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Formalism, Ideology, Critique:

Althusser after Badiou

One question to which this essay attempts to give a preliminary framing is that of the contemporary possibility of a *critique of ideology* that operates substantially as a *renewal* of the classical Marxist critique of political economy. Such a critique would, as I argue here, necessarily function, at least in part, by discerning the specific problematic *reality* constituted by political economy in the contemporary global situation, and distinguishing this from the ideological effects it causes and which, in turn, support the ongoing reproduction of its structure.   Without diminishing the complexity of this structure or the typological diversity of means and relations of production present within it, I shall argue that a privileged critical path to this discernment can be found through a consideration of the internal form of *information technology* as founding what Althusser called a "structure in dominance" within the complex contemporary situation of global capitalism as a whole. The critique of the ideological functioning of this whole further passes necessarily, as I shall argue, through a consideration of the essential support it gives to what we may understand as this situation's *state*, or the overdetermined image of the global whole that is produced within this situation's self-representation and thereby essentially supports the existence and continuance of its characteristic modes of production and socio-economic relations.   Furthermore, I will argue, the basis for such a critical discernment of the ideological formation of the contemporary state can be found through a rigorous consideration of the structure and essential boundaries of computational formalization. This consideration points to the real unfoundedness of the values of *completeness, consistency, and decidability* whose recurrent re-inscription is, as I shall argue, symptomatic of ideological practice today.

From the perspective suggested by this analysis, it is striking that what is undoubtedly the deepest contemporary Marxist consideration of formalism and its political implications, namely the mathematical ontology of Alain Badiou, contains no clearly identifiable theory of political economy or its critique. This absence has been noted by several commentators, who have also sometimes pointed out another internal question it raises: the question of the relationship of Badiou's militant theory of the event to the central sustaining opposition of Althusser's critical project, namely that between ideology and "science," in the sense of knowledge of what is real.[1] More specifically, since Badiou's mature theory in *Being and Event* effectively disjoins knowledge from truth, identifying the former with the internal inventory of an existing situation's classificatory categories, and conceiving of the possibility of a transformational break with these categories as only ultimately possible through the agency of a subject faithful to an event, it is not clear whether or how such a possibility of transformation is sustained by what can still be understood as an intra-scientific *knowledge* of the situation's real, material, or formal structure. Instead, for the mature Badiou, science becomes just one of four generic "truth procedures", while the ultimate possibility of situational change is referred rather to the subject's intra-situational tracing of a situationally exigent truth. The imaginary reduplication characteristic of ideology is here thus effectively identified with that of received and positive knowledge, while the possibility of break and transformation is referred instead to the subject's agency and the genericity of truths rather than to any specifically critical category of reflection, interrogation, or self-problematization of the actually existing structure.

By contrast with this, Althusser's rigorous effort to characterize ideological production as the imaginary reduplication of agents' real *relationships* to the means of production promises a critical orientation, and theoretical practice, thoroughly rooted in the formal and "scientific" knowledge of the political-economic structure of a situation and its particularly sustaining ideological effects. As we shall see, this orientation comes only, though, at what will seem to

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[1] For the absence of the critique of political economy in Badiou, see, e.g., Bosteels (2009), pp. xxi-xxiii; Žižek (2010), pp. 181-85; Livingston (2012), pp. 300-302. For some of Badiou's own reasons for rejecting the classical Marxist project of the critique of political economy as involving a "fixation by the philosopheme of the political," see Badiou (1985), p. 14 (quoted in Bosteels (2009), p. xxii.
For the question of the fate of the Althusserian science/ideology contrast in Badiou's later work, see Žižek (1999), p. 128; Hallward (2003), pp. 148-51; Fraser (2007), pp. liii-lv; and Bosteels (2011), pp. 64-65.

some to be a significant cost: that of Althusser's increasingly categorical dismissal of any *non-ideological* role for the position or agency of a *subject*. In the context of the sharply maintained ideology/science disjunction, this dismissal leads to his somewhat famous declaration in his 1970 essay "Ideology and Ideological State Apparatus" that "'…all scientific discourse is by definition a subject-less discourse; there is no 'Subject of science' except in an ideology of science…"[2] Indeed, it would not be mistaken to see here the difference, highly relevant to contemporary critical thought and action, between, on the one hand, an interventionist militancy of subjective *praxis,* and on the other, an exemplary development of the internal critical resources of a scientificity wholly without subject or agency. But as I shall argue, what is at issue between the Althusser of the late 1960s and early 1970s and Badiou's mature position can also be understood as the difference between two ways of addressing the question of what ultimately supports the real or ideological production of the *unity, consistency, and totality* of a complex social whole.

On the level of contemporary theory, this difference produces the deadlock between (on the one hand) an objective "scientific" formalism that can appear incapable of bearing the potential of any actual transformation of the political-economic conditions it theorizes, and (on the other) a decisionist appeal to subjective agency that loses contact with any real critical foundation in a knowledge of these real conditions themselves. But it is then notable that, as I shall argue, essential elements for a contemporary resolution of this theoretical deadlock are to be found in the internal formalization of the structure and history of scientific discourse that is proposed by a younger, still "Althusserian" Badiou, in the 1967 article "Mark and Lack." Here, in particular, the intra-scientific formalization of the discontinuously stratified conditions for the production of information provides the essential basis, as I shall argue, for a renewed and structurally grounded theoretical critique of the political-economic conditions of the global situation that is determined by the dominance of information technology today. At the same time, the formalization of the specific potential of this discontinuous productivity to break with its recurrent ideological reprise indicates the possibility, actually inscribed these real structural conditions themselves, of the radical disruption of their ongoing ideological support.

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[2] Althusser (1970), p. 262

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One of the central tasks of the "symptomatic reading" of Marx that Althusser attempts along with his collaborators in *Reading Capital* is to discern the *specific object* that is there constituted as the central object of critique under the name of "political economy". Although the consideration of political economy, of course, pre-exists Marx himself, what is crucial to its functioning in *Capital*'s critique, according to Althusser, is the new conceptuality by which Marx articulates, with respect to it, the complex specificity of *thought* and its process with respect to the *real* involved in it.[3] This distinction between the real and *thought about* the real, along with the distinction it implies between 1) the *knowledge relation between* knowledge and the real and 2) any *really existing* relationship, are for Althusser the most basic methodological determinants of Marx's positional materialism. In particular, this distinction serves to distinguish Marx's methodological orientation essentially from either a speculative idealism which would treat the knowledge-reality relationship essentially as internal to thought, and hence recurrently capable of being determined and recapitulated there, or an empiricism which would locate it entirely within the real, thereby reducing it to the representational or mimetic relationships between knowledge and its empirical object.

Cleaving to this crucial distinction between relations in thought and relations in the real, Marx emphasizes, as Althusser notes, that any *whole* as it is conceived "in the mind as a thought-whole" can indeed be referred *only* to the mind and never, in the manner of speculative idealism, to a position of ultimate and exclusive *effectiveness* in determining the real itself.[4] But this does not preclude the possibility of a complex articulation, in line with Marx's crucial materialist distinction, of the ways in which a totality constituted in thought and one articulated in the real may relate to *one another*, or indeed of the complex and problematic *new* totality in the real that is constituted by and through these complex relations. Indeed when Althusser turns to the detailed analysis of the new critical object of political economy which Marx has

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[3] Althusser (1965), p. 95. "Real" may be taken here as more or less synonymous with "actual," so that a structure's "real," as Althusser here uses the term, refers to the totality of its *actually existing* relations and processes that constitute it– including, crucially, those real processes and relations that are brought about or maintained *by means of* ideological motivations and practices.

[4] Althusser (1965), p. 96.

constructed, it is its ontologically and temporally *complex* whole which is to orient the most significant tasks of critical consideration and reflection. Such a whole of political economy, though determined in each instance by a socially dominant means of production, is further, and irreducibly, structured: not only by those means but also by the *relations* of production *as well as*, equally crucially, the redoubled relations *between* the means and the relations themselves. It is to such a complex and redoubled whole of political economy that Marx refers, in a quotation which Althusser reproduces, the *ultimate reality* of the total social structure or state:

> The specific economic form, in which unpaid surplus-labor is pumped out of direct producers, determines the relationship of rulers and ruled, as it grows directly out of production itself and, in turn reacts upon it as a determining element. Upon this, however, is founded the entire formation (*Gestaltung*) of the economic community which grows out of the production relations themselves, thereby simultaneously its specific political form (*Gestalt*). It is always the direct relationship of the owners of the conditions of production to the direct producers – a relation always naturally corresponding to a definite stage in the development of the methods (*Art und Weise*) of labour and thereby its social productivity – which reveals the innermost secret (*innerste Geheimnis*), the hidden basis (*Grundlage*) of the entire social structure (*Konstruktion*), and with it the political form of the relation of sovereignty and dependence, in short, the corresponding specific form of the State.[5]

As Althusser explains, here Marx replaces the traditional concepts of classical political economy – most importantly, the classical distinction between means, objects, and human "agents" of production – with a more complex relational totality which is irreducibly positional, structural, and irreducible both as a whole and with respect to each of its elements. Here, the relationships between means and agents determinative of the forms of production are no longer simple and unidirectional, but are rather redoubled in a wide variety of differing and specific modes of combination, including (in Althusser's words) those of "property, possession, disposition, enjoyment, community, etc."[6] It is the complexity of this redoubled and irreducible

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[5] *Capital,* vol. III, pp. 770-74, quoted in Althusser (1965), p. 194.
[6] Althusser (1965), p. 195.

structure which Althusser refers to (borrowing a term first used in psychoanalysis) as its "overdetermination" and which is itself seen as determining, as its own condition of possibility for continued existence, the structure of the political state and its distinctive forms of ideology.[7] In particular, it is the material repressive force and the "moral power" of ideology which jointly operate, in all but a truly classless society, both to hold in place and to cloak in obscurity the really determining whole of complex and redoubled relations of production arising ultimately from the determinate modes of production in each case. For this reason, Althusser emphasizes, it is impossible to conceive clearly of the relations of production themselves without *also* bringing into view the ideological and superstructural forms of their structural support, themselves always to be reached only "via the definition of the concept of the totality of the distinct levels of society and their particular type of articulation (i.e. effectivity)."[8]

This thesis of the concrete role of ideology in providing, as a real condition of possibility, the essential support for the maintenance and reproduction of the existing structural relationships of political economy is repeated and consolidated, five years later, in Althusser's unfinished 1969 text, *On the Reproduction of Capitalism*. It is this text from which the shorter essay "Ideology and Ideological State Apparatuses" was drawn, and many readers will be familiar with the account Althusser gives there, of subject identities as essentially produced, in the order of recognition, by means of the function of interpellation, and thereby as both responding to and maintaining ideologically regularizing state functions through the practical effects of their activity. It is this thesis of the twofold mutual constitution of ideology and the subject – such that the "subject is constitutive of all ideology," but only in that, and to the extent that, every ideology functions by "'constituting' concrete subjects" which then can be expected to behave according to it – that yields Althusser's clear and unequivocal statement of the disjunction of subjectivity from the positive and wholly a-subjective field of science.[9] This is his claim that "all scientific discourse is by definition a discourse without a subject," and that there can

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[7] Althusser (1965), pp. 195-96
[8] Althusser (1965), p. 196.
[9] Althusser (1969), p. 188.

accordingly be no "subject of Science" except an ideological one, produced within a corresponding distorted ideological representation of scientific knowledge itself.[10]

What is, perhaps, less familiar today is Althusser's account of the manner in which this ideological constitution and functioning of subjects is essentially tied back to the real conditions of political economy, to which it can be connected by means of a structural account *itself* exhibiting the form of positive knowledge. According to this account, though it is indeed essential to realize that subjectivity and all of its ideological effects are produced in the representational order of the imaginary rather than finding any direct basis in the real, it is equally essential to its functioning that ideology is never *simply* a direct representation, however distorted and falsified, of the *real* conditions of existence and production. Rather, on Althusser's thesis, it functions irreducibly as a distorted and redoubled representation of individuals' *relations* to these conditions, conditions which are *themselves* irreducibly relational with respect to the *real* means of production which provide the ultimately determining structural conditions of their concrete lives. Ideology is thus, according to Althusser, "an imaginary 'representation' of individuals' imaginary relation to their real conditions of existence."[11]

Integrating this with the theory of subject formation, the individual's constitutive (mis-)recognition in the order of ideology which produces it as a subject is therefore, for Althusser, *relational* in an irreducibly twofold way. First, like all "social" relationships, it is determined by the individual's relationship to the means and relations of production characteristic of the political economy at a time. But second, the individual's "recognition" of herself as a subject is determined by the falsified representation *of* those real relationships, and it is this falsified and redoubled representation which serves as the basis for the established and maintenance of the familiar *practices* which then characterize that subject's ordinary mode of functioning in social and ordinary life. It is these practices which, in turn, ensure the continuance and functioning of the various ideological state apparatuses (including the "Scholastic Apparatus," the "Familial Apparatus," the "Religious Apparatus," the "Political Apparatus," and the "Cultural Apparatus,"

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[10] Althusser (1969), p. 188.
[11] Althusser (1969), p. 181.

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among others).[12] Finally, though, it is once more these ordinary modes of practice themselves

which serve, in all but a truly classless society, to replicate, perpetuate, and maintain in

existence the *real* economic relationships, obscuring them and protecting them from critique by

hiding their real structure but also thereby satisfying an essential condition for their continued

existence.[13] It is in this sense that, according to Althusser, "every social formation 'functions on

ideology' in the sense in which one says that a gasoline engine 'runs on gasoline';" through the

ideological redoubling of the real relations of production in the consciousness of subjects, the

actual replication of those real relations is practically ensured in such a way that those relations

can seem to go on "all by themselves."[14]

Althusser's account of the reproduction of an existing structure of political economy – most

urgently in the contemporary situation, the reproduction of capitalism itself – thus faces us

with the paradoxical situation of a structural *whole* of "social" relations which, for its own

maintenance and continued existence, essentially *requires* that its own falsified image be

reflected back into itself at an essential level of its systematic functioning. It is only through this

distorting self-reflection that ideology provides an essential part of the system's *real* support, in

the form of the state and the subjective practices, institutions, and apparatuses that maintain

it, despite its really structuring contradictions and antagonisms, in its continued and apparently

unproblematic existence.

How, though, is this reflexive structurality which serves, according to Althusser, both as the

essential condition for the maintenance of existing economic relations and also – in the mode

of its exposure and the disruption that follows – as the condition for their radical change, itself

to be *known* by means of a critical conceptualization of *it* as a whole? As Althusser emphasizes,

given the essential structural support provided by the redoubling of the system of economic

relations in the internal form of ideology, any attempt to grasp the total system of relations

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[12] Althusser (1969), p. 75.

[13] Althusser (1969), p. 201.

[14] Althusser (1969), pp. 200-201. I believe it would be possible, and relevant, to insert here a consideration of the question of the effectivity of the *rule*, understood as what is involved in a subject or agent's "knowing how to go on," and specified relative to the (constitutively mis-recognized) structure of what is taken as a subject's "private" interiority, as both are critically treated by the late Wittgenstein of the *Philosophical Investigations*. I do not develop that connection in detail here; but see Livingston (2012), pp. 172-76, for some related considerations about the possibility of a contemporary Wittgensteinian critique of ideology.

simply by reducing them to the "real" or "concrete" underlying conditions and relationships, *prior to* or *independently of* their reflexive ideological redoubling, will fail to grasp what is in fact an *essential* and necessary structural precondition for the functioning of the system itself. On the other hand, an idealized account of the systematic whole in terms of its smooth, organic and *consistent* functioning will fall into the opposite error, that of itself replicating the form of its falsified ideological support in the course of the attempt to describe it. Indeed, here the challenge of finding a *scientific* way to think the paradoxical whole, given the necessity of the ideological redoubling to its structurality, essentially recapitulates the problem already posed by Marx's materialist insistence on the distinction between thought and the real itself: that the relationship of knowledge to its object cannot be theorized either as simply a relationship in thought *or* as a relationship in the real. Here, this problem becomes that of capturing the redoubled relationship, *internal* to the complex and overdetermined social totality itself, between its "real" structural determinants and the equally determinative "thought" relations of ideology. This relationship, moreover, cannot itself be understood simply as one wholly *within* thought, for such a conception would simply replicate the ideological determination of the whole rather than challenge it. But neither can it be understood as one simply within the real; for then the "thought" relations of ideology can themselves only appear as inessential to the determination of processes and identities themselves, and their *real* and material role in supporting the actually existing structure is thereby missed.

Since either of these options will fail – the first by falling into a speculative idealism which attempts directly to *produce* the problematic whole entirely by means of thought, and the second by falling into an empiricism that fails to grasp the specific causality of the ideological redoubling in the maintenance of the existing structure – what is apparently needed is the more radical alternative of a *formalization* of the *real structure* of just this structural causality itself.

Returning to *Reading Capital*, this alternative is to be found, according to Althusser, not in the elaboration of knowledge relationships or in the development of speculative thought, but rather in the *construction of a new concept*: a proper concept, that is, of political economy capable of capturing the structural determination of a totality by partial means of its own

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internally reflected and falsified image. As Althusser emphasizes, the development of this concept will involve breaking at a fundamental epistemological level with the whole traditional problematic of subject and object, and with all of the forms of dyadic relationality it proposes, whether in empiricist or idealist modes.[15] The development of this new proper concept will thus involve a radical *break* with existing epistemological procedures and forms of rationalization; but this does not mean, Althusser emphasizes, that it is in this respect "unscientific." Rather, the moment of the break, whereby an existing epistemology or conceptuality is radically and discontinuously transformed by means of the formally motivated invention of a new concept, is characteristic of *all* positively constituted sciences, at least at the moment of the historical origin of their self-sufficiency:

> If, *formally,* the task which Marx has allotted to us in forcing us to produce the concept
> of the economic in order to be able to constitute a theory of political economy, in
> obliging us to define *by its concept* the domain, limits and conditions of validity of a
> mathematization of that object, if it does break with all the empiricist-idealist traditions
> of Western critical philosophy, then it is in no sense in rupture with effective scientific
> practice. On the contrary, Marx's requirements restate in a new domain the
> requirements which have long been imposed on the practices of those sciences which
> have achieved autonomy.[16]

It is in such a formally motivated break at the basic moment of the constitution of a positive theory, Althusser goes on to suggest, that there is produced in philosophy a kind of 'reprise' of a "basic scientific discovery;" as science discovers a fundamentally new kind of object, and philosophy comprehends the possibility of a new kind of theory which is thereby opened up, what comes into view is nothing less than "the production by philosophy of a *new form of rationality.*"[17] The history of these discontinuous moments is nothing other than the history of the "great breaks in the History of the Theoretical," whereby philosophy, reflecting the necessary alteration in theoretical conditions produced by the positive scientific discovery of a

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[15] Althusser (1965), p. 204.
[16] Althusser (1965), p. 204.
[17] Althusser (1965), p. 205.

new kind of object, provides a kind of historically decisive articulation or "punctuation" in this history itself.[18]

In the case at hand – that of the creation of a new concept of Political Economy through Marx's discovery of its scientific and critical object – what is at issue is, as we have seen, specifically the conceptuality needed to think this object in its own particular structurality: that is, the necessity to think the determination of its parts and elements *by means of* the *total* structure which these elements themselves comprise, *including* the paradoxical instance or moment of the constitutive internal reflection of this structure itself in its falsified, "ideological" form. Althusser suggests that this thinking necessarily takes place at the level of a mathematizing *formalization* capable of yielding a conceptualization of the "domain, limits, and conditions of validity" of the field of political economy as such.[19] The theoretical specificity of this concept of an articulated structure in its constitutive limits and reflexive dynamics is not to be found in any synthetic or fusional representation of its individual elements; nor is it, Althusser emphasizes, to be found in the (actually ideological) Hegelian conception of an organic or "spiritual" totality in which every part is harmoniously expressive of the whole. Rather, the conceptual problem is precisely to find a new concept of the determination of the constitutive *elements* and *relations* of a structure by means of the "effectivity" of that structure itself: a new concept, that is, of the "structural causality" by means of which the total structure is effectively reflected *into* its elements and relations and thereby determines their functioning.[20]

This "metonymic" or "structural" causality by which both the reality and the relations of the elements of the structure are determined, both in their static functioning and in their possible transformation, by means of that total structure itself, does not lend itself to straightforward or direct representation. But as we have seen, it appears requisite to thinking the essentially structurally supporting role of ideology in ensuring the reproduction of the existing means and relations of production. In particular, such a concept – which formulates the causal action of the whole on the part – appears necessary to illuminate how the *ideological* image of the

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[18] Althusser (1965), p. 205.

[19] Althusser (1965), p. 204; for more on the indispensable role of formalization in developing what Althusser calls a "knowledge effect," see pp. 66-68.

[20] Althusser (1965), pp. 205-206.

whole, which functions directly in the motivation of "ordinary" practices and subjective action, is able to support the whole *actual* political-economic structure in its continuation and reproduction. If, then, it is to be possible critically to theorize the essential structural and meta-structural relationships that constitutively link political economy, ideology, and the state, this thinking will necessarily proceed by means of a reflexive formalization of structure of the kind we have considered. It is to be sought specifically, Althusser suggests, in a further development of Marx's elliptic concept of *Darstellung*, the concept Marx used to represent the "general illumination" or the "ether" of a political-economic situation determined by a particular mode and set of relations of production; or (as Althusser understands it), the particular mode of *presence* of a structure in its *effects*, and therefore the summative concept in which Marx actually thinks the effectivity of structure as such.[21]

Althusser thus proposes, as requisite to an adequate theoretical conceptualization of political economy, the unavoidability of a reflexive formalization of the effectivity of structure. Admittedly, Althusser does not actually *give* such a formalism; and it is also not immediately evident, for all he says in general terms about the structural conditions for the reproduction of existent means and relations of production, how such a formalism might be applied to theorize the ideological support of the *specific* modes and relations of production that characterize global capitalism today. Without diminishing the theoretical difficulties here, however, it is useful, as I shall argue, to compare Althusser's formalizing suggestion with the project of a more recent prominent attempt to draw on formalization in thinking the dynamics of structure and ideology which reaches quite different conclusions, that of Alain Badiou in *Being and Event.*

II

As we have seen, Althusser's account of the functioning of political economy and its constitutive relationship to ideology depends crucially on the concept (still to be constructed) of the causality of a *total articulated structure*: a structure, that is, conceived as all-inclusive with respect to the sources and relations of production, commerce, consumption, and subjective

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[21] Althusser (1965), p. 208.

practice, and *thereby* articulated essentially in terms of just that totality. Indeed, it is, on Althusser's suggestion, impossible to understand or criticize the specific functioning of ideology within such a structure without conceiving of the constitutive way that ideology redoubles this totality of relations within itself, actively producing on the level of subjective consciousness the falsified image of societal functioning without fundamental antagonism and contradiction. From its programmatic beginning, Badiou's project of set-theoretical ontology announces what may be seen with some justification as a quite differently determined orientation with respect to the question of totality: the inaugural and "axiomatic" decision of the "non-being of the one."[22] With this decision, Badiou proposes to "break with the arcana of the one and the multiple in which philosophy is born and buried" since Parmendes, and in particular to break with the Eleatic assumption of a consistent ontological "one-all," or *totality* of all that exists.[23] Instead, for Badiou, being in itself is rather to be seen as "pure inconsistent multiplicity" without any possible total or exhaustion. But this does not mean that there is not, for Badiou, "something of" oneness in being. Indeed, rather than simply existing as a substantial or prior mode of being, unity is to be conceived as the operational result of a *presentation* which gathers a diversity of elements into a *consistent* whole. This operational conception of unity as presentational consistency ensures as well that the *inconsistent* multiplicity that, for Badiou, generally characterizes *what is* in itself – that, in other words, which cannot be gathered into the unity of a consistent count-as-one – also remains forever unpresentable. There is no possible direct access to the being-in-itself of such inconsistent multiplicity. Nevertheless, Badiou suggests, a kind of modified and limited access to it remains available, through reflection on the set-theoretical axioms which themselves constitutively exclude such a presentation on the ground of the threat of contradiction it would present.

This theory of presentational consistency then forms the axiomatic basis, as well, of Badiou's account of *representation*, or of what is for him the redoubled "count of the count" of the initially presented structure, and of the correlative and necessary existence of what he terms the "state." Badiou defines the "state" of a situation, in general terms, as the set containing all

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[22] Badiou (1988), p. 31.
[23] Badiou (1988), p. 23.

the subsets of the initially presented situation, or the set containing as *elements* – hence as presented multiples -- all the possible *combinations* of the initial, situationally presented multiples.[24] With respect to "historico-social" situations, it follows that the State is the "necessary metastructure" of any such situation. This State is, in other terms, the "law that guarantees that there is Oneness – not in the immediacy of society – this is always provided for by a non-state structure – but amongst the set of its subsets."[25] As Badiou hastens to point out, this has the further set-theoretic consequence that the State cannot present any multiple that is not itself composed wholly of elements already presented in the initial situation; in this respect, "the State is historically linked to society in the very movement of presentation."[26] On the other hand, because of the excessiveness of its necessary and structurally inscribed function of re-grouping, the State necessarily operates at some distance from the original structure of the (mere) consistency of presentation, what Badiou also terms the "immediate social bond."[27]

It is in this distance between the "immediate" bond of the initially presented situation and the State representation, according to Badiou, that the socio-historical State operates both in its "coercive" functioning to ensure that individuals are treated only under the representational form of their state-structured regrouping and in its "management" function of re-organizing of the existing situation by means of rules, labels and administrative norms. At the same time, this necessary reduplicative function of the State means that it cannot allow to be presented anything that is not composed wholly of multiples presented in the initial situation: anything, that is, that has the situational significance of (what Badiou terms) the "void." Indeed, Badiou considers the meta-structural function of the state as essentially that of *prohibiting* the possible presentation of such a void, which (in the general presentational case) would amount to the presentation of inconsistency itself and hence to the "ruin" of its "One."[28] It is in this respect that, according to Badiou, "the State is not founded upon the social bond, which it would

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[24] Badiou (1988), pp. 96-97.
[25] Badiou (1988), p. 105.
[26] Badiou (1988), p. 106.
[27] Badiou (1988), p. 107.
[28] Badiou (1988), pp. 93-94.

express, but rather upon un-binding, which it prohibits."[29] Specifically, the "state" redoubling

performs the essential function of verifying the *completeness* of the initial count, but also (and

by the same token) ensures the *consistency* of presentation by guaranteeing the *non-*

presentation of the void of the situation, what would otherwise pose the "disaster" of the

presentation of the inconsistent multiplicity of being-qua-being that ontologically surrounds,

but always escapes from, presentational unity.[30]

If the State thus operates essentially to re-secure unity in the representational re-count, then it

is, on Badiou's account, the singular significance of what he terms the Event and its subjective

operator of fidelity to be capable of presenting a situationally characteristic but transformative

multiple that essentially escapes this re-securing guarantee. In particular, because of its

specifically reflexive structure of self-membership (actually "illegal" within ZF set theory due to

the two Axioms of Foundation and Separation), the event is able to include an element which is

actually and essentially void for the State. Such an element provides the possibility of an actual

presentation of what, though actually immanent in the situation, cannot be presented by

means of the state function of representation. With this "illegal" nomination of the event, the

"state law is interrupted" since the "name of the void" that is thus presented is essentially

indiscernible, and thus invisible, from the perspective of its re-count. It is then the subject's

faithful procedure, in connection with this name, that traces out throughout a situation the

consequences of the event's having occurred by laboriously forging, from within the presented

multiples, a presentation of what can never be re-counted by the state of the situation and thus

poses the possibility, in being thus presented, of a fundamental structural transformation.

Because of its generic character, which requires that it be "subtracted" from any of the already

designated names or "encyclopedic determinants" of the situation through which its knowledge

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[29] Badiou (1988), p. 109.

[30] Badiou (1988), p. 94. It is not clear to me what (if anything) licenses this general identification of the situational void with inconsistency, however. In particular, since neither the empty set nor any of the multiples which Badiou terms "void" elements with respect to a given situation is in itself logically inconsistent, it appears that a different sense of "inconsistency" is in play here (perhaps one more closely connected to the determinate set-theoretical idea of *presentational* consistency – or capacity to "form a one" – that is embodied in the standard ZFC axioms.) However, it is not evident why we should generally think of sets whose existence is not required by the axioms as actually inconsistent (in the logical sense) or why the empty set and other "situationally void" sets – though it is clear that, as Badiou says, they *cannot* be presented by the State – as threatening actual presentational *inconsistency* if they *were* (*per impossibile*) to be presented.

ordinarily operates, the generic multiple also presents as a unity what can never be discerned by means of the situation's existing terms of description and positive knowledge. In this respect, the event's "truth" is both fundamentally disjoined from existing knowledge and indeed fundamentally threatening to its classificatory order. It is in this way that, presentatively forcing the indiscernible at the point of a situational truth, the subject's fidelity intervenes on the structure of the existing situation, leading to the possibility of its basic transformation.

If we now consider Badiou's theory as a whole with respect to the fundamental issues of structural unity, the bases of regulative situational functioning, and the structural role of ideology in relation to these, it is clear that the overall picture differs from Althusser's on a number of decisive points. First, if ideology is to be identified with "state"-representation (Badiou does not say this explicitly, but it is at least strongly suggested by what he does say about the state and its encyclopedic determination), then it does not operate primarily *internal* to the original situational structure – as, we have seen, it does *essentially* for Althusser – but rather only at the secondary level of its representational reduplication and in the "re-securing" of its original count-as-one. Second, and correlatively, this original "count-as-one" of the initial situation is here assumed already to possess an essential presentational *consistency*, since it is only by being presented as a "consistent" one that any multiple, according to Badiou, can be presented as *being* at all. There is thus no room for the possibility of a theorization of this situation itself, *including* its reduplicative ideological elements, as basically structurally *in*consistent, or as bearing the structure of an essentially antagonistic and inconsistent *totality* that Althusser understands as the "overdetermination" of all really existing social formations. Third, and as a consequence of both of these, in identifying the state representation of the situation's existing encyclopedic determinants as the totality of its existing knowledge, thereby disjoining it from the situational "truth" of the event (which is instead constitutively indiscernible within the situation), Badiou effectively precludes any subjective or agentive *knowledge* of the situation's structure that would itself be capable of operating *critically* with respect to it. Indeed, for Badiou explicitly, "it is absolutely necessary to abandon any definition of the [evental] subject which supposes that it knows the truth, or that it is adjusted to the

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truth."[31] The result is that, whereas, on the one hand, the structural knowledge which presents, in the register of philosophy's interpretation of mathematical results (preeminently the technique of forcing developed by Cohen), the omnipresent possibility of the structural transformation of existing situations is disjoined from any particular intra-situational subject's own fidelity to a truth, on the other this fidelity no longer operates, or can operate, for that subject as anything like a genuinely *critical* practice with respect to the large-scale determinants and limits of the situation itself.

All of this may indeed be requisite, as Badiou argues, to the development in our time of a genuinely *effective* doctrine of the subject: a doctrine, that is, capable of recapitulating today the classical theme of the subject/agent of a historical process of transformative change irreducible to any incremental modification or planned instrumentality. Be that as it may, what is to be noted in the current context is just its debilitating consequence for the equally classical theme of a situational transformation grounded in a knowing theoretical practice of critique. Moreover, as we already have reason to suspect through the example of Althusser's positive conceptualization of the exigent critical demand of Marx's new construction of the object of Political Economy, it is by no means clear that a formalization of the categories of situational consistency, totality, and the representative redoubling of situational structure in ideology cannot function as the foundation for just such a critical practice. And in this connection, it is striking that a suggestive and far-reaching critical formalization of the phenomena of structural consistency, completeness, and their necessary redoubling in the form of ideology – one bearing decisive consequences, as I shall argue, for a critical thinking of the "global" structure capitalism today through its radical formalization of that structure's "dominant instance" of information technology – is indeed given, in 1967, by none other than the young Badiou himself.

III

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[31] Badiou (1988), p. 396.

Badiou's 1967 "Mark and Lack," written at a time when the young author's theoretical efforts were still wholly determined, according to a later description, by "Althusserian" commitments, polemically targets Jacques-Alain Miller's effort, in the earlier article "Suture," to develop a general "logic of the signifier" by way of what he described as the essential relationship of a "subject" to the chain of its discourse.[32] Following certain suggestions of Lacan, Miller had argued that the place of this relationship, at which the subject is "sutured," -- or linked in the form of determinate exclusion -- to scientific discourse, can nevertheless be identified therein by the appearance of a certain lack, definitive in the construction and mobilization of the signifying chain itself. Analyzing Frege's construction of number in *The Foundations of Arithmetic,* Miller focuses on the moment of Frege's construction of the number '0' through the invocation of the predicate of non-self-identity: according to Frege, the 0 can be defined as the number of the concept "not identical to itself." For Miller, this invocation of non-self-identity at the point of the inauguration of the serial chain of numbers, which then sustains its infinite continuation, can itself be seen as "the most elementary articulation of the subject's relation to the signifying chain."[33] In particular, according to Miller, in Frege's determining construction, logic summons the "impossible object" that is the non-self-identical and, in the same gesture, decisively rejects it in order to constitute itself as what it is; this object is, Miller suggests, nothing other than the "subject" and this determinate mode of its "sutured" (non-)presence then subsequently marks the trace, within the serial discourse that thereafter unfolds, of the subject's relationship to truth, albeit only in the form of the constitutive lack that henceforth orders the signifying system itself and as a whole.

To this account of the structurally inaugural gesture of the "preservation of the True" in the scientific field by means of the "convocation and marking of lack," Badiou contrasts the diametrically opposed thesis of a "stratification of the scientific signifier" whereby the totality of signification in its productive functioning is wholly *without* lack, *automatic* in its "mechanical" production of the new, and wholly and definitively without a subject, the

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[32] Miller (1966), p. 92. For Badiou's description of his own trajectory from his early "Althusserian" commitments in "Mark and Lack" to the later view that "every philosophy that eliminates the category of the subject becomes unable to serve a political process," see Badiou and Tho (2007), pp. 87-88.
[33] Miller (1966), p. 99.

production or attempted inscription (even in the form of absence, foreclosure, and substitution) can then only be seen as a wholly ideological function.[34] From this perspective, the project of a logic of the Signifier of the type that Miller (and indeed, Badiou suggests, also Lacan) have proposed in order to articulate the "scientific" place of the subject itself appears rather as an ideological one, the representation of a representation in fact and essentially exterior to scientific practice:

> In our view, *both* Frege's ideological representation of his own enterprise *and* the recapture of this representation in the lexicon of Signifier, lack, and the place-of-lack, mask the pure productive essence, the positional process through which logic, as machine, lacks nothing it does not produce elsewhere.
>
> The logic of the Signifier is a metaphysics: a representation of representation, an intra-ideological process and progression.[35]

To this, Badiou opposes the concept of a "mechanism of production" internal to scientific signification as such and capable also, through its pure productivity and the progressive stratification this produces, of supporting an "epistemology of logic" in its historical development that owes nothing to the constitutive category of the subject or what he sees as the ideology of its foreclosed mark. Here, all that is necessary, as Badiou argues, is to examine the actual *effectivity* of a logical mechanism: how it produces the articulations or distinctions that it is capable of. But to gain a closer understanding of this effectivity, it is sufficient to consider the internal implications of two of the decisive metalogical or metaformal results that, whatever their possible ideological misreadings or displacements, certainly belong in themselves to formal scientificity: namely, Gödel's celebrated incompleteness theorems. These results are in particular indicative in that they stage the question of the effectivity of articulation itself, wholly internal to the scientific field in which they intervene.

On a familiar reading, the proof of Gödel's first theorem consists in the production, in a particular formal system assumed to be consistent, of a sentence which "says" of "itself" that it

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[34] Badiou (1967), p. 159.
[35] Badiou (1969), p. 160.

cannot be "proven;" the sentence is then said to be unprovable – since a proof would be a proof of its unprovability and would lead to a contradiction – and thus "true" (though unprovable). This is said as well to bear general witness to the possibility of inscribing such a sentence in any (sufficiently strong and consistent) formal system, and thus to the incompleteness of all such systems insofar as there are always truths beyond their capacity to demonstrate.

Without disputing the theorem itself, Badiou proposes to reconsider both its production and its sense from a position that challenges all of the significant terms of this familiar reading, since none of the values of "truth," "proof," semantic meaning, self-reference, or even consistency and completeness as properties of formal systems can simply be presupposed from a position that does not already interpose ideological signifiers into the scientific field. What is to be treated at the outset, according to Badiou, is rather simply the *mechanisms* of the production of formulas, and the internally demonstrated dynamics of the *effectivity* of their production; here, moreover, effective production is understood as nothing other than the production, within a totality of significations seen as produced, of an effective *division* of them, or a cut.

Badiou articulates the various purely syntactical systems involved in Gödel's result and notes their stratified relationships of succession, each considered purely in term of its formal operation of producing signs or sign combinations, and each following from the last as a consequence of the effectiveness of the particular cut it operates. First, any logical syntax whatsoever involves a mechanism of *concatenation*: a vocabulary of marks, each separate and integral, must be presupposed, and they must be able to be concatenated into linear sequences of variable length.[36] Second, proceeding from this and subsequent to it, there must be a mechanism for *formation*, or for the distinction of the "well-formed" from the "non-well-formed" sequences. [37] This mechanism essentially operates a cut or distinction, among the total field of mere concatenations, between those that will be treated as "formulas" and those that will be rejected from any possible further articulation. It is in fact, as Badiou notes, absolutely essential for what is to come that this second mechanism be both complete and effective: it

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[36] Badiou (1967), p. 161.
[37] Badiou (1967), p. 161.

must always be possible to decide of a given string whether it is, or is not, a well-formed formula, and every string must be one or the other: "Only on the condition of a perfect syntax can we summon derivation's aporiae."[38]

Finally, the third system or mechanism, which again presupposes the total output and effectiveness of the second, is the one intuitively designated as that of "derivation," corresponding to the dynamics of what is treated as "proof" in the standard -- ideologically colored -- descriptions of Gödel's theorem (as well as in the description above). As Badiou emphasizes, it is essential to this mechanism, however, that its operation can be described *wholly* in syntactical terms, without any reference to the "semantic" categories of truth and proof. In particular, the third mechanism is again the operator of a perfect dichotomy or cut, within the field of well-formed sentences. This time, the classes that are to be distinguished are those "derivable" from the axioms and those that are not: we can call these classes T (intuitively, for "theorem") and NT (intuitively, for "non-theorem"). Further, the separation should be so effected that a certain functional relationship obtains between these separated halves: in particular, it should be the case that there is an operator (its usual symbol is ~, and its usual name is "negation," but neither of these is essential, as Badiou emphasizes) such that, if any sentence, A, falls in T, then ~T falls in NT, and vice-versa. But then the content of Gödel's theorem can be stated exactly as the result that there can be *no* such effective cut: no cut, that is, that both partitions the field exhaustively, *and* does so in a way corresponding to the reversibility of negation.[39] Or equivalently: given any such cut between T and NT, there will be *some* sentence G such that *both* G and ~G fall within NT – both, that is (returning to the more intuitive, but ideologically loaded, language of proof), being among the class of sentences that *cannot* be demonstrated by means of the system's deductive operation.

The sole content of Gödel's first theorem is then that – for a system of a certain degree of strength – there *cannot* be a total partition of the well-formed formulas that *also* obeys the constraint expressed in the dynamics of negation: namely that pairs of the form A, ~A should *always* be separated by it. Given that there will always be pairs that cannot be thus separated,

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[38] Badiou (1967), p. 162.
[39] Badiou (1967), p. 164.

we can hope only to exclude them from T; this condition is that of the consistency of the system (since if both A and ~A appeared within T, the system would produce a contradiction as a theorem). But then we cannot hope *also* to exclude them from NT, the class of non-theorems. The result is the *purely syntactic* location, within the system, of the "limitation" that, on the ideological readings, demonstrates its incapacity with respect to the complete demonstration of truth. But the analysis in terms of the pure mechanism of symbolic production has meanwhile revealed the inscription of this limitation, rather than needing any essential reference to an external semantic value or correlate, is itself nothing other than the production of this pure mechanism, in paradoxical torsion with itself:

> The key to the limitation [limitation] follows paradoxically from the fact that the separating mechanism is forced *not to be* perfect, and thus forced to preserve the concept of a reversible *relation* between the two halves. As a result, this limitation, far from attesting that the space produced by the division bears the trace of the tear that caused it, shows rather that one cannot indefinitely produce the sign of the latter within it; that in certain places the race is effaced; that a strong mechanism necessitates a complete division in rejection it effects, in each of its parts, of certain marks of the old Whole [Tout].

> The undecidable is not the saturation of lack but the *foreclosure of what is lacking* through the failure to produce, within what is derivable, the whole of the non-derivable as negated.

> The limitation means: that there exists at some point, between the parts T and NT, a *distance without concept:* one that delineates, in the space of non-theses, a statement whose negation cannot be inscribed within the space of theses, and which is therefore unrelated to this space. Gödel's theorem is not the site of separation's failure, but of its greatest efficacy.[40]

If Gödel's results do then, as Badiou suggests, exhibit the pure productivity of science as a sequential stratification of the signifier whereby "no lack is marked in it that does not refer to

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[40] Badiou (1967), p. 164.

another mark in a subjacent order differentiated from the first," then it is essential to its functioning that (quite to the contrary of Miller's thesis), it never as such presupposes the reference to the pure externality of a subject, or even tolerates the support that such a figure would propose (even one marked in the privative categories of denegation, suture, and lack).[41] Rather, if the scientific signifier is sutured, it is sutured "only to itself." Wholly capable of marking its own lacks without departing from itself, it organizes even the constitutive gaps, lacks, and breaks of its own field wholly by means of its own productive procedures.

Badiou draws in unequivocal terms the moral of this for the question of the structural relationships of science, ideology and the subject, anticipating here (though in even stronger terms and by way of a more specific demonstrative argument) Althusser's statement from four years later of the non-existence of a subject of science. The argument results from Badiou's recognition *in* the scientific field of the point in which the positive instance of knowledge at the basis of the "epistemological break" operates precisely as a break with existing signification and thus with any possible formulation of its logic, while nevertheless remaining within its own proper field of science itself:

> Science does not fall under the concept of the logic of the signifier. In truth, it is the fact that it does not fall under this logic that constitutes it: the epistemological break must be thought under the un-representable auspices of de-suturation.
>
> Accordingly, *there is no subject of science*. Infinitely stratified, regulating its passages, science is pure space [l'espace pure], without inverse or mark or place of that which it excludes.
>
> Foreclosure, but of nothing, science may be called the psychosis of no subject, and hence of all: universal by right, shared delirium, one has only to maintain oneself within it in order to be no-one, anonymously dispersed in the hierarchy of orders.
>
> Science is the Outside without a blind-spot.

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[41] Badiou (1967), p. 171.

Conversely, the signifying structure defined by suturation can be designated in its

particularity (as that which places lack) primarily as non-science. Thus the concept of

suture is not a concept of the signifier in general, but rather the characteristic property

of the signifying order wherein the subject comes to be barred – namely, *ideology*.[42]

If there is thus never a subject of science, nevertheless there is always, Badiou suggests, a

subject of ideology; for it is by the very *structure* of the mark proposed for such a subject – that

is, the mark of a constitutive barring, absence, external presence, foreclosure or lack – that we

can recognize ideological discourse as such. From this perspective, philosophy is itself an

"ideological" discourse: indeed, Badiou suggests, the one that specializes in the treatment of

science itself. In particular, philosophy is recurrently charged with *effacing* the radicality of the

scientific epistemological break, and the stratification to which it leads within its own order, by

means of its own presentation of a logic of the signifier conceived as total. Thus, "philosophy is

compelled to mark, within its own order, the scientific signifier as a *total* space," presenting the

scientific signifier as only in fact a "regional paradigm" of the signifier-in-itself.[43] But this effort

will always again fail, as science recurrently produces the conditions of its own break with any

such ideological enclosure, forever resisting the "schemes of closure that philosophy has sought

to impose upon [mathematical inscription] for the sake of its own salvation."[44]

But if philosophy as ideology thus can never complete itself except through the falsifying detour

of the ideological imposition of a signifying totality which is always again subsequently

disrupted by the positive productivity of scientific knowledge itself, it nevertheless does not

follow that philosophy does not have an important and indeed essential *critical* function

relative to that very production. Indeed, Badiou goes on to sketch such an integral function,

whereby philosophy itself can be understood as recurrently posing, precisely through its "false"

imposition of the ideology of the signifying whole, the essential critical impetus for the failed

recapture which again and again drives scientific discourse to produce itself. In particular, since

science at any historical moment in its development has, as a matter of principle, *only*

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[42] Badiou (1967), pp. 171-72.
[43] Badiou (1967), p. 173.
[44] Badiou (1967), p. 175.

'ideology' to work on as its raw material, it is indeed recurrently the case that an ideological *representation* of science proves essential to the advent of a "crisis." It is in, and by, such a crisis that the total order of the scientific signifier is then disrupted, only to be reconfigured at another level and according to a new conceptuality; and this recurrent movement is nothing other than the epistemological "break" itself.

Indeed, here Badiou presents Gödel's theorem itself as resulting from just such a crisis, in particular the crisis of the ideological conception of a formal system as embodying the ideal of a trans-mathematical norm of rational closure. This conception is explicit in Hilbert's project of the construction of formal systems, which, precisely by proposing to mathematics the question of the possibility of its own formal closure, allowed for the direct formulation of the question to which Gödel's second incompleteness theorem (derived almost immediately from the first) directly responds in the negative: that of the possibility of an *internal* demonstration of consistency. Here, in the historical production of the break that Gödel's theorem represents, the ideological proposal of closure is just as essential as the formalism that demonstrates its impossibility; or rather, the latter is in fact directly and essentially conditioned by the former as the material on which it operates, and as the false image of the consistency of the whole that it recurrently disrupts.

Such "material" of ideology is recurrently provided, Badiou suggests, not only by the existing state of scientific discourse but also, and equally, by the mass of leveled signifiers and lawfully circulating concepts of ordinary discourse, which are accordingly equally essential to the kind of transformation that scientific knowledge then presents. Badiou notes here, in particular, that the core of Gödel's demonstration is none other than the ancient paradox of the Liar, whose essential disposition is already provided – though it would take two thousand years for its form to be noted and put to philosophical use in the formalisms of Russell, Tarski and Gödel himself – within the inherent, even if inherently "ideological," structure of the ordinary notion of truth as it figures in everyday language and practice. From this perspective, Gödel's theorem is indeed intelligible as nothing other than a "kind of *reprise*, within the system's architectonic transparency, of certain ambiguities produced in language by the (ideological) concept of Truth." At the point of the attempt to capture that concept under that of the (mechanically)

derivable, Gödel's theorem produces a theoretically decisive kind of "snare at the ungraspable juncture between science and its outside."[45] The scientific knowledge of formalism, recurrently presenting just such a snare, thus works its transformative effects in its ongoing critical dialectic with the ideology that, whatever its spontaneous sources, always again attempts to recapture it in the image of a consistent whole, and is always again disrupted by its formally indicated failure in this attempt.

IV

As we have seen, then, for the early Badiou of "Mark and Lack" a scientific knowledge of the real, grounded in an indicative formalism of limits, retains the specificity of Althusser's categorical distinction of it from ideology, and in so doing stands as the actual positive basis for the latter's ongoing and necessary critique, up to and including the real production of its situationally and historically transformative break. This is in marked contrast with the later Badiou of *Being and Event*, for whom, as we have seen, "knowledge" as actually constituted works primarily within the ideological redoubling already imposed by the State, and the possibility of radical situational change is instead referred to an evental subject with no specific relation to knowledge at all. As a result, the possibility of situational change is no longer grounded in anything recognizable as a *critique* of ideology or of the underlying structure of the existing situation or its statist-ideological redoubling, being referred rather to the aleatory intervention of the event and the subject's faithful agency in tracing its situational consequences. At the same time, for the later Badiou, the consequences of formalism at its specific limits – the consequences, that is, of the metalogical or metamathematical results, like Gödel's theorems as well as Cohen's technique of forcing, which interrogate the limits of linguistic designation and the extent of infinite procedures -- are no longer directly referred to the actual mechanisms of production and reproduction characteristic of the existing situation with its internal ideological recapture, since they are understood rather as primarily governing the situational possibilities of naming and of the discernibility of groups. From an Althusserian

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[45] Badiou (1967), p. 176.

perspective, it is apparently for this reason that the formalism of Badiou's later system (whatever its other merits) does not, and cannot, sustain anything like a critique of political economy, lacking, as it does, both the specificity of a position of *knowledge* from which to orient such a critique and the specific *critical object* of political economy which is thereby interrogated.[46] However, as I shall briefly argue in this final section, Badiou's own picture in "Mark and Lack", when suitably integrated with Althusser's own critical conception and "updated" by means of a consideration of the specificity of the political-economic reality and correlative ideology of global capitalism today, can provide rigorous and far-reaching terms for the actual critique of this contemporary global configuration. This is even the case in an eminent sense with respect to the specific implications of the very metamathematical results on which Badiou focusses in "Mark and Lack," namely Gödel's incompleteness theorems, insofar as they bear in themselves directly on the possibilities, limits, and structural aporias of algorithmic computation. The key to these critical consequences is just the recognition of a contemporary global "situation" whose *dominant* mode of economic production, and thus whose *characteristic* type of relationality, is that which is today reflected (doubtless, again, in irreducibly ideological form) as that of the production, exchange, control and economization of "information."

In particular, it is sufficient to add to Althusser's picture just the recognition that *not only the dominant contemporary means of production, but also the characteristic modes of relationship they engender and the ideological image in which they again appear, can today be characterized in terms of the production of information.*   As such, *these are subject to the*

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[46] Of course, I cannot detail here the variety of arguments and shifts of position which would lead Badiou from the early "Althusserian" position of "Mark and Lack" to the project of *Being and Event*. Any full account of this transition would have to take central account, of course, of Badiou's development in *Theory of the Subject* of a complex defense of the necessity of a formalization of subjective agency and the proper kind of consistency it forges, over against what he sees there as the essential failure of "linguistic" structuralism in its Althusserian or Lacanian modalities, as well as his earlier direct engagements with Althusser himself, most notably perhaps his 1967 review of Althusser's *For Marx* and *Reading Capital*, "The (re)commencement of Dialectical Materialism." Here Badiou celebrates Althusser's criticism of the deviations of contemporary Marxism (pp. 141-46), notes carefully the consequences of Althusser's science/ideology distinction (including that "science is the science of ideology" and that, conversely, "ideology is always the ideology for a science" (pp. 148-49), traces Althusser's (somewhat nascent) concept of structural causality, and concludes, somewhat cautiously but portentously, by raising the problem of the relationship of historical materialism to a purely formal development of dialectical materialism, already thought (though only in outline) in terms of set theory (pp. 163-170).

constraints shown in the metalogic (or metaformalism) of information technology, whereby
they are laid open to a scientific knowledge of their actual determination in the real; and this is,
finally, precisely the *knowledge* that is yielded by the metalogical inquiry which produces
Gödel's theorems themselves, along with a number of closely related formal results about
completeness, consistency, and the limits of computation.

Although I will not argue in detail here for this thesis of the contemporary dominance of
information technology, both on the level of the real means and relations of production and on
that of their redoubled ideological image, its critical utility is probably self-evident in the
context of a contemporary regime of *global* capitalism that, in recurrently moving to totalize
itself by creating new markets and forms of monetization over the last several decades, has
consolidated its grip over planetary forms of life largely by means of its intensification of
technologies of computation and of the production and handling of information. At any rate, I
will simply try to suggest a few possible consequences of the thesis, if it is accepted, on the
level of the particular critical possibilities that the development of 'limitative' results about
formalism and computation would then appear to suggest. First, it appears that these results
would directly yield, on the level of the global whole of contemporary capitalism itself, the
suggestions of a constitutive and essential *incompleteness* in the determination of propositional
knowledge (Gödel's first theorem), the essential lack of internal *guarantees of consistency* on
the level of the really existing global situation (Gödel's second theorem), and the ultimate
ineffectivity of finite technical procedures and processes of decision (Church and Turing's
demonstration of the unsolvability of the halting problem).[47] Second, and on the level of
ideology, to these would correspond, term for term, the image of a *completeness* of possible
knowledge produced by methodical and technical means, the non-antagonistic and assured

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[47] This is not to conflate these distinct results or ascribe to them a single, unarticulated significance. As Badiou
himself carefully points out, the incompleteness (or inconsistency) of a system in the sense demonstrated by Gödel
in his first theorem follows from the undecidability of the system in the sense of Church and Turing's proof – that
of the absence of decision *procedures* for determining whether a given sentence is derivable – but not conversely;
so any positive argument for systematic *undecidability* (in the sense of decision procedures) would have to be
developed from a specific account of Church and Turing's proof rather than from Gödel's alone. For some broader
considerations about the possible application of undecidability in this sense, see Livingston (2012), pp. 148-53 and
pp. 173-77. For another suggestive development of the consequences of Turing's results in the context of Badiou's
project, see Brassier (2004).

consistency of the (fantasized) social whole, and the "technological" ideology of the solution of problems and the addressing of imbalances by calculative and procedural means. Third, and crucially, this critical configuration would provide means for discerning – just as on Althusser's conception -- how this threefold ideological image, reduplicating the actual structural relationships articulated by the metalogical results in the false image of relations of completeness, consistency, and decidability -- itself functions within the overdetermined whole to facilitate the maintenance and reproduction of its existing structure, ensuring the ideological identifications and concrete practices by means of which this structure can appear to work "all by itself."

The application of formalism here is not a matter of analogy or metaphor, and it does not stand to the real social formations in the relationship of an external epistemological "model" to its real exemplar.   Since the meta-formal knowledge that articulates the formalisms in each case is *nothing other* than knowledge of the logical and metalogical dynamics of computation itself, they have evident and *direct* theoretical application to a political-economic structure which is (as I have suggested) determined, as a matter of the real means and relations of production, by just these dynamics. Here moreover, again just as on the Althusserian picture, it is a formal knowledge of the internal structure, limits, and constitution of the means and relations of production themselves that yields the critical standpoint from which to understand also the structurally essential redoubling of those relations in the falsified form of their ideological guarantee.

What further consequences for critical thought and action might result, if the critique of political economy is renewed, under contemporary conditions, in roughly the way I have suggested?

1. First, a formally based renewal of critique along the lines of a specific consideration of the *effectivity* of technological solutions would suggest the renewal and vitality of a global *critique of technology* of what might be called a broadly "Heideggerian" type. That is, the critical terms in which Heidegger himself sought to interrogate the contemporary ideological category of the "actual" or "effective" [Wirklich] and the

assumption of the unlimitedness of its application, relative to a contemporary regime also ideologically determined as that of the assumed unlimitedness of possible calculation and computation, would here come back into view as bearing direct use within what is also int egrally a (renewed) development of specifically Marxist criticism. However, by marked contrast with Heidegger's own development of these themes, the critique would now be grounded in a positive *knowledge of the real* yielded directly by the formal results, which Heidegger himself did not consider (and, doubtless, could not have).

2. Second, it mighte possible to develop from this knowledge a renewed and sharpened critique of the concrete ideological processes of *subjectivization* that today function on the level of individual and collective practice to support and further the dominant capitalist means of informational production, consumption, and social regulation. The regularity of these practices would then be visible as constituting various contemporary "Ideological State Apparatuses" of a new kind, where the relevant "state" formation is not based in any regional or state sovereignty, but rather in the ideological "state" of global capitalism itself. They would evidently include the processes by which subject identities are today formed according to patterns of consumption, dominant forms of "communication" and networking, typical forms of mass spectatorship and entertainment, and the production and consumption of mass and "social" media.

3. Third and perhaps most significantly, it would thereby be possible to regain a *position in the real* – indeed, that identified by the scientific knowledge of the constitutive features of incompleteness, non-consistency, and undecidability – from which to envision new collective forms of life at some distance from the totality of contemporary capitalism and its ideological guarantees. It is of course far from apparent what these forms would be, or how they might eventually come to situate themselves *relative to* a capitalist totality which shows every sign of being capable of *unlimited* continuance. But it is at least suggestive, as I have argued, that the twentieth century's constitutive reflection on formalism's structure and limits appears capable of at least indicating, today, the

formally grounded standpoint from which they might be positively thought, and one day actually ventured.[48]

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