41. In Lacan's case, he repeatedly affirmed that he understood Descartes in light of the thought of Koyré: "It is well-known," Lacan writes in *Radiophonie*, "that everything I know about the 'Copernican Revolution' has been taught to me by Koyré." (Cited at Burgoyne, p.77). Lacan most famously acknowledged the importance Koyré played for his understanding of the Cartesian subject of science in the essay "Science and Truth": "Koyré is our guide here" (Lacan, 1966, p.856). On Lacan and Koyré see Roudinesco, 2024, p.511 et passim.

12 Koyré 1944.

13 Koyré 1944, pp. 37, 41.

14 Badiou 2016, p.47. Witness Marx's crucial finding in the final paragraph of *Grundrisse*, when, nearly 900 pages into his analysis, he at last determines the proper starting point for his exposition: 'Value', the analysis of which, he adds in a note to himself immediately following this section title, should necessarily constitute his materialist starting point: it is the 'section to be brought forward' to the beginning of what will become *Capital* (Marx 1973, p.881); see also Nesbitt 2024, p.231.

15 Badiou 2016, p.51, translation modified.

16 Badiou 2016, p. 51. Badiou continues: "Here we find the Lacanian distinction between statement and enunciation, which, in a way, structural linguistics borrowed from Descartes. I can call into doubt any statement provided that the statement (in the sense of the said) is actually enunciated (in the sense of the saying), provided that there is an enunciation (which, for its part, exists) of this statement. The point of the real is enunciation. I can say: in statements no truth circulates, but there is enunciation, I exist, I who doubt, who express doubt. In enunciation as such there is nothing, there is vanishing as the pure existence of the subject, unqualifiable, unsayable, and it is this that Descartes refers to as 'I am, I exist.' [...] Descartes says that 'this proposition' ['I am, I exist'], every time I utter it, guarantees the truth of the 'I am.' As long as I utter that I am, 'I am.' This proposition is true

every time I utter it, but Descartes absolutely does not say that it is true in and of itself. It is only true in the simultaneity with its utterance” (Badiou 2016, p.53, translation modified).

17 Badiou, here as elsewhere in these lectures, offers asides on his own contrasting philosophical position. On this question, his answer will be a steadfast anti-Cartesian refusal of all guarantees in favour of an axiomatic position coupled with a philosophy of the Subject as Event: “In what sense,” he asks, “can such a statement [‘I am, I exist’] be said to be true? I mean obviously true, in the absence of truth criteria, of external guarantees of its truth. The answer is necessarily this: The point of truth is of the order of the event. When there is the effective event of its utterance, the statement ‘I am’ produces an intersection of the real and an enunciation. It is a matter here of truth as event, hence strictly punctual, in the empty form of a point of truth” (Badiou, 2016, p.55, translation modified).

18 Badiou 2016, p. 57, 62.

19 Badiou 2016, p.63, translation modified.

20 Badiou, 2016, p.64.

21 “There’s not the slightest proof of God’s existence in Descartes. You suspected as much, I imagine: if there were a proof of God’s existence in Descartes, we’d know about it!” (Badiou 2016, p.68).

22 On the extreme historical complexity of the debate over these two modes of demonstration in Descartes Studies, see Dubouclez, pp. 247-282.

23 “The [Cartesian] notion of the subject, [...] is unthinkable outside the context of the Scientific Revolution” (Badiou 2016, p.41).

24 Badiou 2016, pp.101, 103. Already in the *Regulae*, Descartes writes that understanding must not “juger que l’imagination rapporte fidèlement les objets des sens, ni que les sens revêtent les varies figures des choses, ni enfin que les choses extérieures soient toujours telles qu’elles apparaissent. Car en tous ces jugements nous sommes sujets à l’erreur” (Descartes, 2024, p.75). Cartesian philosophy, writes Martial Gueroult, “develops as a pure geometry that gains its certainty from the internal chain [*enchaînement*] of its reasons, without reference to exterior reality. [...] Descartes only admits of experience/experiment [*l’expérience*] according to the order determined by reason and indicated by it. [...] Thus his repeated affirmation that experiments are only useful if one [first] possesses true principles. [...] Descartes is opposed to experimental science since the mathematical principles that must explain it are not drawn from experience, but *a priori*. [...] The rejection of vulgar experience in favour of the rational,” Gueroult concludes, “is the indispensable postulate of authentic experimental science, which discovers hypotheses and invents

experiments that are often contradicted by empirical appearances” (Gueroult 1992, p.22, my translation).

25 See Nesbitt 2024, chapter 2.

26 I argue this proposition in more sustained fashion in the third chapter of Nesbitt 2024.

27 Badiou 2016, p. 80.

28 Descartes 2024, pp.565-566.

29 Gueroult 1992, pp.26-27.

30 In Session 3 of his seminar, Badiou closely reads passages from Descartes’ geometric presentation in the *Réponses aux Secondes objections*, but never as a question of method and its theoretical implications.

31 “Descartes, in defining animals as mere machines, saw with the eyes of the period of manufacture. [...] Descartes, like Bacon, thought that the altered methods of thought would result in an alteration in the shape of production, and the practical subjugation of nature by man. This is shown by a passage in the *Discours de la méthode*” (Marx 1976, p.512).

32 *Méditations métaphysiques, Première méditation* (Descartes 2024, p.443, my translation).

33 Descartes 2024, p.34.

34 Descartes 2024, p.35. While one might cite many passages throughout Descartes’ oeuvre, these criteria are clearly and systematically enumerated for the first time in the *Règles pour la direction de l’esprit*, from which I quote here.

35 In the “Notes’ on Adolph Wagner,” Marx famously affirms the materialist nature of his starting point: “I do not start out from ‘concepts’, hence I do not start out from ‘the concept of value’, and do not have ‘to divide’ these in any way. What I start out from is the simplest social form in which the labour-product is presented in contemporary society, and this is the ‘commodity’. I analyse it, and right from the beginning, in the form in which it appears.” (Marx 1996, p. 241). I think Marx’s affirmation here bends the stick back too far from any taint of Hegelian idealism; if commodities and their exchange are the actually existing form of social relations in capitalism, nonetheless, the highly abstract level at which Marx begins analyzes a thing not observable empirically but only as a conceptual abstraction.

36 Descartes 2024, pp.35, 36, 68.

37 Descartes 2024, pp.36, 45, 77.

38 Descartes 2024, p.44.

39 While I do so only in reference to Spinoza in Nesbitt 2024, in that book’s third chapter I demonstrate in detail how in the initial chapters of *Capital I*, Marx proceeds following this Cartesian/Spinozist form of deduction. See also Heinrich 2021, *How to Read Capital*, for an even more minute explication of this positive deductive process of demonstration in the first six chapters of *Capital*. I invoke the coherence of Cartesian method with that of Marx here in order more

clearly to distinguish these various points—all of which Spinoza took on from Descartes' scientific method—from those that are specifically Spinozist in Marx: above all the synthetic method, the replacement of all guarantees for truth and proofs of God's existence with the proposition *verum index sui et falsi*, and the Substance-based displacement of the Subject of knowledge to the status of result rather than starting point.

40 Descartes 2024, p.80.

41 Marx 1973, p. 881.

42 Descartes 2024, pp.36, 73, 74.

43 Here too, this is a crucial proposition I demonstrate in the third chapter of Nesbitt 2024. See also Heinrich, *How to Read Capital*.

44 When one "examines a certain order or measure [of any thing], regardless whether such a measure is to be found in numbers, figures, the stars, sounds, or any other object one may choose, in consequence there must be a certain general science [*science générale*] that explains anything one may examine regarding [its] order and measure" (Descartes 2024, p.42).

45 Descartes 2024, pp.82, 88, 89.

46 Marx 1976, p.279. I analyze this particular instance of mathematical formalization in Spinozist terms, again without any reference to Descartes, Lacan, or Badiou, in the third chapter of Nesbitt 2024, pp.193-208.

47 "Je ferai appel à Marx, ... je rappellerai ce qui a été parfaitement mise en évidence, et pas très loin d'ici, par des travaux récents... Je n'ai pas produit [ce concept de *Mehrlust*] sans faire référence discrète... à celui dont, pourquoi pas, m'y ont induit, à savoir, Althusser" (Lacan 2006, pp. 16, 29).

48 See Lacan's extraordinarily inventive, hilarious, and, I would wager, characteristically untranslatable improvisation on the "*connerie de la vérité*" in the newly available 1967-68 Seminar XV. See Lacan 2024, p.43-48.

49 Lacan, 1966, p.777.

50 Marx 1976, pp.125, 90.

51 Marx 1976, p.139-154.

52 Lacan 2006, p.21.

53 Lacan 1991, 103, my emphasis.

54 Marx, 1976, p.139, my emphasis.

55 Bruno 2024, p.229. See also Pavon-Cuellar 2024 and Bourgoyne 2023. Pierre Macherey articulates a similar critique of traditional matter-based materialism that he contrasts with a materialist critique in his essay "En matérialiste" (Macherey 1992). See Nesbitt 2024, 76-77.

56 Lacan 1991, p.74, emphasis added.

57 Pavon-Cuellar 2024, pp. 232, 239.

58 I take this insight directly from the illuminating Lacanian reading of *Gotha* that Kendal Karaduman gave in our seminar on "Marx and Lacan" (5.5.25).

59 Marx, 1996, pp.208-226.

60 Marx 1996, pp.219, 220.

61 In this regard, and though his name is never

mentioned Roudinesco's biography, Lacan prolongs and develops the science of Jean Cavaillès on at least four counts that would need to be developed more fully: 1. A rejection of empiricism in the development of a rigorously axiomatic mathematics 2. A corresponding, Spinozist rejection of the Cartesian philosophy of the subject in favor of the asubjective rigor of apodictic demonstration 3. Above all, perhaps, as a materialist science of the sign drawn not from empirical intuition, but instead from "symbolic objectivity" and its formalization, where symbols do not represent, but are instead the constructed objects of this science 4. Science is thus for Cavaillès as for Lacan understood as the construction of an asubjective knowledge through the formalization process via apodictic demonstration: In demonstration, Cavaillès writes, "science recovers its essential traits: unity, necessary and indefinite progression, and enclosure within itself" (cited at Sinaceur 153). Sinaceur, 2019, pp.68, 145, 90, 153). See Jean Cavaillès, *Philosophie des sciences: Oeuvres complètes*. Paris: Hermann 1994.

62 Lacan 2006, p.97.

63 See Tomšić 2015, p.54.

64 See the recently published Seminar XV, *L'acte psychanalytique* (Lacan 2024).

65 Badiou 2016, 36, 12, 27, 29, translation modified.

66 Descartes, cited at Badiou 2016, p.100.

67 Badiou 2016, p. 147.

68 Cited at Badiou 2016, p.150, emphasis added.

69 Badiou 2016, p. 181.

70 Marx 1976, pp.266, 267.

71 Marx 1976, p.268.

72 Marx 1976, p.176.

73 In my previous discussion of this formula in Nesbitt 2024, 198-208, I focused on the nature of this formalization of Marx's demonstration as a Spinozist *common idea*. Here, presupposing the results of this analysis, I further address its nature as the abstract mathematization of a knowledge that leaps beyond the impotence of the *matheme MCM'*, to construct an adequate *savoir* of the nature of surplus value and its accumulation.

74 Marx 1973, p. 72. See Martin Nicolaus' discussion of Marx's discovery of the concept in his Foreword to *Grundrisse*, Marx 192, pp.44-47.

75 I construct this graph not directly from Lacan's various presentations of it cf. Lacan 1966, pp. 808, 815), which after many years still remain somewhat mysterious to me, but instead from Fredric Jameson's luminously clear and suggestive distillation (Jameson 2024). A fuller but needlessly complicated version of this grapheme would situate the various discourses across its arc, something to my knowledge Lacan never does: the Slave and Capitalist discourses between the $\$a \leftrightarrow A$ vector, that of the Analyst at point A, the Hysteric and University

discourses within the compass of the circuit of analysis, and an additional discourse I would call that of Fantasy ($S1/\$ \rightarrow S2/a$) within the span of the suture. I offered a quite different version of this grapheme, as a presentation of the field of postcolonial francophone studies, in Nesbitt 2025, p. 180. This diversity is testimony in my view to the rich suggestiveness of Jameson's presentation.

76 Badiou presents his concept of the faithful subject and its corresponding matheme in Book I of *Logics of Worlds* (Badiou 2009, pp. 50-53).

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