POLITICS OF THE EVENT AFTER HEGEL

Nathan Coombs

Revised thesis submitted in partial fulfilment of the requirement for the degree of Doctor of Philosophy in Political Theory.

Royal Holloway, University of London, Department of Politics and International Relations. July 2013.

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Nathan	Coombs certify that all the work con	tained in this thesis is my own and that
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Abstract

It is often assumed that the concept of the event provides an alternative way of thinking about processes of political transformation compared to Hegelian and Marxist notions of linear, progressive historical development. *Politics of the Event after Hegel* argues that the distinction is in fact much more subtle; showing how a concept of the event has been tacitly included in this philosophical tradition from its very inception. Tying together a lineage of Hegel, Marx and Lenin, and the contemporary French theory of Althusser, Badiou and Meillassoux, the investigation shows that they share the same desire to conceptualise novelty-bearing events which limit foresight about processes of historical development. At the same time, all six chapters show these thinkers struggling to maximise the novelty-bearing capacity of events whilst simultaneously warding against the appearance of authoritative knowledge. Exploring the tension between authority and novelty in their ideas of the event, the thesis concludes that these are essential categories for any future conceptualisations of social, political and economic change within a ruptural paradigm.

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Preface and Acknowledgements

The origins of this thesis lie in the studies I undertook during my Masters' degree. While pursuing a specialism in Middle East politics at the School of Oriental and African Studies in London, I became fascinated by the Iranian revolution: the most populist revolution in human history. At the same time, I had begun to read Alain Badiou's Being and Event in order to get a better grip on the philosophy of this titanlike figure whose book promised, intriguingly, a conception of novelty-bearing events grounded rigorously in mathematics. The two interests converged. The more I learnt about the Iranian revolution, the more it seemed to support the notion of political change relying upon contingent explosions of political activity outside of normal modernist accounts of historical progress. On the other hand, the Iranian revolution appeared to impose itself as a limit-case for conceiving of political change as the result of emancipatory flashes. The event of 1979 may have been the most widely participated-in revolution in human history, but it also took less time for it to degenerate into a vehicle for reaction than had any previous revolution. Arguably by 1982 things were already unwinding: Ayatollah Khomeini had crushed alternative currents within the revolution, the factory shurahs had been dissolved, and a semblance of normality has been re-established, generally at the loss of a great deal of freedom for women.

Was this an event or not then? In a commonsense categorisation, undeniably yes. Everything that is to be expected from a revolution was there: masses on the

streets, splits in the institutions of state, the fall of the government, and so on. Judged along a Badiouian vector of novelty production, too, although Khomenei's movement could be subsumed under the rubric of 'fundamentalism', such a move would fail to account for the historically unprecedented fusion of government with Islam in the establishment of a grand jurist, or for the dramatic realignment of post-revolutionary foreign policy. Yet in an equally faithful adoption of Badiou's framework, no could be a plausible response. Unlike the 1917 Russian revolution, Iran's revolution did not trigger a wave of subsequent revolutionary movements in an appreciable fashion to the way in which so many 20th century revolutionaries owed their loyalties to the Bolshevik model. If it was an event, it seemed more singular and ephemeral than even Badiou's theory could account for. In the case of Iran, I saw Badiou's theory come frustratingly close to being one which could make sense of the event, yet ultimately come unstuck in the messy details.

Despite this setback, what was nonetheless apparent was that Badiou's idea reflected something of a sea change in how we conceive of historical and political change. In place of the teleological and progressive notions of historical development associated with Marxism was a new focus on interruptions, ruptures, revolutionary flashes and revolts, all of which seemed to offer little more than a contingent possibility that the social and political order can be refashioned. No telos, no culmination of existing tendencies, no guarantees of progress. In my Masters' thesis, then, rather than seeking to use Badiou's theory to somehow explain the Iranian revolution, I instead focused on this distinction. I located analogous conceptions to the divide between the classical Hegelian and Marxist

notions of historical change and the more Badiouian notion of evental change in the differences separating the philosophies of Morteza Mottahari and Ali Shariati, two influential ideologues of the Iranian revolution. In the work of the former, the Shia jurist Mottahari, I saw something closer to the cumulative notion of history associated with Hegelianism and Marxism, whereas in the ideas of the latter thinker, Shariati, I perceived something closer to that of Badiou's idea of the event (not coincidentally it should be pointed out, since like Badiou Shariati was influenced by Sartre).

By the time I started to develop the PhD my interest in the Iranian revolution waned and the focus on Iran was eventually dropped from the project altogether. What I took away from my early studies, however, and what led to the architectonic of this PhD, was the need to get precisely at what if anything separates the two notions of historical change that I had previously taken from granted could be set up dichotomously. As things transpired, getting at the nub of the difference would be an arduous task involving a rigorous study of the primary sources. The rest of this manuscript presents the results of the 'theoretical detour' which followed.

Although this preamble makes it sound as if there was a smooth, continuous development of ideas culminating in the present work, in reality things came together in a somewhat more piecemeal fashion than can be satisfyingly retold *expost facto*. I could, for example, mention the 5,000 words I wrote on Aquinas' idea of the event that somehow seemed to fit into the project at one time, or the discussion of Heidegger that was subsequently dropped, and which in the PhD's final form would seem to have no obvious place. Equally so, there is no sense in which at

any point in the project's development any kind of event could account for its final structure. Rather, and as with most things in life, a confluence of disparate people and circumstances led to its realisation. At this point it seems appropriate to mention some of those names.

First and foremost, I need to express my gratitude to my PhD supervisor, Professor Nathan Widder. Without Nathan's faith in me from the start it would have been impossible to secure the Reid Studentship at Royal Holloway which supported me through the crucial first three years of my research. It is unlikely that a project such as mine would have ever secured the support of a government funding body in the current climate: a time in which the rubric of social impact is stressed ever more greatly to the detriment of experimental approaches in philosophy and political theory. Nathan's open-minded approach to scholarship and the College's financial support was therefore indispensible for making this study happen. His trust in me meant that I had the freedom to follow my instinct (even when it led me astray) and to pursue some seemingly obtuse angles in approaching my research question. As with most productive intellectual relationships we did not always see eye to eye, especially at the start. But during the course of my PhD we came to understand one another's positions and to appreciate better the merits of the parallel theoretical canons we work on.

After this I must thank my parents, Lynne and Steven Coombs, for their tireless support of my studies. Without their belief and support it would have been difficult to complete the PhD. I must thank in equal measure my wife, Sandra Preciado, who was researching her PhD at the same time. She deserves my gratitude

for her patience and consideration during these years. Although we frustrated one another with adding to ever-growing piles of paperwork occupying our small living space in London, the lion's share of responsibility for filling up bookshelves with burdensome texts falls on me. Throughout my research numerous other people assisted and helped. Luke Fraser deserves a special mention for the inexplicably generous way he guided me through Paul Cohen's theory of forcing, and for checking the drafts of this section of the thesis. I must thank my viva panel members, Dr. Alberto Toscano and Dr. Iain MacKenzie, for their close reading of my PhD manuscript. After hearing many horror stories about PhD examinations, it was a pleasant surprise to find my own one passing by quickly and enjoyably as a consequence of their challenging, intelligent, and sharp questions - all signs that they had read the text in great detail. Their recommendations for revisions were difficult to disagree with, and although relatively minor they have added to the fluency of the final text. Other names deserving of a special mention are my friends Robert Farnan, Pepijn van Houwelingen, Amin Samman, Nick Srnicek, and Alex Williams. There are unfortunately many other names that could be added to this list if it were not for the demands of brevity and the need to draws lines somewhere or another, no matter how arbitrary.

Nathan Coombs

Bath, U.K., July 2013

Introduction

knowledge, power, and political transformation

This thesis is about theories of political change. It is about the metaphysical ideas used to understand riots, revolts and revolutions. It is about events. More precisely, it is about how theorists in the Marxist tradition after Hegel have brought science to bear in conceptualising them. It is about the tension pervading all of Marxist thought between an evolutionary notion of historical change and an expectation, indeed implacable need for, a theory of sudden transformative revolutions. It is not a neat story. It is neither one of gradual theoretical improvement, nor one of a fall from pristine origins. Although the selection and ordering of thinkers in this thesis is guided by genealogical considerations, this is not a classical work of genealogy. The chapters which follow instead engage in immanent critique of six thinkers across two lineages; the emphasis being on teasing out the difficulties harboured by (1) orthodox Hegelian-Marxism and (2) Althusserian-inspired theories of the event. On route, Marxism will be rescued from its clichéd representation as an historicist doctrine, but then charged with suffering from some of its ills. Then Louis Althusser's idea of the event will be credited for breaking from the shackles of Hegelian Marxism, but considered to lack an adequate theory of historical judgement. This thesis thus aims to unpack the stakes of ideas of the event in both the classical Hegelian-Marxist tradition and in the Althusserian-inspired contemporary lineage. Why were these ideas forged? How have they changed? What problems have they faced? Two categories in particular – novelty and authority – we will claim make sense of these difficulties. And these categories, we will also conclude, remain essential for any future understanding of historical change through events.

These themes will be expanded upon. But it is necessary to begin by addressing a common misconception: namely, that the category of the event is alien to Hegelian-Marxist ideas about political transformation. Indeed, not just alien. Moreover, a concept defined in its essence as an alternative to these theories of change. Understanding why this oversimplifies matters will serve as a gateway into the truly intractable dilemmas posed by our theorists' ideas of the event. For although wrongheaded, the dichotomy between Hegelian-Marxist historicism and eventalism is at least an attempted response to a most difficult question: what is an event?

Philosophies of the event are today numerous. They include theologies of the event,¹ phenomenologies of the event,² analytic metaphysics of the event,³ and

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¹ John Caputo, *The Weakness of God: A Theology of the Event* (Bloomington: Indiana University Press, 2006.)

² Claude Romano, *Event and World*, trans. Shane Mackinlay (New York: Fordham University Press, 2009.)

continental theories of the event. Despite their differences, they are united by a guiding idea: that we need to orient ourselves towards the contingent singularities responsible for change. Within the continental tradition, one of the more famous eventalisms is Martin Heidegger's, whose notion of *Ereignis*, the event of appropriating language, is irreducible to any cause-effect schema. Well known too is Gilles Deleuze's vitalist immanence where, "life is everywhere ... carrying with it the events and singularities that are merely actualized in subjects and objects." Once we go beyond these theorists' shared identification of the event with becoming, however, attempts to flesh out the concept reveal just how nebulous it can be. A preponderance of eventalisms has not clarified what is meant by an event. Depending on the theorist in question, events can be rare or ubiquitous, inscribed into metaphysical reality or the result of a historically contingent decision. If one had to formulate a lowest common denominator, it would probably assume the form of a tautology such as 'an event is what happens when something happens.'

An exception is political theory. Here philosophies of the event find a shared footing in opposition to Hegelian and Marxist teleology, obtaining a clear identity through their determinate negation of their mutual foe. The following contrast should therefore be familiar: on the one side, the philosophies of the event open to

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³ For a survey of analytic metaphysics of the event see Peter Simmons, "Events" in *The Oxford Handbook of Metaphysics*, eds. Michael J. Loux and Dean W. Zimmerman (Oxford: Oxford University Press, 2003.)

⁴ Gilles Deleuze, *Pure Immanence: Essays on a Life,* trans. Ann Boyman (New York: Zone Books, 2001), 29.

the singular and the transitory; and on the other, mechanical Marxist teleology.⁵ The former sensitive to the contingent; the latter directed towards necessity. The former pictured as a series of points; the latter as a line curving upwards and onwards. Jacques Derrida manages to capture most of these distinctions in a single, condensed sentence:

Is there not a messianic extremity, an ... ultimate event (immediate rupture, unheard-of interruption, untimeliness of the infinite surprise, heterogeneity without accomplishment) [which] can exceed, at each moment, the final term of a *phusis*, such as work, the production, and the *telos* of any history.⁶

For Derrida, who might as well be speaking on behalf of most political eventalists, philosophies of the event disinvest history from guarantees of progress; they help undo the bewitching spell of modernist narratives to redirect our imagination towards liberating ruptures without final cause. Against the Marxist grand narrative, sensitivity to events allows us to suspend our spontaneous identification of history progressively improving, tending asymptotically towards its conclusion. It is in this tenor that prominent American political theorist, William Connolly, stakes his flag to

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⁵ A recent example: Andrew Gibson, *Intermittency: The Concept of Historical Reason in Recent French Philosophy* (Edinburgh: Edinburgh University Press, 2011).

⁶ Jacques Derrida, *Spectres of Marx: the state of the debt, the work of mourning, and the New international,* trans. Peggy Kamuf (New York and London: Routledge, 1994), 45.

the eventalist mast: "Events startle, provoke and energize; they can also disturb, defeat, alienate and sow resentments. They, therefore, form part of the very essence of politics." Andrew Gibson, more explicitly, seeks to render the dichotomy between Hegelian-Marxist philosophies of history and the evental paradigm as the grounds for an alternative politics sensitive to randomness and surprise:

The 'solar view of history', which sought to think or view history whole, from above, is definitively in ruins. The mind can no longer apprehend a historical design. The modern question ... is rather, 'How may we let ourselves be affected by the haphazard character of history and the seeds of new beginnings'?⁸

The call is repeated elsewhere in political theory discourse. In his thesis on the role of events in International Relations, Tom Lundborg remarks that it is high-time the discipline turn its attention to their theoretical examination. ⁹ Iain MacKenzie, likewise, directs a similar demand towards political theorists, when he writes that what is required is "an account of *political events qua events.*" ¹⁰ In each case, either implicitly or explicitly, the turn towards thinking change through events is motivated by attempting to extricate the political imagination from teleological schemas. As

⁷ William Connolly, "The Politics of the Event", *The Contemporary Condition*, 3 April 2011. Available at: http://contemporarycondition.blogspot.co.uk/2011/04/politics-of-event.html [Accessed 20 July 2013].

⁸ Andrew Gibson, "Thinking Intermittency", *Textual Practice*, Vol. 23, No. 6 (2009), 1051.

⁹ Tom Lundborg, Encountering the 'Event' in International Politics: Gilles Deleuze, '9/11', and the Politics of the Virtual, PhD thesis, University of Aberystwyth (2008).

¹⁰ Iain MacKenzie, "What is a Political Event?", *Theory and Event*, Vol. 11, No. 3 (2008).

Lundborg stresses, a focus on events "escapes the idea of a predetermined goal and stays open to different forms of creations and transformations." Only by making a move away from progressive, historical thinking to one in tune with the potential of interruptive singularities, can we grasp the temporalities of political transformation which mark our present age. Only by letting go of the old Hegelian and Marxist tales of historical consummation can we start thinking about what properly eventalist political interventions might look like.

So far, so familiar. But this thesis intends to complicate things. For within this framework it would be easy to presume that Hegelian-Marxism, especially, has a peculiar inability to appreciate events. In this representation, Marxism's focus on the total historical process seems to come at the expense of appreciating singular becomings. Yet in reality Marxism has never been blind to events. In fact, if there is a discourse of political change singularly attentive to the importance of crisis, revolt and revolution, this is it. What makes the classical Hegelian and Marxist approach distinct – or so outmoded political eventalists might say – is rather the way in which it embeds its appreciation of events as an unfolding taking place upon the historical stage. The difference is tangible. For even if one rejects the portrayal of Marxism as a deterministic faith in history driving forward towards communism, ¹² it is still true that it has always looked towards those historical tendencies where the germ of the

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¹¹ Tom Lunborg, "The Becoming of the 'Event'", Theory and Event, Vol. 12, No. 1 (2009).

¹² An overview and series of critical reflection upon these representations of Marxism as a messianic secular theology, particularly within Cold War literature, can be found in Alberto Toscano, *Fanaticism: On the Uses of an Idea* (London and New York: Verso, 2010), Chapter 6 'The Cold War and the Messiah'.

future can be discerned. Part of Marxism's appeal follows from its capacity to discern the limitations of the present in order that this critical consciousness can help actualise a new future. Events will always happen – but for Marxism truly revolutionary events have to be *made* to happen. And this is possible not because history is rolling out on a track towards utopia, but because possibilities exist in one mode of production to intuit the possibility of succession. Therein lies Marxism's optimism: events can be made to realise their potential as long as one grasps their traversal by an arrow of historical possibility.

There remain further differences, however, between the tendential approach of Hegelian Marxism and the eventalisms which hope to supersede this concept of change. These differences go some way to explaining why a prevailing pessimism about transition to post-capitalism has led to such theories falling out of favour. It is in this context, and by speaking to an audience sympathetic to the Marxist critique of present, that alternative philosophies of the event like Alain Badiou's and Quentin Meillasoux's have risen in prominence, becoming some of the most beguiling (and also perplexing) ideas in continental philosophy. As Badiou portrays it in his magnum opus, *Being and Event*, events erupt unpredictably out of an inconsistent ontological void: their potential only effectuated through an experimental process carried out in the wake of their unpredictable becoming.¹³ After the fall of really existing socialism, since which time alternative projects like the alter-globalization movement have foundered amidst the recrudescence of

¹³ Alain Badiou, *Being and Event*, trans. Oliver Feltham (London and New York: Continuum, 2005)

global capitalist hegemony,¹⁴ the notion that contingent events can unleash hitherto unsuspected novelties is undeniably seductive. We may have given up hope in the arrow of history, but, Badiou's philosophy of the event assures us, deep within all systems lurk inconsistencies waiting to erupt, offering the perpetual promise of change.

For these reasons, ideas of the event like Badiou's also tend to invite suspicion. Whereas traditional Marxist theories of change are grounded in concrete political and economic processes, Badiou's ontological notion of dramatic ruptures seems to bear more in common with theology than the secular, egalitarian project his theory is supposed to serve. Events appear like miracles dealt by divine grace to disrupt the humdrum repetition of earthly inequity. Given that the imperative of Marxism has always been to change the world, and not just to wait for its spontaneous combustion, it seems hard to explain how the stress placed on the radical novelty released by unpredictable events can be seen in any kind of lineage with Marxist ideas. Problems of continuity can lead to the impression that we are dealing with incommensurable theories of political transformation. Therefore, in

¹⁴ Recently many on the left have sensed greater hope in the 'Arab Spring' and Occupy Wall St. Movement; yet the ambiguous nature of these political events means that a lot of these hopes seem to be invested in their evental possibilities to upset the coordinates of the status quo and give rise to political procedures that might eventually engage in more determinate negation of capitalism. (See for example Slavoj Žižek, *The Year of Dreaming Dangerously* (London and New York: Verso, 2012) and Alain Badiou, *The Rebirth of History: Times of Riots and Uprisings* (London and New York: Verso, 2012.))

¹⁵ Daniel Bensaïd, "Alain Badiou and the Miracle of the Event" in *Think Again: Alain Badiou and the Future of Philosophy*, ed. Peter Hallward (London and New York: Continuum, 2004), 94-105.

attempting to get to the bottom of just what separates Hegelian-Marxist ideas about events and more contemporary notions, great care has to be taken. The idea that Hegelian-Marxism is blind to events will not do; but neither will any assertion of an unbroken continuity between the traditions.

Indeed, the problem only becomes more pronounced once we consider the variety of theoretical traditions emerging in the 20th century that have shared roots to Hegelianism and Marxism, but which have branched off in different directions. There is the deconstructive tradition, following Sartre, which is imbued with a critical spirit that many have seen as allied to Marxism's emancipatory goals, and which in Derrida's hands ends up placing the event as a central transformative category. Then there is Deleuze for whom the event was crucial for thinking change and which has given birth to an extensive secondary literature. Like Derrida, Deleuze planned to write a late career text on Marx, and we can only speculate about to what extent his idea of the event would have infused his reflections on the subject. Then there is the somewhat more orthodox pathway that takes us from Antonio Gramsci through to Laclau and Mouffe's theory of 'radical democracy'. Although the event is not an explicitly articulated category for them, it could be possible, with enough effort, to piece together how political transformation brought about through the establishment of hegemony is articulated, in the final instance, around a notion of the event.

The genealogical possibilities are numerous. In seeking to understand both the continuities and differences between Hegelian-Marxist and contemporary theories of the event, the task is bedevilled by the heterogeneity of the heterodoxy.

This is why, in addition to its focus on the orthodox tradition, this thesis concentrates on just a single lineage within contemporary French theory: that set in motion by Louis Althusser and carried through by Alain Badiou and Quentin Meillassoux. The reasons for this choice are threefold. First, the idea of the event in this tradition is the most rigorously theorised of all the heterodox branches of critical thought. No other theory of the event formalises the event as such an integral part of an epistemological and ontological system. Second, the idea of the event in this lineage has perhaps the most in common with revolutions as normally understood. Whereas, say, for Deleuze events are a prior metaphysical reality preceding identity, and hence are ubiquitous in all processes of change, for Althusser, Badiou and Meillassoux, events are rare occurrences. They are specifically historical or world-changing events that correspond to the kind of dramatic shifts we already tend to identify with revolutions. Third, this lineage has an internal hermeneutic loop similar to the one between Hegel, Marx and Lenin in the orthodox tradition. Althusser, Badiou and Meillassoux represent an informal teacher-student lineage, and the influences are not hard to discern. All, similarly, reference back and forward to orthodox thought, in order to affirm, improve or negate key parts of it. This makes for a productive hermeneutic exchange between the two traditions. Hence, this thesis seeks to challenge prevailing wisdom about the determinate negation grounding contemporary notions of the event against those of the Hegelian-Marxist tradition by adopting a focus on the Althusserian-inspired lineage. This approach, we claim, allows us to best throw into relief the continuities and differences between orthodox and contemporary notions of political transformation.

But let it be stressed again, the contention here is that there *is* an idea of the event stretching back to Hegelian-Marxist tradition. The challenge, accordingly, is to try to explain what animated its change in form through the Althusserian lineage to the point today where it could be misrecognised as a novel concept in absolute distinction to its Hegelian origin. That the idea of the event should now rise to the status of an exalted category – in its most excessive form, absolutised as a cosmic hyper-chaos by Badiou's student Quentin Meillassoux¹⁶ – has an explicable, albeit convoluted, intellectual history which it is possible to make sense of through genealogical reconstruction. If, then, for the time being we grant that no absolute line of demarcation separates Marxist theories of change and the eventalisms often taken as their antitheses, the question this thesis considers is not solely 'can Hegelian-Marxism be reconciled with contemporary, Althusserian-inspired philosophies of the event?' but moreover: *How have ideas of these ideas of the event changed*? This *how* also beckoning towards the question of *why*? For to

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¹⁶ Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (London and New York: Continuum, 2008)

What is Marxist philosophy? The question is not as easy to answer as might be expected. After all, the term implies a far from an innocent endeavour. Associated on the one hand with Stalinist dialectical materialism (the master discourse of Party authority in the Soviet Union), or on the other with quietist Western Marxism defaulting to revulsion with modernity (Adorno's refusal to support the student protests in '68 being emblematic of its political failure), even the last great defender of Marxist philosophy, Louis Althusser, declared the project a dangerous misnomer by the end of his career. ("Portrait of the Materialist Philosopher" in *Philosophy of the Encounter: Later Writings, 1978-1987*, trans. G.M.Goshgarian, eds. F. Matheron & O. Corpet (London and New York: Verso, 2006),

simply describe the changes is one thing, but to explain these changes as adaptations made in response to impasses within Marxist theory is to offer an appreciation of the stakes of ideas of the event as they relate to theories of revolutionary change more generally.

With respect to the genealogies this thesis focuses upon — in Part I, the orthodox line running from Hegel, through Marx and Lenin, and in Part II the heterodox lineage running from Althusser, through Badiou and Meillassoux — our primary contribution is to locate a break between those crafted out of Hegelian ontology and Louis Althusser's anti-Hegelian interventions of the mid-1960's. As we shall see, the problem provoking this break is that of the inability of Hegelian-inspired dialectical materialism to properly conceptualise a novelty-bearing event. One of the most lasting contributions of Althusser and his successors is the way they diagnosed with great acuity this problem with historicist ontology and therefore

^{291.)} His long time collaborator, Étienne Balibar, one of the most famous 'Marxist philosophers' alive today, likewise claimed by the mid 90's that "there is no Marxist philosophy and there never will be." (*The Philosophy of Marx*, trans. Chris Turner (London and New York: Verso, 1995), 1.) Of all the thinkers we devote chapters to in this thesis only two – Lenin and Althusser – could be said to have explicitly engaged in Marxist philosophy; and even then, the former only occasionally (in form of critiques and fragments of philosophical commentary) and the latter only temporarily (Althusser would describe his project as a "philosophical detour" by the mid 1970's). ("Is it Simple to be a Marxist in Philosophy?" [1975] in *Philosophy and the Spontaneous Philosophy of the Scientists*, ed. Gregory Elliott (London and New York: Verso, 2011), 213.) The only other possible candidate for the title of Marxist philosopher within this thesis, Alain Badiou, although retaining a residual connection to Marxism via his emphasis on political militancy, provides an ontology so completely subtracted from determinations rooted in political economy that most, including Badiou, shy away from calling it Marxist philosophy. Nevertheless, it is in the loosest sense of philosophies created by theorists responding to impasses within Marxism that we will use the term.

rejected situating events within a linear concept of historical change, as in classical Hegelian Marxism.

But this invokes a further crucial question: namely, why is novelty such a consistent desideratum for Marxist thinkers? After all, in Marxism's classical form bringing to fruition existing tendencies within capitalism – indeed their release from the social limits imposed by capitalist relations of production – appears to indicate acceleration as a more primitive ontological condition for change. Yes, Marxism always beckoned towards a new world, so was always in some sense aspiring towards the new; but why ideas of the event focused on conceiving change in the form of leaps, breaks, ruptures and scissions whereby the novelty released is supposed to break from its process of emergence in the existing social order? To answer this one needs to have at one's disposal means by which to uncover and trace Hegelian-Marxist ideas of the event along this particular axis: a way to critically reconstruct where ideas of the event come from, why they were forged, and what problems they encountered. This thesis offers three triadically organised hypotheses to assist this project. The first provides the categories (novelty and authority) acting as a fulcrum for the execution of the entire project, with the latter two hypotheses elaborating upon the problems they raise for the orthodox Hegelian-Marxist lineage (Part I of this thesis: Chapters 1-3) and the Althusserian-inspired tradition (Part II of this thesis: Chapters 4-6). The rest of the introduction will lay out these hypotheses and in so doing give a flavour both of the thesis as a whole and the arguments forwarded by the specific chapters.

Novelty against authority

The first hypothesis attempts to understand the compunction behind Marxist ideas of the event. It acts as a background condition for the structure of this thesis, aiming to provide a rationale for why revolution was translated within Hegelian-Marxist philosophy into a concept of a novelty-bearing rupture dividing pre and post revolutionary worlds into discontinuous orders of knowledge. What our hypothesis suggests is that in both the Hegelian and Althusserian-inspired lineages novelty can be profitably understood as a way of delimiting the intellectual authority of communist theorists in order to prevent knowledge as power dominating processes of political change. In the idea of the event, we claim, one of its animating impulses is the demand for a concept of rupture whereby the knowledge used to help make revolution is circumscribed by the capacity of the revolutionary event to inflict an epistemic caesura. The concepts used to understand the tendencies within class dynamics, the mechanisms of capitalist exploitation, and the strategic imperatives for successfully realising revolution; all these are dramatically diminished in their purchase on understanding the world by the novelty released by the revolutionary event. Or to put it in a different way, the guiding hypothesis of this thesis is that from the beginning the idea of the event has served as a functional response to the problem of intellectual authority. Power over political movements gained through theoretical mastery is what the idea of the event is supposed render inoperative. The future, the idea of the event wagers, is open. It is not bound by any existing expert or authoritative knowledge over economic processes or historical tendencies.

The people, not scientists, theoretical authorities, political leaders, or any others claiming to wield specialist knowledge, have control over the post-revolutionary landscape. This is why the event is pregnant with emancipatory potential. As well as possessing the capacity to upset existing social relations it also limits knowledge as power.

Why the need to curtail knowledge? The crux of the problem is as follows: if there is one thing which distinguishes Marxism compared to other radical political ideologies it is the stress it places on the need for revolutionary theory to bring about sweeping social change.¹⁸ As a result of the pre-eminence of theory for practice, no matter how deep Marxist knowledge is embedded within the working classes an intellectual hierarchy emerging from the conceptual labour to ascertain correct ideas can accompany, if not be entirely coupled with, the rise of a political vanguard (quite frequently those who can master theory most comprehensively will also rise to positions of political influence).¹⁹ In other words, a political economy of

Against those theories that would seek to resolve the problem through 'flat' concepts of praxis, although we readily acknowledge the circularity between ideational generation and political practice, in our view the two cannot be adumbrated together without losing a grip on the efficacy of either process. Whether or not particular theorists have been willing to acknowledge the autonomy of theory to the extent that Althusser staked his reputation upon, in our opinion any properly Marxist theory should be seen as irreducible to mere experimentation in response to strategic impasses. Pragmatism from below, this is to say, has never been adequate to realise Marxism's revolutionary ambitions. We concur with Lenin in *What is to Done?* (V.I. Lenin, "What is to be Done?" in *Essential Works of Lenin*, Ed. Henry M. Christman (New York: Dover Books, 1987)) and Althusser in *For Marx* (Louis Althusser, *For Marx*, trans. Ben Brewster (London and New York: Verso, 2005) that practice without theory degenerates into opportunism.

¹⁹ This issue has already been identified: from 19th century adversaries like Mikhail Bakunin to 20th century sympathisers like Alfred Sohn-Rethel. In the case of Bakunin's quarrel with Marx, a source of

knowledge has to be taken into account as well as more conventional problems associated with vanguardism. Although this mastery of theory might be credibly taken as a process whereby truth emerges through a rational battle of ideas, once it intersects with prognoses on the means and ends of political struggle the question it points towards is how Marxism can avoid reduplicating the idea of Platonic philosopher kings, who, in Plato's Republic, need merely to wait for the contingent event (for Marxism, class struggle boiling over into revolt) in order to found a new society based upon theoretical knowledge?²⁰

Our hypothesis is that this problem was intuited from the very founding documents of Marxism and just increasingly formalised as time went on through Hegelian philosophy and later heterodox ontologies of the event. Already in the founding document of Marxist political theory - Marx and Engels's The Communist

animosity between the two derived from their conflicting evaluations on the role for theory. Bakunin accused Marx of "ruining the workers by making theorists out of them", making them depart from their natural, spontaneous urge for freedom that would otherwise lead to immediately dispose of all state forms during revolution. For Bakunin, part of the problem with Marx's theoretical disposition was its potential conversion into institutionalised power in the transition period after revolution. (See Ann Robertson, "The Philosophical Roots of the Marx-Bakunin Conflict", What's Next Journal (December 2003) Available online: http://www.whatnextjournal.co.uk/Pages/Back/Wnext27/Marxbak.html [Accessed 16 Aug 2012].) Alfred Sohn-Rethel raises similar issues by noting problems with scientific and theoretical knowledge passing through revolutionary transformations. The division of society along the lines of intellectual and manual labourers "has an importance for bourgeois class rule as vital as that of the private ownership of the means of production. It is only too evident in many of the socialist countries today that one can abolish property rights and still not be rid of class." (Intellectual and Manual Labour: A Critique of Epistemology (London and Basingstoke: The MacMillan Press, 1978), 37).

²⁰ Plato, "The Republic" in *Plato: Complete Works*, ed. John M. Cooper (Indianapolis, IN: Hackett Publishing Company, 1997), 1120-1121 [§499b-499d].

Manifesto — revolution provides the keystone for this delimitation.²¹ In their differentiation between the aspirations of utopian socialists and role for communist intellectuals as a one of a group of reformists hoping to seal an image of the future according to the intellectual plans of the present versus radicals who use theoretical tools solely to drive towards social revolution, the idea of communist revolution expresses an articulation of knowledge and power. Knowledge — and the intellectual authority it entails — is articulated with power in the role ascribed to communist theorists, with revolution acting as the auto-limitation and auto-legitimation of its temporally transient nexus.²² The upshot is that if the application of theoretical knowledge can be limited in this way, then Marxism has at its disposal a concept explaining why intellectual hierarchy cannot pass through revolution to become a form of institutional intellectual hierarchy after the event. Revolution is thereby credited with the capacity to generate the conditions for mass emancipation freed from the threat of intellectual authority dominating processes of change. Hence,

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²¹ Karl Marx and Friedrich Engels, *The Communist Manifesto* (London: Penguin Books, 2002), 254, 234. See Chapter 2.1 of this thesis for more discussion of this point.

An acute awareness of this structures many discussions within Marxism even when they are articulated in slightly different ways, or where the themes are only touched upon tangentially. Alberto Toscano, for example, when seeking to carve out a role for communist theory fulfilling the role of "non-dogmatic anticipation" writes that philosophy "might 'anticipate' a communist politics", but not "in the sense of producing its own futurological standard against which to measure instances, but by delineating the problems and lines of solution that communism calls for." For Toscano one of the most intractable dilemmas Marxist philosophy can make some contribution towards solving is the question of communist power and how it is constituted by knowledge, because "Without some such articulation of power and knowledge, the notion of communist revolution is unintelligible." ("The Politics of Abstraction" in *The Idea of Communism*, eds. Costas Douzinas and Slavoj Žižek (London and New York: Verso, 2010), 201, 203-204.)

two of the key terms in this thesis. *Novelty* is the capacity events possess and *authority* is what novelty suppresses. Exactly how these conditions are articulated is addressed by our second and third hypotheses.

Dialectics and the problem of novelty

Our second hypothesis, around which Part I of this thesis is oriented, claims that attempts in classical Marxism to conceptualise a novelty-bearing event out of Hegelian dialectics necessarily reach an impasse. First set out by Engels's appropriations from Hegel's *The Science of Logic*²³ in the founding text of dialectical materialism, ²⁴ *Anti-Dühring*, ²⁵ the idea of leaps between quantity and quality became orthodox Marxism's default idea if the event; thenceforth firmly enshrined into Marxist theoretical consciousness. Since this time the idea has acquired an entrenched position within Marxist discourse, applied not only with respect to social revolutions but also with respect to dramatic changes in the mode of production

²³ G.W.F. Hegel, *The Science of Logic*, trans. A. V. Miller (NJ: Humanities Press International, 1969), Vol. 1, Book 1, §3, 335.

The term dialectical materialism was actually coined by Plekhanov, but Engels's concept of 'modern materialism' from *Anti-Dühring* was so completely taken over by Plekhanov that it is not incorrect to attribute dialectical materialism to Engels. For an account of the high esteem held for Engels's *Anti-Dühring* by key practioners of Second International Marxism like Plekhanov, Kautsky and Lenin. (See Z.A.Jordan, *The Evolution of Dialectical Materialism: A Philosophical and Sociological Analysis* (New York: St. Martins Press, 1967), 66-67.)

²⁵ Fredrich Engels, *Anti-Dühring* (Moscow: Foreign Languages Press, 1976).

and questions of socialist transformation. The basic idea behind this orthodox concept is that at a certain quantitative tipping point the linear accumulations taking place within any social phenomena radically transform into a new qualitative state. Hegel's example is the transformation of water into ice. Running down a linear (quantitative) temperature scale it is only when the liquid water hits precisely 0 degrees centigrade that it suddenly (qualitatively) transforms into a solid state. Even though for Hegel this idea was solely meant to exhibit the limits of quantitative determination within physical mechanics, dialectical materialism converted it into a concept that could be used as a model for the discontinuities taking place within social transformation. Unlike the gradualist take on history proposed by historical materialism, where, in Marx's analysis, capitalism emerges over centuries as a gradual process of consolidation between the value form and the separation of workers from the means of production, the idea behind quantity-quality transformations supplied by dialectical materialism is that they are meant to demonstrate how events like revolutions radically interrupt evolutionary processes. Furthermore, the transformation of those attributes of the social world that can be analysed quantitatively into a new qualitative state signals an epistemic break in knowledge. At the very least, the criteria used to evaluate phenomenon ex-ante have to be significantly readjusted ex-post.

In such a fashion, dialectical materialism's orthodox idea of event aims to reconcile Marxism's notion of the historical emergence of one social form out of another with the imperative stated in our first hypothesis, namely, that revolutions impose epistemic limits upon knowledge. In this respect, it is no accident that Engels

wrote his defence of dialectics in response to Dühring's *naturphilosophie*. Engels's response was motivated, at least in part, because he saw Dühring's project as aligned with the resurgence of the kind of utopian socialism against which Marx and himself directed polemic in *The Communist Manifesto*. Engels's focus on quantity-quality transformation in this text thus supplements Marxist historical materialism with a Hegelian-inspired concept of rupture, linking the schemas of gradual change between modes of production with a notion of the radical changes taking place in a revolution. The result is that quantity-quality transformations disqualify utopian socialism and delimit Marxist knowledge of the future by the same stroke.

The combination was always an awkward fit, however. The attempt to fashion an idea event from Hegel's *Logic* relies upon the condition that it is can be separated from the historicism found throughout the rest of Hegel's system — otherwise it would collapse to similar continuities already found in Marxist historical materialism. Unfortunately, dialectical materialism's attempted separation of the concept of quantity-quality transformations from the historicist system of Hegel falls apart on close examination. The reasons for this will be expanded upon in greater depth throughout Part I of this thesis. But in brief, they condense to the fact that once dialectical materialism imports the idea of quantity-quality transformation from physical mechanics (see Chapter 1) to think social phenomenon, it signals the need for a singular nomination of what the *quantity* is from which a change in *quality* emerges. The implication is that change must take place at a *single point of transformation* at which the linear development of quantity (say, productive forces) gives way to a respective qualitative transformation (say, relations of production).

Instead of seeing the event as a unity of overlapping processes (as Althusser will see it) or as a multiple (as Badiou will conceive it), the reduction of revolutionary change to a single point of transformation, we will argue, reduces the potential to think through the processes which create genuine novelty/discontinuity. This leaves the idea of quantity-quality transformations ensnared in a notion of change being effectuated by a transformation taking place through a dialectical switch — an idea intimately connected with a linear concept of history unable to properly think novelty. As further developed in Chapters 2 and 3, the essential problems of Hegelian dialectics to think novel change also act as a limitation to Marx and Lenin's ideas about revolution and political transformation.

Heterodox ontology and the problem of authority

The third hypothesis, guiding Part II of the thesis, claims that while Louis Althusser's response to this problem manages to develop a more adequate notion of novelty-bearing events than those fashioned from Hegelian ontology it does not resolve all questions related to *authority*. Althusser's innovations in the realm of Marxist theory are, of course, numerous; overturning almost all of the Hegelian-inspired notions taken as sacred within the discourse of dialectical materialism (even if confusingly Althusser maintains the term to describe his own theories). The centrepiece of Althusser's quarrel with Hegel's dialectical notions of change is, however, precisely the aforesaid inability of its schemas adequately to account for novelty. Hegelian dialectics, Althusser charges, are enmeshed not just in an

irreducibly evolutionary schema, but moreover cannot think novelty since its systematic historicism conceives all change as already being contained in the origin.²⁶ Against the Hegelian-inspired tradition of dialectical materialism, by combining the French epistemologies of science with structuralist concepts, Althusser develops the idea of ruptures in scientific conceptualisation into his trademark idea of the 'epistemological break', one embedded in a synchronic (as opposed to Hegelian diachronic) conception of history. Admittedly, Althusser's conception of the 'epistemological break' bears more upon events within intellectual history than those of social revolution, but nevertheless his synchronic concept of history held together in a 'complex whole' carries across to this thoughts about the unity of overlapping causalities within revolution. In the Althusserian view, the causalities bringing about radical change cannot be reduced to a single 'general contradiction' as in all Hegelian-inspired ontologies of the event. On the contrary, in order to think revolutionary change, it is imperative to conceptualise the process as the result of multiple, overlapping practices. The result is that Althusser's concepts better allow an idea of the event carrying genuine novelty. Events are novel precisely because they cannot be reduced to any original ground or linear, historical processes of actualisation. There are no mechanisms within history pushing epochs from one stage to another based on contradictions between two variables, as in Hegelian historicism and the dialectical materialist idea of quantityquality transformation.

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²⁶ See Louis Althusser and Étienne Balibar, *Reading Capital*, trans. Ben Brewster (London and New York: Verso, 2009).

Why did Althusser's novelty-oriented notion of the event not manage to put the problem of authority to rest then? Indeed, why did the question of authority dog the Althusserian project from the start, and more so in the wake of May '68? Political discourse often conducts a hermeneutics of suspicion by attributing to Althusser's reverence of science an ulterior motive: that of shoring up party (French Communist Party) authority.²⁷ Yet our third hypothesis claims that the notion of event crafted by Althusser has problems with authority immanent to its concept – problems that carry across to Badiou's and Meillassoux's ideas of the event. This is to say, once events are subtracted from any ground in a historical process where mechanisms of change can be positively identified, the nomination of an event becomes remarkably hard to disentangle from the discourse which seals its status qua event. Or in other words, by undercutting any rational, extra-theoretical grounding for supporting what counts as an event, thus rendering it an entirely voluntarist decision, the fact that the Althusserian-inspired notion of the events stress novelty does not, ipso facto, manage to undercut the authority of theorists. This problem, we will show, also passes over to Alain Badiou (Chapter 5). Charting a trajectory away from Althusserianism during the 1970's, culminating in his magnum opus Being and Event by the end of the 1980's, Badiou's idea of the event can be taken as a particularly sophisticated attempt to delimit the authority of philosophers in response to the problems of Althusserian theory. But whilst Badiou's system represents one of the most sophisticated and consistent efforts to delimit the

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²⁷ Jacques Rancière, *Althusser's Lesson*, trans. Emiliano Battista (London and New York, Continuum: 2011)

authority of philosophers in the history of Western philosophy, certain cracks within the system give away the fact that it carries across some of the same problems haunting Althusser's project. Namely, although Badiou seeks to excise philosophers from having any part to play in the nomination of events, we see how these demarcations are complicated by his use of Paul Cohen's semantic procedure of forcing. Equally, Meillassoux's philosophy of contingent events (Chapter 6) demonstrates how novelty-bearing events do not necessarily disqualify a role for philosophers. If we understand Meillassoux's work in light of his doctoral dissertation as seeking to supplant Marxist historicism with a conception of change erupting through epochal events, then the fact that he ends up attributing a role for philosophers elevated to the position of supplying a speculative discourse of ethical messianism, indicates that contemporary notions of the event cannot easily resolve the problem of authority. Thus, the overarching message of Part II of the thesis is that whilst the Althusserian-inspired lineage successfully manages to overcomes the problem with thinking novelty in Hegelian dialectics, its elevation of the capacity of the event to produce novelty ex-nihilo does not necessarily undermine the authority of theoreticians. In a subtle sense, non-foundational, voluntarist discourses of the event, in fact take the event out of the province of rational contestation. More historicist notions of the event, although not ontologically well-equipped to think novelty, can at least be subjected to a certain empirical and discursive scrutiny.

The above hypotheses intend to demonstrate that while ideas of the event serve a noble theoretical purpose, they have been fraught with difficulties from the start.

Our ambitions are suitably modest. As should already be clear, this thesis does not propose to solve the problems it identifies. Rather, by focusing on these genealogies of the event we wish to show how both streams harbour further unresolved problems. In the first instance, one of fashioning the idea of a novelty-bearing event out of the resources of Hegelian dialectics; and in the second instance, in the Althusserian lineage, one pertaining to the authority of philosophers in the nomination of events.

These intimations of the problems facing our thinkers will no doubt still seem rather shadowy. But by this thesis' conclusion we wish to have persuaded the reader that the ways in which novelty and intellectual authority are mediated by ideas of the event has important implications for political practice. The thesis concludes by drawing on the findings of all these chapters and reflecting upon what a concept of the event suitable for 21st century theory might look like. It seeks to draw on the merits of both traditions to suggest ways in which new theories of social causation can be used to reformulate a notion of the event sensitive to the contingent but also able to productively interface tendencies that might allow for a form of anticipatory practice in the pre-evental world.

PART I

Dialectics and the Problem of Novelty

1. The Hegelian Horizon

infinity falls to earth

The Hegelian horizon continues to dominate Marxist philosophy more than a century after Engels introduced the doctrine of dialectical materialism. Along the way, Hegelian-Marxism has made friends and enemies, ebbed in and out of favour; yet it has never withered even under the glare of damning criticism. Despite the acute pressure Hegelian dialectics have received from critical theorists since the midtwentieth century – Louis Althusser's objections to its bourgeois humanism, Lucio Colletti's charge that its speculative *modus operandi* resurrects the divine *logos* of metaphysics, Gilles Deleuze's rejection of its philosophy of identity, the whole gamut of post-structuralist and post-modern critiques of its narrativised recuperation of history – Hegel, it seems, always makes a comeback.

One revivalist strategy since the 1980's has been to pick up those ambiguous remarks made by Marx in the Forwards to *Capital* and to attempt to demonstrate systematically how Marx's treatise owes its insights to Hegel's *The Science of Logic*. The 'new dialectics' school aims to show how Marx's concept of value follows a Hegelian model of concept generation, as does Marx's development of his other

categories across all three volumes.²⁸ An even more conspicuous revival has taken place within philosophy, where Hegel has undergone a reversal from universally agreed upon 'bad guy' against which ever self-respecting theorist needs to position their work, back to the forefront of contemporary theorising. In this vein, the insights Hegelian philosophy is suggested to offer for theories of recognition (e.g. Axel Honneth²⁹) or cognitive neuro-philosophy (e.g. Catherine Malabou³⁰) are typically appropriations taking a particular angle on Hegel's system, confirming Croce's imperative to discern 'what is living and what is dead in Hegel's philosophy?'³¹

Today Slavoj Žižek wishes to push things one step further, reviving Hegelian-inspired dialectical materialism in its full ontological glory.³² Nowhere in Žižek's work does he endorse the dissection of parts of Hegel's system firewalled from the commitments of a fully-fledged dialectics of nature – and he has labelled analytic philosophers like Robert Brandom, who aspires to extract a 'thin', semantically-

²⁸ Tony Smith, Chris Arthur, et al. We discuss these interpretations in the next chapter on Marx and provide full references there.

²⁹ Axel Honneth, *The Struggle for Recognition: The Moral Grammar of Social Conflicts*, trans. Joel Anderson (Cambridge, MA: The MIT Press, 1996)

³⁰ Catherine Malabou, *The Future of Hegel: Plasticity, Temporality and Dialectic*, trans. Lisabeth Dühring (Abingdon and New York: Routledge, 2005)

³¹ Benedetto Croce, What is Living and What is Dead in the Philosophy of Hegel?, trans. Douglas Ainslie (Lanham: University Press of America, 1986)

³² See his most recent tome, Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* (London and New York: 2012)

oriented Hegel,³³ as the enemy of true Hegelians like himself.³⁴ In his view, a Hegel fit for Marxist praxis must necessarily be an ontological Hegel: a Hegel for whom dialectics propels processes or order and change, a Hegel fitting the mould of dialectical materialism.

Žižek and others like him aim to make a new generation of Marxists comfortable with Hegel again. The edited collection, *Lenin Reloaded: Towards a Politics of Truth*, ³⁵ for instance, invites Marxists to return to orthodox dialectical materialism as a specifically Marxist ontology of revolutionary change. Contributors to the second part of the volume on 'Lenin in Philosophy' focus on Lenin's reading of the *Logic* in the years preceding the Russian Revolution, drawing attention to how Lenin's discovery of 'leaps' in the transformation between quality and quality in Hegel's book helped contribute to his singular insistence on Marxism as a revolutionary practice. If there is a clear point we could infer from these authors' loyalty to this illustrious revolutionary heritage, it is that in dialectical materialism possesses a suitable ontology of revolutionary change. Quantity-quality transformations permit us to conceptualise events in a way that more gradualist, evolutionary or positivist accounts would necessarily miss. On the basis of these

³³ Robert B. Brandom,"Sketch of a Program for a Critical Reading of Hegel. Comparing Empirical and Logical Concepts", *Internationales Jahrbuch des Deutschen Idealismus*, Vol. 3 (2005), 131-161.

³⁴ Comments made during a talk given at the University of Bonn Philosophy Summer School 'The Ontological Turn', July 2012.

³⁵ Sebastian Budgen, Stathis Kouvelakis and Slavoj Žižek (eds.), *Lenin Reloaded: Towards a Politics of Truth* (Durham and London: Duke University Press, 2007)

arguments one might thus conclude that dialectical materialism already equips Marxism with an adequate idea of the event. Through the idea of quantity-quality 'leaps' the gradual processes of transition between modes of production can be reconciled with the idea of sudden, disruptive events which release novelty into the world.

We will discuss the specifics of Lenin's take on dialectical materialism in chapter three, but for the time being the essential point is that in the midst of contemporary Hegel revivalism, the danger for Marxism is that it can default to orthodox dialectical materialism and by so doing lead us to miss just what heterodox theorists objected to so strongly all along: i.e. the inability to conceive novelty within the Hegelian horizon. In response, and given the fact that this return to Hegel in both its 'new dialectics' incarnation (about which we have more to say in chapter two) and through the Leninist turn back towards dialectical materialism (chapter three) is concentrated upon Hegel's *Logic*, the core problem we wish to demonstrate in dialectical materialism's idea of quantity-quality leaps is that they do not allow one to break from historicist notions of linear political change. This compels immanent criticism of why this is so – criticism that will then traverse the entire orthodox lineage in Part I of the thesis.

To this end, this chapter offers criticism inspired by Badiou that Hegel's dialecticization of the mathematical infinite is erroneous. This approach responds to those interpretations that claim Hegel's notion of good quantitative infinity prefigures the contributions of the mathematician Georg Cantor. We then show the repercussions of this failure for dialectical materialism, since in the ordering of the

categories of the *Logic* it is precisely Hegel's dialecticization of the mathematical infinite that grounds the idea of leaps between quantity and quality in the section on Measure. In so doing, we demonstrate why Hegel's infinite cannot be seen to anticipate Cantor's and explain this as a result of his attempt to shoehorn the development of metaphysical categories out of one another in an ordering reflecting an historical gnoseology. In this way, Hegel's position on the mathematical infinite is shown to reflect the historicism prevailing throughout the rest of his system: it cannot think the disjunction in the number system because it has to account for developments within mathematics so that they reflect the original categories of Western metaphysics, no progress on this front having been made since Parmenides' encounter with Socrates in Ancient Greece. As a consequence, we will show that Hegel's notion of the event no more fully breaks from historicism than does any other parts of his system.

The argument first recounts the philosophical stakes of *The Science of Logic*. Following this we recall the development of Hegel's reflections on mathematics and the problem of its application to the physical world. This allows us to progress to an in depth reading of the section of the *Logic* concerned with mathematics. We then critically assess the legitimacy of Hegel's dialectical mathematical infinite and its grounding of leaps between quantity and quality. The conclusion discusses the political significance of these findings.

1.1 What is the logic in The Science of Logic?

For a book of such importance, influencing the thought of world-historical figures from Marx to Mao,³⁶ the lesser prominence of Hegel's *Logic* is intriguing. Partly this can be attributed to role of Alexandre Kojève in popularising Hegel in France with a near exclusive focus on the *Phenomenology of Spirit*;³⁷ partly it could be the legendary length and difficulty of the book, not helped by questionable translations into foreign languages.³⁸ Whatever the reason, a certain mystique hangs around the *Logic*: it holds the promise of a 'good' Hegel, standing as an alternative to the more suspicious works: *Phenomenology of Spirit, Philosophy of Right* and *Philosophy of History*. If these texts are considered by many as just historicist apologetics for monarchy, Christianity and Western superiority over other regions of the earth, the legacy of Marx's ambiguous nod to the Hegelian method has reserved a certain

³⁶ Echoing Lenin's *Philosophical Notebooks* in 1957 Mao writes "If you comrades here already know materialism and dialectics, I would like to advise you to supplement your knowledge by some study of their opposites, that is, idealism and metaphysics. You should read Kant and Hegel and Confucius and Chiang Kaishek, which are all negative stuff. If you know nothing about idealism and metaphysics, if you have never waged any struggle against them, your materialism and dialectics will not be solid" (quoted in Alain Badiou, *The Rational Kernel of the Hegelian Dialectic*, trans. Tzuchien Tho (Melbourne: Re.Press, 2011), 9.)

³⁷ See Alexandre Kojève, *Introduction to the Reading of Hegel: Lectures on the Phenomenology of Spirit*, ed. Allan Bloom, trans. James H. Nichols, Jr. (Basic Books, 1969), which, while beginning with reference to fundamental points sourced from the *Encyclopaedia Logic*, soon moves on to his true site of interest, which is the *Phenomenology of Spirit*.

³⁸ A new translation of *The Science of Logic* by George Di Giovanni (Cambridge: Cambridge University Press, 2010) addresses many of the perceived failings of the standard A.V.Miller translation.

respect for the *Logic*. That has not meant that the *Logic* is appreciably well read, however. It will therefore help to lay out the aims of the book and the meaning of logic construed therein. This section will focus on why the contents of the *Logic* are as important as its *essential point* (the dialectic's culmination in the Absolute Idea), and why the mathematical infinite and its relationship to the concept of Measure assumes a particularly prominent position amongst these contents.

The Science of Logic is a more expansive work than the name might suggest. For whilst seemingly constrained to the rather dry topic of 'logic' – in its Hegelian variation, the movement of thought towards the Absolute Idea – in fact the Logic's speculative scope goes beyond just studying the movement of abstract concepts.³⁹ The construction of the book gives an indication of this. The Logic is divided into two volumes: the 'Objective Logic' (Volume I) and the 'Subjective Logic' (Volume II), with the aim that the conceptual unfolding in the first volume will correlate so absolutely with the second that the two will join up in a circular movement. As such, since the terminus of the Logic is the speculative identity of thought and being (the subjective and the objective), it is somewhat misleading to see the book as only about speculative thought. The temptation to see the Logic as concerned only with abstraction, against the more concrete studies of nature, mind and Spirit found

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³⁹ Richard Dien Winfield differentiates Hegel's approach from both formal logic (of say logical positivism) and transcendental logic (of a more orthodox Kantian kind) in the way that Hegel, almost alone in the history of philosophy, sought to make logic a "self-determined determinancy" – or the derivation of determinacy entirely from itself. In Winfield's words, "In undertaking this endeavour, pioneered by Hegel in his *Science of Logic*, systematic logic makes manifest that presuppositionless, self-grounding, and unconditioned universality all consist in self-determination" (*From Concept to Objectivity: Thinking Through Hegel's Subjective Logic* (Aldershot: Ashgate, 2006), 11).

elsewhere, should be avoided. Because while Hegel is certainly dealing with abstract thought determinations in the absence of a relation to any sensuous, mediated understanding (i.e., any initial 'empirical object'), its *end point* is the same Absolute Idea as that found in, say, the *Phenomenology of Spirit*. Indeed, Hegel means it quite literally when in the *Logic* he describes the Absolute as a 'concrete totality'⁴⁰: concrete insofar as the realm of finite concepts gives way to the truth of the infinite in both the concept and absolute metaphysical reality.⁴¹ Subjective thought captures objective logic precisely because neither represents the foundation, which, if it were the case, would imply they could be split apart so that either logic or the real could

⁴⁰ The finite intellect (understanding) pertains to Kant's reduction of ontology to epistemology in scientific knowledge. Opposed to this is infinite, speculative reason of the dialectical kind preferred by Hegel. Lucio Colletti captures the stakes of the two conceptions in a particularly astute passage. "If man were like God, rather than the 'finite, thinking being' that he is, the distinction between the sense-world and the understanding, receptivity and spontaneity, would no longer exist. There would be an 'intellectual intuition' (which is exactly what there is for Hegel); thinking and perceiving would coincide; the representation of an object and its creation would be one and the same act." (*Marxism and Hegel*, 214). Incidentally, this is also a critique of what Meillassoux will call 'strong correlationism' (see Chapter 6).

⁴¹ Kojève rightly stresses this point in the opening of the first chapter of his book when he writes "On the other hand, one might suppose that Dialectic is the preserve of logical thought; or in other words, that this passage is concerned with a philosophical method, a way of investigation or exposition. Now, in fact, this is not at all the case. For Hegel's Logic is not a logic in the common sense of the word, nor a gnoseology, but an ontology or Science of Being, taken as Being. And "the Logic" (das Logische) of the passage we have cited does not mean logical thought considered in itself, but Being (Sein) revealed (correctly) in and by thought or speech (Logos). Therefore, the three "aspects" in question are above all aspects of Being itself: they are ontological, and not logical or gnoseological, categories; and they are certainly not simple artifices of method of investigation or exposition" (Introduction to the Reading of Hegel, [I think this is pp. 169-170, but check your version of the book]).

be posited as antecedent to the other. At the start of the Subjective Logic, Hegel reflects on the question of how the objective categories, which at first appear something like Platonic Forms, relate to the subjective logic.

It might perhaps seem that, in order to state the Notion of an object, the logical element were presupposed and that therefore this could not in turn have something else for its presupposition, nor be deduced; just as in geometry logical propositions as applied to magnitude and employed in that science, are premised in the form of *axioms....*Now although it is true that the Notion is to be regarded, not merely as a subjective presupposition but as the *absolute foundation*, yet it can be so only in so far as it has *made* itself the foundation. ⁴²

Hegel makes a special effort to refute the impression that his *Logic* implies recourse to *a priori* logical concepts, because this would leave logic and reality in irresolvable opposition. The foundation of logic is rather immanent on both the objective and subjective level, meaning that the *Logic*'s terminus – the fusion of thought and being – allows it to escape the prison house of describing only abstract thought determinations. The Notion presupposes substance and then describes substance's generation of its Notion in turn. "Consequently, the Notion has substance for its immediate presupposition; what is *implicit* in substance is *manifested* in the Notion.

⁴² Hegel, *Science of Logic*, 577.

Thus the dialectical movement of substance through causality and reciprocity is the immediate *genesis* of the *Notion*, the exposition of the process of its becoming."⁴³

But does this not imply that the *Logic* therefore captures all of existence within its speculative purview once logical development fuses with Absolute metaphysical reality? To pre-empt confusion that the fusion of logic with reality might seem to entail that one can derive all of the (finite) sciences (or at least their limits) from Hegelian logic, George di Giovanni insightfully describes the *Logic* as a discourse regarding a hierarchy of intelligibility: a kind of conceptual measure against which finite discourses can be compared. Which is to say, Hegel's *Logic*, once having devoured the sciences, cannot necessarily develop their contents; but *it can* serve to render meaning, coherence, order and hierarchy amongst them. For this reason, and despite their affinities, Hegel's Absolute is distinguished from Hericlitean flux, which could be reduced to the maxim that everything which comes to be passes away, because his system preserves/sublates finite conceptual determinations in the totality. In order for the Absolute to express the identity of thought and being it of

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⁴³ Ibid.

⁴⁴ "The Logic is a discourse about discourse – the only discourse which, because of its subject matter, can attain perfect completion and which, therefore, defines the norms of intelligibility against which all other types of discourse, all of them more or less open ended in their own spheres, are to be measured" (Di Giovanni, "Preface" in Hegel, *The Science of Logic* [Cambridge edition], xxxv).

⁴⁵ Hegel lauds Heraclitus' development of the speculative Idea. In comparison to Heraclitus' predecessors Hegel writes "Here we see land; there is no proposition of Heraclitus which I have not adopted in my Logic." Indeed, it is hard to detect much criticism in Hegel's discussion. The limitations of Heraclitus' philosophy are only evident with his description of it as a "simple principle" or a "simple Notion" where "nothing is existent and only the one remains; but that is the Notion of the unity which only exists in opposition and not of that reflected within itself." In other words, Heraclitus'

necessity needs to be a *differentiated whole* preserving the conceptual 'contents' as 'moments' of a unitary unfolding. Since Hegel's dialectical method will throughout the *Logic* repeat again and again the same move of showing why all finite determinations collapse into untenable contradictions that can only be resolved in the infinite totality, the really hard work lies in the ordering of this content. The *Logic*'s contents matter precisely because they are not negated but instead *sublated*. Only by preserving the contents of the finite understanding can Hegel's *Logic* make any claim to fuse thought and being in the infinite Absolute.

Not often remarked upon with sufficient wonder is the sheer heterogeneity of the 'contents' Hegel synthesizes in the development of 'concrete totality': taking ideas from classical metaphysics, physics and mathematics, as well as "some almost untranslateable German expressions." Hegel's aim is to show the immanent development of all these 'contents' into one another. The act of ordering the logical development between such diverse content into a totality is meant to undermine any finite conception of their discrete application to separate regions of being. Thus, the real is shown to be as much a totality as the concept through the act of joining together the conceptual contents. 47

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notion stands in a relation of externality to the finite contents of existence and thus fails to sublate these into a differentiated whole. (G.W.F. Hegel, *Lectures on the Philosophy of History* Vol. I, trans. E.S Haldane (Lincoln and London: University of Nebraska Press, 1995), 279, 292-293).

⁴⁶ Giacomo Rinaldi, *A History and Interpretation of the Logic of Hegel* (Lewiston/Queenston/Lampeter: The Edwin Mellen Press, 1992), 16.

⁴⁷ Giacomo Rinaldi describes the result of this formal ordering, "The seeming dispersion and heterogeneity of the logical forms of common, scientific, and metaphysical thinking comes thus to be

With this in mind it is possible to appreciate why, despite already undermining the traditional distinction between logic and metaphysics in the *Nürnberg Logic* 1808-1811 (a distinction still in place in the earlier *Jena Logic* of 1804-05), which would seem to constitute Hegel's *essential point* of the *Greater Logic*, he still continued to tinker with the ordering of the categories right up until the 2nd edition in 1832.⁴⁸ Hegel did not see his system reducing to the Absolute Idea, with

removed – or rather 'sublated' in an *organic system* of categories, hierarchically ordered in a gradual and progressive succession, according to their greater or lesser intrinsic coherence and comprehensiveness." (Ibid., 16-17.)

⁴⁸ Ibid., 98-105. A proper conceptual understanding of mathematics is not just important for proving the worth of philosophical idealism, what is often missed is its role for Hegel in also grounding the category of Measure. As we will see later on in the chapter this is because of the dialectical transition he establishes between 'good quantitative infinity' and the category of Measure in the Greater Logic (where the leaps between things quantity and quality are found). But by way of following the evolution of Hegelian logic, we can gain an enriched sense of how closely these specific transitions are related with his overarching speculative goals. The intermediary form of the 1804-05 Jena Logic shows the particular importance Hegel attached to the sections on Quantity and Measure. In this early text, logic and metaphysics are still maintained as separate regions of being pertaining to the science of abstract thought and absolute reality respectively. (G.W.F. Hegel, The Jena system 1804-5: logic and metaphysics, eds. and trans. John W. Burbidge and George di Giovanni (McGill-Queen's Press, 1986), see also Di Giovanni, "Preface" in Hegel, The Science of Logic [Cambridge edition], xix). While the first section of the work corresponds with the Doctrine of Being in the later Logic, conspicuously absent is the section on Measure where Quantity and Quality are synthesized. (Rinaldi, A History and Interpretation of the Logic of Hegel, 91.) In fact, in the Jena text Hegel repudiates the possibility of Measure as he will later present it in the Logic, holding impossible the 'leaps' of the later Logic that Marxist dialectical materialism would later adopt from his work as its core idea. During his time in Jena, Hegel did not consider magnitude (quantity) in any way enmeshed in the determination of the thing in-itself. He writes, "The Thing does not disappear in the absolutely small any more than it goes beyond itself in the absolutely large; the disappearance does not become intelligible by increase or decrease because it is of the essence of magnitude that it be not a determinacy of the Thing itself." (Hegel, The Jena system, 19.) Further on he also says, "The quantitative is something quite external, not an analysis of the one, or an internal ratio." (Ibid., 27) For Hegel in his Jena period

the contents playing the role of a merely convenient propaedeutic, disappearing in the transfer to the work's speculative apex. This is why any potential critique levelled solely at the Absolute in Hegel's *Logic* would be of limited effectiveness. If Hegel manages to order successfully such diverse material, and also show convincing

the mathematical infinite has nothing to say about objectivity, because the quantitative is kept conceptually external to objectivity. And while rudimentary objections to 'bad infinity' close the section on 'Simple Connection' in the Jena Logic, these are not expounded via any serious discussion of the mathematical infinite, or the procedures of calculus. There is therefore a parallel - and possibly a necessary connection - between the distinction maintained between logic and metaphysics in Hegel's Jena period and the absence of a section on Measure integrated with the mathematical infinite. The later Nürnberg Logic on the other hand - so called after the five texts written during Hegel's time as Rector and Professor in the town's Gymnasium - demonstrates the end of the distinction between logic and metaphysics; and by his last 1810/11 text written in the city, the end of this distinction also coincides with the introduction of the category of Measure into the system for the first time. Consequently, it is reasonable to infer that in Hegel's intellectual development towards his essential point the introduction of the sections on Measure and the mathematical infinite were crucially entwined. Furthermore, as extra textual evidence for showing why Hegel saw the mathematical infinite as one of the lynchpins amongst the contents of the Logic for securing Absolute identity, the most extensive editions to the 1832 edition were appendices of extra mathematical reflections, showing that Hegel continued to work on the mathematical dimension of the Logic's contents to a greater extent than with any of the other materials he synthesized within the system. The evolution of the Logic towards its essential point went hand in hand with Hegel's elaboration of the relationship between the qualitative and quantitative and their resolution in Measure. Now, whilst such a claim might seem to run against interpretations of Hegel's Logic contending that the mathematical infinite and Measure hold a merely negative purpose in the final system, (Rinaldi, A History and Interpretation of the Logic of Hegel, 177) at the same time their prefiguration of the speculative essential point of the work is evidenced by difficulties Hegel encountered in the evolution of his logic. In the Jena Logic, even before the infinite is passed through mathematics and Measure as in later works, Harris notes that the discussion of 'bad' and 'good' infinity in the opening objective phase of 'Simple Connection' causes Hegel some structural problems. "Hegel needs to resort to a long note (or a series of notes) at this point because in the first place he wants to put his discussion of the 'bad' infinite into the context of the 'good infinite' (the 'absolute essence,' which properly belongs to metaphysics)." (H. S. Harris explanatory note in Hegel, Jena logic, 14.)

transitions between them (presuming that the content is not mutilated in the process), then his essential point is proven almost by *de facto*, ⁴⁹ whether or not one wishes to denounce the Absolute as untenable metaphysical nonsense (as did Engels, Lenin, etc). So, crucially, to repeat the point once more, Hegel's *Logic* cannot be reduced to simply his dialectical methodology of showing the limitations of all finite determinations; the contents through which this demonstration is pursued matter equally as much.

This is where mathematics comes in. The conceptual problem of the infinitesimal (infinitely small unit) in calculus presents a supreme opportunity for Hegel, as it reflects the finite/infinite dialectic at work throughout the *Logic*, but at the level of a real problem confronting science's understanding of its concepts. For where else does modern science struggle with what seems to be an appreciably similar problem to the one structuring the whole of Hegel's enterprise? If logic is not to be metaphysics in the old sense, it has to interface with science. The risk is enormous, but the potential payoff equally so. For if Hegel can resolve the

⁴⁹ It is worth acknowledging the limitations of the 'almost' here. For as Peter Wolfdendale argues, the 'identity thesis' of the unity of thought and being is not given an explicit justification in the *Logic*, which rather relies upon a presupposition supposedly proven in the account of consciousness from the *Phenomenology of Spirit*. ("The Greatest Mistake: A Case for the Failure of Hegel's Idealism," paper given at the '21st century idealism' conference at Dundee University (2011). Available online: http://warwick.academia.edu/PeterWolfendale/Papers/1208748/The_Greatest_Mistake_A_Case_for _the_Failure_of_Hegels_Idealism [Accessed 2 March 2012]). Karl Marx attributes the final transition from logic to nature as a transition from abstraction to intuition owing to the philosopher's "boredom" with the emptiness of self referential logic encountered at the Absolute apex of the system. ("Economic and Philosophical Manuscripts" in *Early Writings*, trans. Rodney Livingstone (London: Penguin, 1975), 398.)

conceptual problem underlying one of the most important advances in modern mathematics (also of great significance for physics), then he can quite literally *prove* the superiority of philosophical idealism: its necessity and worth not just for undermining the certainties of finite, scientific understanding, but its necessity for the scientific intellect's understanding of its own procedures.⁵⁰ Science will, in short, need philosophical idealism for a proper appreciation of its own practice.

⁵⁰ Or to put it another way, just to bring out how high the stakes are for Hegel in making his concept of 'good quantitative infinity' work, if he could not show how the mathematical infinite resolves itself into 'true' infinity he would lack a logical proof exceeding the eloquence of his own philosophical architectonic for demonstrating the superiority of infinite speculative reason [Vernunft] compared to the concepts of the finite intellect/understanding [Begriff]. With this in mind we can better understand why a quarter of the entire book is devoted to mathematical/quantitative reflections and reams of pages pour over the latest methods of the calculus (202 pages in the English translation, nearly a quarter of the whole Logic). Nonetheless, it is worth acknowledging how those spearheading the revival of Hegel in contemporary theory contest the interpretation of Hegel's privileging of reason over understanding. In a recent edited volume, Hegel and the Infinite: Religion, Politics, and Dialectic, eds. Slavoj Žižek, Clayton Crockett and Creston Davis (New York: Colombia University Press, 2011), Crockett and Davis associate the view of Hegel privileging Reason with a conservative interpretation where he is attributed a "liberal bourgeois subjectivity grounded in the idealized split between Reason and the external world" ("Introduction," 2). The 'open Hegelianism' promoted by Slavoj Žižek and followers questions the Absolute identity thesis, and sees in the dislocating movement internal to the Hegelian One the force of the dialectical Two that undoes all fixed determinations ("Preface: Hegel's Century," x). For a variation on the theme of mobility in Hegel as opposed to static Absolute Knowledge also see Malabou, The Future of Hegel. Within the domain of more conventional Hegel studies a similar debate has taken place between John Burbidge and Stephen Houlgate, with the former offering an argument that the culmination of Hegel's Logic in the Absolute does not demean the understanding but rather establishes it as the most crucial of all speculative moments. Drawing on a wealth of direct citations which bear witness to Hegel explicitly taking the opposite view, Houlgate provides a convincing rejoinder establishing the documentary evidence for the conventional take on Hegel's philosophy. ("Where is the place of Understanding?" and "A Reply to John Burbidge" in Essays on Hegel's Logic, ed. George di Giovanni (Albany: State University of New York Press, 1990), 171-182, 183-190.) In our view, Hegel quite openly privileges infinite, speculative Reason over finite, scientific understanding on a systematic level.

Before progressing to the *Logic*, however, the next section will examine the problems concerning Hegel when it came to mathematics' relationship to philosophical conceptualisation and physical reality in his earlier works on the subject. The aim of this is to help explicate the way the intellectual struggle waged by Hegel in this domain does not reduce to a single problematic, but is rather a multifaceted encounter. Prising the distinct problematics apart will put us in a better position to evaluate the final position taken in the *Greater Logic* and the results of Hegel's assimilation of calculus into his philosophical system.

1.2 At the limits of geometry

The starting point for most discussions of Hegel's use (and abuse) of mathematics is his 1801 dissertation on the orbits of the planets.⁵¹ Because of the justified rubbishing the thesis has received from his own contemporaries through to Karl Popper in the 20th century,⁵² it is easy to get the impression that Hegel began his philosophical career with incredibly naive ideas about mathematical rationality and a romantic belief in the universe's conformity with it. Yet Hegel's earlier 1800 *Geometrical Studies* – passed down to us only in fragments – paints a picture of a

For an English translation see G.W.F. Hegel, "Philosophical Dissertation on the Orbits of the Planets," trans., with Foreword and notes by P. Adler, in *The Graduate Faculty Philosophy Journal*, Vol. 12, No. 1 (1987), 269–309.

⁵² Karl Popper, *The Open Society and its Enemies: Volume 2 Hegel and Marx* (London: Routledge, 1966), 27.

more nuanced meeting between his philosophy and mathematics. By beginning with this work we are able to disentangle two separate aspects of Hegel's philosophical approach to mathematics, both unfortunately fused together in his doctoral dissertation. The first being the search for conceptual necessity in mathematical practice; and the second being the question of precisely how mathematics relates to the physical world.

At the time of undertaking his study of Euclid's Elements at the turn of the 18th/19th century, Hegel was immersed in an intellectual environment where Neoplatonism was ascendant. For this reason, Alan Paterson sees close parallels between Hegel's approach to geometry and that of Proclus.⁵³ The difference is that while Proclus seeks to interpret geometry as a hierarchy of perfection in terms of its figures' proximity to the equality of an originating One, Hegel, on the other hand, seeks similar criteria, but in terms of conceptual unity. By working with the dyad of limited/unlimited (another rendition of the finite/infinite dialectic one finds throughout his work), Hegel wishes to locate the simplest concepts underwriting Euclid's development of his theorems. In his Geometrical Studies Hegel is, as his later take on calculus will also be, reasonably respectful of mathematical practice; he does not enter the fray in order to tear apart mathematics according to the demands of higher speculative reason. Rather, he more subtly seeks to provide dialectical philosophical conceptualisations where he perceives Euclid to lack a sufficiently rigorous conceptual underpinning of his own; limiting himself to providing more

⁵³ Alan L. T. Paterson, "Hegel's Early Geometry", *Hegel Studien* 39/40 (2004/2005), 61-124. Author's manuscript available online: https://sites.google.com/site/apat1erson/Heggeom7.pdf?attredirects=0 [Accessed 20 March 2012],

rigorous conceptual justifications for geometrical propositions and occasionally shortening proofs. One such 'correction' is a critique of the superposition technique occasionally used by Euclid. This technique involves a manipulation of the geometrical figure in the mind – in Proposition 4, for example, a triangle – to make a geometrical proof by imaginatively placing one triangle on top of another. Hegel considers it cheating to rely on such a sensuous understanding of geometrical objects for the reason that the concepts at work in geometry are more succinct than their visual realisation. For instance, the concept of a triangle need only pertain to two angles and the concepts of line and plane; the complete visualised triangle (having three lines, three angles, and three points) is superfluous compared to its simpler conceptual identity. It follows that any method relying on these superfluous visualisations to make a proof misses the deeper, simpler and more necessary conceptual proof. For Hegel, deriving the latter relies upon a systematic construction of the concepts of geometry out of the notions of the limited and unlimited. This begins with the simplest figures and only completes itself once the major figures of geometry have been developed out of them. The point begins the dialectical generation and is infinite (unlimited), but it is a 'bad infinity' because it is as yet without relation to the finite (limited), which evolves from the conceptual unfolding of line, plane, and the geometrical figures they construct.

What can be taken away from Hegel's geometrical studies is his attempt to provide a philosophical conceptual framework to simplify and bring to mathematical understanding a proper comprehension of its practice. The open question this raises, however, is to what extent philosophy really can play the role of resolving

mathematical conceptual problems, or if in fact it only manages to create the appearance of its necessity in a parasitic relationship to positive science? As we will see, this is the question around which the whole debate about Hegel's use of mathematics in his system revolves. But before running ahead of the argument, let us turn to Hegel's dissertation and his first attempt at 'applied mathematics', where he proposed a union of the qualitative and quantitative. More than just proposing that the world is governed by mathematical, physical laws, a position with which physicists would readily agree, Hegel attempts to link the inner, conceptual rationality of mathematical number series to predict the distance of the planets from the sun. The thesis is based on a conviction that the deep, conceptual understanding philosophy brings to mathematics can attain predictive power.

In his thesis Hegel seeks to find a rational basis for the Titius-Bode 'law' of the distances of the planets in the solar system from the sun. Hegel's procedure entails taking a number power series from Plato's *Timaeus* and correlating it to the known orbit distances of the planets, obliging him, if he was to make the sixth number in the series match the orbit of Saturn, to fudge the Platonic number series (1,2,3,4,9,8,27) by replacing the 8 with 16 (1,2,3,4,9,16,27) — a substitution performed without any theoretical justification. However, Piazzi's discovery of Ceres (nowadays considered a 'dwarf planet', orbiting between Mars and Jupiter) in the year of the defence of Hegel's dissertation undermined his already suspiciously arbitrary application of the number series. Hegel's intuition of the absence of any necessary planet between the orbits of Mars and Jupiter was proved wrong by empirical science, resulting in

contemporaries heaping scorn upon his work.⁵⁴ After having his fingers burnt with dabbling in 'applied mathematics' Hegel began a career-long process of equivocation regarding the relationship between mathematics and physical reality: initially he renounced the claims of his dissertation, but he then later retracted the renunciation.⁵⁵

That he never entirely gave up on the idea that the mathematical relations ordering the universe should conform to a higher conceptual rationality is evidenced in his *Lectures on the History of Philosophy*. In a discussion on the Pythagorean School Hegel revisits the question of the ordering of cosmic relationships, commenting scornfully that "The Pythagoreans further constructed the heavenly bodies of the visible universe by means of numbers, and here we see at once the barrenness and abstraction present in the determination of numbers." Only a few pages on, though, polemic gives way to a more wistful reflection on the "grandeur of this idea of determining everything in the system of the heavenly spheres through number-relations which have a necessary connection." The modern era, Hegel recognises, has made great advances in the use of mathematical thought to understand celestial laws and phenomenon, yet "everything has the semblance of

Olivier Depre documents the reaction amongst contemporaries conducting a research project to find the missing planet. ("The Ontological Foundations of Hegel's Dissertation" in *Hegel and the Philosophy of Nature*, ed. Stephen Houlgate (Albany: State University of New York Press, 1998), 257-282.)

⁵⁵ Cinzia Ferrini has performed an intellectual archaeology on Hegel's retractions and reinstatements regarding the relation of mathematics to the physical world. ("Framing Hypotheses: Numbers in Nature and the Logic of Measure in the Development of Hegel's System" in *Hegel and the Philosophy of Nature*, ed. Stephen Houlgate (Albany: State University of New York Press, 1998), 280-310.)

accident and not of necessity."⁵⁶ The Pythagoreans went astray not just by attempting to represent the speculative Idea through motionless number, but also by failing to delineate the "transition of qualitative into quantitative opposition,"⁵⁷ which cannot rely on the naive assumption that the universe conforms to the conceptual underpinnings of number series – as Hegel himself assumed in his dissertation when seeking to find a rational basis for the Titius-Bode law. As we will see, the *Logic* seeks to resolve this problem by synthesizing the quantitative and qualitative in the category of Measure. This will be a more limited exercise in 'applied mathematics' than that attempted in the dissertation, seeking to show how the conceptual basis of calculus demonstrates – within the limits of ultimately qualitative determination – that quantitative measure in physics is not externally imposed on its objects of study.

At the bare minimum then the preceding discussion allows us to affirm that Hegel attached great significance to mathematics throughout his career. It is now time to return to the *Logic*. In so doing, we need to judge if Hegel successfully rides to the rescue of understanding mathematics' foundations or illegitimately restricts its practice by subordinating it to speculative reason. The introduction to this chapter has already indicated what our conclusion will be, but the exact manner in which Hegel fudges the matter will provide crucial insights to the problem of using his 'leaps' between quantity and quality as an idea of a novelty-bearing event.

⁵⁶ Hegel, *Lectures on the History of Philosophy*, 228, 230, 231.

⁵⁷ Ibid., 219.

1.3 On the (ab)uses of mathematics in the Logic

Commentary on Hegel's interpretation of mathematical infinity is highly polarised. On the majority's side you have the likes of Bertrand Russell, whose dismissal of all that Hegel has to say on the subject can be considered common sense wisdom on the matter. On the other side, a minority stream of readers swing to the opposite extreme and defend Hegel's speculative insights by arguing that they, in some loose sense, prefigure Cantor's transfinite. The idea behind the minority's defence is that even if Hegel's speculative explorations of the problems of infinitesimal calculus do not break new mathematical ground, they nonetheless stretch in the right direction. Hegel might not have created the mathematics for the Cantorian revolution, but on the conceptual level he was, such readers argue, close enough to

Bertrand Russell, *Principles of Mathematics* (London: Routledge, 2009), §325. Here Hegel's reflections are portrayed as an exercise in shallow rumination. Owing to Russell's deserved esteem as a philosopher of mathematics, many seem willing to accept his judgment, and in the years since the matter has received little in the way of more careful consideration. Even a committed Lacanian-Hegelian like Slavoj Žižek, engaged in an unfashionable defence of Hegel's ontology, reiterates the common sense wisdom about Hegel's "inadequate understanding of mathematics" ("Is it still possible to be a Hegelian today?" in *The Speculative Turn*, eds. Levi Bryant, Nick Srnicek and Graham Harman (Melbourne: Re.Press, 2011), 222, fn. 37). Terry Pinkard, though, claims that the commonsense view, which regards Hegel's philosophy of mathematics as being composed of silly assertions, poses "one major traditional obstacle to the fair assessment" of Hegel's philosophical work in general ("Hegel's Philosophy of Mathematics", *Philosophy and Phenomenological Research*, 41:4 (1981), 459).

⁵⁹ Rinaldi states that Hegel's concepts of infinity "openly foreshadows the possibility of a series of different forms and degrees of quantitative actual Infinity, which in the ambit of the mathematical sciences, will be theorized by G. Cantor... [proving] the perennial up-to-dateness of the Hegelian Logic." (A History and Interpretation of the logic of Hegel, 172.)

affirm that he made a lasting contribution to the field. There is also a third view on Hegel's mathematical work. Positioning his magnum opus, *Being and Event*, as an alternative to Hegel's *Logic*, Alain Badiou reprimands Hegel's blindness to the need for subjective decision on the existence of the actual infinite. He rejects Hegel's dialectical infinite as a piece of 'speculative theatre' whose name does not accurately reflect the true mathematical infinite which it attempts to subsume. While we will agree with Badiou's charge that Hegel's mathematical infinite can in no sense be considered to prefigure Cantor's, we need also to go beyond his critique by showing why this undermines the section on Measure presenting the 'leaps' between quantity and quality. For Hegel's derivation of these leaps relies upon his dialectical

⁶⁰ An intermediary view on the matter appears to be suggested by Ernst Kol'man and Sonia Yanovskaya ("Hegel and Mathematics" in Karl Marx, The Mathematical Manuscripts of Karl Marx, eds. Kol'man and Yanovskaya (London: New Park Publications, 1983), 235-255), who argue that at its best Hegel's take on mathematics shows how the conceptual problems of the differential method expose deeper, underlying issues related to the quantitative finite's relation to the infinite; but it goes wrong when he adopts the role of a partisan of philosophy too enthusiastically, grossly underestimating mathematics' own capacity to push its horizon forward. Kol'man and Yanovskaya also argue that Hegel "thinks that such a transition [between elementary and higher mathematics] is only conceivable outside of mathematics in his philosophical system ... and in doing so replaces the then still unknown real relations with ideal, fantastical relations and thus creates an apparent solution where he should have sharply posed an unsolved problem" (ibid., 237-238). In this way, they argue, Hegel incorrectly forecloses the possibility of mathematics' own internal development. Kol'man and Yanovskaya conceive this error as a narcissistic incursion by Hegel into mathematical practice that would later find its own feet without need for assistance from his historically provincial, philosophical 'resolutions'. While appearing to strike a middle ground, ultimately Kol'man and Yanovskaya come down on the side of those that dismiss Hegel's philosophy of mathematics for its illegitimate attempt to subordinate mathematical conceptualisation to speculative reason.

⁶¹ Badiou, *Being and Event*, Meditation 15.

infinity being a legitimate conceptual take on mathematical infinity. If it is not, the question of why not will become crucial for understanding the problems with its appropriation by dialectical materialism. It is thus necessary to delineate exactly what Hegel is attempting to achieve over the course of the chapters in sections 2 and 3 of the first Book of the *Logic*, before returing to a critical evaluation of its consequences for orthodox Marxism's idea of the event.

Hegel's take on mathematics in the *Logic* is often taken as merely destructive insofar as he seeks to derive the immanent necessity of mathematical categories in order to undermine the ascendant mathematical formalism amongst his contemporaries. But his project is not solely a critical one. As with his earlier work on geometry, it is not so much concerned with delimiting the practice of mathematics as it is in insisting upon reconciliation with ontological categories, which only dialectical philosophy can accomplish. ⁶² It follows that Hegel's at first seemingly exaggerated preoccupation with mathematics can only be properly understood by placing it in its historical context. ⁶³ It is well known that the 19th century represented a foundational

⁶² As Alain Lacroix states: "Hegel seems to be taking its [mathematics'] terms apart, breaking up their coherence, and relocating them within a framework of the philosophy of the Concept that is alone capable of providing its foundation and determining its limits" ("The Mathematical Infinite in Hegel", *The Philosophical Forum*, Vol. XXXI, No. 3-4 (2000), 299). Or in Terry Pinkard's terms, "His program involves minimally the ordering of a set of categories in such a way that a step by step analysis and justification of each category can be given according to a small set of basic principles" ("Hegel's Philosophy of Mathematics", 453).

⁶³ This context is important to avoid ahistorical claims that simply dismiss what Hegel has to say about mathematics as being 'old fashioned'. For example, Pinkard contends, "Hegel's discussion of mathematics is, it must be admitted, a bit outdated. He follows the tradition of his time in supposing that objects of mathematics are the related notions of quantity and number ... for algebra and analysis one does not need the notion of quantity but only integers, which can be defined in set theory.

interregnum in mathematics after the enormous strides taken by Isaac Newton (1643–1727) and Gottfried Leibniz (1646-1716) more than a century earlier in formulating differential calculation, and the more contemporary opening up of mathematics to the late-19th/20th century terrain of Georg Cantor's (1845–1918) transfinite, Kurt Gödel's (1906–1978) incompleteness theorem, and Benoit Mandelbrot's (1924–2010) fractal sets, amongst others. Hegel was not insensitive to the sense of transition in the field. Against the widespread caricature of Hegel as a philosophical megalomaniac - and conversely, a mathematical ignoramus - in fact Hegel was conversant in the mathematical practice of his time, and even taught a course on differentiation. In an 1865 letter Engels went so far to claim that "Hegel knew so much about mathematics that none of his pupils were in a position to publish the numerous mathematical manuscripts among his papers."64 Hegel was also familiar with contemporary practitioners' efforts to set differentiation on more rigorous ground, such as in the work of Joseph Louis Lagrange (1736-1813) and Augustin-Louis Cauchy (1789–1857). Not unreasonably, Hegel's concern with mathematics stemmed from a realisation that calculus had opened up an irreparable wound in the solidity of mathematics' foundations; and this was coupled with, at the

Further, there are new branches of mathematics which deal neither with quantity nor with number, such as projective geometry and group theory" ("Hegel's Philosophy of Mathematics", 456). That Hegel does not manage to incorporate discussion of the entirety of mathematical practice, never mind branches not yet invented in his own time such as set theory, is not in my mind a serious criticism. The lack of any treatment of irrationals is, however, more problematic for the claim that his thought was a conceptual precursor to Cantor's, since irrationals were of course part of the mathematical practice of Hegel's time.

⁶⁴ Fredrich Engels, quoted in Kol'man and Yanovskaya, "Hegel and Mathematics", 236.

same time, the great progress in the field having humbled confidence in the speculative capacity of philosophy, a field working within a similar domain of reason, yet unable to deliver the same sort of rapid advances. So Hegel's aims are twofold: to attempt to show how only dialectical philosophy can reason away the fundamental conceptual problem underlying calculus, hence proving the superiority of philosophical idealism compared to scientific understanding, and at the same time to also provide mathematics with the conceptual understanding of its practice. Addressing both of Hegel's intentions, the aim of the rest of this section is to see how Hegel's take on calculus' categories fits within his Doctrine of Being and why this (1) necessitates a criticism of thought's subservience to mathematics, (2) demonstrates how qualitative moments emerge necessarily in the concept of quantitative number, (3) shows why on its own ground number cannot escape never-ending progress to infinity — "spurious infinity", (4) necessitates the category of Measure, and (5) culminates in the scathing criticism of gradualness in quantity-quality 'leaps' that dialectical materialists adopted as their idea of evental transformation.

The following quote exhibits the full force of the critique Hegel levels against rendering philosophy subservient to mathematics:

These ancients perceived quite correctly the inadequacy of number forms for thought determinations and equally correctly they further demanded in place of the substitute for thoughts the characteristic expression; how much more advanced they were in their thinking than those who nowadays consider it praiseworthy, indeed profound, to

revert to the puerile incapacity which again puts in the place of thought determinations numbers themselves and number forms like powers ... which are themselves often only a perverted mathematical formalism...⁶⁵

This is because "In symbols the truth is dimmed and veiled by the sensuous element; only in the form of thought is it fully revealed to consciousness: the *meaning* is only the thought itself."⁶⁶ By which he does not mean that in any vulgar sense that philosophy's superior hermeneutic function is necessary for understanding what is going on in mathematical manipulations. Rather, Hegel's contention is that mathematics remains encumbered by its own finite understanding subsumed, and hence rendered invisible, beneath the surface of seductive symbolism. Dialectical reason, however, can penetrate through these misguided understandings to expose the deeper ground of reason – most importantly in the obscure status of the vanishing operator of the infinitesimal used in calculus for obtaining the differential of a curve. In Leibniz's notation, for example, the differentiation of $x^2 = y$ becomes

$$\frac{dy}{dx} = \frac{x + dx^2 - x^2}{dx}$$

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⁶⁵ Hegel, *Science of Logic*, Vol. 1, Book 1, §2, 214.

⁶⁶ Ibid., 215.

which after carrying out the required multiplications and cancelling out of redundant terms can be reduced to:

$$\frac{dy}{dx} = 2x + dx$$

But then given that dx represents an infinitesimal, yet $\frac{dy}{dx}$ retains its value as the required measure of the ratio, dx is cancelled out leaving only

$$\frac{dy}{dx} = 2x$$

This *approximation* technique violates algebraic logic for the purpose of determining the gradient of the curve, even whilst it permits exactly correct results. For Hegel, dialectical reason can explain what necessitates this cheat by situating it within an ontology of the quantitative. Hegel's concern is to deduce the relationship of quality and quantity to each other, particularly regarding the relation of the finite to the infinite enmeshed with these categories. It follows that our exposition needs to explain both of his categories, since Hegel establishes two dialectical unfoldings: finite quality to infinite quality; and finite quantity to infinite quantity.

Hegel defines Quality as Being, wholly simple and immediate. It is "reality" in its most basic form, and hence in the Hegelian metaphysics it is marked by

negativity.⁶⁷ In order for reality to take on a determinate, qualitative being it is necessary that it also *be something*.⁶⁸ Hegel determines a something as possessing a limit internal to itself (not just respective to another), and this "is the mediation through which something and other each as well *is*, as *is not*."⁶⁹ The finitude of qualitative things is consequent upon the fact that "finite things are not merely limited—as such they still have determinate being outside their limit—but that, on the contrary, non-being constitutes their nature and being."⁷⁰ What Hegel describes as the sadness of this realisation follows from the fact that finite things "are, but the truth of this being is their *end*. The finite not only alters, like something in general, but it *ceases to be*."⁷¹

Critically, in the qualitative field Hegel stresses that the finite and the infinite should not be thought apart from each other; the latter should not be treated as the "beyond" of the finite – a conception which he derides as "spurious infinity." To treat the infinite as being in opposition to the finite would imply a limitation within the infinite, thereby rendering it another finite something. Instead, "the infinite only

⁶⁷ "Quality, taken in the distinct character of being, is reality; as burdened with a negative it is negation in general, likewise a quality but one which counts as a deficiency." (ibid., 111).

[&]quot;Something is the *first negation of the negation*, as simple self-relation in the form of being. Determinate being, life, thought, and so on, essentially determine themselves to become a determinate being, a living creature, a thinker (ego) and so on." (ibid., 115).

⁶⁹ Ibid., 127.

⁷⁰ Ibid., 129.

⁷¹ Ibid., 129.

emerges in the finite and the finite in the infinite."⁷² Thinking them separately is therefore only the abstraction of two moments; but insofar as they can be thought apart from each other Hegel insists that we conceptualise their relationship as one of "the alternation of the two determinations, of the unity and of the separation of both moments."⁷³ This does not, however, imply putting the finite and infinite on the same footing. For Hegel only in the infinite is there "a purely self-related, wholly affirmative being. In infinity we have the satisfaction that all determinateness, alteration, all limitation and with it thought itself, are posited as vanished."⁷⁴ Or to repeat, negativity is rendered in positivity only at the level of qualitative infinity, therewith recuperating the dialectic of negativity to both truth and the good. This proves to be problematic for Hegel in his analysis of quantitative infinity. The notion of "spurious infinity" that he derides in the qualitative field, he finds to be a consequence of the being of Quantum as it progresses to infinity without ever reaching it – leaving the two 'levels' torn permanently asunder.

The notion of "pure quantity" parallels that of "reality" in the qualitative field: it is continuity – and here Hegel follows Kant's representation of it with space and time – that requires its determination as quantum; or, as the discreet something of pure quantity. However, against Kant, Hegel argues that the continuity and

⁷² Ibid., 141.

⁷³ Ibid., 151. For Lacroix: "Therein resides Hegel's fundamental originality: the infinite is the very process of all finite reality that thinking is capable of unfolding" ("The Mathematical Infinite in Hegel", 304).

⁷⁴ Hegel, *Science of Logic*, Vol. 1, Book 1, §1, 139.

discreetness are but two moments; and consequently, "continuous magnitude" and "discreet magnitude" are inseparable conceptually other than as "species" of the same concept.⁷⁵ In other words, the discreteness of quantum cannot be held in opposition to pure, continuous quantity: each conceptually necessitates the other, discreteness emerging out of continuity as a dialectical moment. Quantum then attains its determinate being as a discreteness in which its limit is no real limit in the continuous repetition of a series of ones: a limit that is indifferent. Thus, if the one satisfies its determination as self-relating, enclosing, and as an other-excluding limit it is number. But at the same time, at this point a qualitative difference first emerges in the differentiation of unit and amount within the idea of number. Because the determination of units in a continuous sequence of ones is indifferent, the plurality of the amount is irreducible to any of these indifferent units, implying a qualitative difference between two somethings - unit and amount - each containing the other in its own determination. In Lacroix's words, "number attests to a first form of resurgence of qualitative difference in the heart of quantitative homogeneity."⁷⁶

The resurgence of qualitative distinction within number becomes more pronounced once extensive and intensive quantum are specified. In the form of number – possessing an amount – quantum is "in its own self" an extensive magnitude. By contrast, intensive quantum, degree, represents the difference

[&]quot;Continuous and discrete magnitude can be regarded as species of quantity, provided that magnitude is posited, not under any external determinateness, but under the determinateness of its own moments" (ibid., 200-201).

⁷⁶ Lacroix, "The Mathematical Infinite in Hegel," 305.

between two numbers: introducing a qualitative difference. But Hegel is keen to impute that degree is not a category introduced externally from the difference between varieties of empirical measurement. For instance, even though temperature is normally thought in terms of the intensive quantum of degrees (Celsius), it is equally an extensive quantum in that the sliding scale of a thermometer moves extensively in response to changing conditions. Extensive and intensive quantums are therefore further examples of "moments"; both are contained within the concept of number – the qualitative difference immanent to number emerges in the extensive/intensive binary. In Hegel's exact words: "Number itself necessarily has this double form immediately within it."

Extensive quantum is thus never negated into intensive quantum in such a way as to allow a direct passage to qualitative infinity; and for Hegel therein lies the problem, because "the increase of quantum brings it no nearer to the infinite ... the difference between quantum and its infinity is essentially not a quantitative difference." As a result, "This infinity which is perpetually determined as the beyond of the finite is to be described as the *spurious quantitative infinite*." The roadblock of the antinomy between finite quantum and quantitative infinity Hegel describes as "an impotence of the negative." And it is also at this dialectical impasse that Hegel's analysis converges with his critique of contemporary mathematical practice in the calculus, where the correctness of the results are presumed to affirm an incorrect

⁷⁷ Hegel, *Science of Logic*, Vol. 1, Book 1, §2, 222.

⁷⁸ Ibid., 228.

understanding of the method. He writes, "This alone is a bad state of affairs; such a procedure is unscientific. But it also involves the drawback that mathematics, being unaware of the nature of its instrument because it has not mastered the metaphysics and critique of the infinite, is unable to determine the scope of its application and to secure itself against the misuse of it."

Over the following pages Hegel proceeds to engage with and repudiate Lagrange's method of attempting to ground calculus intra-mathematically. For some, Hegel's conclusion - and evident bias against any solely mathematical resolution of the problem - represents his crime against mathematics. Hegel argues that the reason why this issue cannot be resolved intra-mathematically is because the calculus has been formalised as an application based upon experiential, empirical physics. Thus, by attempting to resolve the problem solely quantitatively mathematics is in effect trying to purge the qualitative moments from the formal analysis. "The desire to uphold the honour of mathematics, that all its propositions ought to be rigorously proved, has often caused it to forget its limits; thus it seemed against its honour to acknowledge simply experience as the source and sole proof of empirical propositions."80 Hegel insists upon the entrance of qualitative moments of experience into mathematics' objects and warns against the flight into the pure abstractions necessitated to ground mathematics after severing all links to the empirical referents from which it draws its content. Yet the analysis is not left on this

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⁷⁹ Ibid., 241.

⁸⁰ Ibid., 273.

negative note. One of his most ingenious moves is to rescue the seemingly hopeless quantitative 'spurious infinite' from its dead end of ceaseless repetition, and to do so by locating the necessary concepts within mathematics' *own practice*. This requires two moves: firstly, that of reasoning a ratio's relation (therefore a qualitative moment) and its equivalence to an infinite quantitative series (e.g. $\frac{2}{7} = 0.28571...$);⁸¹ and secondly, by demonstrating how, by moving to the power of a ratio, the quantitative is prevented from any lapse into 'spurious infinity' by its rendition within the structure of qualitative infinity.

Returning to the penetration of qualitative determination within number and intensive quantum, Hegel extends this to the notion of fraction. A fraction, e.g. $\frac{1}{4}$, is related to its 'exponent' (Hegel means the right hand side of the equation), e.g. 0.25, as unit is to amount in the idea of number. With a fraction no matter how large the numbers become, e.g. $\frac{4000}{16000}$, the amount is not altered; it remains 0.25. Because the fraction represents a relation it constitutes a quantum determined qualitatively; the infinite series produced on the other side of the equation in the form of an amount represents the sublated difference in the form of an extensive magnitude – i.e. a number series progressive to infinity, but never reaching it. But even the series, in the form of an *inverse ratio*, when varied (e.g. 0.25 \rightarrow 0.35) generates the structure of ratio out of this difference. Therefore, the two sides of the equation are dependent upon each other and cannot be taken individually: "consequently,

⁸¹ For an accessible reading of Hegel's argument regarding ratio and its significance for the grounding of calculus see Henry Somers-Hall, "Hegel and Deleuze on the metaphysical interpretation of the calculus," *Continental Philosophy Review* 42 (2010), 563.

according to the specific nature of their Notion, they themselves are not complete quanta."⁸² The upshot of this conceptualisation is Hegel's interiorisation of quantitative infinity within the qualitative relation of fraction to 'exponent'. Hegel achieves this by the dialectical sublation of quantum, initially conceived as an indifferent series of ones, to then conceive it in terms of qualitative ratio. This antinomy between ratio (qualitative unit) and exponent (quantitative amount) he describes as a "contradiction between its determination as the in-itself, i.e. as unity of the whole, which is the exponent, and its determination as moment of the ratio; this contradiction is *infinity* again in a fresh, peculiar form."⁸³ The significance of Hegel's determination of good quantitative infinity is that "it is possible to conceive a completed infinite totality without resorting to an operation of enumerating its elements"⁸⁴ – an operation that some like Lacroix claim, puts Hegel on the same train of thought as Cantor and Bolzano.

The ratio of powers (e.g. $x^2 = y$) goes one step further in completing the conceptual arc. Insofar as the 'exponent' of a ratio of powers produces only another ratio, there is a complete sublation of the quantitative back to the qualitative. Therefore, "in the determinate being into which it has developed in the ratio of

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⁸² Hegel, Science of Logic, Vol. 1, Book 1, §2, 316.

lbid.,, 319. Lacroix paraphrases the movement well: "For Hegel, to speak in this case of an infinite series is an abuse of language: the series is but the approximate calculus of the determinateness of magnitude contained in the fraction and thus merely employs the bad infinite of progression; on the other hand, the finite expression, because it is a ratio, expresses the true infinite as its immanent determination" ("The Mathematical Infinite in Hegel", 308).

⁸⁴ Lacroix, "The Mathematical Infinite in Hegel," 314.

powers, quantum has reached its Notion and has completely realised it."⁸⁵ That is, expressed in the form of an entirely relational mathematical identity, quantum conceived as an indifferent series of ones tending to infinity (yet never reaching it) is sublated into the *true quantitative infinity*, determining itself intrinsically. In a dialectical twist, it is not just that quantity has come to be determined as quality; rather, "it is the truth of quality itself, the latter having exhibited its own transition into quantity....This observation on the necessity of the double transition is of great importance throughout the whole compass of scientific method ... this is the truth of quantum, to be Measure."⁸⁶

There is no denying how impressive Hegel's dialectical exposition is. By managing to incorporate even relatively basic mathematical conceptual issues within dialectical philosophy, he achieves more than might be expected of an approach oriented around proving the higher truths of speculative thought compared to the work of the finite intellect in mathematical science.⁸⁷ But by the same token, some readers of

⁸⁵ Hegel, *Science of Logic*, Vol. 1, Book 1, §2, 322.

⁸⁶ Ibid., 323-324.

Some of the criticisms levelled at Hegel by Bertrand Russell have been shown in the previous section to rest on a poor reading. Nowhere does Hegel claim that his dialectical infinite is an actual infinite and is necessary for calculus' procedures to make sense. Indeed, such a proposition would contradict the motivation for Hegel's dialectization of the infinite. Russell's myth that Hegel believes calculus to be dependent on the positing of infinitesimals as actual infinities could be attributed to the fact that Russell only worked from the *Encyclopaedia Logic*, where the exposition is drastically shortened compared to the *Greater Logic*. Russell erroneously claims, "It has been thought ever since the time of Leibniz that the differential and integral calculus required infinitesimal quantities. Mathematicians (especially Weierstrass) proved this was in error; but errors incorporated, e.g. in

Hegel, overawed by the cleverness of the exposition, have made the mistake of thinking that when Hegel discusses ratios of whole numbers on the left hand side of the equation equalling an infinite string on the right hand side, he has brought irrational numbers into his system. It is perhaps an easy mistake to make for those not well versed in mathematics. Yet this it is a not inconsequential misunderstanding; because, precisely oppositely, the definition of an irrational number is that it is not the ratio of a pair of integers. Hegel's mathematical infinite is infinite only so far as it applies to the rational subset of the reals. While the more sophisticated defenders of Hegel may admit that Hegel provides no account of irrational numbers and argue that Hegel's conceptualisation of infinity points in Cantor's direction nonetheless, it seems to rely upon a huge stretch of the imagination. For if there was one issue that defines Cantor's efforts it was the relationship between the two powers of infinity: the first composed of rationals, the second composed of the reals (including the irrationals). How Hegel can be considered a conceptual precursor to Cantor when he ignores irrational numbers in his dialectization of quantitative infinity is far from clear, and seems more a sign of wishful thinking on the part of Hegel's advocates than a genuine connection. Furthermore, this perspective also ignores Hegel's stress on avoiding excessive abstraction away from the empirical applications of calculus, which goes some way to explain why Cantor's most ardent antagonist, Leopold Kronecker (1823-1891), was a fastidious reader of Hegel, and the fact that Cantor negatively characterised Hegel's philosophy as part of a "popular and thriving

what Hegel has to say about mathematics, die hard." (Bertrand Russell, Introduction to Mathematical Philosophy (London: George Allen & Unwin, 1919), 107.).

academic-positivistic scepticism."⁸⁸ Although Cantor may have used terms like "dialectic generation" in his expositions, these bear only superficial resemblance to the sense of Hegelian dialectics.⁸⁹

In sum, even giving Hegel's attempted dialecticization of the mathematical infinite a charitable hearing, it is not possible to see how it prefigures Cantor, unless one is reduce Cantor's pivotal insight to the level of a platitude – say, establishing the immanence of infinity within ordinal systems – rather than focusing on his specifically mathematical conceptual contribution. Hegel dialectically establishes a concept of good quantitative infinity where unending 'bad infinity' is mediated with a concept of infinity where they are self-related as qualitative differences. In his concept of the transfinite, Cantor, on the other hand, establishes that there are different sizes of infinity: infinity is plural, there being at least two powers of infinity within the continuum. That Hegel did not manage to anticipate the revolutionary breakthrough of Cantor puts to rest the overblown claims of Hegel's advocates, yet it does not on its terms show why the idea of leaps between quantity and quality it grounds cannot be considered as novelty-bearing events. This is the task of the final section, where we will see how quantity-quality leaps rely on Hegel's dialectical

⁸⁸ Georg Cantor, quoted in Joseph Warren Dauben, *Georg Cantor: His Mathematics and Philosophy of the Infinite* (Princeton: Princeton University Press, 1990), en. 23, 348

⁸⁹ In regard to Cantor's generation of the transfinite number series Dauben writes, "[The symbols] were neither arbitrary tags nor empty symbols, he [Cantor] said, but were dialectically generated in a very "concrete" way. Their reality stemmed from the reality of the derived sets themselves, and it was these sets more than the symbols $n_0^{\infty^{\nu}} + n_1^{\infty^{\nu-1}} + ... + n_{\nu}$ that were the result, the actual *content* of dialectic generation" (ibid., 81-82).

infinite, and why this throws doubt upon the idea that they can be used to think beyond historicist, evolutionary ontologies of change.

1.4 From infinity to measure

At the start of the section on Measure Hegel's warns that the "development of measure which has been attempted in the following chapters is extremely difficult." So Some commentators go further. In Erol Harris' estimation this section is "extraordinarily difficult ... so obscure as to be hardly intelligible." Rather than explicate the dialectical determinations of Measure in a fashion similar to the previous expositions of Quality and Quantity, therefore seems preferable to place more emphasis on unpacking the implications of Hegel's claim that in measure quality and quantity are united. To recapitulate, by the end of the chapters on Quality and Quantity we have learnt that (1) mathematics cannot be conceived purely quantitatively *in absentia* of qualitative determinations – thus the seeming paradoxes thrown up by the calculus stem from an over-abstraction of mathematics from the empirical world, leading to faulty conception of the actual infinite; and (2) once quantum is conceived as qualitatively determined, the same applies vice-versa: quality is quantitatively determined. At his disposal Hegel now has the conceptual

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⁹⁰ Hegel, *Science of Logic*, Vol. 1, Book 1, §3, 331.

⁹¹ Errol E. Harris, quoted in David Gray Carlson, "Hegel's Theory of Measure," Benjamin N. Cardozo School of Law Working Paper No. 66 (2003), 2.

⁹² For an especially thorough and accessible reading of these chapters see Ibid.

ground for thinking how quantitative, empirical measurements of things are possible, allowing him to avoid the alleged misperception that numerical quanta exist alongside, or worse, are imposed externally by a measurer upon an object's qualitative characteristics – refuting, by the same token, the "error of one-sidedly holding fast to the abstract determinateness of quantum." Reflecting these concerns, Hegel wishes to demark mere external measurement of nature "by agreement" from the quantitative magnitude of things, which is co-constitutive of their quality. If this at first seems to privilege physics – and indeed it does insofar as Hegel claims that only in mechanics dealing with abstract matter are the determinations essentially quantitative – he also observes how far biology still needs to progress to understand the connections between such quantities as the ratios of the human limbs to "the organic functions on which they wholly depend." Page 1974

This means that in the development of Measure, culminating in the *inverse* ratio of powers (where 'true' quantitative infinity was realised before the transition to Measure), is a conception where measurement is understood as intrinsic to nature's objects without the need for a subject to enforce external measurement on objects. What at first appears to be the realm of 'external', subject-dependent

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⁹³ Hegel, Science of Logic, Vol. 1, Book 1, §3, 336.

lbid., 331. For Carlson this suggests an *intrinsic* hierarchy within nature from cosmic mechanics down to the multiplicity of organic forms; their place registered to levels of contingent expression, so that "building on the insight that measure entails external imposition upon a phenomenon that is partly free and independent of outside observation, Hegel sets forth a hierarchy in the natural sciences in terms of immunity from the imperialism of a measurer" (David Gray Carlson, "Hegel and the Becoming of Essence", *Cosmos and History: The Journal of Natural and Social Theory*, Vol. 3, Nos. 2-4 (2007), 286-287).

concepts transpires at this point to be internal to nature. Yet Hegel cannot have the essential character of a thing change with every minor quantitative change, which would result in permanent flux. In this regard he takes quite seriously the ancient paradoxes, "does the pulling out of a single hair from the head or from a horse's tail produce baldness, or does a heap cease to be a heap if a grain is removed?" In what he calls *immediate measure* — as ever, *immediate* implying the initial affirmation of a not yet non-dialectically examined understanding — then, yes, it does. But in the process of transition to 'specifying measure', the inadequacy of this understanding is exposed. The relative resilience of things to change is cast as a qualitative resilience to quantitative change. Hegel's famous example is water: the qualitative nature as liquid as only changing to ice at precisely 0 degrees Celsius, at that point undergoing dramatic transformation.

Hegel writes, "The reason why such ready use is made of this category to render conceivable or to explain the disappearance of a quality or of something, is that it seems to make it possible almost to watch the disappearing with one's own eyes, because quantum is posited as the external limit which is by its nature alterable, and so alteration (of quantum only) requires no explanation." Or to paraphrase, the confusion of the finite understanding in taking quantum as an external determination (tending towards a 'spurious infinite' as ceaseless, indifferent repetition) results in a misconception of the nature of the change of things themselves; it cannot understand the sudden breaks necessitated by a conception of

⁹⁵ Hegel, *Science of Logic*, Vol. 1, Book 1, §3, 335.

⁹⁶ Ibid.

the *double relation* between quality and quantity. At some point in the quantitative scale, in order for qualitative change there needs to be a 'leap' in quality: the same leap hidden by the calculus when, in attempting to find a curve's differential, it defaces algebraic logic in the cancellation of the infinitesimal. Thus, to conclude, for Hegel it is the immanent structure of 'good' mathematical infinity in the inverse ratio of powers that one finds in nature and explains why Measure occurs *autonomously* of a subject in the ratios between objects. The 'leaps' between qualitatively distinct things match the disappearance of the infinitesimal in mathematics. The reason why mathematics struggles so hard to understand what is going on when its infinitesimal operator disappears in the process of calculus is because the mathematical procedure touches upon metaphysical reality, whereby the ultimately qualitative determination of things entails that at some point there necessarily needs to be a 'leap' between qualities that is not captured by any quantitative determination.

Now, while this is of course a satisfying solution insofar as it links mathematics, logic and reality all together within a single nodal point of the *Logic's* conceptual unfolding, the question is whether Hegel has rendered a service to mathematics and physics in demonstrating a fundamental dialectical 'law' to sharpen these practices' own understanding of their problems, or, oppositely, whether this resolution, for all its seeming sophistication, is merely Hegel's *self-serving* attempt to prove the superiority of philosophical idealism? To answer this, it is necessary to get a grip on the consequences of his dialectical infinite. For, by way of caution, from the standpoint of conventional philosophy of science, the charge that Hegel goes astray by failing to account for irrational numbers may appear oddly superfluous. Hegel's

neglect of irrationals clearly limits any legitimate claims that he has successfully managed to dialecticize quantitative infinity. But in the case of measurement of nature, is the charge is not rather strange? Is it not actually a fact that measurement of nature never produces irrational numbers? So perhaps, despite his failure to account for irrationals, might not Hegel's mathematical infinity be satisfactory for transitioning to a concept of measure?

Part of the problem with providing a simple answer to the questions is that most philosophy of science, under the influence of neo-Kantianism, makes no claim to know nature *in-itself* as Hegel attempts. For someone like Rudolf Carnap, for example, both the quantitative and the qualitative categories are simply two languages through which we, as human subjects, evaluate and gain knowledge of the world and they do not pertain to any difference intrinsic to nature. The same goes for irrationals. Logical positivistic approaches remain agnostic on the question because they are only concerned with the best way for us to gain conceptual knowledge of nature. The fact that many theoretical models in physics make full use of the reals, whereas empirical measurements are finite (hence also rational) is only a question of convenience from this perspective; it only poses the question of whether it is more parsimonious for calculation to adopt the full sets of reals? Since this approach makes no speculative claims about nature it has no need to proffer any

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[&]quot;First, we must emphasize that the difference between qualitative and quantitative is not a difference in nature, but a difference in our conceptual system—in our language, we might say" (Rudolf Carnap, *Philosophical Foundations of Physics* (New York and London, Basic Books, 1966), 58).

⁹⁸ Ibid., 90.

view on whether irrationals exist in *nature itself*. Mathematics is only a language we use to know the world and so where irrationals ease computation they have a place; where they don't, they have no place. Given that all actually existing measurement only uses rationals there is no need for further discussion on whether irrationals actually exist in nature. Yet contrary to neo-Kantian agnosticism, we are burdened by an obligation to pose speculatively just this question. We cannot hope to make positive claims about nature one way or the other here, of course. But we can question whether Hegel's account is satisfactory in contributing to scientific understanding by following the speculative implications of his own position and by inquiring into the source of his knowledge.

For if Hegel is right and no irrational numbers exist objectively in nature then it implies nature is discrete: there has to be a real halting point to all degrees of accuracy to prevent irrationals occurring within a natural continuum. This is because there would have to be an absolute halting point of accuracy for any empirical measurement preventing the emergence of any infinite and potentially irrational forms of measurement (if from a God's-eye point of view such infinite measurements were possible). Yet this begs the question of how Hegel knows that reality is actually discrete? This, we will argue, is the true nub of the problem and why, despite the 'leaps' from quantity to quality, his system cannot think novelty. In the section on Measure, Hegel's implicit knowledge claim about the discreteness of nature follows from his derivation of dialectical infinity, itself derived from his deduction of quality and the atomism it implies found earlier in the *Logic*. But therein lies the problem. Hegel's dialectical determination of discreteness found in the section on Quality

predetermines that his dialectical quantitative infinity cannot incorporate the continuum implied by irrationals, and neither - it also prescribes - can such irrationals be found within nature. Whether qualitative or quantitative, the discreteness of things is not given any justification that passes through modern scientific thought, but is rather a deductive a priori assumed by the ordering of Hegel's categories allowing him to excise irrational numbers later on in the Logic's exposition. Since this derivation occurs early on in the Doctrine of Being – and in the historically gnoseological exposition its determinations are derived from ancient metaphysical speculation - it is highly questionable whether it contributes to scientific understanding, unless we assume the invariance of scientific understanding being underwritten by timeless metaphysical deduction. 99 For whilst scientists rarely partake in speculation about whether reality is fundamentally discrete or not, in practice scientists quite frequently make use of the full spectrum of the reals in calculus and theoretical physical models. What can speculative reason say in response to the fact that some physical models of the world assume a continuum, whereas others assume discreteness? What can it say about the interplay between finite and infinite paradigms in the interplay between mathematics and modern science in gaining knowledge? Let us offer a strong judgement. Hegel's resolution of the quantitative and qualitative cannot contribute to scientific understanding

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One can make an unfavourable comparison with Badiou here, because although *Being and Event* also commences from Plato's *Parmenides*, Badiou's point is that Parmenides reaches an impasse in the dialectic of the One or the Many, an impasse that only the insights from modern and contemporary mathematics can allow us to surpass. Just as Badiou privileges the event in his ontology, so too does his account of knowledge permit a role for change and development. There is no sense in which Cantor's breakthrough, for Badiou, could ever be reduced to Parmenides' dialectic.

because it curtails its possibilities a priori according to a set of metaphysical questions already grappled with by ancient metaphysics – that is, the same forms of classical speculation engaged in by philosophers like Epicurus and Democritus, or in Parmenides' dialectic of the One or the Many. Calculus, measure and the fusion of the quantitative and the qualitative for Hegel all reduce back to a dialectical deduction in favour of discreteness over continuity. Bertrand Russell's charge that Hegel cannot get past the antinomy between continuity and discreteness is therefore true in a sense - the decision in favour of discreteness binds all of the reflections on mathematics and measure that follow it. 100 Thus, for Hegel to say that there are 'leaps' between the quantitative and the qualitative is ultimately to say no more than that reality is discrete. Why these 'leaps' occur in some instances and not in others has no explanation that can be derived from his speculative undertaking of aligning mathematics and measure with metaphysical deductive categories. The quantitative scale of resilience before these 'leaps' manifest themselves is left a total mystery. The Logic only succeeds in importing contemporary scientific contents into the deductive metaphysical system of categories. But worse than not being able to develop these contents, the understanding it aims to provide them, would, if adopted as genuine 'law', interfere with furthering genuine scientific knowledge. As even Hegel's most zealous defender, Slavoj Žižek, concedes, "the basic fact remains that its fundamental tenor is totally inadequate in relation to the two key features of modern Galilean science: mathematical formalization and openness to the

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¹⁰⁰ Russell, *Principles of Mathematics*, §325.

contingency of (experimental) measurement." 101 We can go further. Hegel's lack of openness to the contingency of experimental measurement is indicative, more fundamentally, of the way historicist reduction limits every aspect of his system from incorporating novelty. With the reduction of the contents of the Logic to classical, metaphysical categories, these predetermine Hegel's excision of irrationals in mathematics and nature. So to assume Hegel prefigures Cantor would be no different to assuming that Parmenides prefigures Cantor. The point is that Hegel's ordering of the categories through dialectical transitions in the Logic no more escapes the historicist approach found elsewhere in his system. All the answers in Hegel's Logic are predetermined by the order of their exposition which matches an historical gnoseology beginning with the Greek's metaphysical questions and moving onto categories associated with modern science - all the answers are, indeed, contained in the origin. No novel, incommensurable breaks ever really take place within Hegelian dialectics as reflected in his continuist epistemology. The Hegelian imperative to order all categories linearly in relation to one another ends up in the systematic elimination of the novelties which have historically upset continuities in the order of knowledge.

We have travelled a considerable distance, so let us retread out footsteps, summarising the prior steps of argumentation, before moving to the chapter's conclusions.

¹⁰¹ Žižek, *Less Than Nothing*, 462.

- α. While Hegel creates a convincing ordering of the categories, quality → quantity → measure, the categories are set up in a way that excludes the disjunction in the number continuum caused by irrationals. This follows from Hegel's unfolding of the categories from a dialectical determination in favour of discreteness early on in the *Logic*.
- β. It is therefore wrong to see Hegel's dialectical mathematical infinity as a precursor to Cantor's. Cantor was concerned with the two powers of infinity, the rationals and the irrationals, which co-exist in number theory. Hegel also cannot account for why irrationals are so important in the methods of calculus. This is particularly problematic because irrational functions historically led to Cantor's breakthrough through the work of Cauchy. If mathematicians had accepted Hegel's resolution, this development could never have occurred and, indeed, a partisan of Hegel's philosophy in the late 19th century mathematics community, Leopold Kroeneker, opposed Cantor's transfinite.
- γ. Hegel's section on Measure takes from his dialectical infinity the exclusion of irrationals and presumes, according to an a priori deductive decision in favour of discreteness, that irrationals do not exist in nature. But this does not account for modern scientific method, where irrationals are frequently used as part of the real set of numbers in theoretical models and calculations based on empirical data.
- δ. The 'leaps' between quantity and quality can also be traced back to the deductive decision in favour of discreteness. But because the fusion between the two fails to explain why there are qualitative limits to quantitative change and why this

applies to some objects are not others, it does not contribute any positive knowledge.

ε. Hegel's engagement with modern scientific content is *self-serving*, and relies upon a reduction of scientific content to ancient metaphysical questions. Hence for all the appearance of conceptual movement in the *Logic*, in fact its reductive modality is essentially static, compressing all modern scientific knowledge back to the historical origins of the classical philosophy.

1.5 A swan song for dialectical materialism

There are political consequences related to the problems identified with Hegel's 'leaps' between quantity and quality. Since Marxists have frequently sought to use these 'leaps' for conceptualising historical change, its failure to break from a progressivist historicism has had repercussions in how they have sought to conceptualise political and economic transformation. Lucio Colletti, for instance, argues that the result of dialectical materialism's adoption of Hegelian logic is demonstrated by Marxists' confusion that modes of production are historically sequential in the sense found in the movement of the *Logic*'s dialectical *aufhebung*. "It is no accident," Colletti writes,

¹⁰² Colletti, *Marxism and Hegel*, see for example, 129, 130, 136, but the point is repeated throughout the work. The only problem with Colletti's argument as I see it is that because it is derived from epistemological distinctions attributable to Marx from his earliest writings to his mature political economy, it does not adequately account for Marx's own break from seeing modes of production in a linear historical sequence in his earlier works to his complexification of historical specificity in his mature work of the 1860s and beyond (see Chapter 2 of this thesis for more discussion on this issue).

that the root of these errors lies in their mistaking the logical process for the process of reality, or, in other words, in an abstract dialectization of the finite....Consequently, the categories (in this case, the commodity, money, and capital), rather than being grasped in the relations and meaning they have within modern bourgeois society, are instead conceived in accordance with the place and meaning they have in the succession of the various forms of society – in other words, according to that succession which is, more or less recapitulated in the logico-deductive movement of the 'succession "in the Idea". 103

In the same way that infinite speculative reason attempts to sublate scientific understanding, so too Hegel's mathematical dialectical infinite aims above mathematics' own practice and fails to grasp the true mathematical infinite inclusive of the irrationals. In the same way that the dialectical deductive procedure, being linear and reductive, cannot permit breaks in knowledge to spoil its historical holism, so too it can scarcely be used by Marxists to conceive the breaks between modes of production (a point that will become clearer in Chapter 3 on Lenin). As Colletti puts it "the principle of reason or dialectical contradiction is insufficient not only in scientific

Nonetheless, since this chapter is focused on the ontology of dialectical materialism it helps show why if Marxists adopt Hegelian metaphysics as a supplementary ontology of change to compliment historical materialism they will necessarily have a problem thinking discontinuous breaks even on an abstract, ontological level.

¹⁰³ Ibid., 132.

knowledge but also in historical knowledge". 104 Dialectical materialism thus made a grave misjudgement when it considered Hegelian dialectics to be compatible with the emphasis on movement and change in modern science. In fact, Hegel's ontology, although appearing to have put forward conceptual movement, is essentially static. As Colletti forcefully argues, the errors of Marxists who have followed the Hegelian route, reaching an apogee with Stalin in the Soviet Union and the likes of Horkheimer and Adorno in the West, resulted from a project which was deeply problematic from the very start. When Engels, Plekhanov, Lenin, Lukács and Stalin (to name just some of the core protagonists) claimed dialectical materialism had inverted Hegel's Logic, prising its materialist core away from idealism, in fact their supposed 'inversions' only served to perpetuate the 'speculative nucleus' of Hegel's philosophy. At the very crux of this nucleus is historicism and the problem with conceptualising novelty. Events that can disrupt the linear, accumulative progression accruing in either scientific knowledge or historical processes are systematically excluded from the conceptual edifice of Hegelian dialectics.

In a sense, then, the idea of quantity-quality transformations do no more wrong than does any other aspect of Hegelian historicism when imported into Marxism. The Hegelian horizon is indifferent to the specific transitions one might wish to cherry pick to support different notions of political transformation. Over the next two chapters we will see the effects of this horizon as it bears upon concrete economic and political problems within Marxism. The seemingly abstract errors of Hegelian abstractions flagged up in this chapter will show up in surprising places

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¹⁰⁴ Colletti, *Marxism and Hegel*, 135.

when we look at the ideas of Marx and Lenin – this alerting us of the continuing need to rethink our concepts of novelty-bearing events and what revolutionary change really means.

2. Marx's Idea of Revolution

real abstraction and empty cookbooks

To accuse Marx of the errors of Hegelian historicism would be to repeat one the most raked over critiques in modern political philosophy. Such is its familiarity we need do no more than adumbrate the criticism. Adopting Hegel's philosophy of history yet switching its mechanism of change to the materialist base underlying modes of production, Marx, his critics allege, plotted out a prophetic historicism where modes of production collapse into one after the other like a line of dominos set in motion from the origins of humanity to an inevitable conclusion in higher communism. If we take seriously such representations – for which Karl Popper's

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This 'historicist' schema needs little introduction since it is today popularised by almost all classroom introductions to Marxism and can be easily sourced from *The Communist Manifesto* and/or accessible Prefaces to other works in his canon (usually those that cut off before the late 1850s). But why the historicist interpretation is so antithetical to our enterprise (and it is no coincidence that all the thinkers examined in Part II of this thesis position themselves against it) can be appreciated by considering what is known as the 'fetters hypothesis' traced out in the 1857 Preface to *A Contribution to the Critique of Political Economy*. Here Marx proposes that change comes about at a point in history when the prevailing *relations* of production become a fetter on the material *forces* of production, thereby giving birth to the colliding temporalities of an "era of social revolution." (Karl Marx, "Preface to *A Contribution to the Critique of Political Economy*" in *Early Writings*, trans. Rodney Livingstone and Gregor Benton (London: Penguin Books, 1975), 425-426.)

name is perhaps most closely associated, but is also given a positive spin by some friends of Marxism¹⁰⁶ – it is however difficult to see why Marx would have thrown all his political efforts behind forming organizations to further cause of the working class or why he would have conducted lengthy scientific critiques of the capitalist mode of production for the express purpose of helping to make communist revolution. Befuddled on just this point, in *The Open Society and its Enemies* Popper ties himself in knots trying to reconcile historical materialism's so-called prophetic

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 $^{^{106}}$ The problem with this dialectical deduction of a 'law' of contradiction between base and superstructure, motoring history forward between epochs, is that it makes revolution and its role in transitioning to new social relations an all but foregone conclusion - what Banaji canonically affirms is "an inherent dynamic that work[s] itself out in the eventual dissolution of existing relations." (Jairus Banaji, Theory as History: Essays on Modes of Production and Exploitation (Chicago, Haymarket Books, 2011), 1.) This 'eventual dissolution' in the historicist reading is then generally rendered as a teleological prediction in Marxist theory: an inevitable 'collapse theory' proposing that Marx determines the inner contradictions of capitalism necessitating it giving way to its negation through revolution. Usually the theory of inevitable collapse is traced back to early Marx's prognosis of the increasing immiseration of the working class, but since this thesis is explicitly repudiated by Marx in Capital by showing that wages can rise (at least as much so that they do not prevent the accrual of some surplus value by capitalists), it tends to be read in the later work as a result of the long term tendency for a decline in the rate of profit. However, even here, Marx comments on the many countervailing tendencies that can prevent the emergence of this tendency as well as the fact that the decline can take place in context of an absolute increase in profit. (Karl Marx, Capital Vol. III, trans. David Fernbach (London: Penguin Books, 1981), Part Three, 317-378; for a discussion of collapse theory, see Ernest Mandel, "Introduction" in Ibid., 78-90; on what collapse theory owes to the Hegelian postulate that one can deduce the necessary end of all finite things, see Jonathan Rosenthal, The Myth of Dialectics: Reinterpreting the Marx-Hegel Relation (Houndsmills: MacMillan Press, 1998)). All the above considered, if we were to accept the proposition that Marx's ideas about revolution simply affirm their necessity in the unfolding between epochs, they could comprise no real precursor to the category of the event. Causally speaking, the event would not 'do' anything, but merely express the conditions underlying its necessity: past and future stitched together as the necessary unfolding of social contradictions transitioning the world between modes of production.

knowledge of the future with the Marxist insistence upon the need for social revolution. The fact that Marxists decline to offer details of how their future socialist society will run is attributed to a conspiratorial drive to deprive reformists of ways of ameliorating capitalism's shortcomings – and this for the purpose of allowing antagonisms to build up which will eventually spill over into violent social revolution and permit the seizure of power by intellectual puppet masters working in the shadows.¹⁰⁷

Stereotypes often draw upon a grain of truth, and sometimes the best way to combat them is to acknowledge this grain and to proceed to demolish the heap of misconceptions formed around it. Such is the case in this instance. Yes, Marx and Engels were supremely confident in the working classes' desire to make revolution; hence the element of prophetic futurism infusing their pronouncements. And yes, there is something of an awkward fit between historical materialism's longue durée understanding of transition between modes of production¹⁰⁸ and Marxists' insistence upon the need for revolution to initiate the transition from capitalism to communism. If it were not for these tensions then none of the reformist deviations within the Second International could ever have taken hold whilst still being able to claim credibly a degree of fidelity to Marx's method. If it were also not for these tensions then dialectical materialism's idea of quantity-quality leaps would not have

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¹⁰⁷ Popper, *The Open Society and its Enemies Vol. II*, Chapter 19.

Marx implies that epochs in human society are the product of long, drawn out gestation periods, fitting within a gradualist philosophy of history. "[E]pochs in the history of society are no more separated from each other by strict and abstract lines of demarcation than are geological epochs." (Karl Marx, *Capital Vol. I*, trans. Ben Fowkes (London: Penguin Books, 1976), 492).

been held up by Lenin as essential for understanding Marxism as a revolutionary practice (see the next chapter). This is far as our sympathies with the critique stretch however. Because to say, as Popper does, that historical materialism bears affinities with Hegelian historicism and to leave the matter there is to miss what separates Marx from Hegel and why Marx directed such savage polemic in Hegel's direction. It is likewise to miss how the differences between Marx and Hegel bear upon Marx's idea of revolution and its unique epistemological underpinnings compared to the ontology underwriting Hegelian historicism. If a trace of Hegelian historicism continues to play a part in Marx's theories, then it will have to be discerned in a more subtle way.

This chapter seeks to explain these differences between Marx and Hegel in terms of Marx's epistemology of social critique, labelled 'real abstraction' by interpreters in the 20th century. The central tenet of this approach is the claim that some of the abstractions occurring in conceptual analysis of society are *not just abstractions* but, rather, reflect abstractions in actual political and economic relationships. Since for Marx legitimate conceptual abstractions are reflective of real abstractions, and because the critical force of intellectual work derives from tracing the former back to the latter, it follows that we can only ever utilise abstractions *a posteriori* to their emergence from a separation in the real. Through this lens, we can see why, based upon these limitations upon knowing the future, Marx's epistemological grounding of communist revolution matches his ideological

¹⁰⁹ The term 'real abstraction' is often attributed to Sohn-Rethel, *Intellectual and Manual Labour*.

disagreements with utopian socialism presented in *The Communist Manifesto*. ¹¹⁰ As stated in this thesis' introduction, these are principally commitments regarding the role of knowledge in communist transformation.

Once in a position to see how Marx's ideological commitments and epistemological approaches synthesize, sense can be made of Marx's idea of revolution as an event where the knowledge used to help drive the movement to the point of revolution is prevented from dominating subsequent processes of change. This then validates Marx's refusal to write "recipes ... for the cook-shops of the future" without leaning upon any Hegelian historicist postulates about the necessary and inevitable unfolding of one mode of production after another. 112 Pace

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As Marx and Engels's put it in *The Communist Manifesto*, whereas bourgeois socialists develop "more or less complete systems" with the future consisting of the need for "propaganda and [the] practical carrying out of their social plans," communists, on the contrary, "have no interests separate and apart from those of the proletariat as a whole." (Marx and Engels, *The Communist Manifesto*, 254, 234). Unlike bourgeois socialists, communists do not engage in drawing up plans for the future; they rather encourage the proletariat to become conscious of their self-interest and to seize political power themselves. The posited scission in the capacity to imagine the future is designed to prevent communists prescribing transitional economic structures, and this for the purpose of securing the primacy of proletarian subjectivity – this principle helping to resolve an egalitarian relationship between the intellectuals who help make communist revolution and the working class subjects supposed to take history into their own hands.

¹¹¹ Karl Marx, "Postface to the Second Edition" in *Capital Vol. I*, trans. Ben Fowkes (London: Penguin Books, 1976), 99.

Ollman argues that Marx's objection to discussing communist society was primarily a strategic move on his part because people generally act out of necessity rather than for a positive vision. (Bertell Ollman, "Marx's Vision of Communism", available online at: http://www.nyu.edu/projects/ollman/docs/vision_of_communism.php [Accessed 22 April 2012]). However, we reject claims that Marx only declined to outline a vision of communism on strategic grounds, and in this chapter argue that the reason for this is found in Marx's epistemological and

Popper, it also makes sense of the Marxist emphasis on revolution not on account of a conspiratorial desire for violence, but rather as a circumscription of the authority of communist intellectuals so that the knowledge used to help makes revolution cannot become a form of institutionalised domination by knowledge as power.¹¹³

Nevertheless, despite the overall line of demarcation we hope to draw between Marx's approach and Hegel's, this chapter also argues that a trace of Hegelian historicism can still be discerned in Marx's idea of revolution, one that makes it compatible with the idea of quantity-quality transformations Engelsian dialectical materialism later introduced as an abstract representation of methodological commitments. As Mandel writes, affirming the same point by citing Marx's methodological reflections, "According to the method Marx applied to the study of the capitalist mode of production, a systematic analysis of the general characteristics of the transitional period would be possible only with the appearance of this economy in its already mature and stabilised form" (Ernest Mandel, *Economics of the Transition Period* [1968], available online at Marxists.org: http://www.marxists.org/archive/mandel/1968/xx/econtransper.html [Accessed 22 April 2012]).

transition to socialism after revolution – and equally, if the transition were not assumed to emerge spontaneously from the attainment of political power by the working class and the expropriation of the means of production – it would inevitably involve setting out a programme requiring, to some degree, implementation by an intellectual elite Proletarian presentation *for-itself* would inevitably have to give way to *representation* by the master planners of socialist transformation. Sohn-Rethel intuits the implications and takes them to their logical conclusion: "The division between head and hand, and particularly in relation to science and technology, has an importance for bourgeois class rule as vital as that of the private ownership of the means of production. It is only too evident in many of the socialist countries today that one can abolish property rights and still not be rid of class" (*Intellectual and Manual Labour*, 37). Sohn-Rethel further argues that although Marx completed this task in his critique of political economy, the "theoretical omission" of an account of epistemology based on real abstraction condemns socialist regimes to the persistence of class division based on the intellectual class wielding scientific authority over manual labourers in a relationship of domination (ibid., 21).

revolutionary change. This kernel of Hegelian historicism is evidenced in the way that until the end of his days Marx insisted upon revolutionary change occurring at a single point of transformation: that from which the abstraction of workers from the means of production would be closed down. The problem, we will see, is that the very structure of Capital – a structure that we will argue against the 'new dialectics' school cannot be seen as a Hegelian totality - militates against post-capitalist transformation being reducible to a single point of difference. Indeed, Capital's analysis relies on at least two, quasi-autonomous abstractions comprising the capitalist mode of production and hence any changes need to be considered in terms of thinking how to overcome these abstractions simultaneously during a transition period. To make this argument we look specifically at Marx's value form and the role of money in the capitalist economy Marx sets out in Vol. II. We argue that according to the logic of Marx's own treatise, the role of money in the present capitalist economy (and any future socialist transition economy) does not reduce to the separation of workers from the means of production. But in order to circumvent the part for planning this indicates, Marx simply insists upon the revolutionary procedure bringing workers and the means of production together being enough to begin transition away from capitalism. In the final instance, we thus conclude, Marx remains unable to break from Hegelian historicism where a dialectical switch at a single point of difference is adequate to transfer between modes of production.

This chapter begins with a review of Marx and Engels's views on the role for communist intellectuals in *The Communist Manifesto*. It then progresses to see how this is compatible with the idea of real abstraction spanning all of Marx's work.

Following this it is argued that the principle difference between Marx's earlier and later use of the idea of real abstraction is that in his mature political economy he develops the idea of multiple real abstractions held together in a single mode of production. We argue that abandoning the notion of homogenous totality points away from the idea of Hegelian notions of change taking place at a single point, but nevertheless under the sway of his ideological commitments against planning and a residual influence of Hegelian historicism, Marx continues to maintain that a revolution reuniting workers and the means of production would be adequate to transition away from capitalism.

2.1 Communism: a very short list of ingredients

It is a common enough anti-Marxist accusation: peel away the altruistic facade and at its root Marxism is nothing more than an attempt to wield working class discontent to realize the ambitions of a marginalised contingent of the intellectual class. ¹¹⁴ From this perspective, Marxism is just Platonism redux – and Popper for one was quick to draw the equivalence. ¹¹⁵ Yet against this Cold War script, Marx's texts indicate political commitments of exactly the opposite persuasion. From *The German Ideology* up to *The Communist Manifesto* and through to the *Critique of the Gotha Programme*, if Marx's political writings stress one thing it is that communists should not adopt an external relationship to the workers' movement and should

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¹¹⁴ For a discussion of this genealogy of critique see Toscano, *Fanaticism: On the Uses of an Idea*.

¹¹⁵ Popper, The Open Society and its Enemies Vol. II.

rather join them by supporting their interests and providing theoretical guidance about how best to realise their own emancipation. The question this raises, however, given Marx's well known disdain for the theoreticism of bourgeois socialists, is how communist theoretical guidance is distinguished from that offered by the utopian system builders of the future? In this section we will see that the demarcation of communist intellectual authority turns on the temporality of theoretical guidance; specifically, that it only plays a role *up to* the revolutionary event, after which point the role for communist intellectuals is effectively rendered obsolete. At the same time, we will also see that the different measures suggested for post-revolutionary transformation reflect the changing nature of Marx's criticism of capitalism.

The Communist Manifesto's central point is as follows: reformist planning is a bourgeois predilection opposed to the need for working class revolution. Supporting the revolutionary cause involves, for Marx and Engels, drawing a sharp distinction with the utopian socialists, who, by intention or default, always end up in the reformist camp. At the other extreme, communists, they argue, are those elements of the working class who proclaim the need for total social change, not just political revolution or tinkering with the system in order to render it more equitable. The raison d'être of communism qua the real movement of working class emancipation is expressed in no uncertain terms: "the emancipation of the working class must be the act of the working class itself." 116 Yet the Manifesto was of course written not by leading elements of the working class, but precisely by two bourgeois intellectuals.

¹¹⁶ Marx and Engels, *The Communist Manifesto*, 202.

How do Marx and Engels square these apparently conflicting positions: chastisement of the middle class intellectuals dreaming up castles in the air, and their presentation of communism as the properly working class movement, in composition and orientation? The answer is that they *temporally* resolve the issue by positing the involvement of intellectuals as part of the social transition *leading up to* the revolution:

Just as, therefore, at an earlier period, a section of the nobility went over to the bourgeoisie, so now a portion of the bourgeoisie goes over to the proletariat, and in particular a portion of the bourgeois ideologists, who have raised themselves to the level of comprehending theoretically the historical movement as a whole.¹¹⁷

The role of intellectuals is to bring theoretical comprehension of the challenge facing the working class movement in the process of overcoming their factional interests and in pushing for maximal social change. Communists are required to prevent national cleavages within the proletariat and to "represent the interests of the movement as a whole." Through their theoretical capacity they have the advantage of "clearly understanding the line march, the conditions, and the ultimate general results of the proletarian movement." ¹¹⁸

¹¹⁷ Ibid., 231.

¹¹⁸ Ibid., 234.

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The need for communist theoretical insight is therefore distinguished from the utopian socialists around the temporal pivot of revolution. For whereas utopian socialists invent principles to be put into practice either immediately or in the far flung future, communists, instead, use their theoretical knowledge solely to drive the movement towards its revolutionary climax; at which point they cede guidance over the procedures of change. In the famous wording of The German Ideology, "Communism is for us not a state of affairs which is to be established, an ideal to which reality [will] have to adjust itself. We call communism the real movement which abolishes the present state of things. The conditions of this movement result from the premises now in existence." 119 Yet not all revolutions are communist revolutions; in terms of a single principle to which a communist programme can be distilled it is, of course, the abolition of private property. The expropriation of private property will ultimately undermine all the social distinctions and the laws on which they depend, which turn on the abstractions arising from the ownership of property by the few. So-called economic laws, based on this alienation of private property (and the alienation of man from the objects of his production in general), will dissolve once this is accomplished. As Marx also writes in The German Ideology, "with the abolition of the basis of private property, with the communistic regulation of production (and, implicit in this, the destruction of the alien relation between men and what they themselves produce), the power of the relation of supply and

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Karl Marx, *The German Ideology* [1845], available online at Marxists.org: http://www.marxists.org/archive/marx/works/1845/german-ideology/ch01a.htm#a2 [Accessed 15 April 2002], Part 1.

demand is dissolved into nothing, and men get exchange, production, the mode of their mutual relation, under their own control again."¹²⁰

Exactly how, in terms of concrete measures, private property will be abolished is a more vexed question. Near the end of the Manifesto a programme is laid out which is judged applicable at least in the most advanced countries; it includes, amongst other things, "A heavy progressive or graduated income tax... Centralization of credit in the hands of the State..." and so on – all measures believed to create the conditions whereby class distinctions can disappear after all production has been concentrated in the hands of "vast association of the whole nation." This programme is not definitive, but rather suggestive of the kinds of policies that communists could put into practice to serve the overall goal of the elimination of private property and class. Marx's flexibility about such specific measures is amply evidenced over the course of his life in light of changing political circumstances. For example, the Manifesto's authors included the disclaimer in the 1872 Preface that "[I]n view of the practical experience gained, first in the February Revolution, and then, still more, in the Paris Commune... this programme has in some details become antiquated. One thing especially was proved by the Commune, viz., that 'the working class cannot simply lay hold of the ready-made State

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¹²⁰ Ibid., Part 1.

¹²¹ Marx and Engels, *The Communist Manifesto*, 194.

¹²² Ibid., 244.

machinery, and wield it for its own purposes." And near the end of his life, increasingly animated by the revolutionary stirrings in the Russian countryside, Marx backed off somewhat from the view of communism being solely a result of the social relations brought into being by modern capitalist industry. "Theoretically speaking, then, the Russian 'rural commune' may preserve its own land... It may become a direct starting-point of the economic system towards which modern society is tending... But it is necessary to descend from pure theory to Russian reality." In the Critique of the Gotha Programme, too, after the statist policies of the Manifesto have already been dropped by its authors, Marx suggests measurement by an "equal standard, labour" with the aim to make the labour time invested in production transparently social as an immediate answer to the problem of exploitation in the transitional period of lower communism.

Underwriting all of these proposals is the fact that they serve simply as *suggestions* for how, once proletarian revolution is actualised, things could be taken forward to the goal of eliminating private property, exploitation and class. There is no attempt at any point in Marx's involvement with the political cause of the working class to prescribe economic transitional forms other than at the broadest,

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¹²³ Marx and Engels, "Preface to the German Edition of 1872" in *The Communist Manifesto*, 243-244.

¹²⁴ Karl Marx, "Drafts of a reply to Vera Zasulich; The 'First' Draft" in Teodor Shanin, *Late Marx and the Russian Road* (London: Routledge & Kegan Paul, 1983), 112.

¹²⁵ Karl Marx, "Critique of the Gotha Programme" in *Karl Marx and Frederick Engels: Selected Works, Volume II* (Moscow: Foreign Languages Publishing House, 1951), 22.

most schematic level. 126 Marx thus remained remarkably loyal to his principle against planning across his lifetime; he had, as he so famously put it, no intention of drawing up recipes for the 'cook-shops of the future.' After the revolution, as long as the proletariat lay their hands on the means of production, all communist intellectuals have to offer is suggestions – and these of increasing irrelevance in the face of the real historical movement expected to occur. This is Marx's idea in a nutshell: the circumscription of communist theoretical thought only up to the point of revolution – intellectuals being allowed to help make revolution but not to plan beyond it. Yet Marx's idea of revolution also encompasses an epistemological approach which it is perhaps even more significant that his solely political commitments. For without being supplemented by a materialist theory of knowledge Marx would have no theoretical justification for his circumscription upon communist conceptual thought cutting off at the point of revolution, and the status of his own scientific labours of analysis and contribution to the working class movement would remain insufficiently differentiated from utopian socialism. In order to grasp Marx's idea of revolution more fully, then, we need to review his approach to critique called real abstraction - seeing how it temporalises the use of

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¹²⁶ We will see in the chapter below that in later life Marx does propose labour-token schemes for workers to draw on the means of consumption, but these suggestions are kept at a very schematic level and not worked through in detail.

One possible exception is the mention in the 1851 plan of the critique of political economy (a project which evolved into *Capital*) that the final volume would present a positive vision of communism. This volume was never written however. (Ollman, "Marx's Vision of Communism")

valid conceptualisation as being *a posteriori* to the emerge of abstractions in real, already existing social relations.

2.2 The viscosity of real abstraction

Real abstraction is not a term used by Marx himself, but is rather an expression coined by Marxist scholars in order to indicate the process Marx posits of an abstraction (or separation) occurring in the social world – a split between the materiality of things and their social meanings, a rendering of relations non-transparent even as they are held together in a concrete social whole. Sohn-Rethel brilliantly illustrates the basic idea with respect to the commodity form when he describes how even a dog can understand when the butcher hands over the meat to his master that that meat now belongs to them, but as soon as money passes hands between buyer and seller his master enters a shadowy world of value into which no animal can pass. In real abstraction material immediacy gives way to relations mediated according to invisible social logics. Yet despite the seeming intuitiveness of the idea, there is no academic consensus on the definition of real abstraction, and hence no real agreement as to whether the idea of real abstraction is found throughout Marx's work, or which exact analyses conform to the concept. 128

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¹²⁸ Sohn-Rethel, owing to his exclusive focus on the real abstraction of the commodity form, presents the concern with real abstraction solely as a product of Marx's mature political economy. In his words, "The view that abstraction was not the exclusive property of the mind, but arises in commodity exchange was first expressed by Marx in the beginning of *Capital* an earlier in the *Critique of Political Economy* of 1859, where he speaks of an abstraction other than that of thought" (*Intellectual and Manual Labour*, 19). However, Lucio Colletti has made a strong case that Marx

Following Lucio Colletti, however, it seems productive to consider the concept of real abstraction in accordance with a handful of fundamental characteristics – separation of elements of society, the break between material reality and social meaning, and the consequential phenomenological opacity of social relations – enabling us to perceive an invariant idea of abstraction underlying all of Marx's political and economic analyses. Insofar as real abstraction is conceived as a separation which can only be discerned retroactively, it is useful concept to explicate in depth because it allows us to see why these epistemological commitments are integral to Marx's idea of revolution as a circumscription upon the knowledge of

adheres to the approach of discerning real abstractions as a baseline critical procedure spanning all of his works. "The process is always the same. Whether the argument is with fetishism and alienation, or with Hegel's mystifying logic, it hinges upon the hypostatizing, the reifying, of abstractions" (Lucio Colletti, "Introduction" in Karl Marx, Early Writings, trans. Rodney Livingstone and Gregor Benton (London: Penguin, 1975), 39). Since we find Colletti's account more convincing, whereby the commodity form abstraction falls under a genus of real abstraction found throughout Marx's work, I take his approach in this chapter. This also helps us avoid Althusser's befuddlement in Reading Capital, where he bemoans the "[s]ilence as to the nature of this 'analysis', this 'abstraction' and this 'establishment' - silence, or rather the inter-relationship of these 'abstractions' with the real from which they have been 'abstracted', with the 'intuition and representation' of the real....Surely there are ideological abstractions and scientific abstractions, 'good' and 'bad' abstractions?" (Louis Althusser, "The Object of Capital" in Louis Althusser and Étienne Balibar, Reading Capital, trans. Ben Brewster (London and New York: Verso, 2009), 97). Of course, this debate also intersects the most contentious issue in Marxian scholarship concerning the continuity or break in Marx's approach between his early and later work; that is, if there is a break between his early anthropological approach to man's alienation from his species-being to an approach grounded on the scientific categories of political economy. This debate then also opens up the question of to what extent Marx broke from the linear historicism implied by the alienation/reconciliation themes of his humanist writings compared to the breakthrough of his mature political economy whereby abstraction pertains to a complexified figure of historical specificity. We deal with some of these issues further on in the chapter below, but for a good overview of these debates see the first part of Alberto Toscano's article ("The Open Secret of Real Abstraction," Rethinking Marxism, Vol. 20, No. 2 (April 2008), 273-287.)

communist intellectuals. In this section, then, our aim is to establish the continuity of Marx's idea of real abstraction, even if by doing so we glide across some of the differences between the *forms* of real abstraction which will be important for the argument of the next section. To this end, we present three examples, taken from treatises and notebooks written between the 1840's to the 1870's, and concerned with topics as disparate as the state, political economy and mathematics. We first look at Marx's positive analysis of real abstraction, then how he uses the idea to explain the ideological deficits of his intellectual antagonists, and, finally, how it is compatible with the principle against planning and the temporal limit it places upon the intellectual authority of communist theorists.

Commencing chronologically with a text often overlooked for its strident anti-Hegelianism, Marx's 1843 *Critique of Hegel's Doctrine of the State* exemplifies how Marx uses the idea of real abstraction to explain obfuscations standing in the way of criticising the status quo. In this text, Marx criticises Hegel's attempt to represent the modern state as a universal organism by pointing to the fact that whereas in medieval times there was a *real*, corporate fusion of politics with the complete organism of the state, the distinction of the modern era is the *real abstraction* of the political state from civil society. Whereas in the medieval state, he writes, there was a "substantial unity between people and state," in the modern state, on the contrary, "the constitution develops a particular reality alongside the real life of the people." Modern constitutional monarchy takes this abstraction to its extreme.

¹²⁹ Karl Marx, "Critique of Hegel's Doctrine of the State" in *Early Writings*, trans. Rodney Livingstone and Gregor Benton (London: Penguin, 1975), 91.

For unlike medieval feudalism where the power of the sovereign "looks as if it were the power of private property" and thus "became the repository of the secret of *universal power*, the *power of all the elements in the state*" a constitutional monarch is a mere figment of the imagination: a separation of the "political person from the real one, the formal from the material, the universal from the particular, of man from social man ... expressed in its most contradictory form." "The Middle Ages were an age of real dualism; the modern world is the age of abstract dualism" — this is the *real abstraction* of the state from the people.

The commodity form analysis in *Capital* fulfils a similar concept of the production of abstract relations as a consequence of a separation occurring between real relations. Albeit a real abstraction without an historically definite origin – that is, the commodity form separating use value and exchange value is more like a *universal* form¹³² – it fits within the same idea of abstraction as a separation in the real from organic and transparent relations, to abstract and opaque relations. Marx's analysis of the commodity aims to show how the *material* properties of commodities comprising their *use-value* are abstracted away in the process of exchange so that their *exchange value* – expressed in the universal equivalent, money – becomes an entirely *socially determined* value. This process occurs without any conscious decision on the part of those engaging in the process of exchange; instead, "by

 $^{\rm 130}$ Marx, "Critique of Hegel's Doctrine of the State", 178.

¹³¹ Ibid., 90.

¹³² Marx, *Capital Vol. I*, fn. 33, 174. We will unpack the consequences of the presence of universal real abstractions as opposed to historically contingent real abstractions in the next section.

equating their different products to each other in exchange as values, they equate their different kinds of labour as human labour. They do this without being aware of it." The labour determination of exchange value arises as the result of solely structural social forces, with the necessity of a "regulative law of nature" as reliable as gravity. Commodity owners, when taking their wares to market, "have therefore already acted before thinking. The natural laws of the commodity have manifested themselves in the natural instincts of the owners of commodities." This real abstraction emerges as a transhistorical necessity from the exchange of goods under a social division of labour of a certain complexity. Epistemologically, the point that emerges from both of the above examples is that real abstractions can only be discerned after the fact, once their mystifying force has already taken hold. There is unilaterality of determination from abstractions occurring in the real to the

¹³³ Marx, *Capital Vol. I*, 166.

¹³⁴ Ibid., 168.

¹³⁵ Ibid., 166.

This point is reinforced in later chapters of *Capital* which look at the development of the division of labour. Just as the real abstraction of the commodity form is not necessarily bound up with capitalist relations of production, so too Marx comments that division of labour is not necessarily capitalist. Rather, "the social division of labour arises from the exchange between spheres of production which are originally distinct from and independent of each other....This process of disintegration receives its main impetus from the exchange of commodities with foreign communities....Since the production and circulation of commodities are the general prerequisites of the capitalist mode of production, division of labour in manufacture requires that a division of labour within society should have already attained a certain degree of development" (Ibid., 472-473). Thus the determination of value by labour time is correlated with the division of labour; that is, the real abstraction of types of production from one another within the social whole.

potential for legitimate abstract understanding of reality. As Marx writes: "The belated scientific discovery that the products of labour, in so far as they are values, are merely the material expressions of the human labour expended to produce them, marks an epoch in history of mankind's development, but by no means banishes the semblance of objectivity possessed by the social characteristics of labour." One can easily see how this coincides with Marx's idea of revolution. If we can only know the world as it is through abstractions resulting from *temporally prior* real abstractions, the capacity for thought to imagine new, future-oriented abstract relations is severely curtailed. Hence Marx's withering remarks about the bourgeois socialists drawing up new social laws with no basis in society as it *really is*.

Furthermore, showing how purely intellectual abstractions *in absentia* of real determination result in explanatory failure acts as a critique of ideology. Early on in his life this charge is levelled against Hegelian logic, and as Marx develops his critique of political economy the accusation is also made against the economists' use of abstract categories to cover up unpleasantness that would otherwise be revealed by their analysis. Throughout the 1843 *Critique*, for instance, Marx presents Hegel's claims to discover the logical necessity of the modern state as simply a crude transposition of the *Logic* onto empirical reality, ¹³⁸ resulting in (at best) remarkably meagre speculative insights, and (at worst) outright sophism. His point is that when Hegel performs a subject-predicate inversion, ¹³⁹ replacing the historicity of real,

¹³⁷ Ibid., 167.

 $^{^{\}rm 138}$ Marx, "Critique of Hegel's Doctrine of the State", 73.

¹³⁹ Ibid., 65.

material agents as the active force by the development of the Idea, all that results is tautologies affirming the existing relationships between the empirical givens of the Prussian state. The "whole critical failure" of Hegel's Philosophy of Right, Marx stresses, comes down to "the fact that Hegel has analysed the fundamental idea of these presuppositions does not mean that he has demonstrated their validity." 140 Almost exactly the same accusation is levelled at political economists in the Economic and Philosophical Manuscripts: "Political economy proceeds from the fact of private property. It does not explain it. It grasps the material process of private property ... in general and abstract formulae which it then takes as laws." ¹⁴¹ Beyond the way ideologists are wont to provide abstract representations of reality and to proceed by taking existing relations as givens, Marx further targets their inconsistencies when seeking to rationalise the status quo. Where Hegel, for example, fails to provide a convincing account of the rationality of the Prussian state, his contortion reveals an intellectual contradiction where one can excavate a real abstraction. By attempting to refute the idea of democracy, when Hegel insists upon the abstraction of the notion of "being a member of a state," Marx retorts that "if 'being a member of a state' is an 'abstraction' this is not the fault of thought but of Hegel's theories and the realities of the modern world, in which the separation of real life from political life is presupposed and political attributes are held to be

¹⁴⁰ Ibid., 96.

¹⁴¹ Karl Marx, "Economic and Philosophical Manuscripts", 322.

'abstract' determinations of the real member of the state." 142 On the role of the estates in Prussian government, Marx also sees in Hegel's flawed attempt to confer upon them necessity for the universality of the state a sign of a deeper truth about the reality of modern society.

The deeper truth is that Hegel experiences the separation of the state from civil society as a contradiction. The mistake he makes is to rest content with the semblance of a resolution which he declares to be the real thing. By contrast, he treats with contempt the 'so-called theories' which call for the 'separation' of the classes and Estates. These theories, however, are right in that they express a consequence of modern society, for here the Estates are nothing more than the factual expression of the real relationship between the state and civil society, namely one of separation. 143

Marx's mature political economy from the late 1850s onwards evidences the use of the same critical operation against his theoretical antagonists. The division of the Grundrisse into two discreet chapters - money and capital - is in keeping with a dualism inscribed by classical political economists, where try as they might Ricardo et al. cannot fuse the categories. Marx maintains their separation in order to draw

¹⁴² Marx, "Critique of Hegel's Doctrine of the State", 185.

¹⁴³lbid., 141.

attention to their merely abstract reconciliation at the ideological limits of bourgeois political economy. The aim being not to stop at immanent critique of the way political economy leaves its categories logically unresolved, but rather to ascertain how this dualism in thought is sculpted by a real abstraction in the social sphere. In regard to the relationship between money and commodities Marx says, "they [political economists] assert all at once that there is no distinction between money and commodities. They take refuge in this abstraction because in the real development of money there are contradictions which are unpleasant for the apologetics of bourgeois common sense, and hence must be covered up." 144 In the Grundrisse Marx also attempts to prise apart the political economists' identity between production and consumption where they are represented as a single act in the term "productive consumption." When considered apart from each other, Marx writes that "consumption ideally posits the object of production as an internal image, as a need, as drive and as purpose. It creates the objects of production in a still subjective form." 145 He then claims that there is "nothing simpler for a Hegelian to posit production and consumption as identical." ¹⁴⁶ When one considers society as a single subject it is just an abstraction that allows production and consumption to be represented as a single act by speculative ideologues. Aristotle, too, comes on the receiving end of the accusation of historically-conditioned, ideological blinkeredness,

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¹⁴⁴ Karl Marx, *Grundrisse*, trans. Martin Nicolaus (London: Penguin Books, 1973), 198.

¹⁴⁵ Ibid., 92.

¹⁴⁶ Ibid., 93.

when Marx proposes that he was unable to derive the equality of labour lying behind the equivalence of goods "because Greek society was founded on the labour of slaves, hence had as its natural basis the inequality of men and of their labour-powers." Only when the equality of labour acquires a permanent place in popular opinion with the predominance of the commodity form do the categories become available to crack the social hieroglyph. Real abstraction thus always precedes valid conceptual abstraction; and the intuition of conceptual abstractions needs to be traced back to their real origins to ensure their validity. Marx even applies this formula self-critically. Elsewhere in the *Grundrisse* he derives logical dualisms only then to correct himself by observing the necessity of tracing them back to real abstractions. ¹⁴⁸ In the Chapter on Money, after an exploration of the relationship of money and commodities, and money as a commodity, Marx remarks in parentheses, "It will be necessary later, before this question is dropped, to correct the idealist

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¹⁴⁷ Karl Marx. *Capital Vol. I.* 142.

In fact, this process is brought out clearly in the differences between the *Grundrisse* and *Capital*. The latter strips away from the former's logical 'simple determinations' in order to focus on the result of investigation, where they are traced back to real abstractions. Carver writes that Marx "might reasonably have considered that even a polished version of his work on the relevant 'simple determinations' in the *Grundrisse* was an unnecessary and possibly confusing step in putting his case to the reader of *Capital*" (Terrell Carver, "Hegel and Marx: Reflections on the Narrative" in *The Hegel-Marx Connection*, eds. Tony Burns and Ian Fraser (Basingstoke: MacMillan Press, 2000), 50). However, the evidence of Marx's numerous self criticisms of these logical simple determinations in the *Grundrisse* seems to imply that their excision was not due to Marx simply wanting to make his work more palatable to an audience untrained in the nuances of Hegelian dialectic, but rather that he considered them unsatisfactory first interrogations of thought determinations on the subject matter that needed to be substituted with more scientific and historical analysis.

manner of this presentation, which makes it seem as if it were merely a matter of conceptual determinations and of the dialectic of these concepts."¹⁴⁹

As a final example, just to reinforce how the discernment of real abstraction continues right up to Marx's latest, most technical and strictly scientific works, let us see how his mathematical writings apply the same critical operation. The manuscripts concern the differential method and the way in which during the course of the differential procedure the symbol $\frac{dy}{dx}$ comes to stand in for a difference reducing to 0, or $\frac{0}{0}$. His aim is to understand how from initial premises that seem to imply nothing, a transformative mathematical procedure is performed, leading to new results. ¹⁵⁰ In "On the Concept of the Derived Function," Marx strives to derive the differential from elementary algebra. He writes that the reason for this approach

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¹⁴⁹ Marx, Grundisse, 151.

¹⁵⁰ Marx references this process by analogy when explaining the solution to why different branches of industry, with different relative levels of constant and variable capital, all obey the law of value. Many intermediate terms of analysis are necessary to explain the conundrum "just as, from the standpoint of elementary algebra, many intermediate terms are needed before we can understand that 0/0 may represent an actual magnitude." (Marx, Capital Vol. I, 421) Just as breaking down political economy's abstractions involved a determination of the ordering of production and consumption processes and the transformations revealed by these determinations, Marx applies the same method to differentiation to break its metaphysical charms. Carchedi also stresses this angle: "Thus, dx, rather than being at the same time zero and not zero, is first a real number and then is posited equal to zero. This is the theorization of a temporal, real process....The analogy with equilibrium and disequilibrium (temporary deviations from equilibrium) in the social sciences is clear, dx is added to x from outside X. Movement is not powered by the internal nature and structure, but is the result of external forces. Behind the "positive form" lies a static interpretation of reality, behind the alternative a dynamic view" (Gugliemo Carchedi, "Dialectics and Temporality in Marx's Mathematical Manuscripts", Science and Society, Vol. 72, No. 4 (October 2008), 423).

is for "understanding [how] the differential operation ... lies precisely in seeing how it differs from such a simple procedure and therefore leads to real results." Using elementary algebra to unpack the process, Marx attempts to demonstrate how without any vanishing quantities or abstract notions of infinitesimals it is possible to see how the mathematical transformation takes place. And even if one were to replace the ratio of variable quantities $\frac{\Delta y}{\Delta x}$ with the more illusive symbol of the differential ratio $\frac{dy}{dx}$ Marx argues that now the "transcendental or symbolic mistake" has "lost its terror" since it now appears only the result of a process establishing "real content." Since it now appears only the result of a process establishing

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presented in the following form $\frac{y_1-y}{x_1-x}=a=\frac{\Delta y}{\Delta x}$ Marx determines that the change in x "was thus necessarily a finite difference," hence the possibility to represent it as a change in quantity Δ . In this form a represents the limit of the ratio, which once they reach the limit are replaced by $\frac{dy}{dx}$ as a more acceptable looking substitute for $\frac{0}{0}$. For Marx this is all working in the direction of showing how Leibniz and others' consideration of $\frac{dy}{dx}$ as infinitesimal is a chimera.

¹⁵¹ Karl Marx, "On the Concept of the Derived Function" in *The Mathematical Manuscripts of Karl Marx* (London: New Park Publications, 1983), 3.

The problem is succinctly laid out with an extremely simple example: In the function y = ax if you have an increase in the magnitude of y then $y_1 = ax_1$ and $y_1 - y = a(x_1 - x)$. But if you perform the differential operation upon this by making $x_1 = x$ (i.e. by reducing the difference to nothing) then the complete equation $y_1 - y = a(x_1 - x)$ also reduces to nothing: 0 = 0. Escaping this impasse involves determining the *moments* of the transformation of the function. If instead of $\frac{dy}{dx}$ the equation is

¹⁵³ Marx, "On the Concept of the Derived Function," 8.

Whether applied to politics, economic theory, or even mathematics, then, Marx's lifelong *modus operandi* is to expose the abstractions of the ideological realm and then to trace them back to the real abstractions from which they draw sustenance. Utilising abstraction *without grounding* by a real abstraction temporally preceding it results in inconsistent, scientifically invalid and class-biased ideological work. Marx's opposition is always against "abstract *forms of abstraction* which fit every content and are therefore indifferent to all content." Real abstraction relies on a *temporal ordering* whereby the real abstraction *precedes* valid abstract analysis of social processes or ideological abstractions. His approach therefore coincides with the temporal demarcation of the role for communist intellectual ideas being of use only up to the revolutionary climax. The abstractions communist intellectuals wield to help give theoretical guidance to the movement rely on real abstractions and are only of use for examining the system as it is.

The crucial question, though, is whether this position remains congruent with his own analysis of the mechanisms of oppression that evolved in his mature political economy, especially considering their many divergences from his early work on the subject? Because where early Marx posed all the vicissitudes of industrial capitalism emerging from the *single* real abstraction of the alienation of workers from their labour, late Marx, in conducting his analysis in *Capital*, isolated *multiple* real abstractions underlying capitalist domination. The problem this raises for his idea of social transformation is what happens if we conceive the oppression of the working class not as the result of a single abstraction, but rather as an amalgam of

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¹⁵⁴ Marx, "Economic and Philosophical Manuscripts," 397.

multiple real abstractions forming a complex system of exploitation and oppression? Is Marx's circumscription of communist theoretical thought only up to the point of revolution still tenable when capitalism is presented as a system composed of multiple abstractions interfacing with one another? We can only answer this question once we have taken a position on what it means when we say multiple abstractions underlie Marx's analysis in *Capital*.

2.3 Too many abstractions spoil the broth?

This section will present arguments for the existence of at least two *separate* real abstractions in Marx's analysis in *Capital* and the consequences this entails. By arguing that the commodity value form and the separation of workers from the means of production are *different forms* of real abstraction, we will contend that that the 'nested model' interpretation of *Capital* to which this position gives rise is the correct one, and that the capitalist system *cannot* be conceived as a homogenous totality.¹⁵⁵ By this it is meant that not all processes are reflected/sublated in all the

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One advocate of the 'new dialectics' interpretation, Tony Smith, argues that, in common with Hegel's *Logic*, Marx's *Capital* shares a unifying thread inasmuch as Marx sought to explain the systematic progression of socioeconomic categories by reconstructing them in thought and by ascertaining their correct ordering, so that it is possible to see how the categories evolve out of one another. Marx "moved to what he regarded as the simplest and most abstract categorical level, from which he systematically progressed in a step by step fashion to ever more complex and concrete categorical levels" (Tony Smith, "Marx's Capital and Hegelian Dialectical Logic" in *Marx's Method in Capital*, ed,. Fred Mosley (New Jersey: Humanities Press, 1993), 21). However, this interpretation relies on capital being conceived as a Hegelian-style totality, wherein all contradictions are sublated into one another by each category giving rise to yet another category as a series of immanent tendencies. Against this, I argue that the circuits combined into the totality of capitalism — with their

others in the Hegelian sense, and thus one cannot think of the capitalist economy resting on a single abstraction (or single 'contradiction' as Hegelian readers would see things). This is an important point to establish for the aim of this chapter, since it has implications for post-capitalist transition. Accepting or rejecting the Hegelian view on the structure of Marx's Capital determines whether collective ownership of the means of production (closing down the abstraction of the separation of workers from the means of production) is adequate also for undermining the commodity form (an abstraction between use and exchange value). The two possible answers to this question depend on whether one conceives the abstractions assimilated into capitalism as forming an absolute unity, or maintaining relative independence within the capitalist mode of production even while being synthesized in its reproduction and accumulation processes. If all the abstractions in Capital sublate into one another in the structure of a homogenous totality, then undermining a single abstraction – the separation of workers from means of production – will be adequate to annul the totality of capitalism's abstract relations, including the commodity form. But if the real abstractions underpinning the analysis of capitalism maintain their own relative autonomy once they are synthesized, then undermining a single

basis in real abstractions – are of different forms and that they give rise to circuits which maintain a relative degree of independence even once synthesized in the capitalist mode of production. In terms of planning beyond capitalism this is important because it implies that overcoming one abstraction in the system will not necessarily be enough to overcome all the abstractions if certain circuits can continue to function. Moreover, the persistence of certain abstractions and their emergent economic circuits can give rise to immanent tendencies that lead to the restoration of the overcome abstraction. My argument maintains that you could overcome the real abstraction of the separation of workers from the means of production, but if one leaves money intact in its current form, money possesses certain qualities that can undermine transition away from capitalism.

abstraction cannot undermine the dynamics of the system *in toto*¹⁵⁶ – or, worse, it may create a situation in which one abstraction is overcome and others are left intact in a way that can encourage capitalism's restoration. In the following section we argue based upon the second interpretation.¹⁵⁷ To demonstrate the validity of this take on *Capital*'s fundamental structure, we need to see these different real abstractions as underlying the relatively autonomous circulation and value creation circuits, with their synthesis definitive of the capitalist mode of production.¹⁵⁸

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¹⁵⁶ István Mészáros (*Beyond Capital: towards a theory of transition* (London: The Merlin Press, 1995)) makes a similar argument from a slightly different perspective by distinguishing capital relations from the capitalist mode of production. Capital relations are the underlying conditions for the capitalist mode of production. Even once you overcome the particular valorization process of the capitalist mode of production you can still be left with capital relations, as he argues apropos the Soviet Union. Into the category of capital relations Mészáros includes the division of labour within the capitalist factory system and alienation of their labour from workers. I argue that the question is not one of structural alienation underlying capitalist exploitation – which in my view collapses the question to the utopian, humanist problematic – but rather the question of the relative formal independence of particular circuits in the capitalist mode of production.

¹⁵⁷ In doing so I take inspiration from Althusser's criticism that the idea of 'expressive causality' in Hegelian historicism reduces every epoch to the expression of a single contradiction which defines its essence and all its phenomena. Althusser shows the intimate connection between this idea and the homogenous structure of Hegelian totality (see Althusser, *For Marx*) and our discussion of this critique in Chapter 4 of this thesis). John Rosenthal (*The Myth of Dialectics*, 24-27) also draws on Althusser's critique of Hegelian 'epochal historicism' in order to demonstrate how there is no textual evidence in Marx's *Capital* for the presence of this conception of historically necessary transition, founded on the dominant contradiction of the capitalist mode of production.

Insofar as this would be considered close to the 'orthodox' account of *Capital* by the 'new dialecticians', who seek to understand *Capital* in terms of the dialectical structure of Hegel's *Logic*, to refute the impression that this implies a linear, historicist interpretation, I will also show that this view equally affirms Marx's break from an historical gnoseology in his analysis of the categories and relations of capitalism. Arthur gives his take on the 'orthodox' account as follows: "The orthodox

Regarding these two abstractions, we will demonstrate (1) their formal difference, (2) how they are synthesized within capitalism, and (3) to what extent they maintain independence within the integrated system.

In the previous section we already encountered the commodity form as an example of Marx's epistemological idea of real abstraction. We also noted, in passing, that it is somewhat different to many of the real abstractions that Marx proposes inasmuch as the derivation of value determination as a proportion of a society's total socially necessary labour time (and money's role as the universal equivalent) does not confer to an historically specific separation. ¹⁵⁹ Of course, Marx imputes that the commodity form only reaches maturity under capitalism once production becomes driven by the valorization process under the conditions of real subsumption where the division of labour has attained a specifically capitalist form.

understanding of Marx's method explains this by arguing that he presents his theory through a sequence of models, that a model of simple commodity production as a one class society allows him to give a complete account of the law of value, and that the subsequent introduction of a model of capitalism as a two class society allows him to demonstrate the origin of surplus-value through the specific inflection capital gives to this law of value; subsequently more complicated models, including landed property and the like, introduce still further distortions of the operation of the law of value" (Christopher J. Arthur, The New Dialectic and Marx's Capital (Leiden and Boston: Brill, 2004), 18).

¹⁵⁹ By saying this I do not mean to imply that the commodity form and money are eternal forms in the sense Marx criticises in other political economists. Rather, Marx's division of labour and the commodity form arising from exchange processes are transhistorical. As Rosenthal also argues, "the treatment of the division of labour and related categories as transhistorical is perfectly legitimate....They are valid rather for every phase in the historical development of the specific object of enquiry" (The Myth of Dialectics, 52-53). Considering the value form as a 'practical concept' emergent from real abstraction, Rosenthal presents it as analogous to the Kant's 'pure concepts of the understanding' – that is, as a transcendental condition from which axioms of exchange emerge (ibid., 59).

But what distinguishes the abstraction of commodities' exchange value from the abstraction at the root of surplus-value exploitation is that the former is a necessary process arising in any exchange economy under a division of labour. Certainly, production for the purpose of accumulating and reinvesting exchange values reaches its apotheosis in the capitalist mode of production, but the value determination of commodities can precede capitalist production and so too can money operate as the universal equivalent in pre-capitalist modes of production. The commodity form abstraction is the basis of the monetary expression of economic activity even before the valorization circuit (M-C-M') establishes itself under capitalism. As Marx affirms with respect to the circulation of commodities, "we know by experience that a relatively feeble development of commodity circulation suffices for the creation of all these forms." 160 The difference between the commodity form and the separation of workers from the means of production is the historical contingency of the latter abstraction, which "only happens on the basis of one particular mode of production, the capitalist one." 161 It is historically specific because

nature does not produce on the one hand owners of money or commodities, and on the other hand men possessing nothing but their own labour-power. This relation has no basis in natural history, nor does it have a social basis common to all periods of human history. 162

¹⁶⁰ Marx, Capital Vol. I, 274.

¹⁶¹ Ibid., 273.

¹⁶² Ibid., 273.

Indeed, the form of connection between workers and the means of production, unlike the commodity form, comprises the *differentia specifica* of the "various economic epochs of the social structure." Although Marx describes the processes by which capitalism creates its own industrial reserve army of labour ('free workers') once it is already well established as an economic system, in order for capitalism initially to commence its transition to becoming a sustainable and, in time, dominant mode of production, it needs to take advantage of given conditions as a basis on which to consolidate its relations of production. Marx thus writes on the primitive accumulation necessary to supply the nascent capitalists of the 16th century with dispossessed labourers having nothing but their labour-power to sell. In British history at least, this circumstance comes about as a result of the Protestant reformation, the dissolution of the monasteries, the enclosures of the commons, and

Karl Marx, *Capital Vol. II*, trans. David Fernbach (London: Penguin Books, 1978), 120. This is however different to saying that the form of exploitation defines a mode of production, since the relation of workers and the means of production encompasses a wider range of variables relating to property rights and the state. As Banaji has convincingly argued, if the form of exploitation was definitive of a mode of production then the notion of a slave owning capitalist would be an anachronism, since capitalism would be definitionally reliant upon formally free wage labourers. (Banaji, *Theory as History*, see Chap. 5 especially, but the point runs throughout the book)

Marx attributes the "specifically capitalist mode of production" to the completion of a process where *formal subsumption* of manufacturing processes has been turned into *real subsumption* through a division of labour specifically designed to maximise profit on commodities for the capitalist. The increasing share of investment in constant capital (predominantly, machinery), causing a higher productivity of labour, results in swelling the industrial reserve army of labour, amongst other structural tendencies accomplishing the same ends (Marx, *Capital Vol. I*, 781-786).

the legally enforced disciplining of a workforce fit for factory wage-labour. 165 All these historical contingencies, creating a vast pool of dispossessed workers needing to sell their labour-power as a commodity, underlie the development of the capitalist mode of production. Consequently, the difference between value determination of commodities in general and the value determination of the specific commodity of labour-power is also demarcated historically. The value for which workers are willing to sell their labour-power for does not have a quantitative determination deducible from its formal structure, but is rather historically sensitive with respect to the conditions confronting the class of workers that capitalists can assimilate into its production processes. 166 The value of labour-power is determined by whether workers have access to any other means of subsistence and what socially conventional minimum expectations prevail for reproduction conditions (this could range from mere subsistence goods like food and shelter to needs including a share of 'non-essential' commodities). "In contrast, therefore, with the case of other commodities, the determination of the value of labour-power contains a historical

¹⁶⁵ Marx, *Capital Vol. I*, 873-895.

Nonetheless, the limit of the value of labour-power is logically prescribed. Capitalism would cease to function if the value of labour-power was so high that it would have to be bought at the full value that it transfers to commodities within a legally enforced or contractually agreed working day. Thus, the subsistence value of labour-power should be considered variable and historically conditioned between the material limit below which labourers could not reproduce themselves and the upper limit past which capitalism could not extract surplus value. The determination of the value of labour-power on this continuum is determined historically and politically, and includes class struggle as a factor.

and moral element."¹⁶⁷ Compared to Marx's forbearers in classical political economy, only by building on the historically contingent real abstraction of the emergence of propertyless wage-labourers in the 16th century and opening up the category of labour by *conceptually naming* its temporally successive forms – *labour-power* sold as a commodity by the labourer to the capitalist, and the *labour exploited* afterwards in the workplace – can Marx solve the riddle of the capitalist value creation.¹⁶⁸ For labour-power to be sold as a commodity requires labourers without others means of subsistence – and there is nothing natural or inevitable about this circumstance arising.

¹⁶⁷ Marx, Capital Vol. I, 275.

¹⁶⁸ The genealogy of the 'transformation problem' further underlines the significance of temporal ordering for Marx's labour theory of value (henceforth LTV). Adopting the approach of neoclassical economic analysis, Ladislaus Bortkiewicz's early 20th century critique of Marx's LTV took a simultaneist approach aiming to correct the way Marx's analysis valued inputs and outputs differently by instead valuing input and output prices at the same time - this approach leading, as a result, to a divergence between aggregate values and prices (see Andrew Kliman, Reclaiming Marx's "Capital" (Lanham and Plymouth: Lexington Books, 2007), Chapter 3, 'A brief history of the controversy', 46). Subsequently, the 'transformation problem' was born, undermining key Marxian propositions such as total profit deriving from the exploitation of labour, and also the long term tendency for a declining rate of profit - hence, in turn also disabling Marx's theory of crisis. According to Kliman, the simultaneist stream of critiques and the readjustment of the Marxian analysis to accommodate them - most notably in the work of Sweezy, Steedman, and Straffa - can all be traced back to Bortkiewicz's reconfiguration in which he quite conspicuously chose to depart from Marx's temporal analysis. In Bortkiewicz's words he rejected Marx's economics where factors are "regarded as a kind of casual chain, in which each link is determined, in its composition and magnitude, only by preceding links" (Bortkiewicz, cited in ibid., 47). In this way, Bortkiewicz's analytic followed the neoclassical school by transposing a static equilibrium model upon the real world in which there is an actual temporal process; a process which it is necessary to dissect using the category of value in order to ascertain the source of profit in Marxian economics.

These two real abstractions - the commodity form and the separation of workers from the means of production - nonetheless form circuits which are organically synthesized in capitalism. The money circuit M-C-M' is interposed with the circuit of productive capital $M-C_{mp}^{L}-M^{\prime}$ (L = labour-power, mp = means of production) giving rise to the valorization process whereby capital becomes a selfpropelling subject. As Marx repeats again and again, in order to understand the valorization process one cannot derive it from the simple money circuit, yet without the money circuit valorization would be impossible. The money circuit is the transhistorical, spontaneous precondition for the productive circuit of capitalism. As Foley describes, "The function of money as expressing labor time is common to all commodity-producing societies, but different arrangements perform this function in each society. The functions of money, and the theoretical problems they pose – such as explaining the divisions of value in capitalist production, or the determinants of the value of money – are independent of the particular monetary institutions of a society."169

But then does not this difference between the commodity form abstraction and the specific historical abstraction giving rise to capitalism (seen as two separate real abstractions) mean that we are back to an orthodox Engelsian view on the synchrony between history and the emergence of logical categories?¹⁷⁰ Are we not,

¹⁶⁹ Duncan K. Foley, "On Marx's Theory of Money", *Social Concept*, Vol. 1, No.1 (1983), 8.

¹⁷⁰ Engels gives a mobilist view on how categories emerge cosynchronously with history. "It should go without saying that where things and their mutual relations are conceived not as fixed but rather as changing, their mental images, too, i.e. concepts, are also subject to change and reformulation; that they are not to be encapsulated in rigid definitions, but rather developed in their process of historical

in order to depart from this 'historicism', then required to adopt an alternative atemporal, logical interpretation of the categories? Are not interpretations necessarily stuck between the shallow, logical shoals of Scylla, and the historical whirlpool of Charybdis? We argue not. Moreover, the false dichotomy is actually a result of interpreters frequently looking in the wrong place to understand the relationship between Marx's categories. This is because the crucial difference lies not in the abstractions' historical ordering (or lack thereof) but instead lies in the forms of commodity abstraction and abstraction of workers from the means of production: universal and 'natural' versus historically specific and contingent, respectively. If seen in this way, we can understand why conceptualising capitalism as the result of the synthesis of the two real abstractions cannot be considered as an historical gnoseology in the orthodox Engelsian sense objected to by the Althusserian, Della Volpean, and 'new dialectics' schools of interpretation. At the same time, it is also the reason why Capital cannot be interpreted as an ahistorical, logical model as some Althuserrians and 'new dialectics' advocates have tended towards. 171 Just because

or logical formation. It will be clear then why [Marx] proceeds precisely there from the simple commodity and not from a conceptually and historically secondary form, the commodity as already modified by capital" (Fredrick Engels, "Preface" in Marx, Capital Vol. III, 103).

¹⁷¹ In outlining his methodology in the introduction to the *Grundrisse* it will not surprise many readers to find that Marx rejects his predecessors' attempts to present production "as encased in eternal natural laws independent of history, at which opportunity bourgeois relations are then quietly smuggled in as the inviolable natural laws on which society is founded in the abstract" (Grundrisse, 87). This, however, has led some to miscomprehend Marx's theory as historicist. For this, Finnelli **Engels** thank, because "for nicely surmises, we have to Engels, commodity-value->labour->money->capital is an historical progression which is mirrored in the logical progression, of the same order with which Marx supposedly constructed Capital by employing a simplistically materialist gnoseology, based on the reflection of the real in the logical-mental. Thus

the expository structure of Marx's Capital, its logical method, is 'nothing else but the historical method, only stripped from disturbing fortuities'" (Roberto Finelli, "Abstraction versus Contradiction: Observations on Chris Arthur's The New Dialectic and Marx's 'Capital'", Historical Materialism, Vol. 15 Issue 2 (2007), 62). Considering historicism as embroiled in the humanist Marxist trend, in Reading Capital Althusser takes these quotes as a starting point for a hypothesis that in his mature political economy Marx makes a complete break from historicism, even if he remained straddled with some of the prejudices of his youth. Althusser admits, "Marx often went only halfway with his real critique in his declared critique, by establishing the only difference between him and Classical Economists as the non-history of their conception" (ibid., 102). The danger, as Althusser sees it, is that if one does not articulate what Marx himself could not then the implication of this minimal separation of his economic work from his bourgeois predecessors implies that "Marx need[ed] only [to] historicize these categories, refusing to take them as fixed, absolute or eternal, but, on the contrary, regarding them as relative, provisional and transitory" (ibid, 103). The focus on the break from historicism in Marx's method is not, nevertheless, exclusive to Althusserianism. As Schmidt writes, "even those who do not accept the thesis—which is fundamental to Althusser—that Marx's lifework presents two absolutely separate 'problematic', an 'ideological' one in the early writings and a 'scientific' one in Capital, will see how little one can speak of a 'historicism' imprisoned by mere chronology in the work of the mature Marx" (History and Structure, 6). Schmidt concedes that "Marx is concerned with the 'presentation'—which is model-like and removed unmediated empirical material—of his subject matter and knows very well that as a result of the question concerning the 'relationship between scientific presentation and the real movement' of history was not settled" (ibid., 64). As an epilogue to this debate, in the 1978 essay "Marx in his limits," Althusser settled accounts with his previous hypothesis of an absolute break of Marx from Hegel by conceding to his Hegelian critics the continuity of the structure of Hegel's Logic in Capital. He writes, "there can be no doubt that Marx was guided, right down to his way of interpreting them [chemistry, physics, mathematics] by an Idea of Truth inherited from Hegel and much earlier thinkers... the Idea of Science requires that one begin with abstraction, and that the thought process proceed from the abstract to the concrete" (ibid., 42). Althusser uses this recognition of the methodological continuity with the Logic in order to criticise Capital's critical opening of deriving commodity fetishism simply from the split between use value and exchange value (implying for him that the fetish effect is simply in the commodity itself regardless of the complex social forms of which it is part), and also in passing to account for the critiques made by Straffa on the 'transformation problem'. (see Louis Althusser, "Marx in his Limits" in Philosophy of the Encounter: Later Writings, 1978-1987, trans. G.M.Goshgarian, eds. F. Matheron & O. Corpet (London and New York: Verso, 2006), 7-162). As we argue in chapter 4 of this thesis, Althusser's work by the late 1970s was already on the decline and we do not attach much weight to this late career u-turn. His early critiques stand and are of lasting importance regardless of his later rejection of them.

the commodity form can precede capitalism does not mean that the presentation of the categories is historicist or that a linear, historical gnoseology is at work in the ordering of *Capital's* categories. To claim as much would be to miss the key point that the difference between the categories is principally one of the *form* of real abstraction and not of their historical ordering. The commodity form is different to the form of the separation of workers from the means of production such that it can precede capitalist relations, and indeed must; yet this is *not* the crucial *formal difference* but rather a consequence of it. Considered in this light, we can make sense of Marx's famous methodological reflections in his 1857 Introduction, where he states,

It would therefore be unfeasible and wrong to let the economic categories follow one another in the same sequence as that in which they were historically decisive. Their sequence is determined, rather, by their relation to one another in modern bourgeois society, which is precisely the opposite of that which seems to be their natural order or which corresponds to historical development. The point is not the historic position of the economic relations in the succession of different forms of society. 172

¹⁷² Marx, Grundrisse, 107.

Similarly, in Marx's mathematical writings linear historical evolution of the categories is also rejected. In the drafts for his essay, "On the Differential," Marx stresses the fact that the methodological inversion he has inferred does not correspond to a historically ordered inversion: "I do not believe any mathematician has proved or rather even noticed this necessary reversal from the first method of algebraic derivation (historically the second) whether for so elementary a function as uz or any other." 173 Marx's methodological reflections echo the remarks of the 1857 Introduction by rejecting historicist gnoseology. As with the commodity form abstraction, the abstraction of the infinitesimal is a universal form of abstraction as opposed to the historically contingent real abstraction of workers from the means of production, or, say, the separation of the political state from the people. It follows that the universal form of real abstraction cannot be conceived in the same way as a particular form of real abstraction. Two types of real abstraction are present in Capital, and so one cannot see them as giving rise to historically ordered categories. 174

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¹⁷³ Karl Marx, "Second Draft" in *The Mathematical Manuscripts of Karl Marx* (London: New Park Publications, 1983), 54.

Furthermore, although the formal distinction is already there in Marx, further research since Marx's time is continuing to undermining any attempt to see the two abstractions as causally sequential, historical and anthropological, complicating the attempt to represent a natural, commodity economy necessarily giving way to capitalism. In fact, as we now know, complex financial instruments and credit go back all the way to the ancient world (see William V. Harris, "A Revisionist View of Roman Money", *Journal of Roman Studies*, No. 96 (2006), 1-24; and David Graeber, *Debt: The First 5,000 Years* (New York: Melville House Publishing, 2010)).

Now, given that we have argued the principle difference between *Capital*'s most significant abstractions is *formal* and that their synthesis within the capitalist mode of production does not imply their sublation into the structure of homogenous (Hegelian) totality, what consequences result from this interpretation? To answer this, we have to turn our attention to the role of money. As we have already seen, Marx considers money a spontaneous result of the commodity form abstraction, serving as the universal equivalent in the exchange of goods. Marx further sees money developing functions such as in the credit system, and as a spontaneous development from experience in using the basic monetary form for capitalist purposes. In a lengthy passage he summarises the functions money plays in the circuitry of advanced capitalist reproduction:

The fluxes and refluxes of money which take place on the basis of capitalist production, for the reconversion of the annual product, and which have grown up spontaneously; the advances of fixed capital at a single stroke, to its entire value, and the progressive withdrawl of this value from circulation by a process that extends over a period of many years, i.e. its gradual reconstitution in the money form by annual hoard formation, a hoard formation ... as well as the variation in the size and period of the reflux according to the condition or relative size of the production stocks in different businesses and for the different individual capitalists in the same line of business ... all these different aspects of the spontaneous movement had only to be noted and

brought to light by experience, in order to give rise both to a methodical use of the mechanical aids of the credit system and to the actual fishing out of available loan capital.¹⁷⁵

Marx further contends that money plays only a functional role in the process of expanded reproduction and accumulation within capitalism. "The money on the one side calls into being expanded reproduction on the other only because the possibility of this already exists *without* the money; for money in itself is not an element of real reproduction." Yet what does it mean to say money is not an element of real reproduction when Marx has already established the development of money as one of the preconditions of capitalism? This appears to be attributable to his *quantity theory of money*, where the total quantity of money maintains an identity with the total value of commodities in circulation, and the value of these commodities in circulation is in identity with the labour-time invested in their production. This monetary theory explains why, at an aggregate level, total price = total value, 177 since money is a universal abstraction of the value of the commodity

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¹⁷⁵ Marx, *Capital Vol. II*, 555-556.

¹⁷⁶ Ibid., 566.

¹⁷⁷ In chapter 9 of *Capital Vol. III* on the "Formation of the General Rate of Profit," Marx provides an example of five capitals in different spheres of production. On the aggregate level, "The total price of commodities I-V would thus be the same as their total value, i.e. the sum of the cost prices I-V plus the sum of the surplus-value or profit produced; in point of fact, therefore, the monetary expression for the total quantity of labour, both past and newly added, contained in commodities I-V" (Marx, *Capital Vol. III*, 259). Therefore, the cost price plus profit of all commodities in the economy is equal to the total value produced: total price = total value.

form: its universal equivalent. The fact that price and value on an industry-specific or commodity-specific basis fall out of sync with each other lies behind periodic crises of accumulation.¹⁷⁸ Relatedly, Marx insists that explanations of supply and demand meeting to determine market value in fact explain nothing: the question proper is why does price vary and why in reality does supply actually never meet demand, or vice versa, their coincidental meeting rather being the exception that proves the rule of their divergence.¹⁷⁹ At the same time, this disequilibrium between value and price – value being the long-term anchor of price variations – is what tendentially drags profit rates across industries towards one another. The formation of a *general rate of profit* across spheres of production results from the same process by which value comes to determine the rates of exchange between commodities.¹⁸⁰ Through the price mechanism, supply and demand serve to regulate the amount of socially necessary labour expressed in a commodity's market value; the process of competition perpetually driving down socially necessary labour to its minimum,

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¹⁷⁸ Marx, Capital Vol. II, 486.

As non-equilibrium laws, Marx's value theory explains the divergence by way of separating value and price. For if they were not considered apart then change in price, the fact that price never settles to anything more a variable cannot explain divergence as anything more than an accident (Marx, *Capital: Vol. III*, XX-XX). Freeman explains that "Marx's law is therefore always a law of movement, in which ... the Ricardian law is 'no more than an abstract, contingent as one-sided moment'. Value appears as price through the fluctuations of demand and supply which really takes place, not in consequence of a static relation which does not take place" (Alan Freeman, "The limits of Ricardian value: law, economics and motion in economics", *Munch Personal RePEc Archive*, Paper No. 2574 (March 1999) Available online: http://mpra.ub.uni-muenchen.de/2574/ [Accessed 12 March 2011]).

¹⁸⁰ Marx, *Capital Vol. III*, 281, 293-294.

equilibrium level.¹⁸¹ The point is that the gap between value and price, or — what is much the same thing at a higher level of complexity — the difference between the *rate of profit* and the *rate of surplus value*, are tendentially reunified through market competition, based upon price, in turn regulating socially necessary labour time.

Capital withdraws from a sphere with a low rate of profit and wends its way to others that yield higher profit. This constant migration, the distribution of capital between the different spheres according to where the profit rate is rising and where it is falling, is what produces a relationship between supply and demand such that average profit is the same in the various different spheres, and values are therefore transformed into prices of production.¹⁸²

This process has an organic necessity so that some spheres of production are not, in the long term, able to extract permanent rent from supplying commodities necessary for production in other spheres at a price above their value. Money, then, should not be seen in a crude way as just a reflective, ideal mirror of a pre-symbolic, real material commodity economy underlying it; money, for Marx, serves a systemic function to regulate price with value across capitalist industries and prevent severe sectoral imbalances. This function of money is thrown into stark relief if one

¹⁸¹ Ibid., 296.

¹⁸² Ibid., 296.

attempts to imagine, as Marx does in places, a collectively owned and managed economy in its absence, with labour value tokens issued in place of monetary remuneration for workers.

With collective production, money capital is completely dispensed with. The society distributes labour-power and means of production between the various branches of industry. There is no reason why the producers should not receive paper tokens permitting them to withdraw an amount corresponding to their labour time from the social consumption stocks. But these tokens are not money; they do not circulate. 183

In the *Critique of the Gotha Programme*, Marx makes the same suggestion, only further specifying that (1) these tokens operate in the absence of the exchange of goods and (2) that they are only drawn on the means of consumption (called Department II in *Capital*).

Accordingly, the individual producer receives back from society—after the deductions have been made—exactly what he gives to it. What he has given to it is his individual quantum of labour. For example, the social working day consists of the sum of the individual hours of work; the individual labour time of the individual producer is the part of the

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¹⁸³ Marx, *Capital Vol. II*, 434.

social working day contributed by him, his share in it. He receives a certificate from society that he has furnished such and such an amount of labour (after deducting his labour from the common funds), and with this certificate he draws from the social stock of means of consumption as much as costs the same amount of labour. The same amount of labour which he has given to society in one form he receives back as another.¹⁸⁴

Significantly, however, Marx qualifies that this process also takes place in the absence of exchange. "Within the cooperative society based on common ownership of the means of production, the producers do not exchange their products; just as little does the labour employed on the products appear here *as the value* of these products." Marx has good reasons for wishing to write exchange out of this collectively owned and managed economy. As he shows in *Capital Vol. III*, when imagining an economy where workers are in control of the means of production but continue to exchange their goods according to the labour they have expended in their production, the values of commodities would fall radically out of sync and so too would profit rates, since there would no equalization between the production prices and value forming constant capital component. Rather unconvincingly,

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¹⁸⁴ Karl Marx, "Critique of the Gotha Programme", 21-22.

¹⁸⁵ Ibid., 22.

¹⁸⁶ Marx, *Capital Vol. III*, 276-277.

Marx nonetheless leaves the possibility open, because "Under these conditions, the difference in the profit-rate would be a matter of indifference, just as for a presentday wage-labourer it is a matter of indifference in what profit rate the surplus-value extorted from his is expressed." 187 I say unconvincing, first because workers in a cooperative or particular sector could exchange their goods by distorting the recording of the labour-time they claim to have invested in production, second because there would be no regulative mechanism for correcting false reporting, and third because such imbalances would, after time, lead to serious systematic imbalances in the economy.

Let us explore this problem in more depth, because it helps get to the nub of whether Marx's analysis of capitalism sees its systemic properties reducing to just private property or a synthesis that includes the relatively autonomous commodity form. There are two possibilities resulting from implementation of Marx's value token scheme. Since one of these scenarios takes place in the absence of a centrally controlled economy, we will discount Marx's qualification that products are not exchanged. We do this for it is not clear how, in the absence of centralised mediation, exchange could be avoided. The Rousseauian-influenced idea that through the revolutionary process a new humanity will emerge around the subjectivity of an altruistic and consistently honest collective worker seems extremely utopian when considered on a national or global scale. 188 Granted Marx's

¹⁸⁷ Ibid., 277.

¹⁸⁸ Michael A. Lebowitz, for instance, when describing the birth of the worker subjectivity necessary for the unmediated giving between the network of producer associations, has to resort to the metaphor of unconditional familial love, which appears impossible to sustain on a macro-scale.

writings right to the end of his days repeat the idea that the revolutionary process gives birth to new subjectivity (a new human 'nature'), but it is a hypothesis that is conceptually external to the analysis in *Capital*. Yes, *Capital* shows that capitalism separates workers and pits them against one another; but, it does not show how collective ownership of the means of production will create a new humanity – this has to remain a *political wager* (and in my opinion, an untenably utopian wager) external to the conceptual analysis conducted in the book.

Therefore, on a technical level, if we suppose such issues are not overcome by the honesty and altruism arising from new communist humanity, the problem with Marx's suggestion relates to how *socially necessary labour* will be measured and regulated. Since socially necessary labour is regulated under capitalism by both real subsumption on the level of manufacturing processes and by money acting as a spontaneous universal equivalent exerting convergence tendencies between industries, directly substituting money with labour-time tokens would have two consequences. Across different cooperatives and/or industries in a decentralised economy, a permanent structural disequilibrium would occur in exchange due to the different organic compositions (and rates of change in composition) resulting in

"Characteristic of the social relation among the producers in this structure is that they recognize their unity as members of the human family and act upon this basis to ensure the well-being of others within this family. Solidarity, in short, is at the very core of the social relation... the productive activity of people flows from a unity and solidarity based upon recognition of their differences" (Beyond Capital: Marx's Political Economy of the Working Class (Houndmills: Palgrave Macmillan, 2003), 202).

¹⁸⁹ A third option, which we also discount for being too utopian, would be the democratic planning of production and consumption and the assumption of honest multilateral reporting of labour productivity across different cooperatives and industries.

inter-sectoral productivity imbalances. Since, in the absence of an overarching regulative authority, the labour-time invested in goods is non-transparent between one industry and another, the amount of labour-time tokens exchanged between productive units for each others' goods would result in permanent disequilibrium. On the other hand, presuming central planning, an enormous, continuing operation of monitoring the labour time used in the production of goods would be necessary, which, while technically possible, would contradict Marx's anti-statist principles as proclaimed after the Paris Commune.

In fact, Marx anticipates how labour tokens would give rise to the need for a command economy in the *Grundrisse*. While it is important to emphasize that in this text he is forwarding a critique of Proudhon on the basis that schemes are being proposed in the absence of a radical reconfiguration of the relations of production,

¹⁹⁰ Although not following Marx's ideas to word, the Soviet economy exhibited some of the characteristics of monetary-induced disequilibria discussed above. Nakamura discusses how enterprises tended to hoard excess non-cash funds and that the authorities permitted them to do so because they believed the monetary phenomenon to be trivial compared to the real, material economy upon which they held a firm grip through the central planning process. Yet, according to studies based upon Soviet economic data released from the archives after the Cold War, monetary incentives and resultant disequilibria played a significant role in the Soviet Union. For Nakamura, this raises profound questions about the relationship between the 'real' material economy and money and whether it is even possible to abolish money. Now, humanist Marxists may object that the Soviet Union was an alienated economy still dominated by state capitalism, but the pivot of this objection assumes that if things went rightly then monetary issues could be dispensed with due to an expected change in subjectivity. If we do not make this assumption, however, then both Marx's theoretical analysis and historical studies of Soviet data both imply pertinent theoretical questions related to socialist planning with respect to the irreducibility of the money form even given the collective ownership of property. See Yasushi Nakamura, "Did the Soviet Command Economy Command Money? A Quantitative Analysis", Europe-Asia Studies, Vol. 63, No. 7 (September 2011), 1133-1156.

nonetheless, Marx's critique of Proudhon's labour money proposal – concerning the difficulty of establishing equivalence of socially necessary labour time, and the way it implies an omnipotent central bank – is no less applicable for thinking post-revolutionary economic transition if exchange is considered necessary.

A second attribute of the [central] bank [issuing labour-time chits] would be necessary: it would need the power to establish the exchange value of all commodities....But its functions could not end there. It would have to determine the labour time in which commodities could be produced....But that also would not be sufficient....The workers would not be selling their labour to the bank, but they would receive exchange value for the entire product of their labour, etc. Precisely seen, then, the bank would not only be the general buyer and seller, but also the general producer.¹⁹¹

It is beyond the remit of this chapter to explore in greater depth the problems implied by Marx's analysis of money on economic planning for post-capitalist transition. ¹⁹² But what the above discussion should make clear is that even once the

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¹⁹¹ Karl Marx, Grundrisse (1857).

This is a fascinating theme I wish to explore in greater detail in future research. For, of course, the role of money in the capitalist economy comprises the central complaint of the anti-socialist founding fathers of neo-liberalism, Friedrich Hayek and Ludwig von Mises who in the famous 'socialist calculation' debates of the early 20th century focus on the necessity of price signals. (See for example, Friedrich A. Hayek, *Individualism and Economic Order* (Chicago and London: University of Chicago, 1948), Chapter VI-VIII, and Lawrence H. White, *The Clash of Economic Ideas* (Cambridge: Cambridge

abstraction of workers from the means of production is overcome in a collective economy (either centralized or decentralized), issues related to the formal properties of money persist. That is what we mean when we say that Capital's analysis of the capitalist mode of production is grounded via multiple real abstractions that remain relatively autonomous despite their propitious (from a capitalist's perspective) synthesis within the capitalist mode of production. In order to circumvent these issues, Marx himself places another condition on a communist economy - namely, that no exchange will take place - which merely displaces the problem of the money form onto the utopian suggestion that social production and development can take place on the basis of altruistic giving between the different branches of the association of labourers. The point is that if one follows Marx's own analysis of capitalism, the two abstractions retain their own peculiar logics when disaggregated. Capitalism thus needs to be seen as a complex assemblage of different abstractions held together in a unity, which is why any attempt to overcome capitalism, if following Marx's conceptual analysis in Capital, cannot be reduced to a single item programme corresponding to overcoming a single abstraction. Both the collective ownership of the means of production and the money form would need to be changed in sync to set in place a sustainable transition dynamic. Marx avoids this conclusion simply by eliminating one of the variables – money – but only does so by importing a utopian, political hypothesis to

University Press, 2012), Chapter 2). The problems faced by the lack of price signals in the Soviet Union is the unifying theme behind Francis Spufford's popular novel, focusing on attempts to use rudimentary cybernetics in 1960s in order to implement a shadow price system (*Red Plenty* (London: Faber and Faber, 2010).

supplement his economic analysis. But if we discount Marx's reduction to just one variable as being a political hypothesis external to his analysis, then overcoming capitalism will involve changing a system along multiple, intersecting axes. This matter thus intersects his concept of revolutionary change.

2.4 Burning the cookbook to save the recipe

Let us bring the discussion back to Marx's principle against planning the postcapitalist future inherent to his idea of revolution. We have seen that positing real abstraction is compatible with the anti-planning principle for its temporal demarcation of abstraction only being able to build upon real abstraction. We have also argued that this anti-planning principle only holds when the system is diagnosed as suffering from a single abstraction to which all the others reduce. If the root of all problems can be traced to a single abstraction, then only a single item communist programme is needed to address that abstraction. If the oppression in the economic system emerges solely from the separation of workers from the means of production, then one only need pursue a programme aiming to reconcile the two. Yet if capitalism is diagnosed as a system of multiple abstractions, interacting dynamically with one another, then establishing a sustainable dynamic to transition from one mode of production (capitalism) to a new mode (socialism/communism) will involve sophisticated economic planning based upon value-form analysis. This is to say that if capitalism is a result of the commodity/monetary abstraction and workers' separation from the means of production, to overcome capitalism you will have to address both of these in a transitional process. If not, and if you try to reduce

the task of addressing both abstractions by positing a singular overcoming, then you will, as Marx does, be forced to lean on utopian assumptions about the change in human subjectivity brought about by communist revolution¹⁹³ – and further commit to these being scaleable to the macro-national or global level and sustainable in the long run. Yet the logic of the Marx's economic critique in *Capital* (precluding supplementary hypotheses about the change in human nature) implicitly breaks from the idea of a simple inversion pivoting on collective ownership of the means of production. His own analysis beckons in the direction of the need for planning post-capitalist structures, and a break from a Hegelian concept of historical change occurring at a single point of change.

This point can be brought out in contrast to Marx's earlier writings, before his mature political economy picks apart these different dynamics. For the early Marx, there is no complex of multiple abstractions called 'capitalism' which needs to be

¹⁹³ The excesses that can result from such an approach are evidenced by Lukács's attempt "to provide a philosophical foundation for the proletariat's efforts to form a classless society through revolution." (Georg Lukács, *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone (Cambridge, MA: The MIT Press, 1971), *xxiii*). The limits of this (ultra) humanist grounding of revolution are made evident by Lukács' self-criticisms in the 1960's where he concedes the confusions propagated by his text's original casting of Marxist revolutionism. For its central idea – of revolution allowing the proletariat to become both the subject and object of history – relies upon conflating objectification as a phenomenon resultant from the creation of all material objects with the forms of alienation specific to capitalism as an economic mode of production. Given Lukács's was the most sophisticated philosophical attempt to ground the humanist idea of revolution its failure is indicative of the opposite problem haunting more woolly humanisms. The problem is that they essentially present revolution as a panacea for worldly ills. It follows that we are forced to universalise Lukács' self-criticism that his theory represented an "abstract utopianism" (ibid., xii) and apply it to whole gamut of humanist justifications for revolution, including elements of this idea in Marx's own mature writings.

overcome; the system of oppression all comes down to private property as a symptom of the *single abstraction* arising from the alienation of workers from their labour process and objects of production. In Marx's early political economy everything turns on the single foundation of alienated labour. Let us consider why, if a single abstraction is diagnosed at the root of the ills of modern capitalist industry, this perfectly aligns with his principle against planning post-capitalist economic structure in advance of revolution.

For early Marx, alienated labour turns the world upside down, and all the inversions to which this single abstraction give rise make the structure of Marx's proposed overcoming adopt the form of a simple inversion taking place at a single nodal point. As he puts it in the *Economic and Philosophical Manuscripts*:

Just as we have arrived at the concept of *private property* through an *analysis* of the concept of *estranged, alienated labour,* so with the help of these two factors is it possible to evolve all economic *categories,* and in each of these categories, e.g. trade, competition, capital, money, we shall identify only a *particular* and *developed expression* of these basic constituents.¹⁹⁴

In light of our reading of *Capital's* multiple constitutive abstractions, Marx's early emphasis on evolving all the categories *solely* from alienated labour should be conspicuous. Further, the single abstraction underlying all the laws of political

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¹⁹⁴ Marx, Economic and Philosophical Manuscripts, 333.

economy is reflected in the linear inversions Marx claims are expressed in the 'laws' of political economy: "the more the worker produces, the less he has to consume; the more value he creates, the more worthless he becomes." 195 This, again, is in sharp contradistinction to the nuanced dynamics laid out in Capital. By the time of his mature economic studies, Marx would never claim that there is some simple inverse relation between workers producing more and receiving less, there being too many intervening variables to make such a claim. It might be possible in some circumstances; it might not in others. As a consequence of the way in which in the Economic and Philosophical Manuscripts' economic relations all turn on the single category of alienated labour, overcoming private property will, likewise in a single stroke, undo all existing economic laws. "Wages are a consequence of estranged labour, and estranged labour is the immediate cause of private property. If one falls, the other must fall too." 196 The crux of the matter is that there is a connection between attributing a single real abstraction as the cause of the ills of the working class and the idea that transitioning to communism can be realised by overcoming simply this one abstraction.

Marx nevertheless remained committed to this principle long after he had broken from his belief that capitalism turns solely on alienated labour. Indeed, the demarcation of lower and higher communism one finds in his later political writings reflects a desire to mediate between the more sober, sophisticated analysis of

¹⁹⁵ Ibid., 325.

¹⁹⁶ Ibid., 333.

capitalism in his later writings with the fully fledged humanist reconciliation themes predominating in his earlier work. Marx cautions in the Critique of the Gotha Programme, "What we have to deal with here is a communist society, not as it has developed on its own foundations, but, on the contrary, just as it emerges from capitalist society; which is thus in every respect, economically, morally and intellectually, still stamped with the birthmarks of the old society from whose womb it emerges." ¹⁹⁷ This is the context in which the labour certificate scheme, discussed in the last section, is proposed as an immediate solution to exploitation (a scientific discovery of his mature writings), in the process of the transition to higher communism where alienation will be overcome. Marx criticises his own scheme insofar as it preserves the principle of the exchange of commodities according to equal values. Although "[c]ontent and form are changed" and "principle and practice are no longer at loggerheads" this is still a "bourgeois right" inasmuch as the "right of producers is proportional to the labour they supply; the equality consists in the fact that measurement is made with an equal standard, labour." 198 From admitting that these "defects are inevitable" in the first phase of transition, Marx then makes a speculative leap in his depiction of the "higher phase" in which all the economic categories and dualisms of capitalist society disappear.

¹⁹⁷ Marx, "Critique of the Gotha Programme," 21.

¹⁹⁸ Ibid., 22.

[A]fter the enslaving subordination of the individual to the division of labour, and there with also the antithesis between mental and physical labour, has vanished; after labour has become not only a means of life but life's prime want; after the productive forces have also increased with the all-round development of the individual, and all the springs of cooperative wealth flow more abundantly—only then can the narrow horizon of bourgeois right be crossed in its entirety and society inscribe on its banners: From each according to his ability, to each according to his needs. 199

Marx's reconciliation theme is booted into the future to a point where theoretical analysis of the existing regime is impossible.

The point is that to the end of his days Marx maintains the idea that revolution is an epistemic cut in the historical fabric beyond which no communist theorist should attempt to peer far beyond. Yet, as we have seen, there are tendencies in his later work – complexified notions of a mode of production, multiple real abstractions, a break from humanist assumptions – which all point towards this being unsatisfactory. The idea that revolution and communist transition can be conceived as issuing from the closing down of a single abstraction imitates the way in Hegel's linear historicism epochs are pushed forwards by the movement of the prevailing general contradiction of an era. In the final instance, then, Marx's unwillingness to push his complexified analysis further through to thinking

¹⁹⁹ Ibid., 23.

transitional post-capitalist economics taking on board the quasi-autonomous dynamics of money reflects his adherence to a notion of historical change owing much to Hegel. Of course, one could argue that there are many other reasons Marx might not have wanted to expand upon transitional economics — none the least Engels's and his ideological commitments to the proletariat's self-emancipation as discussed in the first section — but still, the point we have tried to make is that underlying (or at the minimum parallel to) these commitments is a theory of knowledge and a set of conceptual structures relevant for analysing Marx's idea of revolutionary change. In many important ways these are different from Hegelian historicism. But in another sense they converge back to similar postulates when the issue is concentrated on the question of what happens in revolution and what the conception of the historical mechanism is shifting the world between epochs (for Hegel) or modes of production (for Marx).

In conclusion, and in terms of the overall argument of the first part of this thesis, Marx's unwillingness to break from the idea of revolutionary change effected at solely a single point of transformation means that he remains within the Hegelian horizon. This is the reason why the quantity-quality leaps imported from Hegel's *Logic* by Engels could complement Marx's idea of revolution. Lenin perhaps came closest to breaking from these theoretical limits within Second International Marxism. But still thinking within the horizon of Hegelian philosophy and a variant of the historicist view on political change, as we will see his ideas still succumbed to the influences of his era. This is the subject of the next chapter.

3. Lenin's Leaps

the evolution of revolution

Thus the [Paris] Commune appears to have substituted "only" fuller democracy for the smashed state machine... But as a matter of fact this "only" signifies the very important substitution of one type of institution for others of a fundamentally different order. This is a case of "quantity becoming transformed into quality": democracy, introduced as fully and consistently as is generally conceivable, is transformed from bourgeois democracy into proletarian democracy.²⁰⁰

Written during the turmoil of the Russian Revolution, in *State and Revolution* Lenin turned his back on Social Democracy to insist on the need to smash the bourgeois state. Nothing less than the capture of the state machine and its decimation from within was required. At the same time Lenin needed to demarcate his position from anarchism, which his antagonists in the pantheon of the Second International had long conflated with any form of anti-statism. He was thus compelled to show how

²⁰⁰ V. I. Lenin, "State and Revolution" in *Essential Works of Lenin*, Ed. Henry M. Christman (New York: Dover Books, 1987), 301. [emphasis added]

smashing the *bourgeois state* was not antithetical to the establishment of a *proletarian state*. In the latter, army, police force and bureaucracies were to be eliminated by arming the entire population and ensuring the involvement of all men and women in its merged operations. And this maximalist programme, diverting so far from the orthodoxy of the time, was defended against charges that it prescribed the anarchist elimination of the state *as such* via a conceptual representation of the dramatic transformation of the state's form – from *quantity to quality*; from the bureaucratic-reactionary state to the revolutionary-democratic state.

Along his with *April Theses*, Lenin's *State and Revolution* is often considered to have sundered the theory and practice of Marxism.²⁰¹ After breaking from the Second International over its support for imperialist war and then going on to complete a study of Hegel's *The Science of Logic*, the resulting texts, the evidence suggests, are an explosive combination of philosophy and politics paying massive dividends for guiding practice towards radical change. Indeed, it is hard to

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Lars T. Lih specifies the difference: "First, what exactly was new in Lenin's famous *April theses*? The following planks in Lenin's 1917 platform are not new: all power to the soviets, no support for the provisional government and the imperialist war, the necessity of a second stage of the revolution, in which the proletariat would take state power. These themes can all be found earlier - in particular, in theses published in October 1915. What is new is Lenin's insistence on taking 'steps toward socialism' in Russia, prior to and independent of socialist revolution in western Europe....Up to this point, Lenin had one revolutionary scenario for Russia and another for Europe: *democratic revolution* in Russia and *socialist revolution* in Europe" (unpaginated). Nonetheless Lih notes that 'renegade' Kautsky's 1917 article on Russia contains many of the same changes in strategic assessment that Lenin would incorporate into his *April Theses*. Lih also draws attention to the persistence of the same "Hegelian tag" (the quantity-quality transformation) used by Kautsky and Lenin to describe socialist economic measures as precisely not about smashing the capitalist apparatus. ("Supplement: Kautsky, Lenin and the 'April theses,'", *Weekly Worker* (14 January 2010) Available at: http://www.cpgb.org.uk/article.php?article_id=1002027 [Accessed 1 January 2012])

overestimate just how radical Lenin's propositions were. In the midst of mass upheaval after February 1917, where for the first time the Russian people enjoyed unprecedented freedom of speech, assembly and representation, Marxism's most famous practitioner demanded a second revolution in order to realise a platform only a paper-thin nuance away from fulfilling every anarchist's dream. Where the German SPD²⁰² was still backing war credits to their government, in the mould of the short-lived Paris Commune the Russian Bolshevik leader proposed to smash completely the state machine, and to do so in the largest country in the world, a country which had scarcely developed beyond a peasant economy.

The boldness of Lenin's interventions and their coincidence with his authorship of notebooks on Hegel's *The Science of Logic* a few years earlier makes it easy to argue that Lenin's rediscovery of the Hegelian dialectic and the idea of quantity-quality leaps thenceforth equipped Marxism with an idea of the event permitting it to resist all evolutionary historicist temptations. It is no wonder that contemporary Hegelian-Marxists like Daniel Bensaïd, Stathis Kouvelakis, Kevin Anderson and Slavoj Žižek continue to use Lenin's study of Hegel as the exemplary case in point for why dialectical materialism remains an essential component of Marxist theory.²⁰³ Yet despite the seductive narrative there remain reasons to be cautious in endorsing their view on the matter. For if we resist being carried away by the epoch-making moment of history in which Lenin's studies took place, there are a

²⁰² Sozialdemokratische Partei Deutschlands (SPD) – The Social Democratic Party of Germany, founded in 1875.

²⁰³ See their contributions to the volume Budgen, Kouvelakis, Žižek (eds.), *Lenin Reloaded: Towards a Politics of Truth.*

number of difficulties with attributing to Lenin's notebooks the radical break from the tradition typically assumed. Whilst the arch reformist of the Second International, Eduard Bernstein, might have turned against Hegelian dialectics at the same time as the arch revolutionist, Lenin, embraced them yet further, this should not distract from the fact that most of the concepts Lenin discovered in reading the *Logic* were already firmly entrenched within the Marxism of the time, including in the dialectical materialism of Plekhanov who supported the nationalist drive for war. If one is to argue that Lenin broke from the orthodox dialectical materialism, this raises the question of in what way his dialectically informed understanding of change is new? What novelty did Lenin bring to Marxist theory that Engels had not already introduced in *Anti-Dühring*? And how accurate is it to say that Lenin's notion of leaps allowed him to break from evolutionary historicism? As we will see, answering these questions involves an appreciation of the peculiarities involved with applying the idea of quantity-quality leaps to social analysis.

In chapter one, we already raised serious doubts about whether these transformations in fact break from Hegelian historicism and consequently whether they are adequate to conceptualise a novelty-bearing event. The challenge in this chapter is in some ways more difficult. For Hegel's idea behind these transformations is that they apply in the domain of mechanical physics, flagging up the limits to quantitative determination of things and explaining how in changing along their linear, quantitative determinations at a certain point things suddenly leap to a new qualitative state. Yet Hegel stresses that this schema *cannot* be applied to realm of spirit, even though this is precisely how dialectical materialism seeks to use this idea.

There is therefore an extra step involved in evaluating how Marxist practitioners construe the idea: this pertaining to which variables they attribute to quantity and which to quality. Whether quantity-quality transformations allow one to think disjunctive historical events is a question enmeshed in the manner in which historical materialist variables are plugged into the schema. To understand if and potentially in which way Lenin's idea of quantity-quality transformations differs from the orthodox evolutionism of the time therefore requires us to situate historically how such evolutionism was construed by his peers in both political practice and in their take on dialectical materialism. This is necessary as a corrective to overly simplistic assumptions that Lenin's discovery of leaps, breaks in gradualness and sudden transformations in Hegel's Logic sufficiently distinguishes him from the evolutionism of the Second International; these conclusions drawn without considering the interplay between his take on the idea and the historical materialist schemata to which it is applied. While it is obvious that Lenin's politics sharply diverged with those of the Second International after the outbreak of war, and that his charges against the politically gradualist tendency of the European Social Democracy seems to mirror his discovery of the leaps between quantity and quality, the awkward truth is that the these leaps were already a widely accepted idea - in fact, the most privileged idea – of orthodox Engelsian dialectical materialism. ²⁰⁴ If Lenin successfully manages a break from evolutionism upon his encounter with Hegel's Logic, it is safe

What is more, Stalin also codified the transformation as one of the fundamental principles of Soviet dialectical materialism. See *Dialectical and Historical Materialism* (New York: International Publishers, 1940).

to assume that this cannot solely be fully understood with respect to the ontology of these leaps. Instead, we need to focus our attention on his application of the concept through we will call the conceptual matrix brought to bear when fitting the idea of quantity-quality transformations to an actual historical situation. This involves further inquiry into whether there is a broader conceptual understanding of Hegelian dialectics that Lenin sourced from his own first-hand reading of the Logic allowing him to apply the idea of quantity-quality transformations in a way diverging from the approach of his peers. We argue that Lenin's reading of totality in the Logic did allow him to break from his pre-war, linear historicist views on the right time and right place for socialist transformation first to take root. At the same time, however, we also argue that once in power the use of the idea of quantity-quality transformations to think the economic changes necessary to transition towards communism evinces limitations. 205 In so doing, we contend against orthodox Marxism that Lenin's interpretation of quantity-quality leaps still reaches an impasse circumscribed by the Hegelian horizon preventing it from being an adequate idea of a novelty-bearing event.

This chapter begins with a review of the ways in which dialectical materialists have construed the notion of quantity-quality transformations. We then explicate the political commitments of orthodox Second International Marxism and what

My critical point therefore lies in close proximity with Étienne Balibar's (anti-Hegelian motivated) claim that "the transition from one mode of production to another, e.g, from capitalism to socialism, cannot consist of the transformation of the structure by its functioning itself, i.e. of any transformation of quantity into quality" ("The Basic Concepts of Historical Materialism" in Louis Althusser and Étienne Balibar, *Reading Capital*, trans. Ben Brewster (London and New York: Verso, 2009), 307).

evolutionism means in this context, helping to unpack the relationship between Lenin's pre-war politics and philosophy and how these changed post-war and post-Logic. In the final, most critical section of this chapter, we will ask how effective Lenin's idea of leaps was for conceptualising novelty. While we will see how Lenin's deepened conception of totality allowed him to make an admirable break with Plekhanov and Kautsky when it came to seizing the revolutionary moment, by the end of this chapter we will also see how the same idea is less effective for theorising how revolutionary policy can effect a break enabling transition away from capitalism.

3.1 A genealogy of quantity and quality

From Engels onwards the attempt to draw from Hegel's *The Science of Logic* an idea of an event that would account for the sudden, disjunctive social transformations accompanying social revolution was marked by an inconsistency. The implications of this have not been considered in great enough depth by the literature considering what we will argue is a point requiring full acknowledgement in order to evaluate the novelty of Lenin's reading of Hegel. In this section we address this problem by recognising the peculiarities resulting from dialectical materialists' selective appropriation of the Hegelian idea, and by setting out how different Marxists responded to it.

What problem are we intimating here? As already explicated in chapter one, Hegel's idea of quantity-quality leaps is supposed to apply to physical mechanics. Hegel dismisses the notion that it can be applied to biology, or other fields where excessive contingency and particularity applies to the determination of its objects.

This disclaimer is even more pronounced in the case of the evaluation of phenomena belonging to the social world. As Hegel cautions,

in the realm of spirit there is still less to be found a characteristic, free development of measure. It is quite evident, for example, that a republican constitution like that of Athens, or an aristocratic constitution tempered by democracy, is suitable only for states of a certain size, and that in a developed civil society the numbers of individuals belonging to different occupations stand in a certain ratio to one another; but all this yields neither laws of measure nor characteristic forms of it. In the spiritual sphere as such there occur differences of *intensity* of character, *strength* of imagination, sensations, general ideas, and so on; but the determination does not go beyond the indefiniteness of *strength* or *weakness*.²⁰⁶

What this means is that if one nonetheless extracts the idea out of his system and uses it for thinking social transformation, then it raises the question of how this operation is to be performed. After all, in the case of water freezing into ice, thereby undergoing a transformation from quantity (its linear temperature change) to quality (its new physical state), that to which quantity and quality pertain is clear. In the case of social analysis, however, what we mean by quantity and quality is open to a high degree of interpretation. To offer what we think is an insightful interpretation of how

²⁰⁶ Hegel, *Science of Logic*, Vol. 1, Book 1, §3, 332.

Marxists generally attribute the terms, one can place them within the Cartesian tradition of identifying the real as opposed to the merely subjective evaluation of phenomenon – a lineage running from Engels through to Meillassoux.²⁰⁷ This split is found in Descartes' *Meditations on First Philosophy*²⁰⁸ where the properties of matter are divided into those describing its primary (quantitative) characteristics, like extension in space, and those secondary qualities like colour, smell, taste, etc., which do not belong to the object itself, but only to our perception of it.²⁰⁹ Applied within Marxist discourse, this translates into an emphasis on the 'real' quantitative dimensions of phenomenon, involving a scientific analysis of economic and political determinations, and serving to distinguish Marxist materialism from ideologies founded on textual hermeneutics (theology), abstract principles (liberalism), and discourse contestation (poststructuralist resistance). Lenin's *Imperialism, The Highest*

Engels brings the two together in *Anti-Dühring*. "In its operations with variable quantities mathematics itself enters the field of dialectics, and it is significant that it was a dialectical philosopher, Descartes, who introduced this advance. The relation between the mathematics of variable and the mathematics of constant quantities is in general the same as the relation of dialectical to metaphysical thought." (111-112) Meillassoux's *After Finitude* also opens by announcing a return the Cartesian imperative to distinguish between the mathematical primary qualities of things and the secondary qualities perceived only by the subject.

René Descartes, *Meditations on First Philosophy*, trans. Michael Moriarty (Oxford: Oxford University Press, 2008), particularly Meditation VI.

Also see John Locke, *Essay concerning Human Understanding*, ed. Roger Woolhouse (London: Penguin, 2004) and Galileo Galilei, *The Assayer*, eds. Frederic P Miller, Agnes F Vandome, John McBrewster (VDM Publishing House, 2011).

Stage of Capitalism,²¹⁰ for example, is replete with statistics on the correlations between the concentration of monopoly capitalism and inter-state rivalry over the colonies. In an unfinished biography of Lenin, Trotsky proudly surmised how such a delicate matter as whether to align with the populist courting of the peasantry or instead with the industrial proletariat in Russia was decided upon by Lenin with reference to reams of statistics – describing economic statistics as the "science of sciences".²¹¹ To similar ends, a whole series of quantifiable economic 'objects' are amenable to Marxist analysis: organic composition of capital, the rate of exploitation, demographics, class composition, urban-rural balance, etc. One way of interpreting the science in 'scientific socialism' is to see it as grasping the real, quantitative objects of the materialist base.

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²¹⁰ V.I. Lenin, "Imperialism, The Highest Stage of Capitalism" in *Essential Works of Lenin*, Ed. Henry M. Christman (New York: Dover Books, 1987), 177-270.

²¹¹ "Diagrams representing the number of factory chimneys and of industrial workers as well as those showing the differentiation among the peasantry took on a special meaning. To determine the dynamics of the process it was necessary to compare today's figures with those of yesterday. Economic statistics thus became the science of sciences. Columns of figures held the key to the mystery of Russia's destiny and that of its intelligentsia and of its revolution" (Leon Trotsky, "How Lenin Studied Marx" [1936], *Fourth International*, Vol.11 No.4, July-August 1950, 126-128. Available online at Marxists.org:

http://www.marxists.org/archive/trotsky/1936/xx/lenin.htm [Accessed 31 December 2011]). Lenin distinguishes his efforts at understanding the class dynamics among the peasantry from the Narodnik position by his use of statistics. He bemoans the scientific deficiencies of his opponents when he writes that "no attempt has been made to study systematically at least the statistics on the disintegration of the peasantry." See "The Development of Capitalism in Russia" in *Essential Works of Lenin*, Ed. Henry M. Christman (New York: Dover Books, 1987) 23.

Differentiating Marxism from other quantitatively oriented social sciences in the 20th century, however, is its marshalling of this knowledge in order to induce progress to a communist society: that is, to a society which *cannot* be quantitatively analyzed for the obvious reason that it does not yet exist, and, furthermore, where quantification of key objects will become irrelevant since they will be eliminated in the process of transition, e.g. classes and capital. Developing this theme, for Nicola Vaccaro it implies a more general demarcation of opposed spheres of necessity and freedom sheltering under the quantity-quality master binary: "in the category of quantity we see contained the concepts of structure, necessity, economic life, while in that of quality those of superstructure, freedom, mind." Taken to its conclusion, then, for Marxist science *order becomes associated with quantity and change with quality*. The real status quo can be inferred quantitatively, but the new, post-revolutionary order can only be conceived qualitatively. This is how Hegel's categories are mapped onto the social sphere.

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²¹² Nicola Vacarro cited in Maurice A. Finocchiaro, *Gramsci and the History of Dialectical Thought* (Cambridge: Cambridge University Press, 2002), 274 [en. to page 148].

Fredric Jameson extends the point and argues that this binary runs throughout all of Marx's *Capital*: "the great opposition between Quality and Quantity, which we will from time to time find mutating into the even more suspicious one between Body and Mind or Soul....Use value is therefore quality; it is the life of the body, of existential or phenomenological experience, of the consumption of physical products, but also the very texture of physical work and physical time....Quality is human time itself, whether in labor or in the life outside of labor; and it is this deep existential constant that justifies that Utopian strain in Marxism....This indissoluble relationship between Quality and the body will then make more vivid and sinister everything about the "fetishism of commodities" that smacks of spiritualism and of the abstractions of capitalism as such, which are now to be accounted for by Quantity, here identified, as in Hegel, with mind and "theory" as such" (*Representing Capital: A Reading of Volume One* (London and New York: Verso, 2011), 19-20).

The mapping has some limited basis in Marx's work. Referring to the Logic, in Capital Marx makes occasional references to the transformation when explaining how the scale of production (how many workers are assembled manufacturing the same commodity) at a certain point effects a change in the nature of production.²¹⁴ Or elsewhere, too, when accounting for how a minimum magnitude of capital is necessary to generate surplus value. 215 In point of fact, Marx's analysis of capitalist value creation relies upon the reduction of qualitatively different labours to commensurate quantitative labours in order for the category of socially necessary abstract labour time – the lynchpin of his value theory – to make sense. Yet although the transformation indubitably plays some limited role in Marx's social theories, only with the establishment of the philosophical 'materialist' supplement to Marxism in Engels's Anti-Dühring is the quantity-quality transformation brought to the fore as a central dialectical notion for understanding transformation. In chemistry, physics and mathematics, for Engels, "the same dialectical laws of motion force their way through as those which in history govern the apparent fortuitousness of events."²¹⁶

After Engels emphasised the quantity-quality transformation as a central pivot for dialectical materialist thought, subsequent generations of Marxists continued in the same vein. Trotsky, for one, follows Engels by repeating and rhetorically amplifying the quantity-quality transformation as the most fundamental

²¹⁴ Karl Marx, *Capital* Vol. I, trans. (London: Penguin, ???),

²¹⁵ Marx, Capital Vol. I, 423.

²¹⁶ Engels, "Anti-Dühring", 11.

principle of dialectical materialism. His second notebook on Hegel asserts: "It must be recognized that the fundamental law of dialectics is the conversion of quantity into quality, for it gives [us] the general formula of all evolutionary processes—of nature as well as society."217 Trotsky goes so far as to chide Hegel for not giving enough importance to the transformation in his own work, and presses the point by arguing that if Hegel had not preceded Darwinism and Marxism he would have given it more prominence.²¹⁸ In fact, Trotsky almost completely assimilates dialectical materialism with Darwinian evolutionary processes, placing emphasis on catastrophic moments in the generally gradual developmental processes of evolution whilst affirming their mutual identity – dialectics being their methodological synthesis, the bridge between cataclysmic change and gradualism. In Philip Pomper's estimation, which more or less serves to describe the whole gambit of 'orthodox' dialectical materialism, Trotsky's view on the matter expresses an epigenetic architectonic of change where the best results of the processes of gradual development are preserved through catastrophic events; where only by throwing off structural inhibitions in acute crises of disequilibrium can progress be ensured. 219 In the dialectical materialist cosmogony, revolution is like a fire engulfing the prairie, burning down all in its path, but seeding the ground with nutrients for a newly strengthened ecosystem. It is, in Stalin's words, "an onward and upward movement ... as a development from the

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Leon Trotsky, "The Second Notebook" in *Trotsky's Notebooks 1933-1935: Writings on Lenin, Dialectics and Evolutionism*, trans. Phillip Pomper (New York: Columbia University Press, 1986), 88.

²¹⁸ Ibid., 88-89.

²¹⁹ Philip Pomper, "Introduction" in ibid., 60-61.

simple to the complex, from the lower to the higher", with the result that revolutions "are a quite natural and inevitable phenomenon." 220

The ambiguities which persist even when practitioners maintain the same understanding of these leaps, however, are brought to the surface by reference to the fact that Trotsky and Stalin, two of history's most famous nemeses, shared exactly the same abstract notion. Despite their deep seated political differences, not the least Stalin's obvious rejection of Trotsky' theory of 'permanent revolution', if we wish to consider how this idea of social transformation intersects 'evolutionist' or 'revolutionist' politics — crucial for inferring if and how Lenin's interpretation contributed to his political breakthrough — there is little if anything to separate the two. Noting their notorious political disagreements while acknowledging that they held almost exactly the same notion of quality-quantity transformations indicates that there a further set of concepts in need of consideration that are not captured on the abstract level. Stalin, for example, applied the idea of leaps almost entirely in order to demonstrate why following revolution all efforts at transitioning towards communism should concentrate on growing the forces of production.²²¹ In this way

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²²⁰ Stalin, *Dialectical and Historical Materialism*, 9, 14.

As part of the project to reconceptualise a more complex conception of history and the structural totality, in 1968 Étienne Balibar refuted its appropriateness. ("The Basic Concepts of Historical Materialism," 307.) Almost a decade later Alain Badiou reinstates an affirmation of the transition when he opens his 1975 seminar in *Theory of the Subject* by clarifying that "one of the objectives of what we are saying here is to establish that the famous 'leap' from the quantitative to the qualitative, far from being the measure that makes all thermometers explode, includes the effect of the subject" (Alain Badiou, *Theory of the Subject*, trans. Bruno Bosteels (London and New York: Continuum, 2009), 4).

we can see how Stalin applies the idea by operating within a unilateral, linear notion of base-superstructure determination. The *material forces* of production have to reach a quantitative tipping point where the *qualitative relations* of production can no longer sustain them, therewith unleashing a social transformation. Conceptualised in said manner, quantity-quality transformations assume a practically programmatic status in his state codification of the principles of *Dialectical and Historical Materialism*.

Yet even if in this text Stalin affirms the necessity of revolution against mere evolution, unless the former breaks substantially enough from the latter, revolution is still conceived as little more than a quantitatively superior evolutionary jump

As Karl Marx put it in the Preface to the 1859 *Contribution to a Critique of Political Economy*, "At a certain stage of their development, the material productive forces of society come in conflict with the existing relations of production, or — what is but a legal expression for the same thing — with the property relations within which they have been at work hitherto. From forms of development of the productive forces these relations turn into their fetters."

Stalin, *Dialectical and Historical Materialism*, 8, 14. As he also writes in another text, "dialectical method says that movement has two forms: the evolutionary and the revolutionary form. Movement is evolutionary when the progressive elements spontaneously continue their daily activities and introduce minor, quantitative changes into the old order. Movement is revolutionary when the same elements combine, become imbued with a single idea and sweep down upon the enemy camp with the object of uprooting the old order and of introducing *qualitative* changes in life, of establishing a new order" (Josef Stalin, "Anarchism or Socialism?" in J. V. Stalin, *Works* (Moscow: Foreign Languages Publishing House,1954), 303). Interestingly, Stalin carries this idea so far as to use it as evidence for the neo-Lamarckian theories of Trofim Lysenko, contra geneticist neo-Darwinism. "The same thing is shown in biology by the theory of neo-Lamarckism, to which neo-Darwinism is yielding place....Darwinism repudiates not only Cuvier's cataclysms, but also dialectically understood development, which includes revolution; whereas, from the standpoint of the dialectical method, evolution and revolution, quantitative and qualitative changes, are two essential forms of the same motion" (ibid., 304-312).

rather than a novelty-bearing break with the evolutionary process itself. Further evidence that Stalin's take on the quantity-quality transition is one of simply an exaggerated evolutionary jump can be seen in the dispute in his last years over whether Marx's law of value holds sway in the socialist economy. Here Stalin opposes ideas that a 'transformed' law of value operates in the socialist economy by insisting on the trans-historical objectivity of economic laws.²²⁴ In *Economic Problems* of the USSR he writes, "It is said that some of the economic laws operating in our country under socialism, including the law of value, have been 'transformed,' or even 'radically transformed,' on the basis of planned economy. That is likewise untrue. Laws cannot be 'transformed,' still less 'radically' transformed."225 Only once the peasantry voluntarily leave the agricultural artels can the perfected planned economy be realised, and the step to higher communism commence; unfolding as a transition emergent from minor quantitative movements in the economic base so that "Slowly, without our noticing, we will enter communism." 226 Stalin's position on the question of transition to higher communism – namely, that the process cannot be forced by any political means and will take a long time to unfurl according to objective economic laws - helps indicate some of the more subtle questions

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For a fascinating account of the nearly 20 year long development of the Soviet political economy textbook, subject to innumerable delays owing to Stalin's close involvement with it, see Ethan Pollock, *Stalin and the Soviet Science Wars* (Princeton: Princeton University Press, 2006), Chapter 7.

²²⁵ Joseph Stalin, *Economic Problems of the USSR* [1951], Chapter 1. Available online at Marxists.org: http://www.marxists.org/reference/archive/stalin/works/1951/economic-problems/ch02.htm [Accessed 20 January 2012].

²²⁶ Stalin, cited in Pollock, *Soviet Science Wars*, 205.

underlying the application of the quantity-quality transformation to historical situations and whether the idea connotes 'evolutionism' or 'revolutionism'. It appears far from adequate to presume that any application of the transformation necessarily implies revolutionism when it can be used both to affirm revolution (as per Stalin) but also to defer social change endlessly into the future according to objective 'laws' that determine accumulations in the economic base as a necessary precondition (also as per Stalin). Political will, strategy, the relation between the objective and the subjective, and views on the correct ordering of the Marxist world historical narrative all contribute to the transformation's conceptual matrix, which when conceived in purely mechanical terms, à la Stalinist dialectical materialism, are reduced to linear causality almost entirely dependent the objective/quantitative material 'base'.

Can a line of demarcation be drawn between the Engelsian/Stalinist and Leninist idea of quantity-quality leaps with regard to the conceptual matrix by which the transformation is applied to a historical situation? Lenin actually made scant mention of the transformation in his writings until after studying Hegel in 1914/15. So to better appreciate the point he was trying to make when referencing quantity-quality leaps in his post-*Logic* works some background to Lenin's political thought prior to this time is necessary. As this section has shown, without an appreciation of actors' historical materialist theories it will be remarkably difficult to intuit any differences in their interpretations and applications of the concepts of dialectical materialism. Directing our efforts towards this task, a few common prejudices need dispelling before we can be in a position to assess accurately the shift in Lenin's

thought pre and post-1914 and how this might have affected the conceptual matrix he brought to bear when thinking quantity-quality leaps. In the next section thus offers an appraisal of Lenin's pre-war political thought in order to allow a more nuanced account of the changes in his theorisation provoked by reading Hegel. We therefore leave dialectical materialism aside for the time being and return to it only once Lenin's position with respect to historical materialist evolutionary schemas has been established.

3.2 Lenin before war: taking responsibility for the inevitable

Lenin's early political thought could be characterised as a paradox at first glance: on the one hand, a voluntarist adherence to conspiratorial elitism for the sake of making revolution, and on the other hand an unquestioning acceptance of mechanical Marxism following an evolutionary ordering of the correct stages to be passed through on route to socialism. All signs of rupture with the latter position after 1914 (and post-*Logic*) can then be easily translated into celebrations of his rejection of evolutionism and orthodoxy. This take on things is of limited use for our present investigation, however, for it sets up Hegel *a priori* as the master key for unlocking the dichotomy between a mechanical, evolutionary Leninism – indebted to the philosophy of an equally mechanical and evolutionary Second International – and the later dynamic thought of a truly dialectical thinker. Now, there is of course some truth to this reading; but the exaggerated contrast only serves to over egg Lenin's pre-war dogmatism, and conversely to overinflate the results of his immersion in Hegel's codex. Any understanding of Lenin's achievement rather

depends upon grasping a more subtle sense of the difference between these two periods and what was contributed by a renewed appreciation of Hegelian dialectics. Given that 'evolutionism' was not a recognized epithet of the era — unlike opportunism, revisionism and economism — without getting a precise foothold on what evolutionism meant in the pre-war context it is hard to trade in anything other than generalities as to what a break from it might mean in its post-war context. It follows that we should begin with an appraisal of Lenin's political thought before the war, in order to set the terms and concepts in place ahead of attempting to elaborate upon why he turned to the *Logic*.

Lenin's principal political innovation was to introduce and maintain Social Democratic tenets in Bolshevik Party strategy, tailoring them to the Russian context.²²⁷ This involved, firstly, repudiating the belief that Social Democratic strategy was inappropriate in the underdeveloped and authoritarian Tsarist state; and secondly, a rejection of tendencies making inroads with Russian Social Democracy at the turn of the century, all of which were termed 'economism' and 'opportunism' in the pages of the early R.S.D.W.P. publication, *Iskra*, and *What is to be Done?* In consideration of the fact that 'economism' represents the closest approximation of 'evolutionism' within the discourse of early 20th century Russian Social Democracy, it is worth lingering a while on this term. Unlike what the name implies, economism was not just about allowing economic forces to dictate social

²²⁷ Marcel Liebman, *Leninism under Lenin*, trans. Brian Pearce (London: Merlin Press, 1975), 26.

change.²²⁸ Rather, the economism espoused by its principal Russian backers was concerned with proving the illegitimacy of the need for Social Democrats to bring a Marxist world historical narrative to worker agitation. The economists believed politics would and should follow economic struggles for the immediate interests of workers; they refused to indulge in what they saw as unnecessary and utopian ideological work agitating for the overthrow of the Tsar, or to set out promises of a gilded socialism to which future generations could look forward. In Paul Miliukov's assessment of the economist position, by sticking to the pursuit of workers' immediate economic interests they believed "the evolution of socialism would take place all by itself."229 Consequently, the economists' position implied an antirevolutionary reformism renouncing the need for the overthrow of the autocracy. Now, this rift between the economists and Lenin presents an obvious hermeneutic difficulty for the characterisation of Lenin's reading of the Logic as a study permitting him to break from evolutionism. Because whilst evolutionism and economism might be considered the trademark signs of fatalist Marxism, setting out a route that runs along preordained historical tracks, for Second International Social Democracy it was, on the contrary, their confidence in the validity of Marxist

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Lars T. Lih writes how the term 'economism' is slightly misleading and puts too much focus on a subsidiary issue, whereas the main gripe with the economist tendency was their refutation that ideological preaching would have much effect. ("Lenin and the Great Awakening" in *Lenin Reloaded:* Towards a Politics of Truth (Durham and London: Duke University Press, 2007), 289-290.)

²²⁹ Paul Miliukov, quoted in Lars T. Lih, *Lenin Rediscovered: What is to be Done? In Context* (Chicago: Haymarket Books, 2008), 286.

historical schemata *against the evolutionists* which compelled them to insist on political work going above and beyond the economic struggle.

If political intervention, undergirded by an ordered Marxist historical vision, separated Lenin and the majority of Second International orthodoxy from the economist/evolutionist perspective (the latter rejected such stages), a further point of clarification is also needed on the answers provided by What is to be Done? regarding the correct organizational modality for agitation. In conventional historical narratives, Lenin's solution ties an authoritarian knot between vanguard elitism and an alienated voluntarism, forcing workers away from their immediate interests according to an eschatological vision of political freedom and socialism that they could not be trusted to subscribe to themselves. As such, much of the focus on this text – taken as the distillation of Leninist formulae par excellence – has adumbrated Lenin's thesis to the proposition that consciousness had to be brought to workers from the outside by socialist theorists, and that left to their own devices the working class would remain stuck at the level of trade union consciousness inevitably brought under the sway of bourgeois ideology.²³⁰ As a point of correction to the typical portrayal of Lenin's 'worry about workers', however, Lars T. Lih's exhaustive study of the period proves Lenin's extreme confidence, against evident odds, in the

[&]quot;Since there can be no talk of an independent ideology being developed by the masses of the workers in the process of their movement *the only choice is*: either bourgeois or socialist ideology" (V.I. Lenin, "What is to be Done?", 82). One should also mention an important and often overlooked footnote on this page which states that workers can themselves play a part in creating this ideology, but only by dropping the condescending attitude which restricts their education to "literature for workers." That is, they need to ascend to become theorists in the vanguard by being schooled in "general literature" (ibid., 82, fn. 1).

Russian workers' movement rising to the challenge of pressing for political liberty above simply pursuing factional concerns restricted to small scale, artisanal-specific struggles over pay and working conditions. Lih's archival work shows that it was actually Lenin's unshakeable belief in capitalist development forcing workers to gravitate towards Social Democratic demands for freedom that drove his critique of socialist abstinence from political agitation. Certainty in the *inevitability* of the workers' political insurrection was what motivated Lenin so doggedly to polemicise against the economists mechanical fatalism. Furthermore, such tenets were widely accepted within European Social Democracy; their attempted usurpation restricted to a short-lived, minority Bernsteinian tendency in Germany and a handful of advocates in Russia.

Lenin did not therefore depart to any great extent from the contours of linear Marxist schemata in his early thought. *The Development of Capitalism in Russia* (1899), argued against the Narodniks'²³³ claim that the Russian peasant

²³¹ See Lih, *Lenin Rediscovered*.

So for all the positive connotations he seeks to imbue Leninism with, when Lukács, for instance, characterizes Lenin's organization of the Bolshevik party as effectuating a "double break with mechanical fatalism; both with the concept of proletarian class-consciousness as a mechanical product of its class situation, and with the idea that the revolution itself was only the mechanical working out of fatalistically explosive economic forces" (Georg Lukács, Lenin: A Study of the Unity of His Thought (London: Verso, 2009), 31), he obscures the point that for Lenin it was, oppositely, precisely his belief in the inevitability of class consciousness arising from the development of Russian capitalism that compelled Social Democrats to help organize the proletariat on a national, political level.

²³³ The Narodniks were a Russian 'populist' movement operating in late 19th century Russia. Principal theorists included Alexander Herzen and Nikolay Gavrilovich Chernyshevsky, who oriented

commune was a unique mode of production, and marshalled this judgement towards stressing the ultimately progressive historical role of capitalism in causing the disintegration of peasantry (incidentally putting him at odds with Marx and Engels's late sympathies for the idea that the peasant commune could act as a prototype for communist relations).²³⁴ On the corresponding political level, Lenin, ever a committed Social Democrat, from 1895 up until the outbreak of the First World War, advocated a bourgeois, democratic revolution as a necessary first stage to lay the groundwork for proletarian revolution.²³⁵ Notwithstanding the fact that Lenin's distrust of the liberal bourgeoisie ran deeper than his Menshevik rivals, he still subscribed to two necessary preconditions for socialism: the development of industrial capitalism and a revolution to put in place institutions of liberal democracy.²³⁶ Whilst in part this linear scheme could be attributed to a dogmatic adherence to the formula laid out in *The Communist Manifesto*, Lenin's confidence

themselves towards the peasantry. They formed the first revolutionary party in Russia, *Narodnaya Volya* 'People's Will', advocating assassination and terror tactics against the autocracy.

²³⁴ See the essays and letters collected in Teodor Shanin, *Late Marx and the Russian Road: Marx and 'The Peripheries of Capitalism'* (London: Routledge & Kegan Paul, 1983).

²³⁵ Liebman, *Leninism under Lenin*, 64.

²³⁶ This is admittedly complicated by the fact that, contra the Mensheviks, Lenin sees the alliance being between the industrial proletariat and the petty-bourgeois peasantry rather than with the urban bourgeoisie. Whilst this would be problematic for the socialist revolution, for the bourgeois revolution, he argues, it would prove adequate. Furthermore, to mark yet another distinction with the historical, linear schemata of the Mensheviks, Lenin argues for the direct involvement of the proletariat in the provisional bourgeois revolutionary government. (ibid., 75-76.)

in the ability to bring the model of German SPD style Social Democracy to Russia²³⁷ meant that there were also practical exigencies structuring his political commitments beyond simply grafting abstract Marxist schemata onto empirical reality. In response to the challenges the importation posed, bourgeois revolution was not advocated for its own sake – for self-sufficient liberal, constitutional reasons – but instead to bring about the requisite level of political freedom that would permit Russian Social Democracy to create mass organizations capable of agitation for socialist revolution. Indeed, what differentiated Lenin from the economists and the Socialist Revolutionary successors to the 19th century populist movement was nothing less than this fixation on the need for a political movement to realise essential liberties.²³⁸

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[&]quot;Lenin had to show the sceptics that Russian Erfurtianism was a coherent political stance. It is here, in the extraordinary stubbornness about the possibility of a genuine underground Social Democracy, that a passionately individual profile [of Lenin] emerges" (Lih, Lenin Rediscovered, 114).

Through an extensive reading of Lenin's contributions to *Iskra* from 1900 to 1903 on the theme of political agitation, Lih concludes: "The imperative necessity of political freedom is the central theme of Lenin's political agitation, so much so that often it is difficult to remember that the author is a Marxist socialist" (ibid., 197). In fact it is easy to underestimate today the true scale of the inhibitions to the development of mass organization in Tsarist Russia. A few facts and statistics serve an important function in reminding us why Lenin had to adopt an underground strategy until 1905 and why campaigning for political liberty, so that Social Democracy could emerge from the underground, were considered by him so important. Citing a work by the liberal author of the time, Paul Miliukov, Lih reminds the contextually sensitive reader what the absence of political freedom meant in everyday terms: the fact that every citizen had to carry an internal passport to be registered at all times with 'janitors' stationed at every building, the fact that all street assembly was banned, and the massive growth of citizens under state surveillance, from 2,873 in 1880 to 16,000 or more by 1901. (ibid., 166-168.)

The upshot of this historical review is therefore somewhat counterintuitive. To surmise, it was Lenin's belief in the inevitability and universal validity of the historical dynamics of capitalism as dictated by scientific socialism that led him to countenance not for one minute the economism/evolutionism of some of his contemporaries. Confidence in the inevitable Marxist stages compelled him towards unwavering advocacy of direct political intervention. Nonetheless, it is difficult pigeonholing a position that rejected evolutionism on the grounds of the necessary institution of bourgeois, constitutional democracy before socialist revolution could even be considered possible. We are stuck with an awkward position as far as most theoretical discussion would see it. The dichotomy generally assumes something like the following form: either capitalism inevitably entails its own destruction, and so 'base' economic forces are more or less adequate to give rise to the consciousness of the proletariat and their revolutionary will to bring down the system, or, economic forces are inadequate to give rise to said consciousness, so it has to be brought to workers from the outside by single-minded professional revolutionaries. The former position, evolutionary and mechanical; the latter position, voluntarist and anti-evolutionary. Framed this way, it would seem that from the very beginning of Lenin's involvement with the Marxist cause in Russia he always rejected evolutionary thinking. But we have already learnt that Lenin's own stamp on the Russian revolutionary movement was exactly to insist on the relevance of orthodox historical materialist schemata even given the country's protean capitalist relations.

What sense can be made of these apparently contradictory positions: on the one hand, absolute faith in the correct sequencing of historical destiny, and, on the

other hand, the pressing need for Social Democracts to intervene to organize the proletariat to realise directly political demands? Lih provides an answer by placing Lenin in a third position: *yes*, revolutionary Social Democratic politicisation of the workers is inevitable; and *yes*, that is exactly why we need a vanguard Party to organize them. Actually, this did not reflect any particular theoretical innovation on Lenin's part. As with Kautsky and the majority of the Second International subscribing to 'Erfurt programme'²³⁹, both positions were squared by the "sooner or later" diagnosis of scientific socialism.

Since this new natural necessity — 'a worker party will sooner or later adopt the socialist programme' — is dependent on *insight*, the actual timing is not closely tied to the course of capitalist development... The driving force in this respect is the quality of class leadership rather than the level of productive forces... Social democracy is *needed* and will be *heeded*. It is not needed to achieve socialism, since this will come about regardless. It is needed to avoid the human tragedy that would be caused by socialism coming 'later' rather than 'sooner'. ²⁴⁰

Lih coins this term with reference to the Karl Kautsky's 1891 text, *The Erfurt Programme*. The essential features of Russian Erfurtianism were an explicit acknowledgment of *authority*: party, programme and Kautsky; *merger formula*: merger of the workers' movement with socialism; *good news*: the role of Social Democrats in spreading the Marxist world historical narrative; *party ideal*: establishment of independent, class based parties; *political freedom*: its urgent priority; *popular leadership*: the Social Democratic Party will lead all the people; *hegemony*: a commitment to the strategy; and *internationalism*. See *Lenin Rediscovered*, 113-114.

²⁴⁰ Ibid., 81-82.

Lenin's distinctive pre-war contribution was to apply the above thesis to the Russian situation with dogged persistence. He was evolutionary insofar as the task involved merely speeding up the inevitable sequence of events – and in Russia at least this would only be facilitated by a bourgeois revolution to deliver political liberty, the sooner the better. He was anti-evolutionary though inasmuch as there was never any question of just leaving workers to muddle through in a disorganized fashion, or relying on economic forces alone to drive political struggle. Three factors can therefore be said to structure the question of evolutionism in Second International strategy: (1) belief in the development of relations of production inevitably pushing the proletariat towards Social Democracy; (2) the speed at which the inevitable would be realised, with excessive delay leading to human tragedy, thus compelling political intervention; and (3) the correct sequencing of political struggle, i.e. whether to fight first for formal political liberty or immediately for socialist ideas. In regard to all three Lenin was as orthodox as one could get. But neither he nor the majority of the Second International were evolutionary as measured by the theoretical paradigms of the time, however such schemas might look in retrospect.

Of course, the outbreak of the First World War in 1914 and the collapse of the Second International led to a break in Lenin's thought, which later evidences a greater flexibility to rethink the sequential basis of socialist revolution. Only thereafter does he begin to pepper his texts such *Imperialism, The Highest Stage of Capitalism* and *State and Revolution* with references to the dialectical materialist

idea of quantity-quality transformations to help bolster controversial points at which he breaks from orthodox historical materialism. Yet although there is intuitive sense to Lenin's return to Hegel as a way to rediscover the Marxist status quo ante and outflank the Second International - or as Michael-Matsas would prefer: a refoundation for a new era passing through the origin of Marxism²⁴¹ – on many levels it remains problematic. Does not Hegel offer a unified system of philosophy structured specifically to deny the use of philosophy to allow one to leap into the future, affirming rather than undermining historicist 'stageism'? Why, then, turn to Hegel to combat the very evolutionist historicism Hegel's thought would seem to prescribe? Why, moreover, to such an abstract work as the Logic? And why the excited rediscovery of leaps in the quantity-quality transformation that Engels had already spent so much theoretical effort defending in his well-read Anti-Dühring? What, if anything, does Lenin find here that differentiates him from his contemporaries? These questions are posed for the sake of pressing the point that it would hardly be sufficient to invoke claims of Lenin's break from evolutionism and simply cite his use of the idea of quantity-quality transformations as evidence of the fact when considering that this idea was already firmly enshrined in Second International dialectical materialism.

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[&]quot;It is not an act performed once and for all by Marx, a century and a half ago, or by Lenin in 1914. It is an open, active, permanent process until the full realization of philosophy into a radically transformed world. The foundation, the ground, is located always at the depths of present" (Savas Michael-Matsas, "Lenin and the Path of Dialectics" in *Lenin Reloaded: Towards a Politics of Truth* (Durham and London: Duke University Press, 2007), 106).

Getting a handle on how Lenin sees this dialectical idea providing theoretical ammunition for breaking from orthodoxy – and how far this break extends – instead requires finding satisfactory answers to the question of why he turned to *Logic* in the first place and what possible effect a deepened dialectical understanding of the transformation might have had on the conceptual matrix he applies to a world beset by imperialist war. These are the questions the next section seeks to answer by explicating his motivations for studying Hegel, the key results found in the notebooks, and by inferring their influence upon his political theory.

3.3 Logic for a time of madness

An air of mystery hangs over Lenin's reading of the *Logic*. It is no exaggeration to say that it must count as one of the most intriguing acts in revolutionary history. Although the French Jacobin leader, Maximilien Robespierre, famously carried around a copy of Rousseau's *The Social Contract* in his jacket pocket, there is no equivalent in history of a revolutionary leader like Lenin embarking on an extended study of a book of such renowned obscurity as the *Logic*. This intellectual adventure is rendered all the more perplexing by Lenin's reputation as an eminently practical politician. "Without a revolutionary theory there can be no revolutionary movement" 242 may have been the dictum of *What is to be Done?*, but this did not often extend as far as abstract philosophy. In a letter to Gorky in 1908, he wrote in regard to the academic philosophers of his time, "Not only do I not 'philosophize'

²⁴² Lenin, "What is to be Done?", 69.

with their philosophy, I do not 'philosophize' like them at all. Their way of 'philosophizing' is to expend fortunes of intelligence and subtlety for no other purpose than to *ruminate in* philosophy. Whereas I treat philosophy differently, I *practice* it."²⁴³ Still, Lenin had some practice in the philosophical arts when the occasion called for it; his scandalously 'scientistic' riposte to the neo-Kantian currents of his time in *Materialism and Empirio-Criticism*²⁴⁴ situated him within the discourse of scientific realism, contra philosophical idealism. But why, at the critical juncture of 1914, with the European nations sending their young men to die in their millions in the trenches of the First World War, did he choose to study a book considered both in his time and ours the crowning apex of metaphysical idealism?

Explanations like Stathis Kouvelakis' emphasize a clear if indirect strategic purpose, relating Lenin's reading to the acquiescence of the majority of European Social Democratic parties to the nationalistic war effort.²⁴⁵ Let us pause to consider

²⁴³ V. I. Lenin cited in Louis Althusser, "Lenin and Philosophy" in *Lenin and Philosophy and other essays*, trans. Ben Brewster, (New York: Monthly Review Press, 2001), 17.

²⁴⁴ V. I. Lenin, "Materialism and Empirio-Criticism" [1908], trans. Abraham Fineberg in *Lenin's Collected Works* Vol. 14 (Moscow: Progress Publishers, 1972), 17-362.

In this way, the retreat to Hegel emerges as far from the philosophical escapism that Lenin had long accused academicians of indulging. Instead, the argument goes, it was a strategic move to unpick the fundamental philosophical foundations of Marxist 'orthodoxy' for the purpose of making a decisive break from the 'evolutionary' thinking of his contemporaries. To enumerate Kouvelakis' points in brief: Firstly, he portrays Lenin's reading as a break from the repression of Hegel in the Second International. Secondly, as an act of theoretical aggression against the "weak link" of "Social Democratic metaphysics" – armed by the most abstract parts of Hegel's system, with the aim to "open the way to a new beginning, a genuine refoundation, of Marxism itself" Thirdly, to pursue the reappraisal of dialectics as a process of leaps, and not as describing the smooth evolutionary processes represented by the dominant Plekhanovian interpretations of the time. And fourthly, by

the context. One should not underestimate the shock Lenin experienced witnessing his former comrades support the rush to war. When the German SPD voted in favour of war an entire world collapsed – a world that, up until this point, Lenin had devoted his life to importing into the Russian revolutionary movement. What is worse, he had been betrayed by erstwhile comrades: foremost Kautsky and Plekhanov, whose ideas he hitherto considered could be more or less taken off the shelf and simply tailored to the peculiarities of Tsarist Russia. 246 But these giants of Social Democracy had now betrayed the international working classes, bolstering their arguments with sophistic 'dialectical' rationales. Written directly after his philosophical studies, in 1915 Lenin's The Collapse of the Second International took pointed objection to Kautsky and Plekhanov's justifications for supporting patriotic war:

Plekhanov embellishes even this threadbare piece of vulgarity with his inevitable Jesuitical reference to "dialectics": to be able to assess the concrete situation, he says, we must first of all find out who started it

reconceiving the Russian revolutionary tradition by way of the thought of the Young Hegelian and leading figure of 19th century Russian populism, Alexander Herzen (c. 1812-1870), whose ideas were so influential amongst the country's revolutionary intelligentsia. (Stathis Kouvelakis, "Lenin as a Reader of Hegel" in Lenin Reloaded: Towards a Politics of Truth (Durham and London: Duke University Press, 2007), 173. For an account of Herzen's life and ideas, see Judith E. Zimmerman, Midpassage: Alexander Herzen and the European Revolution, 1847-1852 (Pittsburgh: University of Pittsburgh Press, 1989))

²⁴⁶ From Karl Kautsky Lenin had taken his political cues; from Plekhanov the dialectical materialism supporting his philosophy. (Jordan, The Evolution of Dialectical Materialism, 208.) Politically, Plekhanov was to the right of Lenin, but at least in terms of his philosophy Lenin had hitherto not seen any reason to question him on this front.

and punish him; all other problems will have to wait until another situation arises... Plekhanov has set a new record in the noble sport of substituting sophistry for dialectics. The sophist grabs at one of many "arguments"; it was Hegel who long ago very properly observed that "arguments" can be found to prove anything in the world.²⁴⁷

Note that the authors cited by Plekhanov were the sources to which Lenin devoted his period of intense philosophical studies. For sensing that Kautsky and Plekhanov were seeking to browbeat the workers' movement with meaningless invocations of dialectics, Lenin must have felt, considering his isolation in the workers' movement, that only with a complete mastery of the dialectical method would he be able to understand (hence also undermine) the institutions of Social Democracy that he had previously believed were exemplars of Marxist praxis. Further, the SPD's vote for war could not just be attributed to an aberration on the part of giddy patriots, nor the result of mere bureaucratic ossification within Social Democracy; a properly Marxist analysis would need to unpick what had gone wrong on a more systematic level. Accordingly, when the SPD voted for war credits Lenin perceived it to be a result of a general disinclination towards revolution. An "all pervading gradualism" opposed to any "break in gradualness" 248 had taken hold. Parliamentarism, supposed to be just a

²⁴⁷ V.I. Lenin, *The Collapse of the Second International* [1915]. Available online at Marxists.org: http://www.marxists.org/archive/lenin/works/1915/csi/iii.htm#v21pp74h-217 [Accessed 26 January 2012].

Lenin, quoted in Neil Harding, *Lenin's Political Thought: Theory and Practice in the Democratic and Socialist Revolutions* [Vol. II] (Chicago and Illinois: Haymarket Books, 2009), 29.

strategic platform for socialist revolution, had become an end in itself: the final confrontation perpetually postponed. Kautsky and Plekhanov's theoretical contortions were nothing but obtuse abstractions serving to legitimate the reformist actuality of what Social Democracy had become. Lenin's counteroffensive would therefore have to understand what had led to this process of reformist evolutionism occurring under everyone's noses; and quite evidently such a critical procedure could not be achieved by rote application of the "sooner or later" 'Erfurtian' understanding of Marxism adequate to the collapsed world. Hence the turn to Hegel's *Logic* had both negative and positive aims: negative insofar as Lenin could no longer rely on Plekhanov's now suspicious mediation of dialectical materialism and the Marxist workers' movement; positive inasmuch as only a new appreciation of dialectics could be used to understand what had gone so terribly wrong.

In order to get a sense of the direction of Lenin's studies, let us begin with Lenin's own précis on the question of dialectics, written just after studying the *Logic*. The 1915 short essay, *On the question of dialectics*, presents his most concise rationale for reading Hegelian dialectics against their grain in a materialist register.²⁴⁹ He writes, "Philosophical idealism is *only* nonsense from the standpoint of crude, simple, metaphysical materialism," whereas, "From the standpoint of *dialectical* materialism, on the other hand, philosophical idealism is a *one-sided*, exaggerated ... development (inflation, distension) of one of the features, aspects, facets of

²⁴⁹ For more on Lenin's materialist reading of Hegel see Louis Althusser, "Lenin Before Hegel" in *Lenin and Philosophy and other essays*, trans. Ben Brewster, (New York: Monthly Review Press, 2001), particularly 76-77.

knowledge into an absolute, divorced from matter, from nature, apotheosised."250 As an inflation and exaggeration, the task is thus not an absolute repudiation of philosophical idealism, but rather a pruning of it down to size, whereupon it is revealed as capturing an element of truth. As Lenin describes the rationale for a materialist appropriation of idealist thought: "Human knowledge is not (or does not follow) a straight line, but a curve, which endlessly approximates a series of circles, a spiral. Any fragment, segment, section of this curve can be transformed (transformed one-sidedly) into an independent, complete, straight line, which then (if one does not see the wood for the trees) leads into the quagmire, into clerical scholasticism."251 Any moment of knowledge can be extended and forced into a unilateral determination of truth. Yet, Lenin insists, this lays the path of a road to nowhere. Lenin's reading of Hegel rather aims to prise out those moments and arguments in Hegel's work serving to advance knowledge of human knowledge in general; and in particular to seize upon those which purportedly assisted Marx in Capital and were so neglected by Plekhanov's formulation of dialectical materialism.²⁵² Lenin finds these in what Hegel's Logic reveals about knowledge of development: the contradistinction between "The two basic (or two possible? or two

²⁵⁰ V. I. Lenin, "On the Question of Dialectics" in *Collected Works, Vol. 38, Philosophical Notebooks,* trans. Clemens Dutt (London: Lawrence & Wishart, 1961), 363.

²⁵¹ Ibid., 363.

²⁵² See, for example, Georgi Plekhanov, *Essays on the History of Materialism* [1893]. Available online at Marxists.org: http://www.marxists.org/archive/plekhanov/1893/essays/index.html [Accessed 2 Feb 2012]

historically observable?) conceptions of development (evolution)," namely: "development as decrease and increase, as repetition, *and* development as a unity of opposites." Nonetheless if one restricted their view of Lenin's take on dialectics to this essay one might come away feeling short changed. Despite interesting remarks on the relationship between materialism and idealism, there is little here to set him apart from Engels. Only the notebook on the *Logic* demonstrates a properly original break involving an enhanced appreciation of totality as it pertains to leaps between quantity and quality. It is to this book we now turn.

Lenin's collection of quotations and notes compiled over the course of his reading of the *Logic* exhibits the criticality of his approach. In the margins Hegel is subjected to accusations of "nonsense," "obscurantism" and other derogatory charges as Lenin attempts to prise out the work's materialist core and free it from God, Absolute Spirit, or any other categories slipping into pure idealism. "One must first," Lenin writes, "extract the materialist dialectics from it. Nine-tenths of it ... is chaff, rubbish."²⁵⁴ Furthermore, Lenin's notes do not spread linearly over the course of the text – surprising given the fact that we know he worked systematically in his reading from cover to cover.²⁵⁵ The commentary is Spartan on the first books of the

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²⁵³ Lenin, "Question of Dialectics," 360.

²⁵⁴ V. I. Lenin, "Conspectus of Hegel's Science of Logic" in *Collected Works, Vol. 38, Philosophical Notebooks*, trans. Clemens Dutt (London: Lawrence & Wishart, 1961), 154.

Althusser observes that "Lenin almost completely ignores the book on *Being*, leaving hardly any comment on it other than summarizing notes. This is surely strange, i.e. symptomatic. These same readers cannot fail to remark that the notes become abundant ... when Lenin comes to the book on *Essence*, which clearly interests him considerably; and that Lenin's notes become very abundant for

Objective Logic and only really picks up a head of steam by the later books on the Subjective Logic. This fact considered, and given that his repeated annotations of "Leaps!" occur in this thinly commented upon first Book on Being, it makes more sense to read Lenin's "Conspectus" against its chronological form by beginning at the end and working in reverse - following the culmination of the development of his ideas back to their incipient root.

In his notes on the Logic's third Book, Lenin follows Hegel's concerns with the problem of the relation of ideas to material, empirical reality (the theory of knowledge). He has a two-sided task: on the one hand, to assess Hegel's position and adduce whether a materialist reading of Hegel's logic can be salvaged, and on the other hand, to follow Hegel strategically in reading with him against Kant. To take the latter point first, Lenin concurs with Hegel's rebuttal of Kant's correspondence theory of knowledge for the fact that it leaves each side of the equation (the subject's knowledge and the empirical object) ultimately separate. In denying any more than a correspondence between humankind's knowledge and the noumenal thing-in-itself, Kant allows no security for the truth of the determination of ideas by the objective world, with the result that Kant needs to draw limits upon Reason, inasmuch as he cannot accord a truth to the movement of one idea vis-à-vis another. Lenin isolates the following quote, which serves to make the point, "It will always remain a matter for astonishment how the Kantian philosophy knew that relation of thought to sensuous existence, where it halted, for a merely relative relation of bare

the Book devoted to Subjective Logic and very laudatory on the Absolute Idea" ("Lenin Before Hegel", 75).

appearance, and fully acknowledged and asserted a higher unity of the two in the Idea in general ... but yet stopped dead at this relative relation and at this assertion that the Notion is and remains utterly separated from reality."²⁵⁶ Conversely, in Lenin's estimation:

Hegel is much more profound than Kant, and others, in tracing the reflection of the movement of the objective world in the movement of notion. Just as the simple form of value, the individual act of exchange of one given commodity for another, already includes in an undeveloped form all the main contradictions of capitalism,—so the simplest generalisation, the first and simplest formation of notions (judgments, syllogisms, etc.) already denotes man's ever deeper cognition of the objective connection of the world. *Here is where one should look for the true meaning, significance and role of Hegel's Logic.*²⁵⁷

Yet in regard to the origin of these ideas Lenin reproaches Hegel more critically. He can agree fully that the caesura Kant forces between knowledge and objects is impermissible for a materialist-empiricist wishing to affirm the objectivity of scientific knowledge, yet he is initially more cautious to embrace Hegel's positive

²⁵⁶ G. W. F. Hegel cited in Lenin, "Conspectus of Hegel's Science of Logic," 173.

²⁵⁷ Lenin, "Conspectus of Hegel's Science of Logic," 179. [my emphasis]

speculative conclusions. Thus, on the first page of Lenin's commentary on the Subjective Logic his note evinces a desire for a standard Marxian materialist inversion. Rather than Being and Essence representing moments of the Becoming of Subjective Logic, this "Should be inverted: concepts are the highest product of the brain, the highest product of matter." For the rest of this chapter Lenin continues to wrestle with the question of the extent to which Hegel's thought about the Notion represents an idealistic mystification or a materialist ground for a theory of objective knowledge. Lenin paraphrases what is at stake in Hegel's theory of the Notion; he writes that it is

not only a description of the *forms* of thought and not only a *natural-historical description of the phenomena* of thought (wherein does that differ from a description of the forms??) but also *correspondence with truth*, i.e.??, the quintessence or, more simply, the results and outcome of the history of thought?? Here Hegel is idealistically unclear, and fails to speak out fully. *Mysticism*.²⁵⁹

Once Lenin moves on to the section on the Idea, this critical admiration transforms into fully fledged enthusiasm as he discovers in Hegel's logical syllogism the necessary unity of theory and practice. "Cognition ... finds itself faced by that which

²⁵⁸ Ibid., 167.

²⁵⁹ Ibid., 175.

truly is as actuality present independently of subjective opinions (Setzen). (This is pure materialism!) Man's will, his practice, itself blocks the attainment of its end ... in that it separates itself from cognition and does not recognize external actuality for that which truly is (for objective truth). What is necessary is the union of cognition and *practice.*"²⁶⁰ Even more explicitly, Lenin also writes: "The 'syllogism of action' ... For Hegel action, practice, is a logical "syllogism," a figure of logic. And that is true! Not, of course, in the sense that the figure of logic has its other being in the practice of man (=absolute idealism), but vice versa: man's practice, repeating itself a thousand million times, becomes consolidated in man's consciousness by figures of logic... conclusion: The coincidence of subjective and objective, the test of subjective ideas, the criterion of objective truth." ²⁶¹ In the Absolute Idea Lenin identifies the unity of opposites between theoretical ideas and practice. "Thus all opposites which are taken as fixed, such as, for example, finite and infinite, or individual and universal, are contradictory not by virtue of some external connection, but rather are transition in and for themselves." 262 Yet despite this stress on the principle of contradiction expressed through the unity of opposites – which is really no discovery, but merely a restatement of the most fundamental premise of the Hegelian system -Lenin's true gains lie with the conception of the totality of mutual transitions. We will

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²⁶⁰ Ibid., 216 (Lenin's self-abridgement).

²⁶¹ Ibid., 217.

²⁶² Ibid., 225.

soon see the importance of this point for understanding the difference between Lenin's notion of quantity-quality leaps and that of his Engelsian forebearers.

Near the end of the "Conspectus," Lenin presents the notion of dialectics he has derived from the *Logic* in the form of a sixteen-point taxonomy of features. We reproduce it in its entirety here, in order to underline the significance of how he ends the list. All emphasis and use of brackets is Lenin's.

Dialectics is:

- The *objectivity* of consideration (not examples, not divergences, but the Thing-in-itself).
- 2) The entire totality of the manifold *relations* of this thing to others.
- 3) The *development* of this thing (phenomenon, respectively), its own movement, its own life.
- 4) The internally contradictory *tendencies* (and sides) in this thing.
- 5) The thing (phenomenon, etc.) as the sum and *unity of opposites*.
- 6) The *struggle*, respectively unfolding of these opposites, contradictory strivings, etc.
- 7) The union of analysis and synthesis—the break-down of the separate parts and the totality, the summation of these parts.
- 8) The relations of each thing (phenomenon, etc.) are not only manifold, but general, universal. Each thing (phenomenon, process, etc.) is connected with *every other*.

- 9) Not only the unity of opposites, but the *transitions* of **every** determination, quality, feature, side, property into *every* other [into its opposite?]
- 10) The endless process of the discovery of *new* sides, relations, etc.
- 11) The endless process of the deepening of man's knowledge of the thing, of phenomenon, processes, etc., from appearance to essence and from less profound to more profound essence.
- 12) From co-existence to causality and from one from of connection and reciprocal dependence to another, deeper, more general form.
- 13) The repetition at a higher stage of certain features, properties, etc., of the lower and
- 14) The apparent return to the old (negation of the negation)
- 15) The struggle of content with form and conversely. The throwing off of the form, the transformation of the content.
- 16) The transition of quantity into quality and *vice versa*. ((15 and 16 are *examples* of 9)) 263

Point 16 guides us back to Lenin's commentary on the first Book of the *Logic* where he discovers the leaps between quantity and quality. In now returning to the earlier notes we need to bear in mind the way he describes the quantity-quality transformation as an *example* of the conception of totality presented in point 9.

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²⁶³ Ibid., 221-222.

In the notes on 'Quality' it is not until the matter of the relation between finite beings and the infinite that Lenin begins positively to discern a principle of dialectics. He writes that Hegel's derivation is "Shrewd and Clever!" and a number of comments onwards he quotes Hegel that "It is the nature of the finite to pass beyond itself, to negate its negation and to become infinite," remarking that this describes "The dialectics of things themselves, of Nature itself, of the course of events itself." After progressing further through what he describes as "Dark waters" in the exposition, Lenin arrives at the analysis pertaining to the quantityquality transformation in the second section on 'Quantity'. Here he agrees with Hegel's rejection of the representation of philosophy through mathematics. Nevertheless, he has his curiosity peaked by the Hegel's reflections on the seemingly inexplicable transition in calculus between the 'infinitely small' and the actual infinite: i.e. the fact that mathematics cannot think what is going on when it uses an approximate tool to reach a precise answer (the sections explicated in Chapter One of this thesis). Moreover, in regard to the binary between quality and quantity through which Hegel seeks to understand the procedure, Lenin remarks that Hegel's "abstract-theoretical exposition is so obscure that nothing can be understood. Return to it!!"265

In the next section on 'Measure', Lenin takes up this question by transcribing long quotes from Hegel on the question of the transformation of qualities into one

²⁶⁴ Ibid., 111.

²⁶⁵ Ibid., 117.

another, particularly the idea that their change can be conceived as a quantitative transition, and the contradictions this implies. Against gradualness, Lenin identifies as particularly significant a quote by Hegel arguing against the illusion that

one can almost be eye-witness of disappearance; for Quantum being posited as limit external and variable by its very nature, *change* (as a change of Quantum only) needs no explanation. But in fact nothing is thereby explained; the change is also essentially the transition of one Quality into another, or (a more abstract transition) of one existence into a non-existence; and this contains a determination different from that of gradual, which is only a decrease or increase and a one sided retention of magnitude.²⁶⁶

Only a page later Lenin makes his famous exclamations of "Leaps!" in the margin corresponding to the point at which Hegel begins to flesh out this transformation. He copies Hegel's repudiation that there are no leaps in nature; "that that which arises is already, sensibly or otherwise, actually there, and is imperceptible only on account of its smallness; and the gradualness of vanishing is based on the idea that not-Being or the Other which is assuming its place equally is there, only is not yet noticeable." Nature leaps, Lenin concurs. Yet if we curtailed our analysis here all this would seem

²⁶⁶ Hegel, quoted in Ibid., 121.

²⁶⁷ Hegel, quoted in Ibid., 124.

to demonstrate is Lenin's *rediscovery* of Engelsian quantity-quality transformations.

Nothing more would have been gained by his conspectus of the *Logic* that goes beyond orthodox dialectical materialism.

Let us then pose the question head on: what is new in Lenin's reading of Hegel? Most significantly, although he restates most of what can already be found in Engels's Anti-Dühring on the quantity-quality transformation, unlike Engels's work this is embedded in a conception of totality whereby all determinations of any determination are in a complex state of mutual transformation. In the list describing dialectics cited above, Lenin draws attention to point 16 on the quantity-quality transformation as an example of point 9. "Not only the unity of opposites, but the transitions of every determination, quality, feature, side, property into every other." It couldn't be put more clearly. The point of the quality-quantity transformation is connected to a conception of the retroaction of every determination upon every other determination bound within a totality. Following this approach, one would need to think the transformative process not as a linear interplay of quantity/quality and objective/subjective (assumed as given determinations), but rather as a web of mutual determinations, whereby the determination of any determination can transform into its opposite, affecting every other piece of analysis in turn. Recalling our discussion on the quantity-quality transformation presented by Engels and Stalin in section one as isomorphic with linear efficient causality operating between the economic 'base' and social 'superstructure', Lenin's reading of Hegel would throw such laws into doubt. If every determination transforms every other, there can be no timeless security that at any one time the two levels can be read off each other;

there can be no singular objective quantity that transforms into a break in quality set in stone as a law of change. The conceptual matrix by which the quality-quantity transformation is applied to a historical situation is itself in complex, historically variable motion.

Provoked by the embedding of the idea of quantity-quality transformation within a concept of totality, what are the results for Lenin's political analysis? How did this feed into his structural analysis of the reasons for the world descending to war and the incapacity of the international socialist movement to respond appropriately? Considering that it was only with Lenin's intransigent opposition to the patriotic fervour sweeping Europe that his standing as a Marxist leader would be forever fixed, studies of Lenin's political thought might be expected to have already spent considerable time dwelling on such questions. For the most part, though, those focusing on Lenin's political theory generally pass his reading of the *Logic*, or offer only broad synoptic appraisals.²⁶⁸ Philosophically-inclined Marxist literature often

²⁶⁸ Marcel Liebman's otherwise excellent account of *Leninism under Lenin*, discusses Lenin's philosophical writings only in the final five pages of the book's conclusion (443-448). After declaring that *Materialism and Empirio-Criticism* was "not a success," the notebook on Hegel is accorded only a few pages of discussion, albeit of a more generous variety. Liebman ascribes primary significance to how in Lenin's reading abstraction dissipates from dialectics, and notes in passing Lenin's interest in Hegel's theorisation of *qualitative leaps*. Yet despite observing how Lenin's nuanced appreciation of dialectics influenced his considerations on the contradictory character of the party and the new Russian state in the early 1920s, no conjecture is proffered regarding the influence of the leaps Lenin identified in the *Logic*. Still more neglectful is Neil Harding's 740-page tome, *Lenin's Political Thought*, which does not discuss Lenin's reading of the *Logic* whatsoever – as if it was simply a distraction from the hardnosed strategic thinking of the revolutionary leader. Of those Marxist readings with more philosophical inclinations, C.L.R. James' *Notes on Dialectics: Hegel, Marx, Lenin* (L. Hill, 1980) is emblematic of the problem. James seems so overawed by his encounter with the *Logic* and Lenin's notebook on it that his commentary jettisons any attempt to rigorously think the consequences of

suffers the same problem, giving insightful readings of the notebooks on the subject of the dialectic, but failing to link these back to his political thought. One noteworthy exception to this trend, however, is the Marxist-humanist tradition, which is exceptional insofar as it offers hypotheses regarding the substance of Lenin's reading and how it was reflected in concrete political positions taken by Lenin from 1915. Raya Dunayevskaya, for one, argues that the most positive result of his studies was that they led Lenin to question whether Marxists should support the causes of oppressed nations. Bearing in mind that the notebook on Hegel's Logic directly precedes the notebooks on imperialism, which would later become Imperialism, The Highest Stage of Capitalism (1916), Dunayevskaya suggests that the methodology Lenin finds in Hegel's dialectic is inseparable from his post-1914 political analysis. Namely, the treatment of the economic within a consideration of the concrete situation in the world: taking seriously national oppression, in contradistinction to the abstract universalism of 'orthodox' Marxism. "[T]he greater truth is that Lenin was fighting not only the betrayers, but also Menshevik internationalists and Rosa Luxemburg and ... the Bolsheviks abroad. And he had to do it on a subject upon which the Bolsheviks previously had agreed 'in principle'-self determination of nations."269 In opposition to Bukharin's mechanical linear conception of capitalist growth "in a straight line, or via a quantitative ratio" Lenin posed the transformation

the metaphysical elaborations in a systematic relation to Lenin's political thought, reducing it to platitudes about flux driving everything forward.

(New York: Delacorte Press, 1973), 108.

²⁶⁹ Raya Dunayevskaya, *Philosophy and Revolution: From Hegel to Sartre, and from Marx to Mao*

[:] From Hegel to Sartre, and from Marx to Mao

of things into their others such that "just when capitalism had reached this high stage of 'organization,' monopoly (which extended itself into imperialism), was the time to see new, national revolutionary forces that would act as the 'bacilli' for proletarian revolutions as well."²⁷⁰

Although Dunayevskaya's emphasis is not on the quantity-quality transformation as such, we can still note that it is invoked by Lenin in *Imperialism,*The Highest Stage of Capitalism when he writes:

Bank capital, etc., has developed, showing how the transformation of quantity into quality of developed capitalism into imperialism, has expressed itself. Needless to say, all the boundaries in nature and in society are conditional and changeable, and consequently, it would be absurd to discuss the exact year or the decade in which imperialism "definitely" became established.²⁷¹

Admittedly, when taken in isolation the quote is not particularly revealing, merely stressing a straightforward quantitative-economic to qualitative-political conversion and the mobile nature of categories. The full significance of its deployment is only revealed in contrast to Kautsky's theory of 'ultra-imperialism', when exposing the "full depth" of the transformation of capitalism in the era of stagnant monopoly

²⁷⁰ Ibid. [my emphasis]

²⁷¹ Lenin, *Imperialism*, *The Highest Stage of Capitalism*, 238.

²⁷² Ibid., 240, 241.

capitalism. By evading the *depth* of the phenomenon, Lenin's charge is that Kautsky's "pure abstraction", "blunting over the contradictions", intends to present the situation of imperialist rivalry as one where "evolution is proceeding towards monopoly capitalism: therefore the trend is towards a single world monopoly, to a universal trust."²⁷³ The political purposes of Kautsky's presentation of linear convergence to inter-imperialist cooperation are, Lenin concludes, to downplay the political antagonisms arising from the decrepit state of financial monopoly capitalism. As a result, Kautsky's neologisms — ultra-imperialism and inter-imperialism — prop up both reformism and nationalist chauvinist excuses for socialist support for war by denying the political fault lines heightened by the era of finance capital, which would naturally call for firm intervention by the Social Democratic movement.

Conversely, the other side to the story, about which we will have more to say in the final section of this chapter, is Lenin's view on the progressive features of the era of financial capitalism. In the same text he also holds that production under monopoly capitalism has become increasingly concentrated, thereby allowing an easy transformation to a socialist economy: monopoly capitalism is "almost a half-way house to transition to socialism itself." Again, however, what appears to be just a conventional evolutionary transition has to be qualified by noting the realities emerging from the *depth* of the situation, which when fully registered forecloses the

²⁷³ Ibid., 241.

²⁷⁴ See Neil Harding, *Lenin's Political Thought* [Vol. II], 47-48.

possibility of any smooth evolution to socialism emerging out of these positive tendencies. Conclusions about the benefits of monopoly concentration in certain industries have to be offset by consideration of the anarchy prevailing more widely in the sphere of capitalist production. Further, national monopoly capital creates labour aristocracies in sections of the workers' movement with incentives to acquiesce to war. No longer can the 'advanced' strata, exemplified by the German SPD, be relied upon to push forward the revolutionary movement from the front. The advanced historical development of German capitalism and their workers' movement, under the conditions of national, monopoly capitalism, loses its place at the front of the global revolutionary process. Thenceforth economic progress and political progress fall out of sync. Summarising the overarching conceptual disposition of the text, then, in Lenin's Imperialism contradictions become multi-vectoral, things turn into their opposites, and temporalities of transformation run out of joint. All these systematic conceptualisations indicate, much as Dunayevskaya implies, traces of a more vertiginous dialectical reflection than can be read from Lenin's pre-war (and pre-Logic) works. According to our three theoretical axes for understanding pre-war Marxist orthodoxy, Lenin's reflections abandon some of them and complicate them all; we see a complexified understanding of the transformation of capitalism into decrepit, financialised monopolies.²⁷⁵ To interpolate further Lenin's philosophical

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To do justice to discrepancies of opinion in the literature on this point, it is worth observing that for Louis Althusser Lenin's reading had no systematic effect on his thought. Lenin's study of the *Logic* was, in Althusser's eyes, nonetheless a problematic fact to explain given that a substantial portion of his work is devoted to combating the alleged "inability to think the specificity of Marxist theory, and, correlatively, a revisionist danger of confusing it with pre-Marxist ideological interpretations [i.e. Hegel]" (*For Marx*, 12). In order to make sense of Lenin's turn to the *Logic* without placing himself in

findings with his post-1914 political analysis, the shifting determinations of any determination (the mobility of the conceptual matrix) make it possible to understand how the most advanced workers' movement – the German SPD, as measured by their relative freedom and the development of their native industries' productive forces – could cede its place at the front of the global revolutionary movement to a less advanced movement under the new conditions of imperialist war. If we also remember that the pre-war determinations of the Erfurtian programme revolved around three axes, then we can see how the Hegelian informed insight into the embeddeness of the quantity-quality transformation in a totality of determinations could allow a break from Lenin's previous commitments. In this way we can see a proper conceptual advance informing Lenin's politics, affirming Dunayevskaya's take on the matter.

Still, for all the progress enabled by Lenin's reading of the *Logic*, a problem remains that is intrinsic to the Hegelian horizon. For whilst a dissection of the totality of determinations permits a *post facto* reappraisal of existing categories, all these

opposition to leader of the great Russian revolution, Althusser argues on a number of levels: firstly, contra Dunayevskaya and in line with the official Soviet position, for him Lenin's reading only confirms and deepens positions already held since the late 19th century, and is derived entirely prior to any direct study of Hegel; secondly, he emphasises the centrality of Marx's *Capital* in the significance, if any, of Hegelian dialectics; and finally, by treating Lenin's reading as no more than an ends-oriented practice of philosophy – so in his estimation it is a solely selective exercise of choosing what is needed for the practice of revolution: "the retention of certain well-chosen fruits and vegetables, and their careful peeling or the disentanglement of their kernels from their thick skins, tangled with the kernel, by real transforming work" (ibid., 77). Consequently, for an adherent to Althusser's interpretation, the overall conceptual content of what Lenin discovers is insignificant in that there is nothing more there than the discovery of isolated philosophic tools appropriated solely for the purpose of practice.

categories being mutually determining makes it a backward-looking reanalysis of determinations, on that reaches an impasse when attempting to think futureoriented change. On a systematic level this was made quite explicit in the Preface to the Philosophy of Right where Hegel warns against the temptation "hic Rhodes, hic salta [here is Rhodes, leap here]"276 and ends with his famous metaphor to convey the utmost philosophical humility: "The owl of Minerva begins its flight only with the onset of dusk."277 Which is to say, we can admit that although the reading of the Logic seemed helpful in Lenin's assessment of the conjuncture of imperialist war indeed, so successful that it played a part in the Bolshevik's successful bid to seize power in October 1917 - it nevertheless seems to have been much less useful in thinking the processes of change after revolution, at the crack of dawn when the Owl of Minerva cannot spread her wings. When Lenin applied the quality-quantity transformation to thinking through critical issues such as shifting sovereign power to the Soviets, or when elaborating on how the expansion of capitalist industry under socialist rule would transform them into institutions adequate for lower communism, his application of the quantity-quality transformation reverted to prescribing linear, more classically historicist evolutionary processes. The final section of this chapter is therefore the most critical. Here the limitations of Hegelian dialectics to think political and economic transformation will be discussed, and arguments advanced for why the Hegelian horizon makes this result all but inevitable.

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²⁷⁶ G. W. F. Hegel, *Elements of the Philosophy of Right*, trans. H.B. Nisbet (Cambridge: Cambridge University Press, 1991), Preface, 21.

²⁷⁷ Ibid., 23.

3.4 State of novelty: Russia 1917

Any examination of Bolshevik policies after October 1917 has the effect of opening up a Pandora's Box of recriminations upon which, needless to say, this final section could not possibly adjudicate adequately. Let us therefore immediately refute some possible misunderstandings. Our intention is not to take sides with either the anarchists, or left or right communists on debates regarding Bolshevik economic policy in the years immediately following the revolution, or concerning disputes over workers' self management vs. nationalisation, incentives vs. coercion, and 'war communism' vs. the New Economic Policy. There is certainly a danger, we recognize, in using a philosophical critique on the level of quite abstract ideas to affirm common prejudices regarding, say, how the programme of nationalisation, grain requisition and coerced labour during the 'war communism' years of the Civil War led to Stalinism. This would then inscribe Stalinism in its protean form into dominant Bolshevik ideas before and after the revolution, effacing the disputes regarding policies in the early years and also the unique historical situation to which these policies were forged in response.²⁷⁸ Leninist readers will also undoubtedly point to the decimation wrought by the Russian Civil War, the failure of communist revolution in Western Europe, imperialist encirclement of the embryonic workers' state, and the unfortunate, but ultimately contingent, rise of Stalin to power, as all more

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²⁷⁸ For a good discussion of the illegitimacy of this approach see Lars. T. Lih, "War Communism and Bolshevik Ideals", *The National Council for Soviet and East European Research: Title VIII Program* (25 January 1994).

important considerations than the ontology underlying Lenin's political thought. And they would not be wrong to argue that no comprehensive appraisal of the fortunes of revolutionary Russia could adequately appraise its subject matter without taking all these events into account. But our aim is rather more modest. We wish simply to demonstrate the conceptual insufficiency of Lenin's Hegelian-informed idea of quantity-quality transformations when attempting to implement new political and socioeconomic forms. To make this point, we first examine the case where Lenin adopts a truly novel policy, that is, when he calls for all sovereign power to be transferred to the Soviets, indicating how describing the change as a quantity-quality transformation does not make much sense. Second, we turn to his economic thoughts, which remain beholden to the historical materialist evolutionism of the pre-war era. In particular, Lenin's idea of taking over large scale capitalist businesses and further expanding and socialising them appears deficient as a conceptualisation of how to seed a lasting novelty into the system capable of enabling transition to communism.

To reiterate the basics provided in this chapter's introduction, in *State and Revolution* Lenin's aim is to establish the necessity of revolution to supplant the bourgeois state with a proletarian state. There was to be some continuity of the state's functions, Lenin claims, but crucially these are to be governed in an entirely novel way. Keys to the ministries of the state will not simply change hands from bourgeoisie to proletarians; what remained of the state form would be scarcely recognizable. Against Kautsky and Plekhanov, Lenin emphasizes that "the state must inevitably be a state that is democratic in a *new way* (for the proletariat and the

propertyless in general) and dictatorial in a new way (against the bourgeoisie)."279 Influenced by Marx and Engels's revision of The Communist Manifesto in light of the experience of the Paris Commune, this point concerns the correct interpretation (and exposing of distortions thereof) of the new line introduced into the 1872 edition that "the working class cannot simply lay hold of the ready-made state machinery and wield it for its own purposes."280 Lenin aims fully to undermine "the current vulgar "interpretation" of Marx's famous utterance" which places "gradual development in contradistinction to the seizure of power and so on."281 Faithful to the late Marx of the Critique of the Gotha Programme, Lenin observes "There is no trace of an attempt on Marx's part to conjure up a utopia, to make idle guesses about what cannot be known." This extends to details about the transitional phase after revolution, "we leave the question of the length of time, or the concrete forms of the withering away, quite open, because no material is available to us to answer these questions."282 Yet this is not entirely accurate. Lenin does make some attempt on the broadest conceptual level to schematize how the Bolsheviks intended to smash the state and institute a dictatorship of the proletariat: all power is to be transferred to the Soviets – and the difference between the Soviet state form and the bourgeois

²⁷⁹ Lenin, "State and Revolution," 295.

²⁸⁰ Marx and Engels, quoted in Ibid., 297.

²⁸¹ Ibid., 297.

²⁸² Ibid., 344.

state form²⁸³ is explained by reference to "quantity becoming transformed into quality."²⁸⁴

The problem here is that Lenin's endorsement of Soviet democracy does not fit the model of a quantity-quality transformation. Soviet democracy is precisely new insofar as it is *not just an expansion of democracy along normal representative lines* – all power to the Soviets signals a change of substance and not just of form.²⁸⁵ Accordingly, it cannot be considered to undergo a leap as a result of quantitative expansion in the sense of Hegel's example of water freezing into ice. On the other hand, those instances where Lenin uses the idea of quantity-quality transformations more appropriately signal *vice versa* a change of form and not of substance,

Lenin's 1917 writings pursue a consistent theme of grounding abstract principles in concrete evaluations and proposals for action. Part of this process involves advocating some policies that at first glance might appear closer to the status quo than the radical sloganeering of rival groups – e.g., his criticism of the slogan 'all power to the Soviets" after July, advocating the use of existing economic control measures from under Tsardom, ensuring that the rich could not circumvent rationing, etc. – but if actually put into practice, he argues, would mark a break between bureaucratic-reactionary and revolutionary-democratic government. (See V.I. Lenin, *Revolution at the Gates: A Selection of Writings from February to October 1917*, ed. Slavoj Žižek (London and New York: Verso, 2002), particularly "On Slogans" and "The Impending Catastrophe and How to Combat it," 62-105.)

²⁸⁴ Lenin, "State and Revolution," 301, 347.

²⁸⁵ H.B. Acton isolates just this problem in his critique of how dialectical materialism thinks novelty. In the case of water freezing to ice and other such natural transformations, these are frequent and repetitive processes in nature that only exemplify underlying chemical properties. (*The Illusion of the Epoch: Marxism-Leninism as a Philosophical Creed* [1955]. Available online at The Online Library of Liberty:

http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=877&chapter=76759&layout=html&Itemid=27 [Accessed 8 February 2012])

continuity more than novelty. For example, Lenin's differentiation between state capitalism under bourgeois rule and state capitalism for socialist ends fits this model.²⁸⁶ What is posited as new is merely an exemplification of what already exists; a change in the form dependent upon a continuity of substance. There is in such applications of the idea a process of linear, accumulative historical emergence underlying the transformation, rather than a spark of political *ex nihilo* at work.

Equivocation over the role for the Constituent Assembly, representing the first institution of universal suffrage in Russia along conventional lines (the Bolsheviks first campaigned in its elections and then dissolved it in January 1918), provides indications of confusion that can be appreciated by considering them through the problems with quantity-quality transformations. Despite the platform of *State and Revolution*, Marcel Liebman writes that Lenin

did not cease to be, in many respects, a man of Russian and international Social-Democracy for whom the conquests of the revolution formed part of the classic programme of demands of the labour movement — which included the securing of the constitutional regime ... and of universal suffrage ... Had Lenin, wholly absorbed in day-to-day revolutionary activity not noticed what, today, with the hindsight of history, seems so obvious—that the very notion of

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²⁸⁶ In the following text Lenin aims to show how state capitalism under workers control is quite different to under bourgeois control: V.I. Lenin, "Report on the Immediate Tasks of the Soviet Government to the Session of the All-Russia C.E.C. April 29, 1918" in *On State Capitalism during the Transition to Socialism* (Moscow: Progress Publishers, 1983), 23-35.

entrusting power, all power, to the soviets, popular institutions which did not provide for the representing of all classes, ruled out all notion of making a Constituent Assembly elected by the population as a whole the sovereign organ of state power in Russia?²⁸⁷

The incompatibility which Lenin overlooks in the heat of moment could be seen to reflect the problem of the quantity-quality transformation. For the enfranchisement of the masses to become the demos of the Constituent Assembly can be considered such an accumulative expansion, and possibly as triggering a quantity-quality leap. Whereas, according all power to the Soviets cannot, in consideration of the fact that the latter is a totally new form of governance, be considered an expansion of a pre-existing model. The two institutions conflict conceptually if thought through the quantitative-qualitative prism.

In economic terms the problem with applying the quantity-quality transformation is even more pronounced. Given Lenin's overwhelmingly political focus throughout his life, looking at his economic ideas as reflective of his Hegelian ontology might be somewhat unfair. Although his most famous texts are all heavily referenced with statistics to prove his point (hence economic in some sense), there is evidence to suggest that Lenin generally avoided economics. Lih comments that despite the plan to write a series of articles on economics for *Iskra*, only the first of these ever materialised.²⁸⁸ Furthermore, the most striking thing about the fifth

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²⁸⁷ Leninism under Lenin, 237.

²⁸⁸ Lih, *Lenin Rediscovered*, 197.

chapter of *State and Revolution*, titled "The Economic Basis of the Withering Away of the State," is the paucity of economic reflections on what is to be done, and, conversely, the continued predominance of discussion of politics. More tangible finds in terms of economic policy, however, can be located in his 1917 articles on the immediate tasks of revolutionary government. In these Lenin lays out the position that empowering the proletariat gradually to take organizational command of the economy and to also phasing out small scale proprietorship and commodity production is adequate for introducing the first stage of lower communism.²⁸⁹ Building upon some of his positive reflections on the virtues of monopoly capitalism in *Imperialism*, the massification of production – its concentration and quantitative expansion – is held to be the key to transform production towards a socialist form. Liebman, a not unsympathetic reader of Lenin, makes a pointed assessment of Lenin's economic thought.

Lenin's ideas about the organization of labour revealed a rigour that was more in line with managerial orthodoxy than with revolutionary enthusiasm....Here, in the last analysis, besides a specific response to functional exigencies, was the expression of a philosophy which, while not ruling out appeals to the idealistic elements in human nature, was

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²⁸⁹ See Lenin, "The Impending Catastrophe and How to Combat it."

rooted in a materialist view of the world, derived from a positivist interpretation of Marxism.²⁹⁰

Andrew Kliman draws the same conclusion: "there is no evidence he [Lenin] understood that something was wrong with workplace relations under capitalism." And this position was by no means uncommon within Second International and Bolshevik thought. Socialism imagined as the complete centralisation of production in a well-oiled, rationalised bureaucracy along Taylorist lines was common to Bolshevik thought in this era, finding its most eloquent expression in Bukharin and Preobrazhensky's *The ABC of Communism*. As such, the economic break proposed by Lenin, focusing on implementing disciplined control of the economy in distinction to capitalist chaos, arguably does not depart from the evolutionary, historicist schemas of the Second International to anything like the extent that his political thought proposes. His plans propose to expand large industrial entities under

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²⁹⁰ Leninism under Lenin, 338.

²⁹¹ Andrew Kliman, *The Failure of Capitalist Production: Underlying Causes of the Great Recession* (London: Pluto Press, 2012), 205.

Nikolai Bukharin and Evgenii Preobrazhensky, *The ABC of Communism*, trans. Mathias Bismo (London: Penguin Books, 1969), see particularly chapters XII to XVI.

Lih cites Kautsky in 1917 making the same distinction as Lenin by reference to quantity-quality transition between whether nationalisation, progressive taxation and so forth, can be considered bourgeois reform or a workers programme: "One might call this a bourgeois programme of reform and not a workers' programme of revolution. Whether it is one or the other depends on quantity. Here too, when quantity is increased accordingly, it must transform into a new quality. It is in the nature of things that the proletariat will strive to use its revolutionary power in the direction I have

communist political rule in order to transform them towards a socialist mode of production. From the contemporary standpoint we might also be astounded to read statements such as the following from 1917, where the quantity-quality transition is used to affirm that large capitalist banks are ready-made institutions for achieving socialism, needing only quantitative expansion under proletarian management to alter their qualitative nature.

The big banks are the 'state apparatus' which we need to bring about socialism, and which we take ready-made from capitalism; our task here is merely to lop off what capitalistically mutilates this excellent apparatus, to make it even bigger, even more democratic, even more comprehensive. Quantity will be transformed into quality. A single state bank, the biggest of the big, with branches in every rural district, in every factory, will constitute as much as nine-tenths of the socialist apparatus.²⁹⁴

Such ideas still predominate in orthodox Leninism today. But as Kliman observes, "A state run bank is still a bank. It still has to obtain funds before it can lend them out,

outlined here as soon as it feels solid ground under its feet, and that in so doing it will meet the resistance of the capitalists and the large landowners. How much it will achieve depends on its relative power." (Lars T. Lih, "Supplement: Kautsky, Lenin and the 'April theses'", unpaginated)

²⁹⁴ Citation from Lih, "Supplement: Kautsky, Lenin and the 'April theses'." The original document is available in V.I. Lenin, "Can the Bolsheviks Retain State Power?" in Lenin's *Collected Works* Vol. 26 (Moscow: Progress Publishers, 1972), 87-136.

and has to do so, it must provide a decent return to those who supply it with funds. (This is true of a worker-run bank too.)" Notwithstanding the extraordinary circumstances of attempting to implement socialist change in a country ravaged first by imperialist war and second by a devastating civil war, 296 Kliman's claim is that Lenin's programme neglects the need for transformation in the underlying mode of production away from capitalist value creation. As Kliman writes on the limits of politics thought on the level of who is in control to effect a change in the economic laws of a dominant mode of production, "Putting different people in "control" does not undo the inner laws of capital ... This simply was not understood by the Marxists of the Second International, including Lenin." ²⁹⁷ In another article Kliman seeks to lay the blame on Lenin's failure to conceptualise a sudden enough change in the underlying mode of production, contending that the failure of really existing socialism to enact this qualitative shift lies behind its other failures, including the growth of the autarchic state. This he attributes to a misreading of Marx's Critique of the Gotha Programme:

²⁹⁵ Kliman, *The Failure of Capitalist Production*, 195.

²⁹⁶ Some sobering statistics give a picture of the extent of the collapse following the First World War, the Civil War and the loss of productive regions of the Russian Empire after the signing of the treaty of Brest-Litovsk in March 1918. Soviet Russia controlled only 8% of pre-war coal reserves. Extraction of iron-ore had dropped to 1.6% of pre-war levels. The accumulated effect of famine and war meant that industrial workers in Russia dropped from approximately 2.5 million in 1918 to 1.2 million by 1922. (Liebman, *Leninism under Lenin*, 347.)

²⁹⁷ Kliman, *The Failure of Capitalist Production*, 196-205.

This [mis]reading of the CGP goes back to Lenin, who conflated the transformation and transition in *The State and Revolution*, writing that "the transition from capitalist society ... to communist society is impossible without a 'political transition period'" I have come to suspect that the very idea of "transitional society" is incoherent, and seems to stand in the way of thinking things through clearly. Hegel's critique of the idea of gradualness in his book [the] *Science of Logic* seems relevant here.²⁹⁸

Pace Kliman, however, who locates the problem in Lenin's conflation of transition and transformation and offers a critique by insisting on the lack of gradualness in Hegel's quantity-quality transformation, we argue that the problem lies with the deployment of this Hegelian-inspired understanding of social change taken in either sense. If we are correct that Kliman's critique is fundamentally oriented around the charge that Lenin took too evolutionary a view of the changes needed, then it is not obvious that this temporal critique tells us all that much.

As we have tried to demonstrate in this chapter, in all the different variations by which Marxists utilise quantity-quality transformations the problem lies not such much with the temporality of the proposed transformations, but rather with the broader conceptual matrix in which they are embedded. The problem is not, and has

Andrew Kliman, "The Transformation of Capitalism into Communism in the Critique of the Gotha Program", *Marxist-Humanist Initiative* (20 August 2010), unpaginated. Available at: http://www.marxisthumanistinitiative.org/alternatives-to-capital/what-must-be-changed-in-order-to-transcend-capitalism.html [Accessed 15 December 2010]

never been, to think mere suddenness, but instead the concepts through which the transformation is applied to an historical situation. In particular, we argued that Lenin's appreciation of totality accompanying his rediscovery of leaps in Hegel's Logic allowed him to loosen his views regarding the sequential basis of communist revolution. Yet in the case of using the idea to think the changes necessary to move towards socialism in Russia, Lenin reverted back to a linear accumulative notion of quantity-quality leaps whereby existing enterprises only need to be enlarged and production concentrated through means of state capitalism in order to induce their transformation. What this indicates is not a personal failing on Lenin's part, but rather that the Hegelian horizon in which he was operating is necessarily limited by its systematic historicism. As far as dialectical materialists might want to adapt the notion of quantity-quality leaps they nevertheless run up against the limits of this horizon when it comes to conceiving a novelty-bearing event. Whatever nuance one might want to bring to the use of Hegelian dialectics it always ends up with a philosophy of historical change where the notion of a dialectical switch is responsible for bringing about change: a transformation relying upon the change coming about as the result of two variables. Hegelian dialectics is systematically bound up in a linear, accumulative notion of history as the result of its mechanism of change being reliant on dialectical switches of this kind. This is why, as we saw in Chapter One, Hegel's Logic, despite its ostensible atemporality, still relies upon an historical gnoseology in the ordering of the categories. This is also why, as we argued in Chapter Two, Marx's aversion to thinking the multi-variable processes needed to transition to communism indicates his latent commitments to Hegelian historicism.

And, finally, this is why Lenin's deployment of quantity-quality leaps ultimately only allows him to break to a certain extent from linear historicism; when it comes to transitioning to communism a more evolutionary, linear and historicist concepts prevails.

It is this relationship between the structures credited with responsibility for historical change and their inability to support a notion of a properly novelty-bearing event which drives the anti-Hegelian heterodox lineage beginning with Althusser. In the next part of this thesis we look at how Althusser's anti-Hegelianism is tied to a notion of the 'complex whole' where change cannot be conceived as the result of a single contradiction, or of a dialectical switch between two variables. We see that as a result of breaking free from Hegelian historicism, he is able to think for the first time a fully fledged notion of a novelty-bearing event within the Marxist framework.

PART II

Heterodox ontology and the problem of authority

4. Althusser's Judgement

on the authority of the epistemological break

Philosophically speaking, I had to become my own father. But that was only possible if I conferred on myself the essential role of the father: that of dominating and being the master in all situations.²⁹⁹

What problems might giving up Hegel entail? Despite Louis Althusser's critical engagement with Hegel throughout his life, from his 1947 Masters thesis³⁰⁰ through to his famous texts of the mid-1960's, *For Marx* and *Reading Capital*, Althusser rarely pauses to consider possible drawbacks connected with rejecting Hegelian historicism. For Althusser Hegel is little more than a spectre to be exorcised from the body of Marx. Hegel is the demiurge of fascist ideology.³⁰¹ Hegel is the theoretical

²⁹⁹ Louis Althusser, "The Future Lasts Forever" [1985] in *The Future Lasts Forever: A Memoir*, trans. Richard Veasy, eds. Oliver Corpet and Yann Moulier Boutang (New York: The New Press, 1993), 171.

³⁰⁰ Louis Althusser, "On Content in the Thought of G.W.F. Hegel" [1947] in *The Spectre of Hegel: Early Writings*, trans. G.M.Goshgarian, ed. Francois Matheron (London and New York: Verso, 1997), 133-151.

³⁰¹ Louis Althusser, "The Return to Hegel: The Latest Word in Academic Revisionism" [1949-50] in *The Spectre of Hegel: Early Writings*, trans. G.M.Goshgarian, ed. Francois Matheron (London and New York: Verso, 1997), 175-184.

handmaiden of a bourgeois humanism wielding a blunt social democratic edge. Hegel, in short, should be dispensed with without regrets; his systematic monolith replaced with concepts better suited for providing Marxism with its own formal apparatus. And this is precisely what Althusser sets out to do. To his research programme of the mid-1960's we owe a wealth of concepts: over-determination, ruptural unity, structural causality, the complex whole, and the epistemological break, to name just a handful. Totality in its Hegelian sense is converted into the theory of the 'complex whole' composed of discrete practices. The Hegelian idea of 'general contradictions' driving history forward is replaced by a theory of the 'structural causality' where no single cause of an event can be identified. Hegel's linear, diachronic concept of history is abandoned for a synchronic idea owing more to the spatial image of an assemblage than with the dotted line of time's arrow. In sum, Althusser's substitution of Hegelian concepts with ones of his own creation bequeaths to us the most remarkable body of original concepts in 20th century Marxist philosophy. 302

Yet the boldness of the rupture with Hegel and the impressive theoretical output of the Althusserian programme is of course matched by the equally famous story of its rapid decline. As is well known, the events of May '68 cut short the project, which thereafter suffered a haemorrhaging of its inner circle of committed

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³⁰² It should be noted that Althusser developed some if not all of these ideas through collaborative projects. For instance the idea of structural causality came about during the research seminars for the *Reading Capital* project; the original concept of 'metonymic causality' was Jacques Alain-Miller's. (Althusser, "The Future Lasts Forever", 209.)

structural Marxists and a gradual loss of confidence from its helmsman. 303 Occurring in waves of increasing severity during the 1970's, Althusser's self-criticisms gradually undermine most of the concepts which he had forwarded in the 1960's, culminating in his rejection of the entire endeavour of Marxist philosophy by the 1980's. 304 It would be tempting, then, to credit the May events as the decisive factor behind the fall of Althusser's project; '68 bringing forth political changes rendering his paradigm redundant. When students spilled onto the streets, leading the revolt with their

³⁰³ Gregory Elliott writes that after '68 Althusser spent his later years in theoretical solitude. "Perhaps this is the ultimate point of Althusser's solitude the fact that he occupied a unique and precarious place in modern intellectual history between a tradition of Marxism which he radically criticized and sought to re-construct, and a "post-Marxism", which has submerged its predecessor, and in which the class of '68 has found its self-image." ("Althusser's Solitude" in The Althusserian Legacy, eds. E. Ann Kaplan and Michael Sprinker (London and New York: Verso, 1993), 33-34.) Following the May events Althusser became 'vanishing mediator' who, whilst paving the path for the new generation of post-structuralists, was destined to recede into the shadows of history for keeping one foot in the old world and one in the new. If we see Althusser's solitude not just as the result of the intercession of historical events but at least partly because the changes he brought about rendered his own work obsolete for the post-68 generation, it is also true that we do not today experience quite the same estrangement from Althusser as was once the case. His extensive cadre of students and collaborators, some well-known - Étienne Balibar, Alain Badiou, Jacques Rancière - and some less well-known - Pierre Macherey, Dominique Lecourt, Robert Linhart, Francois Regnault - have contributed to making Althusser's presence felt throughout the domain of contemporary theory, if only in a spectral sense. Writing in 1993 Balibar comments on Althusser's influence that "What strikes me at once, at least on the French scene, is the remarkable persistence of some expressions that have been either coined by Althusser or transferred by him out of their specialized initial field... People actually use them ... with little or no reference to the texts in which Althusser elaborated them." (Étienne Balibar, "The Non-Contemporaneity of Althusser" in The Althusserian Legacy, eds. E. Ann Kaplan and Michael Sprinker (London and New York: Verso, 1993), 2-3).

³⁰⁴ Louis Althusser, "Philosophy and Marxism" in *Philosophy of the Encounter: Later Writings, 1978-*1987, trans. G.M.Goshgarian, eds. F. Matheron & O. Corpet (London and New York: Verso, 2006), 259.

unorthodox concerns and forms of organization, Althusser's strategy of pursuing patient reform within the French Communist Party, conducted from the seminar rooms of the elite Ecole Normale Supérieure, looked in retrospect like a relic of the old world. Althusserianism is henceforth seen as the philosophy of order and intellectual hierarchy: a 'Theory of theory' Althusser would disparagingly call it by 1974, 305 a Zhdanovite repression by proletarian science Jacques Rancière would allege, 306 a Marxism of the seminar room Alain Badiou would dismiss it as in the 1970's. 307 What problem did '68 reveal about Althusser's philosophy? In a word, authority. The outbreak of militancy in the May event showed no deference to the traditional institutions or hierarchies, and Althusser's quietism during this time invites suspicions about the way his philosophical discourse reflects his dubious

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Louis Althusser, "Elements of Self-Criticism" in *Essays in Self Criticism*, trans. Grahame Locke (London: NLB, 1976), 106.

Rancière, *Althusser's Lesson*. Despite Althusser's avowed intentions to offer a 'left wing critique of Stalinism', Rancière draws on a problem implicit to Althusser's reverence for science and defence of a certain type of institutional orthodoxy; a problem heightened when recalling the approving citations of Zhadanov peppering his early essays. (See the two essays "The Return to Hegel: The Latest Word on Academic Revisionism" [1950] and "Letter to Jean Lacroix" in *The Spectre of Hegel: Early Writings*, trans. G.M.Goshgarian, ed. Francois Matheron (London and New York: Verso, 1997), 173-184, 197-230.)

³⁰⁷ In an obvious reference of to the Althusserianism School, Badiou writes that "the anti-Hegelian Marx of the sixties was a scholar devoted to seminars." (Alain Badiou, Joël Bellassen & Louis Mossot, *The Rational Kernel of the Hegelian Dialectic*, ed. and trans. Tzuchien Tho (Melbourne: Re.Press, 2011), 14.)

attachment to the party and his defence of a division of labour between communist intellectuals and workers. 308

It is a parsimonious narrative, especially for those who would like to appraise Althusser's contributions through a solely political filter. Take a closer look at Althusser's theoretical development, however, and the chronology does not quite work. For if there is a single revision to the Althusserian project that initiates its conceptual degeneration, it is found in *Lenin and Philosophy* and *Philosophy and the Spontaneous Philosophy of the Scientists*, both written on the eve of the '68 events, not in their aftermath. Hereafter Althusser's revised position that "philosophy has no practice, no object" severs his theories from the authority of science. Philosophy being merely the representation of "politics in the domain of theory" it cannot create knowledge and trades only in dogmatic propositions. Where his ideas of the mid-60's reflect the overall disposition that "Philosophy represents the science of politics and the politics of science," after '67 the idea that philosophy is 'class struggle in theory' marks a major change of direction and a concomitant

This at least is the nub of Rancière's critique in *Althusser's Lesson*, one which Althusser would later accept "because it was basically honest, profoundly sincere, and theoretically and politically acceptable (though only to a certain extent)." (Althusser, "The Future Last a Long Time", 233.)

Louis Althusser, "Philosophy and the Spontaneous Philosophy of the Scientists" [1967] in *Philosophy and the Spontaneous Philosophy of the Scientists*, ed. Gregory Elliott (London and New York: Verso, 1990), 77. See also Althusser, "Lenin and Philosophy", 34.

³¹⁰ Louis Althusser, "Lenin and Philosophy", 40

³¹¹ Althusser, "The Future Lasts Forever", 169.

retreat from the sophisticated conceptual understanding of historical change attempted by Althusser's previous philosophical project. The point is, even before '68 Althusser had recognised the problem of the authoritative status of his philosophical discourse and had taken steps to revise it accordingly. Therein lies the core of this chapter's contribution. We wish to demonstrate the way in which the problem with the authority of philosophical discourse motivates Althusser's change of course and subsequent abandonment of most of his trademark ideas. The question this raises, is what is it about the conceptual apparatus of mid-60's Althusserianism that makes authority such a central concern? After all, one might expect the opposite. Althusser's idea of the 'epistemological break' as a noveltybearing rupture seems to delimit the ability of an all-knowing vanguard to peer into the future.³¹² His notion of structural causality, likewise, appears to impose limits on attributing singular causes to event, inviting a certain pluralism. His image of the ruptural unity of revolutions could be seen as a very model of the '68 events, which in both theory and reality dispensed with any notion of the process being driven by a 'general contradiction' between labour and capital. Take away Althusser's membership of the French Communist Party and personal position of authority within the academy and at first glance there seems to be something of a mystery in attributing an excessively authoritative status to his concepts. Nevertheless, can we still explain why his theories are beset by the problem?

³¹² Althusser refers to a materialist view on history, clearly matching his appropriation of the epistemological break from Bachelard, as one which is "alert to the novelty and inventiveness of history.".) This is counterpoised to the "apologetic categories of the 'dialectic', and even the dialectic itself, which seem to me to serve only in his famous 'laws' as an apology (justification) after the event for what had happened in the uncertain historical process." ("The Future Lasts Forever", 211, 221)

This chapter responds in the affirmative. Although Althusser's idea of the 'epistemological break' was certainly a much more successful concept of a noveltybearing event than any of the orthodox attempts to fashion ideas within the Hegelian horizon (those examined in Part I of this thesis), it does not by the same stroke put the problem of the authority of philosophers to rest. Why? This chapter identifies the problem as lying with the judgement of historical events in Althusser's conceptual apparatus of the mid-60's. For once history is divested of the reason attendant to its directionality, as in Hegel, what are the criteria to which theories of historical change are subject? What authority has the philosopher apropos his own historical judgements? For Hegel the authority of the philosopher was always subject not only to historical conditions, but also to the labour of rationally reconstructing history in such a way that would vouchsafe for the categories of judgement. Once taking leave of a concept of history that would permit such judgement, Althusser has the event provide its own criteria of truth; hence the representation of the 'epistemological break' as a rupture from ideology to science. Rather than historical reason ascertaining the truth of events in terms of their place in a developmental process, Althusser turns to the philosophy of science in order to seize upon a concept of change that will endow historical judgement with authority. As we will see, the problem is that by erecting a conceptual framework to determine the truth of events in terms of split between ideology (error) and science (truth), his theoretical framework becomes entangled in a contradictory relationship with science. In that relationship, we will argue, lies the immanent source of his project's dissolution; one intimately bound up with the question of by which means one possesses the authority to determine the aforesaid categories.

Putting to one side the sensational political discourse accompanying Althusser's quietism during May '68, then, this chapter argues that more important for the task of explaining the decline of high Althusserianism is the way his idea of the event sharply poses the question of the authority of philosophers. As we will see in a theme recurring across Part Two of this book, Althusser's notion of the 'epistemological break' leaves the question of the authority of philosophers shadowing their formal systems. They all manage to conceive a novelty-bearing event more successfully than those orthodox ideas of transformation fashioned from Hegelian dialectics, but they all also inherit the essential dilemma of the persistent role for philosophers in determining the truth of these events.

The first section of the chapter aims to make sense of Althusser's idea of the 'epistemological break' for thinking science and ideology as categories of change. The second section demonstrates the significance of Althusser's idea of 'complex whole' in contradistinction to the Hegelian totality – drawing attention to how the idea of the vanishing cause deprives his theory of any rational criteria for determining the truth of an epistemological break qua rupture from ideology to science. In the third and final section, we discuss the shift in his late writings towards an aleatory materialism, and the problems with this philosophy of the encounter to provide a recognizably Marxist theory of historical events. We will see that Althusser successfully subtracts himself from the problem of philosophical authority in the

judgement of events, but only by abandoning the very concepts that allow us to judge events specifically historical events.

4.1 A Marxian epistemology of the new

Althusser is most famous for his thesis of the epistemological break in Marx's writings. This idea has sustained its hold on Marxist theoretical consciousness; and perhaps the greatest credit to its persistence is the way it has been absorbed into Marxist theoretical consciousness in spite of the fact that Althusser's theory of the 'epistemological break' has been mostly forgotten. Due to Althusser's changes of direction and scathing self-criticisms his epistemological concepts seem like isolated components of a research avenue that was opened up only to reach a dead end. Consequently, whilst debate remains as to whether and in which way there is a break in Marx's work from his early bourgeois humanism to the science of his later mature political economy, rare indeed are continuing discussions of Althusser's epistemological concepts which seek to contest, defend or develop them. 313 Since this part of the thesis aims to follow how heterodox ideas of the event in Marxist philosophy resulted from Althusser's epistemological ideas, however, our interest lies precisely with the concept. Understanding Althusser's idea of the 'epistemological break' is crucial for our argument. Because it will be by formalising an anti-Hegelian concept of historical structure that leads him to invoke the

Frederic Jameson, for instance, cuts off discussion of Althusser's epistemology with the remark that "it most striking and for many unacceptable feature is the absence from it of any theory of reference." The matter is left there. (See "Introduction" in Althusser, *Lenin and Philosophy*, xii.)

distinction between science and ideology as a line of demarcation for passing historical judgement on events. His idea the event, this is to say, is intimately connected with his epistemology of science.³¹⁴ In this section we begin by briefly reviewing Althusser's political context and his motivations for positing a break in

³¹⁴ Louis Althusser's epistemology of science occupies one of the obscurest fringes of the subject's study. As a reformulation of dialectical materialism, Althusser's development of his epistemological theories expressly for sake of defending Marxism's scientificity have ring fenced them within a discourse most scientists would balk at recognising as one of their own. Add to this the alienation from the mainstream as a result of his situation within the tradition of French scientific rationalism circling theoretical loci foreign to a discourse dominated by the names of Popper, Kuhn, Feyerabend and Lakatos - then his seemingly traceless contribution to the field is not surprising. Unusual is a book like A.F.Chalmers' What is This Thing Called Science? (St. Lucia: University of Queensland Press, 1976) which discusses Althusser's theories alongside the roll call of the greats - and even here Althusser is consigned to the end of the book as just a 'radical critic' offering an underdeveloped research programme (Chalmers in fact removes his discussion of Althusser in later editions). Althusser's absence from the discipline is partly a result of the extraordinary non-encounter between the French traditions of historical epistemology and those selectively taken up in the Anglo-Saxon academy. Dominique Lecourt observes that "The New Scientific Mind, Gaston Bachelard's first great work, was published in 1934, the same year in which Karl Popper's famous book The Logic of Scientific Discovery appeared in Vienna. During the subsequent thirty years the works of the one and the other have been developed, enriched, corrected and broadcast without it ever being possible to register either the beginnings of a confrontation or a sign of any emulation between them." (Marxism and Epistemology, trans. Ben Brewster (London: NLB, 1975), 9.) We can assume that similar hermeneutic difficulties confront many Marxist readers of Althusser's work. Whilst many readers might register a rather original epistemology underpinning his insights on ideology, superstructure, over-determination and anti-humanism, is doubtless generally encountered as a tortuous theoretical detour in keeping with preoccupations circumscribable to the French structuralist movement of the 1960's. If the lasting impression of Althusser's long march to reinvigorate Marxist philosophy remains one of an interesting, albeit fatally flawed figure left wandering in theoretical solitude, his epistemology of science is surely seen as that of a sickly doppelganger rightfully languishing in individual confinement. Evidence of this is the fact that the English translation of Lecourt's excellent text which elaborates upon this angle of the Althusserian programme, Marxism and Epistemology, is out of print and never received republication after its initial run. Hard copies of it are difficult to track down.

Marx's work, before continuing to elaborate upon his appropriations of Gaston Bachelard's theory of the 'epistemological obstacle' and the modifications it had to undergo in order to be rendered compatible with a thoroughgoing Marxist anti-humanism. This puts the basics in place so that we can appreciate the full extent of the difficulties involved in creating a theory of historical change based on an historical epistemology of scientific discontinuity.

To begin by providing just sketch of his intellectual biography, 315 Althusser was a theorist operating in the philosophical fringe of the French Communist Party (PCF), which dominated Marxist politics in post-war France. The decisive events to animate Althusser's groundbreaking philosophical work were Khrushchev's de-Stalinization program, announced at the Twentieth Congress of the CPSU in 1956, and its culmination in the Sino-Soviet split of the early 1960's. Taken together they comprise the political conjuncture Althusser saw as ripe for intervention. He criticised the right-wing critique of Stalinism which he associated with a rising idealistic humanism defended with reference to the discovery of Marx's humanist 'early works'. In his view, the elevation of 'humanity' as the central term of Marxist discourse was a nefarious attempt to displace antagonistic class struggle. And in keeping with the Leninist operation of 'bending the stick straight', theoretical antihumanism was necessary to maintain Marxism's oppositional focus. Thus deemed as the appropriate left-wing critique of Stalinism, for Althusser opposing the humanist trend involved defending the scientific basis of Marxism; this in order to

³¹⁵ For the most comprehensive intellectual biography of Louis Althusser see Gregory Elliott's superb text (*Althusser: The Detour of Theory* (London and New York: Verso, 1987)).

combat a deviation which he saw as possessing an anti-revolutionary, social democratic trajectory. The ironical result of maintaining such a 'hard-line' position would be the most remarkably heterodox synthesis of intellectual traditions. For his task of demarcating Marx's early works from the scientific analysis of his mature work centred on emphasizing structure above the role of the subject (hence the temporary alliance with the structuralism of Levi-Strauss), but also, and more importantly, appropriating Gaston Bachelard's notion of 'epistemological obstacle' (or in Althusser's reconfiguration 'epistemological break') for thinking the rupture between ideology and science. With the categories of French scientific rationalism at hand Althusser partitioned Marx's corpus into an early, *ideological* problematic, set against a mature, *scientific* inquiry of the later work. The execution of this operation then drew Althusser further into an arcane web of complex epistemological issues that would set him at odds with many of the most basic articles of faith of Hegelian-inspired dialectical materialism.

Before elaborating upon these conceptual innovations, however, it is necessary to take a step back. Given that Althusser's ideas are the result of a synthesis of ideas drawing in large part on the little understood tradition of French scientific epistemology, a lack of familiarity with these sources can stymie our ability to appreciate the unique issues generated by Althusser's development of them. Thus, getting to grips with his source material is necessary to allow us better to appreciate the problems generated by synthesising these ideas with structuralist theses about synchronic historical temporalities and social formation. Because it will be the problem of the means by which the ideology/science distinction is

instrumentalised as a method of historical judgement that we will argue acutely presses the issue of the authority of Althusser's conceptual discourse, we therefore need to begin by working through his sources and how he attempts to map them onto a wider set of structuralist concepts of historical change. We start with a discussion of one of the works most influential for Althusser's epistemological hypotheses, Gaston Bachelard's *The Formation of the Scientific Mind*. For knowing its influence on both Althusser and similar theorists of discontinuity in scientific development like Thomas Kuhn – Kuhn was actually influenced by Alexandre Koyré, but they are from a kindred tradition – the difficulties of Althusser's adaptation of Bachelard's ideas will be revealed more clearly in the process.

In *The Formation of Scientific Mind* Bachelard employs psychoanalysis to understand the impedimenta to scientific progress. For him, distinguishing 'epistemological obstacles' in scientific pedagogy and persisting in the minds of scientists is a matter of grasping the invariant errors of pre-scientific thought. To this end Bachelard draws examples from a wealth of 18th century 'scientific' texts in order to illustrate a regressive revelling in spectacle and awe at the expense of the sober elaboration of the abstract laws underpinning phenomena. The lesson he draws from this is that standing between pre-scientific thought and scientific thought is "experience that is ostensibly concrete and real, natural and immediate present[ing] us with an *obstacle*:"³¹⁶ In search of the science of reality as "the

³¹⁶ Gaston Bachelard, *The Formation of the Scientific Mind*, trans. Mary MacAllester Jones (Manchester: Clinamen Press, 2002), 18.

mathematical why"³¹⁷ thus entails resistance against "obvious and deep-seated empiricism"³¹⁸ because "Nothing is given. Everything is constructed."³¹⁹ Consequently, Bachelard's insistence on the innovative procedure of mathematical abstraction relies on the idea of a break between the *new* 'scientific object' and the object itself. The process of science, where an initial generality about an object can be flawed to the extreme (a necessarily erroneous starting point), implies "a very real break between sensory knowledge and scientific knowledge."³²⁰ The conclusion Bachelard draws flies in the face a deeply ingrained empiricist image of science as uncovering the secrets of the object, believed to be already there in the object, waiting to be discovered. In his words, "the twentieth century has seen the beginning of scientific thought against sensations … we need to construct a theory of the objective *against* the object."³²¹ Bachelard proposes the objective of science as not coterminous with science's objective referent; the science is not already 'out there', it has to be constructed.

Interestingly, despite Bachelard's assertions that his theory is psychoanalytically oriented, his hypotheses about scientific development can be read as a series of obstacles to science *in absentia* of psychoanalytic speculation.

³¹⁷ Ibid., 17.

³¹⁸ Ibid., 39.

³¹⁹ Ibid., 25.

³²⁰ Ibid., 237.

³²¹ Ibid., 248.

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Appraising Bachelard's achievements, Canguilhem, for one, confirms that his "discovery is precisely to have recognized and then to have theoretically reflected the fact that science has no object outside its own activity; that it is in itself, in its practice, productive of its own norms and of the criterion of its existence." To which he also conjoins the specificity "that it is all organized around a reflection on Mathematical-Physics." The series of points below therefore describe Bachelard's epistemology of science without making any reference to the subject of scientific practice, or to the specifically psychoanalytic impedimenta to making progress in scientific knowledge (important for considering Althusser's appropriation outside the frame of psychoanalysis).

- 1. Discontinuity in scientific practice.
- A strong divide between the pre-scientific (errors) and scientific approach (correction).
- 3. Science as the realm of mathematical abstraction, against the diverse, sensuous concrete.
- 4. Development in science as proceeding from a first, *over*-generalization and proceeding with caution in the increasing particularization of analysis.
- The objective of science distinguished from the object of scientific investigation.

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³²² Georges Canguilhem, "Introduction" in Lecourt, *Marxism and Epistemology*, 26.

This characterization of science exerted an overwhelming influence on Althusser's epistemology in combination with other influences such as Canguilhem's. Althusser endorsed not just Bachelard's notion of an epistemological break, but also the conception of science as the elaboration of abstractions from initial generalities: abstractions working on abstractions to induce an epistemic break in the problematic.

In *For Marx* Althusser applies this to Marx's innovations, thereby inferring the 'double break' from the ideological problematic to a scientific study opening up the continent of history in Marx's mature works. Marxist philosophy is then cast as a theory of "epistemological history" (another Bachelardian phrase) implying an "indispensible circle in which application of Marxist theory to Marx himself appears to be the absolute precondition of an understanding of Marx." Enabled by this philosophical procedure is "the theory which makes possible an understanding of its [Marxism's] own genesis as of any other historical process." What explains its genesis? This question provides a fulcrum for many of the most difficult aspects of

Although Althusser writes that "I cannot over-emphasise the importance for all of us of Canguilhem's influence", this seems to have been more prominent after his post-'67 corrections to his theories, since Althusser also writes that Canguilhem led him "away from an idealist approach, which had inspired my earliest theoretical definitions of philosophy as a theory of theoretical practice." ("The Future Lasts Forever", 184.) Unfortunately, there was not sufficient time during research for this book to explore the potential differences between the early inspiration by Bachelard and the later inspiration of Canguilhem in order to help account for Althusser's change of direction.

³²⁴ Louis Althusser, *For Marx*, trans. Ben Brewster (London and New York: Verso, 2005), 38.

³²⁵ Ibid., 63.

Althusser's philosophical writings. With his anti-humanist insistence on history as a "process without a subject,"³²⁶ there can be no recourse to the category of genius, or to the world-historical individual gifted by nature with a psychological capacity to simply see what others could not. The problem thus posed is of "the relation between the *events* of ... thought and the one but double history which was its true *subject*."³²⁷ Notwithstanding Althusser's admission of Marx's "extraordinary theoretical temperament, animating by insatiable critical passion,"³²⁸ repudiating any psychologization of Marx which would account for the break occasions explaining the emergence of the thoughts leading to the break. In turn, this betokens a synthesis with a philosophical conception of history that blocks any avenue allowing for ideational genesis in the teleological unfolding of the concept, à la Hegel. Althusserian prohibitions thus stand in the way of three possible accounts of the genesis of new knowledge:

- 1. A subjective psychological explanation.
- 2. An empiricist account of grasping the essence of objects, where knowledge is believed to be already there waiting to be discovered in the objects.
- A teleological disclosure of the concept, whereby the original separation of man from scientific knowledge of the objective world is restored in the end.

³²⁶ Louis Althusser, "Lenin before Hegel", 81.

³²⁷ Althusser, For Marx, 71.

³²⁸ Ibid., 71.

Let us travel down all three blind alleys to explore how these prohibitions compel Althusser to synthesize Bachelard's notions with structuralist ideas in order to arrive at his concept of the epistemological break.

4.1.1 Against humanist subjectivism

To emphasize the difficulties facing Althusser's anti-humanist take on discontinuous epistemological ruptures, one can profitably contrast it with the explanation forwarded by Thomas Kuhn's *The Structure of Scientific Revolutions*. Since Kuhn's theories are well known the most basic of its contours are sufficient to bring out their glaring contrast with Althusser, heightening the theoretical drama of Althusser's challenge in the face of having no recourse to the explanatory metaphors of the Anglo-American academy's foremost philosopher of scientific discontinuity in the 20th century.

Although Kuhn was hardly radical when measured against the French tradition predating his insights, his thesis was nonetheless a challenge to conventional Anglo-American philosophy of science inasmuch as it rejected a single trajectory of cumulative progress where success builds neatly upon success. In its

Dominique Lecourt convincingly argues for a major difference between Kuhn and Bachelard's (hence, it is safe to say, Althusser's) theories of scientific discontinuity in that Kuhn considers 'normal science' under an idealist notion the normativity of normal science stemming entirely from the choices the scientifity community chooses to make. On the other hand, Bachelard stresses that the truth of a science is imminent to its own practice, and that it what takes its hold on the subjects of scientific practice, not vice versa. (*Marxism and Epistemology*, 10-16.)

place proposes periods of stability interrupted by sudden, incommensurable shifts. These he terms 'paradigm shifts', which in *Structure* were likened to the psychological effect of a *gestalt switch*. After a scientific revolution, scientific practitioners live in a different world of *meaning* incommensurable with the previous world – and underwriting the progress of both normal science and the genesis of paradigm shifting science lie psychological categories. Because the tasks of normal science are "puzzles in this sense, we need no longer ask why scientists attack them with such passion and devotion. A man may be attracted to science for all sorts of reasons. Among them are the desire to be useful, the excitement of exploring new territory, the hope of finding order, and the drive to test established knowledge."³³⁰ One can instantly recognise the psychological categories: passion, devotion, attraction, desire, excitement, hope and drive. The initiation of paradigm shifting science is also attributable to a psychological experience: one akin to religious revelation. As Kuhn describes,

normal science ultimately leads only to the recognition of anomalies and to crises. And these are terminated, not by deliberation and interpretation, but by a relatively sudden and unstructured event like the gestalt switch. Scientists then often speak of the "scales falling from the eyes" or of the "lightning flash" ... On other occasions the

³³⁰ Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd edition (Chicago: The University of Chicago Press, 1996), 37.

relevant illumination comes in sleep. No ordinary sense of the term illumination fits these flashes of intuition.³³¹

Where Kuhn spent much of his career after *Structure* flirting with degrees of neo-Kantianism attempting to specify exactly what he meant by the incommensurability of scientific worlds, 332 the interrogation of the 'metaphor' of the subject's psychic event ('gestalt switch' implying seeing what is already there, simply inverted) to explain genesis has generally been treated as a non-problem. It should be immediately obvious, however, that an explanatory recourse to the subject's gaze — an inverted gestalt gaze on what is already there — would be barred by Althusser's anti-humanist stipulations (also barred by Bachelard's prohibition on conceiving knowledge as there in the object just waiting to be found).

In *Reading Capital*, Althusser impugns this psychological conception of the genesis of a 'paradigm shift'. For Althusser, initiating a new problematic means opening up a terrain of thought; hence barring any explanatory metaphor of an extraordinary gaze falling upon already existing objects. The passage below from *Reading Capital* could not read more at odds with Kuhn's psychological metaphor of subjective revelation.

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³³¹ Ibid., 122-123

Thomas S. Kuhn, *The Road Since Structure: Philosophical Essays, 1970-1993*, eds. James Conant and John Haugeland (Chicago: The University of Chicago Press, 2000)

To see the invisible ... we need an *informed* gaze, a new gaze, itself produced by a reflection of the 'change of terrain' on the exercise of vision ... Here I take this transformation for a fact, without any claim to analyse the mechanism that unleashed it and completed it. The fact that this change in terrain, which produces as its effect this metamorphosis in the gaze, was itself only produced in very specific, complex and often very dramatic conditions; that it is absolutely irreducible to the idealist myth of a mental decision to change 'view-points'; that it brings into play a whole process that the subject's sighting, far from producing, merely reflects in its own place; that in this process of real transformation of the means of production of knowledge, the claims of a 'constitutive subject' are as vain as are the claims of the subject of vision in the production of the visible...³³³

Rejecting the idea of attributing causal primacy to subjective experiences for explaining epistemological breaks also commands commitments at odds with empiricism cast in any Humean form, or what Althusser deridingly calls "subjective empiricism." A Humean empiricism in which all knowledge derives from impressions formed from the empirical world, yet is tied together without certainty by the events of subjective ideas imposing categories such as causality, opens the

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³³³ Louis Althusser, "From Capital to Marx's Philosophy" in Althusser and Balibar, *Reading Capital*, 28.

Louis Althusser cited in Joel Reed, "Althusser and Hume" in *Current Continental Theory and Modern Philosophy*, ed. Stephen H. Daniel (Eavenston, IL: Northwestern University Press, 2005), 213.

door to what Engels and Lenin described as 'agnosticism' within neo-Kantian philosophy (we will see the same concern re-emerge in the chapter on Meillassoux). This is because, as with Bachelard, *Althusser sees the scientific object as a constructed, qualitatively new object irreducible to the real object itself.* But this object is not a phantasm of the subject; the object is *truth itself.*

4.1.2 Against empiricist real contradiction

Althusser's objections to empiricism give an anti-Hegelian inflection to Bachelard's opposition to the idea of knowledge resting in the object. As Althusser sees it, the problem rests with empiricism's conception of its abstraction procedure, relying on a Hegelian notion of *contradiction within the real*. In this conception, the object is considered the source of all knowledge, and science succeeds only insofar as it extracts the essence of the object. There are thus essential and inessential qualities to all objects: the former falling under the purview of science, extracting it from the barriers erected by the latter. To maintain empiricism's realist credentials knowledge has to exist within the internal relations between the object's essential and inessential traits. Scientific cognition merely takes hold of the essential by way of a relation already lying within the object itself. Science does not construct its scientific object by way of *creative* mathematical abstractions; it rather grasps the *real abstraction* within the empirical object itself (it is not hard to see the congruence of this critique with Althusser's dissatisfaction with Marx's theory of

³³⁵ Althusser, "From Capital to Marx's Philosophy", 36-40.

commodity fetishism, portrayed as a pre-scientific hangover from his early works where the real abstraction lies within the commodity object itself, internally split between its use value and exchange value). To surmise the above using Althusser's words, "For the empiricist conception of knowledge, the whole of knowledge is invested in the real, and knowledge never arises except as a relation inside its real object between the really distinct parts of that real object." Consequently, "Empiricist abstraction, which abstracts from the given *real* object its essence, is a *real abstraction*, leaving the subject in possession of the *real* essence."

The empiricist conception of the essential and inessential provokes the metaphor of the invisible (essential) being covered up by the visible (inessential) henceforth sliding to a consecration of the humanist conception of the individual who can peer through the inessential fog into the essential heart of the object. Vice versa, "an empiricism of the subject always corresponds to an idealism of the essence (or an empiricism of the essence to an idealism of the subject)."³³⁹ The empiricist conception of knowledge is thus "the twin brother of the problematic of the religious vision of the essence in the transparency of existence."³⁴⁰ The errors of

³³⁶ Louis Althusser, "Marx in his Limits", 134.

³³⁹ Ibid., 228.

³³⁷ Althusser, For Marx, 41.

³³⁸ Ibid., 38.

³⁴⁰ Althusser, For Marx, 40.

the empiricist approach are furthermore represented as those of a philosophical (ideological) incursion in the realm of science, embroidering the *mobile* scientific process into a philosophical tapestry of *stable* objects. On this point Althusser again repeats Bachelard. Because cutting across all of Bachelard's numerous writings lies a critique of the way philosophy lags behind science, concomitant to its unfounded claims to provide a master discourse to assure or dissuade people from science's truth claims. It is a critique of how philosophical notions external to science can enter into the discourse of epistemology, for which sensuous empiricism is the guiltiest culprit. The vessels of seemingly innocent words like 'object' shared by science and philosophy provide the site in which philosophy must reflexively criticise its parlous drag. Quoting Lecourt:

What Bachelard is revealing here is the fact that when a scientist and a philosopher pronounce the word object, when they introduce it into their discourse, they are not discussing the same thing, or, rather: philosophy is discussing a thing and the scientist is discussing a result. We understand why Bachelard wrote in *Rational Materialism*: "The object is only instituted at the end of a long process of rational objectivity." A proposition is strictly impossible for a Philosopher. On this point the 'work' of philosophy can be characterized as follows: it takes as its theme the object-result, a scientific concept, and inserts it

in the philosophical couple subject/object. What it says about it is still valid only for the object-thing of philosophical discourse.

Althusser could therefore be citing Bachelard verbatim, when in his criticism of empiricism's epistemology in *Reading Capital* he declares "I am interested in the *play on words* itself." For Althusser, the word 'object' is the rug under which empiricism's contradictions are swept; the word 'real' provides the decoy. Attributing his counter insight to Marx and Spinoza, he rather claims that "the production of knowledge which is peculiar to theoretical practice constitutes a process that takes place in *entirely in thought*." Far from simply extracting the real essences of stable real objects, science, according to Althusser, is the process of the transformation of ideological material in thought (like in Bachelard science is associated with *mobilism* against ideology as *repetition*).

In *For Marx* Althusser delineated this process of conversion through the stages of Generality I (the ideological given), Generality II (theoretical work on the ideological given), and Generality III (the production of knowledge).³⁴³ Yet the idea that this process is supposed to take place entirely in thought obviously begs the question of how correspondence with the real is assured? Aware of the problem of

³⁴¹ Althusser, "From Capital to Marx's Philosophy", 42.

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³⁴² Ibid., 45.

³⁴³ Althusser, *For Marx*, 182-189.

how Generality III is supposed to refine its grasp on reality, Althusser famously leaves the question unanswered when he asks

by what *mechanism* does the production of the *object of knowledge* produce the cognitive appropriation of the *real object* which exists outside thought in the real world? ... The reader will understand that I can only claim, with the most explicit reservations, to give the arguments towards a sharpening of the question we have posed, and not an answer to it.³⁴⁴

Or perhaps *infamously unanswered* would be more accurate. For this provided the source of many, if not most, of the discomfort commentators on his work have experienced with Althusser's epistemology. Alex Callinicos puts the point most bluntly: "theoretical practice can cognitively appropriate its real object despite the fact that it takes place completely in thought it is because thought and the real are homologous", to which he continues, "to employ an asserted homology between thought and the real as the foundation for an epistemological positions, is to fall into the empiricist problematic." The damning conclusion in Callinicos' eyes is that "Above all, it becomes impossible to avoid idealism."

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³⁴⁴ Althusser, *Reading Capital*, 56.

³⁴⁵ Alex Callinicos, *Althusser's Marxism* (London: Pluto Press, 1996), 76-77.

Now, whilst it can be conceded that the lack of a theory of correspondence does problematise Althusser's epistemological endeavour that is less of a concern here than the mechanism of the epistemological break and the concepts permitting judgement on when a novel break has actually taken place. For our purposes it is an important distinction to clarify. The question of correspondence is important if we take Althusser's epistemology as a solely scientific theory of how we gain knowledge about objects and laws that recur across time and space. But knowing that Althusser's epistemology is part of a wider project to reconceptualise the processes of historical change – processes that in many cases lack such clear correspondents as the real 'objects' with which science is concerned – to submit Althusser's theory to such demands and to see its degeneration as a result of a failure to elaborate a theory of correspondence would be to subject his theory to a criticism that seems rather misplaced. Furthermore, it places a demand for his epistemology to provide methods for guaranteeing correspondence that are alien to the whole endeavour of historical epistemology. For instance, when Elliott charges that "the 'nonproblematicity of the relation between an object and the knowledge of it' [is] guaranteed by ontology" he is perhaps guilty of a slippery word play on 'ontology'. 346 Against Elliott's claim that Althusser scaffolds ontology around epistemology to provide it with guarantees, it is worth remembering that the

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Elliott equivocates with his criticisms of Althusser's deployment of ontology for providing guarantees of scientific correspondence when he writes that "there is considerable continuity in Althusser's project insofar as both the first and second definitions of philosophy [before and after '67] were designed to 'serve', rather than 'enslave', the sciences." (*Althusser: The Detour of Theory*, 205.)

"historical epistemology" of the likes propounded by Bachelard and Althusser was explicitly adopted to ward off the conception of philosophy as providing a guarantee of science. In Reading Capital Althusser places his anti-foundationalist cards on the table: "it is not a matter of an external reflection on the a priori conditions of possibility which guarantee the possibility of knowledge."347 The very focus on the category of the epistemological break "is a question which is posed and demonstrated as open in principle, i.e. as homogenous in its structure of openness to all the actual questions posed in its scientific existence."348 To contend that the concept of the epistemological break can ground science is self-contradictory. In Paul Thomas' summation, "the refusal to seek guarantees of scientific truth outside the activity of science itself" opens up the possibility of an "anti-empiricist, antipositivist, anti-subjectivist epistemology."349 Truth – to use unfashionable word common to Bachelard, Althusser, and, later, Badiou - is immanent to the procedure of scientific transformation, opening up new terrains of scientific investigation, rendering previously invisible objects visible. Truth is not a matter of correspondence, but the process of change that opens up new domains of knowledge. "No mathematician in the world", Althusser says, "waits until physics has verified a theorem to declare it proved ... the truth of his theorem is a hundred percent provided by criteria purely internal to the practice of mathematical proof."

³⁴⁷ Althusser, "From Capital to Marx's Philosophy", 58.

³⁴⁸ Ibid., 59.

³⁴⁹ Paul Thomas, *Marxism and Scientific Socialism: From Engels to Althusser* (London and New York: Routledge, 2008), 113.

What goes for mathematics goes for Marx: "It has been possible to apply Marx's theory with success because it is 'true'; it is not true because it has been applied with success." 350 What concerns Bachelard and Althusser above all else – and it is this which reconfigures common sense notions of truth – is the process of change, quite unmistakably taking the point of view of historical epistemology. So the mechanism with which to ensure Generality III possesses an improved correspondence with the real compared to Generality I is less Althusser's concern than his contention that this process opens up a new terrain of enquiry, previously inaccessible to GI. GIII contains new scientific objects of enquiry. So no matter what their validity in terms of correspondence they represent an enlargement of the scientific terrain. The really difficult question is not one of correspondence, but rather the conceptual criteria by which the novelty of a break can be universally confirmed as a true novelty. Accordingly, the categories that allow one to affirm the break between science and ideology also demand the concept of history to be interrogated.

4.1.3 Against teleology

For Althusser, the aporias of empiricism are exacerbated by an ideological conception of history through which scientific development is framed. If it is possible to isolate a single point at which Althusser transcends Bachelard et al., it is by establishing a 'science of history' that, as Resch writes, "Althusser forces French

³⁵⁰ Althusser, "From Capital to Marx's Philosophy", 64.

historical epistemology beyond the limits of its own self-understanding."351 The problem, Althusser argues, rests with "the traditional concept of the history of the sciences, which today is still profoundly steeped in the ideology of the philosophy of the Enlightenment, i.e. in a teleological and therefore idealist rationalism." 352 If for Althusser science is associated with discontinuous breaks producing novel "knowledge effects" Hegel's teleological philosophy of the Idea's realisation through a historical process relating origins and ends – the Enlightenment's theorisation par excellence - must thenceforth be cast as an absolute ideology. Rescuing epistemological breaks from the overbearing weight of teleology demands their extrication from ideologies of history carried over in empiricism. Althusser thus recognises in the empiricist schema an originary mythos, whereby knowledge is excavated from the relation of real objects' essential and inessential features. It is a "myth of the origin; from an original unity undivided between subject and object, between the real and its knowledge." 353 What he calls an "idealism of the antepredicative" throws into suspicion the usual philosophical words for the production of the new. Origin, genesis and mediation - all these terms are infected by teleological ideology. Thus the isomorphism between empiricist epistemology and political ideology. He rejects empiricism's conception of an originary separation of subject and object that is ultimately reconciled by science's grasp on the real

³⁵¹ Robert Paul Resch, *Althusser and the Renewal of Marxist Social Theory* (Berkeley: University of California Press, 1992), 181.

³⁵² Althusser, "From Capital to Marx's Philosophy", 47.

³⁵³ Ibid., 68.

essences of objects, seeing it as connected with the rejection of the Hegelianhumanist idea of man's necessary alienation in history which will be reconciled at the end with the realisation of man's essence as man.

This latter point cannot be overemphasized, for in the rejection of teleology and linear historical development are encapsulated all the foregoing critiques of subjectivism, empiricism, and idealism. Causality has to be reconceived via a conception of the elements composing any structural formation. The eschewal of Hegelian teleology also necessitates - in an attendant anti-Hegelian gesture - a reconceptualisation of totality, or how the parts of a whole system act on one another in order to bring about change. As Étienne Balibar writes in his contribution to Reading Capital, there is "a rigorous and necessary correlation between the structure of the concept of history peculiar to that theory [empiricism] (a structure itself dependent on the structure of the concept of the social totality peculiar to that theory) ... and the concept of temporality in which that theory of history thinks the 'changes', 'movements', 'events'." Delineating the exact nature of the divisions within the whole which permit novel breaks entails resistance against two equally ruinous conceptions: on the one side, the 'simple whole' of the Hegelian totality in which everything is reflected in and determined by the totality, and on the other side an empty concept of a wild multiplicity of elements prohibiting any stable order against which novelty can be discerned.

As we will see in the next section, Althusser manages to find a middle path between both extremes with his concept of the 'complex whole' providing a notion

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³⁵⁴ Étienne Balibar, "The Basic Concepts of Historical Materialism", 328.

of totality allowing for rare historical breaks brought about by the vanishing cause of structural causality. Yet as we will also see, the idea of the vanishing cause creates a problem for interpreting historical breaks in terms of the rupture from science to ideology. It will pose most acutely how – and more importantly, on whose authority – historical change is to be judged.

4.2 Structural causality of the break

Examining the notion of structural causality requires entering the more famous parts of Althusser's philosophical system — a world of the over-determination of different practices and the notorious 'final instance' of economic determination in the social 'complex whole.' Motivating the theory of over-determination were real impasses in the Marxist theorisation of the base-superstructure relation and also orthodox confusions over to what extent Engelsian dialectical materialism provides the master methodology of the sciences. After the disasters of Stalin era 'proletarian science' — most spectacularly the failure of Trofim Lysenko's Lamarkian agricultural projects of the 1930s — Althusser sought to affirm the autonomy of theoretical (scientific) practice precisely on the terrain of combating Hegelian-Marxism's conception of totality, in which all social and theoretical practices are reflected in one another on a single level. Perhaps no more in vogue than his epistemology — Michel Foucault adopted a renegade Althusserianism from the late 1960's by casting aside thinking the relation of discrete practices³⁵⁵ — the necessity of Althusser's notion of the

³⁵⁵ Resch, Althusser and the Renewal of Marxist Social Theory, 233-246.

complex whole needed for thinking ruptures is often not well understood. To make clear the distinctions, then, the table below matches on the left side the Hegelian (and Hegelian-Marxist) conceptions with Althusser's alternative Marxist conception on the right.

1.	General contradiction	Ruptural unity
2.	Simple whole/totality	Complex whole/totality
3.	Infinite One of practice	Finite relation of practices

The question of the 'general contradiction' possesses a particularly thorny status for Marxist theories of change. As we saw in Part I of this thesis, the Hegelian horizon relies upon the notion of change coming about as the result of a dialectical switch occurring at a single point of transformation — a conception we argued limits the capacity to conceptualise the novelty of events. This critique, from which we have drawn much inspiration in this thesis, is important for providing Althusser with his alternative concepts relating the idea of the idea of the epistemological break with the structures of historical change.

Building upon Lenin's theorisation of the revolutionary conjunction, the essay in *For Marx*, 'Contradiction and Overdetermination', shows Althusser at pains to emphasize the multiplicity of disparate circumstances permitting the revolutionary seizure of 1917. For him, this necessitates a theorisation of the relationship of contradictions that avoids recourse to any singular 'general contradiction' to which they can be attributed. Fully acknowledging this fact implies

that "we can no longer talk of the sole, unique power of the general 'contradiction'"; rather, the unity of elements that comprise a revolutionary rupture needs to be thought in terms of levels and instances of effect which "might be called overdetermined in its principle." This is indeed a crucial question for Marxism because of its default belief in a sole motor of history arising from the general exploitative contradiction between labour and capital. Instead, against this belief, overdetermination requires the conceptualisation of the relation of a totality that does not collapse into the single principle of a simple whole, an infinite relationship where all elements stand on a reciprocally reflected footing. And consequently this demands a quite different idea of totality to the predominant Hegelian-influenced notions of orthodox dialectical materialism. In Althusser's view, despite the appearance of the development of complexity within the Hegelian dialectical totality, it is fraudulent for the simple reason that "it has only one centre, the centre of all the past worlds conserved in its memory; that is why it is simple."357 The reduction of all the elements that comprise a specific situation in an historical epoch - "economic, social, political and legal institutions, customs, ethics art, religion, philosophy, and even historical events" - to a singular principle of unity "is only possible on the absolute condition of taking the whole concrete life of a people for the externalization-alienation ... of an internal spiritual principle... moved by the simple play of a principle of simple contradiction."358 A vulgar Marxist inversion of

³⁵⁶ Althusser, *For Marx*, 100, 101.

³⁵⁷ Ibid., 102.

³⁵⁸ Ibid., 103.

this principle suffers from the same problem when it posits the economic as the general contradiction (base) underlying all the disparate phenomenon of the political, ideological and scientific (superstructure). In this false intellection, "[t]he political and the ideological will therefore be the pure phenomenon of the economic which will be their 'truth'."³⁵⁹ Against Hegel's infinite relation in his concept of totality, there is a *finite* number of *discrete* practices of production – material, political, ideological and theoretical, amongst others – held together in a complex unity³⁶⁰ which together provide the *conditions* for epistemological breaks. And this is for the fact that only the finite division of distinct practices possessing their own historical times create objects which can serve as the basis of an epistemological break.

If one can discern here what appears to be a typically post-structuralist, post-modern, or even post-Marxist take on the plural multiplicity of reality, what then distinguishes it as Marxist materialism? This is typically ascribed to Althusser's assertion that "the economy is determinant, but only in the last instance" — to wit, that Althusser's analysis affirms a plurality of casual levels and then the economic 'final instance' is only intercalated on the basis of a quotidian Marxist focus on the relations of production. Furthermore, his concession that from "the first moment to

³⁵⁹ Ibid., 108.

³⁶⁰ Althusser, For Marx, 167.

³⁶¹ Ibid., 112.

the last, the lonely hour of the 'last instance' never comes"³⁶² could be seen as providing a tacit acknowledgement of the impotence of the Marxist axiomatic in the face of plural reality. But whilst there might be a sense in which in laying out his opposition to boorish conceptions of the base-superstructure relation Althusser fails adequately to defend why the economic is determinant in the final instance, to see his theory dissolving into pluralism fires wide of the mark. Not only for the fact that Althusser denied these ramifications of his work – again, this could just be attributed to dogmatism – but much more importantly because it overlooks the basis of structural causality within the innovative notion of the complex whole. In his words, "the fact that the Hegelian type of necessity and the Hegelian essence of development should be rejected does not mean at all that we are in the theoretical void of subjectivity, of 'pluralism' or of contingency."³⁶³ The appendix to 'Contradiction and Overdetermination' goes some way to explaining why.

Althusser here discusses a letter written by Engels in which he attempts to impress on the recipient, Bloch, that the superstructure is the realm of infinite accidents underwritten by the necessities of the economic base. Althusser chastises Engels for failing to present any intelligible reason why economic necessity underlies the accidental multiplicity of events. Particularly interesting are his remarks on Engels's 'second level' of analysis, where Engels remarks how many individual wills intersect to give rise to an event. Citing Engels, "there are innumerable intersecting

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³⁶² Ibid., 113.

³⁶³ Ibid., 215.

forces, an infinite series of parallelograms of forces which give rise to one resultant – the historical event." 364 When Engels switches to conceptualising the infinite series of accidents as creating the event's necessity, it involves, however, changing the object of analysis to the transcendent product of a convergence of individual wills; and, in line with Althusser's conception of practice, this involves drawing on an object which is no object at all. "The transparency of content which strikes us when we imagine the parallelogram of forces (of individual wills) disappears once we ask (as Engels does himself) about the origin (and therefore about the cause) of the determinations of these individual wills. For we are referred to infinity."365 This 'non-Marxist' explanation "from the point of view of knowledge is empty. It puts forward infinity without content, an abstract and hardly even programmatic generalization."366 In other words, it falls outside theoretical practice; it produces no object. It demands that "we trust to the infinite (that is, the indeterminate, epistemological void) for the production in the final resultant of the resultant we are hoping to deduce: the one that will coincide with economic determination in the last instance, etc., that is, we trust a void to produce a fullness." This cannot produce an historical event, which instead requires "insertion into forms which are

³⁶⁴ Frederich Engels cited in Louis Althusser, For Marx, 120.

³⁶⁵ Althusser. For Marx. 122.

³⁶⁶ Ibid., 123.

³⁶⁷ Ibid., 123.

themselves historical," forms which are "perfectly definable and knowable," 368 and hence provides content to distinguish a historical event from any other type of event. The upshot is that no Marxist conception of historical change can surrender itself to "sliding into the empiricism or the irrationality of 'that's how it is' and of 'chance'."369

4.3 The authority of historical judgement: whose science?

Given that the previous sections have tried to reconstruct all the crucial elements of Althusser's epistemology of historical change is it possible to go beyond Althusser's humble claim in Reading Capital that he "take[s] this transformation [the epistemological break] for a fact, without any claim to analyse the mechanism that unleashed it and completed it"? It is worth conceding that there are no ready to hand answers to this question provided by Althusser; and indeed, his concept of the complex whole forecloses philosophical elucidation of a method which would allow the causal vectors of epistemological breaks to be traced. Resch succinctly captures the consequences: "The whole becomes what Althusser calls an "absent cause" because it is present only in and through the reciprocal effectivity of its elements... structural forces or laws are at work in social formations, but unlike the natural

³⁶⁸ Ibid., 126.

³⁶⁹ Ibid., 207. This emphasis on the non-productivity of events within an epistemological void – i.e. those happenings falling outside a defined domains of practice - marks a serious discontinuity with his later philosophical writings on aleatory-materialism explored in the next section.

sciences, historical science can never experimentally isolate them from one another."³⁷⁰

We therefore seem to reach an impasse for judging an historical event as a novelty-bearing break. To recapitulate, Althusser takes from the French tradition of scientific epistemology the idea of truth/error distinctions following epistemological breaks and converts it into a general theory of epistemological breaks as a rupture of science (truth) from ideology (falsehood). This is then embedded in a synchronic conception of history and social formation where discrete practices and their distinct temporalities are held together within a complex whole. Breaks occur because of the overlapping causalities of discrete practices act upon one another to give rise to truth-bearing events. In their process of eruption, though, structural causality dictates that the cause is lost amidst the manifold of effects. There are, ultimately, no methodological criteria by which to reconstruct rationally how any particular break comes about. The upshot is that whilst with one hand Althusser denies us insight to the exact origins of breaks as a philosophical pretension better cast aside, with the other we are given the philosophical framework that understands these breaks in terms of a stark rupture from ideology to science; from error to truth. The fusion of a structuralist, synchronic concept of history with the idea of incommensurable breaks derived from the tradition of French epistemology results in a theory unable to locate the causes of events yet at the same time aspiring to provide them with a strong attribution of truth. Unlike Hegelian-inspired approaches for which their historicist philosophy of history furnishes categories to

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³⁷⁰ Resch, Althusser and the Renewal of Marxist Social Theory, 50-54.

make judgements as to whether an event marks a new epoch, Althusser's idea of the epistemological break provides no such guarantees. As a result, it brings the question of authority to the fore. Given the absence of any rational, methodological criteria for determining when ideology breaks decisively into science, the theory relies upon sheer deference to science to shore up its judgements. But since science itself proves no criteria for determining when such breaks have in fact taken place, this judgement returns again to Althusser's theory of the 'epistemological break.' Provoking a vicious circularity, the procedure of nominating an event as an event places Althusser's tacit theoretical authority solely in the position of being able to make these calls. Lacking any conceptual mechanisms for determining the purported truth of a particular historical break it can only assume this role through its assumed authority to do so. The situation facing Althusser's theory is in some regards analogous to the problems identified with the implicit authoritarianism of Kuhn's theory of scientific revolution.³⁷¹ Whereas for Kuhn this is alleged to result from his approval of the use of force in order to consolidate a new scientific paradigm in the absence of any rational criteria, for Althusser the same absence of intra-scientific criteria sends the determination of an event back up the line to the final court of philosophical judgement. This helps explain why Althusser would later retract his concepts as providing an illicit 'Theory of theory' and label them a theoreticist deviation. Althusser frames his criticism of his ideas' theoreticism in a slightly

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³⁷¹ Steven Fuller has been the most vocal critic of the authoritarianism he sees in Kuhn's relativistic theory of historical progress (see *Thomas Kuhn: A Philosophical History for Our Times* (Chicago: The University of Chicago Press, 2000)).

different way to how we have put it here, however. So let us review his selfcriticisms order in order to place us in a position to see why authority is nevertheless a central problem motivating the critique.

In his 1974 "Elements of Self-Criticism" Althusser wishes to correct his earlier enmeshment in theoreticism, which he defines as a "speculative-rationalist" deviation. He presents the deviation as resting with the identification of science with truth and ideology with error, permitting a representation of Marx's break in entirely rationalist terms, wherein "the class struggle was practically absent." The speculative rationalist tendency is defined according to three features:

- 1. A (speculative) sketch of the theory of the difference between science (in the singular) and ideology (in the singular) in general.
- 2. The category of "theoretical practice" (*in so far as,* in the existing context it tended to reduce philosophical practice to scientific practice.)
- 3. The (speculative) thesis of philosophy as "Theory of theoretical practice"—which represented the highest point of this theoreticist tendency. 373

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³⁷² Louis Althusser, "Elements of Self-Criticism", 106.

³⁷³ Ibid., 123-124.

Divesting philosophy of its pretensions as a theoretical practice on par with science, never mind a Science of science, entails a re-evaluation of his earlier identification of philosophy with epistemology. A rather lengthy footnote to the text establishes the focus of the criticism. The speculative-rationalist deviation

was organized, as if often the case, around the manifest form of a word, whose credentials seemed beyond doubt: *Epistemology* ... the theory of the conditions and forms of scientific practice and of its history in the different concrete sciences [...which can lead to] a *speculative way*, according to which Epistemology could lead us to form and develop the theory of scientific practice (in the singular) in distinction to other practices: but how did it now differ from philosophy, also defined as "Theory of theoretical practice"? ... If epistemology is philosophy itself, their speculative unity can only reinforce theoreticism ... one must give up this project, and criticize the idealism or idealist connotations of all Epistemology.³⁷⁴

Althusser's self-criticism amounts to the charge that despite the way his project draws upon ideas from scientific epistemology, in the final instance it does little more than invest his own theoretical authority with the capacity to make judgements demarcating ideology and science, hence the speculative authority to determine an event as an event. In response to this realization of the theoreticist

³⁷⁴ Ibid., 124, fn. 19.

deviation, from '67 onwards Althusser demotes philosophy from any role in determining truth/error distinctions which would suppose to place it in a position of authority to adjudicate on the truth of historical events. Indeed, and as already discussed in the introduction to this chapter, Althusser realises the implications of his theory before the events of May '68 would cast suspicion on his theories as buttressing authority and hierarchy.

In his '67 revisions Althusser is responding to serious problems with his theory that could not be ignored. Yet insofar as he continues to accord philosophy only a subordinate role in engaging in ideological warfare in defence of science (and thereby, it is assumed, class struggle), there is a sense that he throws the baby out with the bath water. On this point, Resch astutely observes, "What is missing from Althusser's elliptic self-criticism, then, is a re-evaluation of his philosophical defence of scientific realism in light of his rejection of theoreticism and, even more important, an elaboration of scientific concepts of ideological, scientific and philosophical practices as historical-social activities." Delinking philosophy and epistemology from any role in thinking the idea of the event implies a theoretical degradation of the task of thinking the conditions and structures separating an historical event from any other kind of event. As Elliott also writes, "The denomination of a theoretical discourse as scientific (i.e. of providing objective knowledge of a real object) implies and necessitates evaluative principles." Of

³⁷⁵ Resch, Althusser and the Renewal of Marxist Social Theory, 163.

³⁷⁶ Elliott, Althusser: The Detour of Theory, 207.

course, as we have argued, these evaluative principles are more or less absent from his mid-60's epistemology when it comes to making historical judgements on an actual event. But Althusser at least seemed to be pressing in the right direction with these concepts, despite difficulties of circularity bolstering the authority of his discourse. However, once after '67 the philosophy-epistemology couplet is abandoned (even though the absent cause of an epistemological break is still "not [an] entirely useless"³⁷⁷ idea, according to the Althusser of 1974), all that is left is a philosophical battle of ideas in defence of the autonomy of science; ideas just presumed to be favourable to working class struggle.³⁷⁸ The set of systematic concepts Althusser generates for thinking the historical event, thenceforth crumble from a combination of revision and neglect.

To conclude this section, we have argued that Althusser's theories of the mid 1960's possess a circular logic driving them to uphold the authority of his own theoretical discourse. Whilst his idea of the novelty-bearing event might at first

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³⁷⁷ Althusser, "Elements of Self-Criticism", 126.

Jacques Rancière takes issue with this assumption, which he alleges is complicit in Althusser's political quietism within the PCF and also how Althusserian philosophy was used as a discourse to reassert order in the Universities after the 1968 student revolts. Science is accorded assumed neutrality, effectively supporting the materialist interests of the working class, because for Althusser "class struggle is not already there, for example, in the social function of the scientific institution and its concomitant modes of selection... in sum, in the double relationship scientific activity entertains with power and with the masses. All of this is replaced by a class struggle conceived through the opposition between a materialist element originating in science and an idealist element intrinsic to it." (Rancière, Althusser's Lesson, 63.) Gregory Elliott also demurs: "The imputation of a spontaneous materialism to the proletariat integral to the 'representative' function of Marxist philosophy is at best implausible." (Althusser: The Detour of Theory, 188.)

glance appear to undermine the authority of philosophers, in fact the lack of criteria for making judgements on the ideology/science distinction ends up meaning that Althusser's epistemological discourse can only tacitly offer its own purported scientific status as a justification for making historical judgements. This realization must have come as something of a blow to Althusser, since throughout his career he was always sensitive to the need for a consistent theory of judgement. In his 1949 "Letter to Jean Lacroix," for instance, it is precisely Lacroix's lack of a "real theory of historical judgement"³⁷⁹ to which Althusser takes objection. Althusser's realisation by '67 that his own theory suffers from a similar predicament must be considered a crucial part of his criticism of the theoreticism of his philosophy in this period. Moreover, as we will see in the next chapter, Badiou's exclusion of philosophy as a truth-procedure and careful attempt to prevent philosophy from playing a role in the nomination of events can be seen as a way to navigate this problem raised by Althusser's theory of the epistemological break. In any event, Althusser's own philosophical trajectory across the late 1970's and 80's did not make any systematic attempt to revise his theories of historical change. Although the philosophy of the encounter he developed in his later work might bear more superficial resemblances to the idea of the event one later finds in Badiou - owing to its categories of void, event, contingency, etc. - the aim of the final section below is to show that by abandoning the task of thinking specifically historical change, and therewith avoiding all the questions of the authority this entails, it nonetheless signals a degeneration of his philosophy.

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³⁷⁹ Althusser, "Letter to Jean Lacroix", 201.

4.4 A materialism for Marxism, or, the theoretical void of late Althusser

It is legitimate to talk about Althusser's late period beginning in the 1980's. Arguably this period could be extended back as far as the mid 1970's; but while by that time Althusser was beginning to offer criticisms of Marx and break from some of the more conventional Marxist theoretical positions, the overwhelming divergence of content and style of the fragmentary writings of the 1980's – combined with their authorship after a series of devastating personal experiences – makes it legitimate to ring fence these as a late period proper, and the works of the mid-1970s as a transition stage. For our purposes the important observation is the shift we can

³⁸⁰ The act of dividing up or stressing continuity between the eminently productive era of the mid-1960s (For Marx, Reading Capital) against the post-1967 corrections of his earlier 'theoreticism' and deprecations of aspects of Marxism from the mid-1970's ('Philosophy Course', Lenin and Philosophy, Essays in Self Criticism, 'Marx in his Limits'), or the philosophical aleatory-materialism of the 1980s ('Underground Current') in many ways reflects Althusser's own theoretical efforts devoted to demarking the breaks in Marx's corpus. It is thus unsurprising to find interpretations of Althusser's body of work similarly split between perceiving continuity or divergence in his writing. On this issue his long time collaborator, Étienne Balibar, who has perhaps remained the most faithful to the programmatic intentions of 'structural Marxism', goes so far as to claim there is no complete Althusserian system and notes the "amazing discrepancies of style and positions" (Balibar, "The Non-Contemporaneity of Althusser", 3.) between texts. Oppositely, Elliott insists that "later Althusserian aleatorism...is but a unilateral inflection of a recurrent Althusserian tendency." (Gregory Elliott, "Ghostlier Demarcations: On the posthumous edition of Althusser's writings", Radical Philosophy, No. 90, (1998), 28.) Against those who perceive a break in the later works, Elliott ascribes this to faulty translation: "The term habitually employed by Althusser to describe the advent of both Marxism and Freudianism is surgissement, with its sense of 'sudden appearance' or 'springing up'. Ben Brewster's otherwise excellent translations of the 1960s and 70s tend to conceal this, since they invariably render the French by 'emergence' with its more genetic-evolutionary connotations." (Gregory Elliott, Althusser: The Detour of Theory, 2nd edition (Leiden: Brill, 2006), 343.) The idea that thematic/conceptual/philosophical continuity or divergence can be settled by reference to issues of translation seems unlikely though.

witness in these late writings from Althusser's identification of philosophy as epistemology in the early to mid-1960's, to a situation in the 1980's where philosophy is accorded just a partisan role in affirming the 'necessity of contingency' — a phrase present in his earlier works but presented without any significant philosophical underpinnings. At this point in his career, Althusser gives up attempting to elaborate a theory of historical change and, we argue, thereby regresses to what he earlier identified as Engels's 'non-Marxist' theorising of historical events. Our purpose in this final section is simply to point out why this is so and also to argue why, despite these writings' superficial resemblances to the ideas of the event one sees in Badiou and Meillassoux's theories, these resemblances are only apparent.

In the course of an interview stretching between 1984 and 1987 with Fernanda Navarro, published under the title "Philosophy and Marxism," Althusser puts distance between his current views and his old theories. He writes that a materialist philosopher is "not that horror, a dialectical materialist, but an aleatory materialist" – signifying, in turn, the shift from Marxist philosophy to a "philosophy for Marxism." Althusser admonishes his earlier works of Marxist philosophising for investing Marx with "a philosophy dominated by 'the spirit of the times'; it was a philosophy of Bachelardian and structuralist inspiration, which ...

³⁸¹ Althusser, "Portrait of the Materialist Philosopher", 291.

³⁸² Althusser, "Philosophy and Marxism", 259.

cannot, in my opinion, be called Marxist philosophy." ³⁸³ Furthermore, contrary to his earlier work "materialism is not a philosophy which must be elaborated in the form of a system in order to deserve the name 'philosophy'." Materialist philosophy does not "consider itself to be a science, and still less the Science of sciences... it renounces the idea that it possesses truth." 385 Conversely, he writes, in a more mystical train of thought, "aleatory materialism [is] required to think the openness of the world towards the event, the as-yet-unimaginable, and also all living practice, politics included."386 All very well. But his new aleatory materialism nevertheless still claims to be able to speak about historical processes, and pushes to an extreme his earlier claims of the necessity of contingency: now directed even against Marx and Engels, neither of whom "ever came close to proposing a theory of history, in the sense of the unforeseen, unique, aleatory historical event."³⁸⁷ In chapter two of this thesis we argued a similar point, but for reasons better diagnosed by using Althusser's concepts elaborated in the 1960's which consider the specific structures of historical change, not on the basis of an abstract privileging of contingency.

To account for the centrality of chance, argued on an entirely ontological level,

Althusser introduces the void: both an ontological (non)object, permitting all

³⁸⁴ Ibid., 256.

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³⁸³ Ibid., 257.

³⁸⁵ Ibid., 274.

³⁸⁶ Ibid., 264.

³⁸⁷ Ibid., 266.

unstructured movement, chance and change, and a practice of philosophy, wherein philosophy empties itself of all grounding. This 'underground current' he then traces through Epicurus, Hobbes, Machiavelli, and, to a more qualified extent, Marx. Unfortunately, the move to ontology in these late texts seems to licence a wholesale abandonment of thinking both *order and change*. If this were maintained on a strictly ontological level then it might not pose such a problem. But troubling questions remain with seeing these texts as offering anything like the conceptual richness for thinking through historical change or the relationship between science and philosophy one can appreciate in his earlier works. Two questions in particular should raise doubts as to the contribution of these late texts.

- 1. If, as Althusser once argued, philosophy is a continuation of class struggle within the realm of theory, does Althusser's conception of aleatory materialism really contribute to thinking the changes necessary for revolution once all notions of order are dispensed with? (Augusto Illuminati, for one, affirms the familiar ideologies of our time, when he approvingly links Althusser's aleatory turn to the disappearance of class, the emergence of the multitude and an egalitarian, subversive, democratic politics). 388
- 2. If aleatory materialism operates purely on the level of ontology, why then does he accuse Marx and Engels (neither of whom claimed to be ontologists)

Augusto Illuminati, "Recent Italian Translations of Althusser's Texts on Aleatory Materialism", trans. Arianna Bove, *Borderlands e-journal*, Vol. 4, No. 2 (2005). Available online at:

http://www.borderlands.net.au/vol4no2_2005/illuminati_transl.htm [Accessed 21 June 2011]

of not thinking a "theory of history" that would allow an aleatory materialist event?

It is almost as if the further Althusser pushed his philosophy towards ontology the more slackly he enforced his own prohibition on the transposition of ontological theses back to matters of concrete theoretical practice. Althusser once went out of his way to annul the conception of an epistemological void to account for breaks in practice; and he once gave no credence to ontological notions of void to explain change either. For instance, in 1963 Althusser criticised Foucault's account of the origin of the dichotomy of reason and madness in an early preface to the History of Madness (later removed), writing that: "This border freely constituted is haunted by the temptation of being an original abyss, a verticality that is no longer a break in history but the originary rupture of time." Althusser criticises Foucault for supplanting the question of origins within a specific practice with a transcendental conception of genesis which prevents an adequate theory of origins within historical time (it is much the same as his reproof to Engels on historical events discussed in the last section). Warren Montag observes "the deferred effect of this encounter, its themes and its contradictions in his post-1980 philosophical writing, particularly in his conception of aleatory materialism, where it sometimes appears as if Althusser has returned to the very notion of a transcendental abyss that he so effectively criticised in Foucault."390

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Louis Althusser cited in Warren Montag, "'Foucault and the Problematic of Origins': Althusser's Reading of *Folie et deraison*", *Borderlands e-journal*, Vol. 2, No.2 (2005), par. 2. Available online: http://www.borderlands.net.au/vol4no2_2005/montag_foucault.htm [Accessed 17 June 2011]

³⁹⁰ Montag, "'Foucault and the Problematic of Origins'", par. 30.

This is also why, despite the alluring semantic parallels one can find between Althusser's idea of the aleatory event in his later writings and Alain Badiou's, the elaboration of Badiou's theory is much better understood in respect to the earlier tendencies in Althusser's thought. Where Badiou in some sense repeats Althusser's late push of philosophy towards ontology, he remains more faithful, we argue, to the original project of developing a Marxist philosophy of the event insofar as his ontology accounts for both order and change. For Badiou, the historical event is intuited from ontology's necessary inconsistencies rather than founded on simply an abyss of contingency. As Badiou puts it in an interview with Bruno Bosteels, although in his late work Althusser realised that "an ontological framework was needed and that materialism could not simply be an epistemological category," he failed to "submit his intuitions in this regard to the final test" which would have involved articulated them with respect to "the ensemble of his previous framings."³⁹¹Moreover, we could add, this would have forced Althusser to confront the question of the authority of the philosophers in thinking the processes of change, as Badiou does by rigorously incorporated this requirement into the delicate fabric of his metaontological system.

To understand how and why Althusser and Badiou parted ways does, however, in a sense mean affirming Althusser's thesis of the primacy of class struggle in theory. It means returning to the events of 1968 after which the collective endeavour of Althusserianism imploded, never to return.

³⁹¹ Alain Badiou, "Can Change be Thought? An Interview with Alain Badiou conducted by Bruno Bosteels" in Bruno Bosteels, *Badiou and Politics* (Durham: Duke University Press, 2011), 304.

5.Badiou's Decision

to give up leadership, mostly

I am telling you as a philosopher that we have to live with an idea, and that what deserves to be called real politics begins with a conviction.³⁹²

After Althusser lost one of his most "brilliant members"³⁹³ of the structural Marxist project to the wave of Maoist activism which engulfed France post-'68, in his 1970's texts Alain Badiou refers back to Althusserian Marxism as fit only for the seminar room.³⁹⁴ Even if not cutting as deep as Rancière's criticisms, nevertheless during these years Badiou's turn away from structuralist concepts towards Hegelian dialectics signals a clear rejection of his teacher's paradigm. What is more, from here onwards Badiou places the category of the subject, the sworn enemy of structuralism, at the heart of his theories of political change. On the surface it seems

³⁹² Alain Badiou, *The Communist Hypothesis*, trans. David Macey and Steve Corcoran (London and New York: Verso, 2010), 67.

³⁹³ Louis Althusser, "The Facts" [1976] in *The Future Lasts Forever: A Memoir*, trans. Richard Veasy, eds. Oliver Corpet and Yann Moulier Boutang (New York: The New Press, 1993), 357.

³⁹⁴ Badiou, Bellassen & Mossot, *The Rational Kernel of the Hegelian Dialectic*, 14.

hard to imagine how Badiou could have taken a sharper change of direction away from his formative influences.

Decades later, however, Badiou concedes the lasting influence of Althusser's project for his mature oeuvre of works, including Being and Event, Manifesto for Philosophy and Logics of Worlds, amongst others. 395 As he generously maintains in Metapolitics, "Every truly contemporary philosophy must set out from the singular theses according to which Althusser identifies philosophy." ³⁹⁶ In part this softening of stance could be put down to an inevitable mellowing which comes with age and achievement. The Maoist militant of the 1970's transformed into a world renowned philosopher, overshadowing his mentor and becoming the continental tradition's most respected living thinker. But the world had also changed in the interim. Where in the 1970's rejecting Althusserianism was as a symbolic vote in favour of militant action, the contemporary predominance of identarian and human rights discourses, and the widespread valorisation of 'democracy' as an ethical absolute, reconfigures the discursive terrain upon which their political positions were previously counterpoised. Indeed, when addressing Althusserian theoreticism in a 2007 interview, Badiou concedes the role of changing historical conditions in its reappraisal.

³⁹⁵ In *Being and Event*, this amounts to little more than a diminutive inclusion in an endnote of influences: "L. Althusser must be named." (Badiou, *Being and Event*, 483) However, in Badiou's recent sequel to this work, Althusser's name populates the pages and endnotes with more regularity. (*Logics of Worlds*, trans. Alberto Toscano (London and New York: Continuum, 2009))

³⁹⁶ Alain Badiou, *Metapolitics*, trans. Jason Barker (London and New York: Verso, 2006), 63.

Evidently the question of theoreticism does not have the same importance today, but I would say that the relation between philosophy and politics today, or the question of the role of theory has once again become very important because the concrete situation has become very difficult and mixed. In those years ['69-] we had great hope, truly massive, in the situation.³⁹⁷

These ambiguous remarks about the relationship between philosophy and politics might appear strange for a philosopher whose best known idea – the event – represents a break in the order of knowledge: a break, moreover, only possible within the four truth procedures of art, love, science and politics, relegating philosophy to a reactive role of absorbing their conditions *a posteriori*. The idea that Badiou might be operating within a more complex relationship between philosophy and politics unsettles the impression of Badiou's *Being and Event* as an elaborate model of praxis³⁹⁸; one where philosophy merely reacts to politics, or fuses with it, but cannot intervene into it from an authoritative position.³⁹⁹ Furthermore, those

Alain Badiou and Tzuchien Tho, "Interview with Alain Badiou" in Alain Badiou, *The Concept of Model*, trans. and eds. Zachary Luke Fraser and Tzuchien Tho (Melbourne: Re.Press, 2007), 80.

Bosteels goes so far to compare Badiou's standpoint with that of Lukacs in *History and Class Consciousness*. (*Badiou and Politics*, (Durham and London: Duke University Press, 2011), 279) The rubric of Badiouian praxis – to my knowledge not a term Badiou himself uses – can also be found in Paul Ashton, A.J. Bartlett and Justin Clemens, "Masters and Disciples: Institution, Philosophy, Praxis" in *The Praxis of Alain Badiou*, eds. Ashton, Barlett and Clemens (Melbourne: Re.Press, 2006), 8.)

³⁹⁹ Specifically regarding the conditioning of philosophy by politics, Bruno Bosteels has given the most eloquent exposition of the standard reading of Badiou on this point. Badiouian metapolitics for

like Bruno Bosteels, who aspires to assimilate Badiou into the Laclauian tradition of 'radical democracy,'400 and who represent Badiou's philosophy as one of humble underlabouring to the real political work going on elsewhere, need to surmount difficulties brought to the surface in Badiou's most recent texts. Through this lens, for example, how are we to make sense of the way Badiou positions his latest grand treatise, *Logics of Worlds*, as motivated by the need to combat the contemporary doxa of "democratic materialism" – a bio-materialist vitalism of living bodies and diverse languages wherein emancipation stands for the freedom to embrace animal desire? Badiou's choice to label his alternative approach a 'materialist dialectic', openly acknowledging that his choice of words harks back to Althusser's defence of dialectical materialism and that it subsumes "aristocratic idealism" into its fold, casts doubt on the impression that his philosophy does nothing more than kowtow to external political conditions, especially those couched in democratic platitudes. In fact, Bosteels registers the problem in a rare moment of disagreement with Badiou,

Bosteels contains one overriding theme, namely that "political events have no need for the philosopher to transmit from the outside what they themselves, as events, produce in terms of thinking or truth, or to judge which of them qualify as properly political events." (*Badiou and Politics* 18-19.)

⁴⁰⁰ Bosteels, *Badiou and Politics*, chapter 8.

⁴⁰¹ Badiou labels his philosophy as a 'materialist dialectic' for its triangulation of the gap separating 'democratic materialism' with 'aristocratic idealism' crediting the latter as the active term in the opposition. And if aristocratic idealism is not by itself sufficient to combat to ideology democratic materialism, it is not by virtue of it being undemocratic, but rather because wallowing in conspiratorial melancholy such a practice "has no chance of being effective" having "always already lost." (Badiou, *Logics of Worlds*, 3.)

considering the critique of 'democratic materialism' "badly chosen, or at least ill advised." What Bosteels fails to consider, though, is whether Badiou's decision to make 'democratic' his key term of opposition is more than simply an excrescent ideological oversight, or if it is rather a symptom of the ability of Badiou's metapolitical discourse to inveigh upon politics by utilising his metaontological categories to uphold the truth of certain events and, conversely, to delegitimize others?

Such is the argument of this chapter, which seeks to show how attempts to represent Badiou's philosophy as simply doffing its cap to movements on the street runs up against a number of difficulties posed by the nuances of how philosophical judgement is mediated within his system.⁴⁰³ To put the problem as plainly as

⁴⁰² Bosteels, *Badiou and Politics*, 250.

⁴⁰³ Responsibility for this oversight possibly lies with the presumption that novelty-bearing events automatically undermines any role for political or philosophical authority; events' contingent appearance on the world-stage being incompatible with the Marxist notion of harnessing the real forces of discontent to make revolution. Leninist readings of Badiou's philosophy such as Daniel Bensaïd's have understandably taken objection to the apparent anti-organizational conclusions that follow from viewing the event as a political miracle bestowed upon militants. (Daniel Bensaïd, "Alain Badiou and the Miracle of the Event") Yet as we argue throughout Part Two of this thesis, events do not necessarily put the question of authority to rest - and Badiou's theory is no exception. Rather than pose this question, however, most readings however have, perhaps understandably, generally fixated on the temporal implications of the event for political change. They ask whether politics occurs through sequences of unexpected events as opposed to piecemeal emergence across drawn out timescales, questioning if political change comes from a creeping process achieved through the steady building up of resources, or from spontaneous flashes that no amount of organization could hope to engineer. Such is the binary to which Adrian Johnston has devoted a book-length study of Badiou's conception of political transformation. Johnston examines in detail debates surrounding Badiou's conception of the event, noting a dichotomy between those, like Peter Hallward, who see Badiou's conception as lending itself to "flash politics", and others, like Bosteels, who place emphasis

possible, just because in Being and Event's metaontological system militant sequences occur after a contingent event through a non-philosophical truth procedure, does this imply no role for philosophers in the mediation of the process? Badiou certainly seems to have stacked his text full of safe guards to make sure this is the case. Only the collective subjects belonging to the four truth procedures can engage in the faithful processes of drawing out the consequences of an event, thereby securing its novelty by attaching their inferential results to its proper name. But as even Bosteels concedes, certain "minimal conditions must be fulfilled in order for us to speak of political events."404 Is it coincidental that such conditions happen to validate the orthodox genealogy of political revolutions to which Badiou remains faithful? Is it the case that the philosopher whose system designates these conditions does not in some way place himself in a position of authority to adjudicate on which are genuinely truth-bearing procedures and which are not? Is it adequate, as Bosteels does, to register the existence of such conditions in little more than a codicil to the representation of Badiou's system as one marked by a

on the laborious, disciplined work of affirmation after the event. (Badiou, Žižek and Political Transformations: The Cadence of Change (Evanston: Northwestern University Press, 2009), 15.) Yet whichever way one looks through this prism neither perspective precipitates towards a thorough examination of the question of intellectual authority in Badiou's theories; hence this approach veers away from adopting the focus that would allow one to pose an inquiry into if a kernel of Althusserian theoreticism passes through to Badiou's philosophy.

⁴⁰⁴ Bosteels, *Badiou and Politics*, 28. According to Badiou these are the egalitarian conditions of collectivity and the requirement for the immediate universalization and infinitization of the political truth procedure. Only with the fulfilment of these conditions can Badiou's metapolitics declare events "to be worthy of the name 'politics'." (Alain Badiou, Theoretical Writings, ed. and trans. Ray Brassier and Alberto Toscano (London and New York: Continuum, 2006), 163.)

systematic prohibition on, or irrelevance of, philosophy in making historical judgements?

To answer this question our approach will interrogate Badiou's concept of the evental procedure in a similar way to how our previous chapter examined why Althusser's mid-60's theoreticist discourse ends up promoting itself to a position of authority for making historical judgements. And as with the previous chapter, this will not involve reading our author's political views between the lines of his philosophical work. Our approach, instead, places emphasis on working through the ways in which Badiou aims to account for and delimit philosophical authority immanently within his metaontological categories. This means that we will have to be attentive to the delicate fabric of Being and Event which carves up worlds into ontological and non-ontological situations, ontology and metaontology, politics and metapolitics. This task also enjoins us to understand the implications of Badiou's choices of mathematical models and procedures, which interface with the above distinctions. In particular, we will argue that in Being and Event the philosopher's metaontological grasp upon 'non-ontological situations', whilst being circumscribed by an inability to produce any truths itself, is based upon theoretical demarcations which his philosophical system will ultimately struggle to maintain. In this sense we continue in a vein of critique opened up by Ray Brassier. 405 Our principal innovation will be to tease this problem out of Badiou's crowning chapters on Paul Cohen's forcing procedure; these representing the make or break meditations of Badiou's

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⁴⁰⁵ Ray Brassier, *Nihil Unbound: Enlightenment and Extinction* (Houndmills: Palgrave Macmillian, 2007), chapter 4.

magnum opus. 406 We will demonstrate that in the mathematical demonstration pursued in Cohen's 'ground model' of set theory the excess between the set and the power-set necessary for an event to occur is repressed by the transitive nature of the semantic model of forcing Badiou adopts. Consequently, it will be shown that in Badiou's final meditations pursued within this model, there is no event to be affirmed by an 'inhabitant' inside the model; there is no impetus for an inhabitant of a situation to force new truths out of a situation. Either a uniquely visionary subject within a situation can see the possibility of forcing a new truth, or the impetus for the initiation of the truth procedure needs to come from outside: from the philosopher who can prompt those with their non-conceptually informed vision within any non-ontological situation. 407 Of course, our argument is not conspiratorial; we argue this not to claim that Badiou surreptitiously sneaks an obscure theoretical handle into his system in order to continue to endow philosophers with discursive authority over truth procedures. Rather, this point is made in order to highlight the way that such problems recur as a result of Badiou

⁴⁰⁶ As Gillespie rightly claims, "only through a thorough exposition of Paul Cohen's generic set-theory [...can we] adequately grasp what Badiou is doing with the classical theory of truth." Sam Gillespie, *The Mathematics of Novelty: Badiou's Minimalist Metaphysics* (Melbourne: Re.press, 2008), 72.

⁴⁰⁷ We have no intention here to add to the burgeoning genre of anti-Badiou literature, with its accusations of Stalinism, or comparisons between his politics and fascism because of their shared rejection of democracy. See the recent French works, one by a former student of Badiou, Mehdi Belhaj Kacem, *Après badiou* (Paris: Grasset & Fasquelle, 2011) and another by Francoise Laruelle, *Anti-Badiou: Sur l'introduction du maoïsme dans la philosophie* (Paris: Editions Kimé, 2011). Quite opposite to these tracts, in your present author's opinion some kind of intellectual guidance is unavoidable in all forms of politics.

staying with the contours of the Althusserian problematic. Following our previous chapter's interpretation of theoreticism as a defence of the role for philosophical expertise in making historical judgements, the current chapter will thus conclude that it is not as clear as many of Badiou's followers would have it that his philosophy has ever made an all encompassing break from this position. In the conclusion we will reflect upon how this problem could be seen to parallel some of the issues raised by Badiou's position as a public intellectual.

5.1 An Althusserian reversal

There is no need to repeat in depth the story of Badiou's political and theoretical evolution from '68 through the Maoist 'red years of the 1970's. These developments have already been admirably charted by scholars in the field. For our purposes we need only note that in the two decades separating Badiou's initial contributions to the Althusserian programme and the publication of *Being and Event* in 1988, Badiou's relationship with Althusserianism can be seen to undergo something of a reversal. Beginning with his arch-Althusserian contribution to the 'Philosophy Course for Scientists,'409 through to the works of the 1970's that draw upon Hegelian

⁴⁰⁸ Bruno Bosteels, "Alain Badiou's Theory of the Subject: Part I. The Recommencement of Dialectical Materialism?", *Pli* 12 (2001), 213; Peter Hallward, *Badiou: A Subject to Truth* (Minneapolis: University of Minnesota Press, 2003), chapter 2.

Alain Badiou, *The Concept of Model*, eds. and trans. Zachary Luke Fraser and Tzuchien Tho (Melbourne: Re.Press, 2007). Badiou's contribution to the 'Philosophy Course' lecture series rests in almost total agreement with the Bachelardian-Althusserian protocols. For not only does it pursue the problematic through mathematics in a way shot through by the spirit of French scientific rationalism, it also operates along the double semantic register of 'model' a word signifying both a descriptive

dialectics and crunch theory down to a homogenous epistemological-ontological discourse of engaged militancy, by the time we reach *Being and Event* Badiou returns to what could be seen as qualified revival of Althusserian themes.⁴¹⁰ This

(ideological) notion of scientific activity, and a concept (scientific) of mathematical logic. (ibid., 9) Badiou's thesis rests on the wager that through the use of mathematical logic philosophy can perform the partisan role for the recovery of science that in the same lecture course Althusser insisted was philosophy's duty; and it does so by turning the mathematical, logical model against the ideological, empiricist conception. This can be considered a contribution to class struggle in theory because of the ideological influence of bourgeois technical, economic models in fostering a revisionist Marxist deviation. (ibid., 12) The recovery of science rather entails operating within modelling's ideological terrain of representation, drawing a line of demarcation within philosophy between the formal model (progressive) and the vulgar epistemological model (reactionary). In Badiou's demonstration logical positivism is thus exposed as an illegitimate, ideologically determined concept of model because it fails to recognize how the formal syntax (drawing on recursive algebra) and the semantic model (based in set theory) adjoin one another in an experimental dialectic wherein models take part in generating the syntactical systems of logic. As a consequence there is no "'pure', 'formal', or 'a priori' knowledge." (Ray Brassier, "Badiou's Materialist Epistemology of Mathematics", Angelaki: journal of the theoretical humanities, Vol. 10, No. 2. (August 2005), 143.) Badiou's text arguably represents the most sophisticated, technical application of Althusserian dialectical materialism in its heyday. Where Althusser had only invoked science for identifying the science/ideology rupture, Badiou locates within mathematical model theory the resources proving a revisable, experimental site of rupture between logical syntax and semantic models. For an accessible introduction to model theory see Ernest Nagel and James R. Newman, Gödel's Proof (New York: NYU Press, 2001).

On the theme of Badiou's continuities with Althusser in *Being and Event*, Luke Zachary Fraser, for one, identifies the way non-philosophical truth procedures create splits in the regime of knowledge as the Badiouian successor to the Althusserian epistemological break. ("Introduction" in Badiou, *The Concept of Model*) And also as a mark of continuity from the 1970's period, Bosteels describes how "the dialectical rapport between truth and knowledge is precisely the place of inscription of most of Badiou's debts to Maoism." (Bruno Bosteels, "Post-Maoism: Badiou and Politics," *Positions*, Vol. 13, No. 3, (Winter 2005), 581.) But to gauge a more accurate register of the continuity and discontinuity of this turn viz. Althusserianism, it is informative to compare Badiou's late 1980's change of direction to both the pre and post corrections of 'theoreticism', which split Althusser's corpus at '67. Badiou's new conception of the subjects of different practices marks a return to the pre-'67 Althusserian programme of thinking finite, discrete practices conditioning one another's development through

move also coincides with a break from his Maoist political commitments of the 1970's; the book being published after the formation of L'Organisation Politique – a group established with former UCF-ML comrades in 1985 to pursue politics without a party. As Peter Hallward has assessed things, the shift comes about after the recognition of the defeat of the revolutionary movements in the 20th century, responding to the exhaustion of the party form as the vehicle of emancipation. At the same time, Badiou's continuing involvement in politics and his further elaboration of a theory of the subject in his philosophical works is sufficient to indicate that this did not result either in giving in to the counter-revolutionary spirit of the age or to dwelling in nostalgia for past revolutionary glories.

epistemological breaks. Yet in another sense, inasmuch as Badiou deliberately excludes philosophy as a truth procedure, he also affirms Althusser's post-'67 correction of 'theoreticism' from *Lenin and Philosophy* onwards, whereby philosophy was posited as having no object of its own. If there is no strict homology with any one period of Althusserianism, then, it nevertheless establishes Badiou's continuing negotiation of different tendencies within the overall problematic.

Badiou claims to find in Maoist China the culmination of a 20th century revolutionary sequence tied to the party-state nexus: "the Maoist current, [is] the only true political creation of the sixties and seventies", because "the Cultural Revolution is the last significant sequence that is still internal to the party-state." More wistfully, in the final accounting "the strategic meaning (or the universal range) of these inventions was a negative one. Because what they themselves carried forth, and what they vitally impressed on the militant minds of the entire world, was nothing but the end of the party-state as the central production of revolutionary political activity." (Alain Badiou, "The Cultural Revolution: The Last Revolution?", *Positions*, Vol. 13, No. 3, (Winter 2005), 481-482, 488.)

⁴¹² Hallward, *Badiou: A Subject to Truth*, 31.

⁴¹³ Noys shows how Badiou's theories from this point on mirror his personal retrenchment in the face of 'counter revolution ' of the 1980's, adopting a more affirmational philosophy, focusing upon subtraction rather than negation and destruction. (Benjamin Noys, *The Persistence of the Negative* (Edinburgh: Edinburgh University Press, 2010), 134-160.)

philosophy Badiou can be seen as assimilating, converting and tooling these conditions into a renewed theory of historical change.

Moving away from the politically-determined theoretical discourse culminating in his 1982 Theory of the Subject, 414 then, Being and Event rejects his previous fusion of philosophy and politics into a singular discourse, and instead elaborates a system setting in place strict demarcations. In terms of the theoretical relationship between Badiou's philosophy and his politics in this text, this can be seen to operate along two main axes. First, echoing the notion of discrete practices offered by mid-60's Althusserianism, Badiou sets in place his famous four truth procedures: art, love, science and politics. And as with Althusser's corrective thesis of Lenin and Philosophy and the Philosophy and the Spontaneous Philosophy of the Scientists, Badiou also deprives philosophy of its own truth creating capacity. Henceforth philosophy only provides a composite site for drawing out the consequences for philosophy of the events and truth procedures taking place in domains external to it. 415 Second, in Being and Event Badiou makes his notorious decision to equate mathematics as the discourse of ontology. 416 Although philosophy is conditioned by the events unfolding in all four truth procedures, mathematics serves as the privileged discourse for philosophy's conceptual practice to draw from. Philosophy's role is described accordingly as metaontological,

⁴¹⁴ Badiou, Theory of the Subject.

⁴¹⁵ For more on Badiou's considerations of the conditions effected philosophy see Manifesto for Philosophy, trans.

⁴¹⁶ Badion, *Being and Event*, 6.

meaning that it translates the ontological insights and logics of mathematics into a metaontological conceptual discourse: a conceptual gloss, 417 or commentary upon mathematical ideas.

Further demarcations come into play too. For given that Badiou's commitment to the multiple traverses even his own theoretical construction, ontology becomes only one situation amongst many; it is the discourse which "presents nothing ... besides presentation itself." 418 Opposed to this, all other domains of knowledge - including the political situation - are non-ontological situations. Yet metaontology operates from something of a privileged position insofar as it can draw upon the ontological situation to furnish itself with a conceptual apparatus for interpreting both ontological and non-ontological situations. It is granted a global reach for using the resources from the ontological situation; and it is permitted to supplement this with additional ideas such as the event in order to understand the processes of change occurring within truth procedures. Now, as Badiou has explained in commentaries on his own work in the years since, these truth procedures are not identical. The truth procedure of love, for instance, involves only two people. Art and science are aristocratic practices whose truths only speak to the select few who can appreciate their innovations. Politics alone is immediately universal and infinite owing to Badiou's strictures demanding it conform to an egalitarian modality. 419 Yet regardless of these

⁴¹⁷ This is how Brassier describes Badiou's metaontology in *Nihil Unbound*, chapter 4.

⁴¹⁸ Badiou Being and Event, 7.

⁴¹⁹ Badiou, *Theoretical Writings*, 163.

differences, philosophy's metaontological role is to draw on the resources of mathematics in order to rigorously elaborate how truths come into being and are sustained within all four domains. It can pursue this demonstration indifferently to the precise forms of the truth procedures belonging to each domain of knowledge because the ideas which form the crux of understanding the procedures of change belong to the metaontological discourse. Since the event, particularly, cannot be found within the ontological situation⁴²⁰, there is thus an isomorphy between the concepts drawn from the non-ontological situation which metaontology deploys to understand change, and the non-ontological historical situations they are supposed to grasp. But still, despite the fact that metaontology deploys ideas like event which cannot be derived from the mathematical ontological situation, these are nonetheless required to be compatible with it, or else the term metaontology would be rendered a pointless misnomer.

As should thus be clear, philosophy, whilst being proscribed from producing truths, is the key to understanding processes of change. Its core concepts, although configured as compatible with mathematical ontology, are specifically philosophical concepts geared to make sense of non-ontological historical situations. Accordingly, and to reference the criticisms made in the previous chapter, what prevents this setup getting locked into the kind of circularity experienced by Althusser's system of the mid-1960's? As with the idea of the epistemological break representing a break from ideology to science, yet unable to back up the idea of the break from within

⁴²⁰ Badiou, *Being and Event*, 184.

scientific practice itself, does not Badiou's metaontological deference to mathematics make the same mistake? Does its conceptual discourse not go astray when it refers back to mathematics, even though its core concepts of change cannot be located in the mathematical-ontological situation? This seems to be the thrust of Ray Brassier's criticism, when he writes that the "metaontological discourse seems to enjoy a condition of transcendent exception vis-a-vis the immanence of non-ontological situations." To which he adds the following crucial remarks:

But given that philosophy itself is not a truth procedure, there can be no subject of philosophy strictly speaking for Badiou and thus he is at pains to explain how the metaontological discourse which conditions his entire philosophy (and from which he draws all the conceptual details for his theory of evental truth) is able to exempt itself from the immanent conditions of knowledge governed by the norm of the One... The a-specificity of metaontological discourse in *Being and Event* and the anomalous status of philosophical thought invite the impression that Badiou's metaontological theses float between rerepresentation of the mathematical presentation of being, and a presentation of the imaginary re-presentation of ordinary knowledge.⁴²²

⁴²¹ Brassier, *Nihil Unbound*, 108.

⁴²² Ibid., 109.

Essentially, Brassier's criticism, directed at the architectonic of Badiou's metaontology, is that it sets itself up with inexplicable authoritative knowledge to peer through illusory re-presentations of non-ontological situations. But though Brassier's critique touches on something vitally important, it is questionable whether one can really assess the success of Being and Event without working immanently through the particular mathematical content and metaontological reflections that comprise its theory of change. For Badiou claims that his avowed intention is to examine the way the ontological situation of mathematics – that set in motion by Cantor and continued through 20th century set theory – will speak to a new theory of the subject. As we will see, by the end of Being and Event the modality of this demonstration, channelled through Paul Cohen's theory of forcing, draws directly from the ontological situation and complicates the division between the ontological and the non-ontological situations, and hence also ontology and metaontology. Two tasks therefore lie ahead. First, we need to pin down the exact relationship between mathematics and philosophy Badiou adheres to. Second, we need to work through the meditations of Being and Event to see if, by the time we reach those on Paul Cohen's theory of forcing, metaontology and the truth procedures taking place in historical situations remain properly demarcated from one another.

5.2 On the subject of Being and Event

As Badiou sees things in *Being and Event*, philosophy has a unique role: a metaontological task to think how infinite truths are sustained by the subject.⁴²³ Amongst the book's multifaceted elaboration of ideas from the non-existence of the One, to inconsistent multiplicity, and to its affirmation of the Cantorian transfinite, the real locus and actual terminus of the text is to establish a theory of the subject; a theory relying upon the set of aforementioned demarcations between mathematics and philosophy and philosophy and the four truth procedures. Of the three conditions motivating his work that Badiou lists in his introduction, the two below are thus the most significant for noting how the commitments of his project converge.

Apart from Peter Hallward's appropriately titled, *Badiou: A Subject to Truth*, curiously few readings of the book seemed to have paid much attention to Badiou's professed intention to establish a new theory of the subject. Regardless of Badiou's intentions, Ray Brassier, for one, sees Badiou's accomplishment almost entirely in terms of the way the opening meditations establish mathematics as ontology. In Brassier's judgement "the veritable worth of Badiou's work lies not in his theory of the event but rather in the subtractive ontology which was merely intended as its propaedeutic." (*Nihil Unbound: Enlightenment and Extinction* (Basingstoke: Palgrave Macmillian, 2007), 115.) Elsewhere, too, Brassier ignores Badiou's reconceptualisation of the subject, isolating only the way that "the identification of axiomatic set theory with the long sought for 'science of being qua being'... affirms a fidelity to the Cantor-event." ("Nihil Unbound: Remarks on Subtractive Ontology and Thinking Capitalism" in *Think Again: Alain Badiou and the Future of Philosophy*, ed. Peter Hallward (London and New York: Continuum, 2004), 51.) The reading perhaps most attentive to Badiou's theory of the subject and its intrication with mathematical techniques is Luke Fraser's ("The Law of the Subject: Alain Badiou, Luitzen Brouwer and the Kripkean Analyses of Forcing and the Heyting Calculus" in Ashton, Bartlet, Clemens, *The Praxis of Alain Badiou* (Melbourne: Re.Press, 2006), 23-70.)

- A third epoch of science. Not demonstrative mathematics, nor the mathematization of physics, but "a split, through which the very nature of the base of mathematical rationality reveals itself, as does the character of the decision of thought which establishes it." 424
- A second epoch of the subject. A subject not as a founding centre of thought
 as in the Cartesian tradition; one which can only be thought in terms of its
 role in processes with rigorous conditions.

Or in short, conditions which combined pose the question: given "pure mathematics being the science of the being, how is a subject possible?" This question is asked in order to correct *Theory of the Subject*'s politically determined presupposition "that there 'was some' subjectivization."⁴²⁵ Badiou emphasizes that establishing the philosophical decision identifying mathematics with ontology is in no way the book's goal; instead "this book founds a doctrine [...that] institutes the subject, not as support or origin, but as a fragment of the process of a truth."⁴²⁶ Given that in no uncertain terms Badiou positions his metaontology as one that will draw upon mathematics to found a new theory of the subject, before working through the mathematical and metaontological meditations of *Being and Event*, it is necessary to get a firm grasp on precisely how Badiou sees the relationship between philosophy and mathematics. This will involve relating Badiou's metaontology to Albert

⁴²⁴ Badiou, *Being and Event*, 3.

⁴²⁵ Ibid., *6*, *3*.

⁴²⁶ Ibid., *15*.

Lautman's concept of the relationship between mathematics and philosophy and seeing how this serves (1) a new theory of the subject, and (2) the philosophical metaontologists' separation from truth procedures arising from non-ontological situations.

Badiou asserts that Being is inconsistent multiplicity. In the phenomenal world of particular things this multiplicity cannot be perceived or intuited: not empirically, nor through any mystical apprehension. Philosophical questions are best approached through the formal thought of mathematics, free from linguistic contamination or empiricist temptations. The world we inhabit is a world of specific things, and if we want to think being qua being we have to subtract from all these to present presentation as such: that is, the presentational form of presentation itself; and conversely, what presentation excludes as a necessity – i.e. the inconsistent multiple. With its very abstract rigour mathematical discourse thinks presentation, and nothing more. Badiou's philosophical metaontology is thus "not a thesis about the world but about discourse." 427 From where could Badiou have drawn inspiration for this idea? Amongst the references provided by the text Albert Lautman's (1908-1944) name recurs. "Lautman's writings are nothing less than admirable and what I owe to them," Badiou admits, "even in the very foundational intuitions for this book, is immeasurable."428

⁴²⁷ Ibid., 8.

⁴²⁸ Ibid., 483, en. to pg. 12 and 13.

Lautman was a French philosopher of mathematics with a working relationship with the mathematician Jean Cavaillès (1903-1944), both killed in the war because of their involvement in the French resistance movement. Lautman can be considered part of the movement of the French philosophy of science; he cites Bachelard and emphasizes the creative development of mathematics against Russell's logicism. In The Concept of Model one can already note an affinity with Lautman in Badiou's model theoretic critique of logical positivism. By placing logic on the same level as other forms of mathematics in the order of the genesis of new structures within mathematics, Zamalea observes how Lautman "prefigures ... our conception of logic as it arises from model theory, in which a 'logic' is not only determined, but even defined ... by an adequate collection of structures." 429 With respect to the idea prevalent within logicism that a rich enough logical or axiomatic 'essence' can account for the entire 'existence' of structures of mathematics, Lautman counters that "we always see a mode of structuration of a basic domain interpretable in terms of existence for certain new entities, functions, transformations, numbers, that the structure of a domain thus appears to perform."430 Yet as Badiou recalls in an interview with Tzuchien Tho, at the time of writing the Concept of the Model Lautman's works were largely unavailable, only

⁴²⁹ Fernando Zamalea, "Albert Lautman and the Creative Dialectic of Modern Mathematics" in Albert Lautman, *Mathematics, Ideas and the Physical Real*, trans. Simon Duffy (London and New York: Continuum, 2011), xxxii.

⁴³⁰ Lautman, *Mathematics, Ideas and the Physical Real*, 29.

with their publication in the 1970's did he gain contact with the texts.⁴³¹ There should be no surprise, then, that Lautman's speculative contribution on the nature of mathematics can more evidently be seen to inform Badiou's identification of mathematics as ontology in the 1980's.

Lautman's participatory Platonism conceives mathematics in relation to philosophical metaphysics within a tripartite scheme. *Dialectical* questions – whole/part, continuity/discontinuity, etc. – give rise to questions of the 'why', to which *Ideas* serve to form connections to attempt to answer them. *Mathematics* then fills in these ideas with more concrete, particular and precise ideas. The anteriority of dialectical questions to mathematical development permits the posterior recovery of ideas from their mathematical exploration.

While the mathematical relations describe the connections that in fact exist between distinct mathematical entities, the Ideas of dialectical relations are not assertive of any connection whatsoever that in fact exists between notions. Insofar as 'posed questions', they only constitute a problematic relative to the possible situations of entities... the Ideas that constitute this problematic are characterized by an essential insufficiency, and it is yet once again in this effort to complete understanding of the Idea, that

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⁴³¹ Alain Badiou and Tzuchien Tho, "Interview with Alain Badiou" in Alain Badiou, *The Concept of Model*, trans. and eds. Zachary Luke Fraser and Tzuchien Tho (Melbourne: Re.Press, 2007), 82.

more concrete notions are seen to appear relative to the entity, that is, true mathematical theories.⁴³²

Easily discernable are the similarities to Badiou's conception of mathematical Platonism where all "that we can know, and can ever know of being qua being, is set out, through the meditation of a theory of pure multiplicity by the historical discursively of mathematics."433 Significantly, however, this does not imply that "mathematics here simply represents a particular instance of a ready-made philosophical question"; rather, mathematics is "capable of challenging or undermining that question."434 The idea that all mathematics does is throw light on eternal metaphysical quandaries Badiou associates with the 'little style' of academic philosophy of mathematics, as opposed to the 'grand style' which "stipulates that mathematics provides a direct illumination of philosophy, rather than the opposite."⁴³⁵ In other words, there is a reciprocal, historical dialectic between philosophy and mathematics, and under current circumstances mathematics should take the driving seat of guiding philosophy rather than vice versa. This helps clarify the relationship of Badiou's metaontology to the work of pure mathematicians, who he positions as working ontologists. In Badiou's view there is no spontaneous

⁴³² Lautman, *Mathematics, Ideas and the Physical Real*, 204.

⁴³³ Badiou, *Being and Event*, 8.

⁴³⁴ Badiou, *Theoretical Writings*, 4.

⁴³⁵ Ibid., 7.

philosophy of the mathematicians worth guarding in the same way that Althusser insisted scientists need to be protected against the incursions of idealism. As he would later carefully delineate the point: although "mathematicians' spontaneous philosophy is Platonism", unlike his own Platonism it is an erroneous conception based on Aristotelian tenets, whereby the "ideal spectacle of its results" follow from "fictive activiation." 436 Platonism of the Gödelian kind he believes is "a bit too dogmatic", especially so when contrasted against Lautmanian Platonism: that is, "a Platonism of participation" of the sensible in the ideal, centred on "the dialectic of ideas in the history of mathematics."437

If mathematicians' philosophy of their practice is not to be trusted, neither should their spontaneous practice be credited with immediately releasing philosophical insight. On the contrary, the trust working mathematicians place in solving specific problems "is in principle unproductive when it comes to any rigorous description of the generic essence of their operations $^{\prime\prime438}$ – that is, to extracting the metaontological consequences of the ideas mathematics works on with exactitude. In this regard, a mathematician like Paul Cohen would assume heroic stature for Badiou insofar as he gained his advances in the field of independence proofs by desuturing set theory from the inhibitions of Gödelian philosophical Platonism to see how, in Cohen's words, "ideas which at first seemed merely philosophical could

⁴³⁶ Alain Badiou, *Briefings on Existence: A Short Treatise on Transitive Ontology*, trans. and ed. Norman Madarasz (Albany: SUNY Press, 2006), 48-49.

⁴³⁷ Badiou and Tho, "Interview", 93.

⁴³⁸ Badiou, Being and Event, 11.

actually be made into precise mathematics." 439 Similarly, Cohen's scathing comments on those rare moments in history where philosophers seek to insert themselves within mathematical practice to clarify philosophical questions would probably also gain Badiou's approval. In this vein, Cohen describes Russell and Whitehead's Principia Mathematica as "totally unreadable, and in my opinion of very little interest."440 Vice versa, ideas and techniques that seem only mathematical (without any attempt to imbue them with ontological significance) can also be transcribed, à la Lautman, to inform philosophical questions. It follows that Badiou's focus on set theory as an ontological discourse is not reducible to following the cutting edge practice or the philosophy of the unconscious ontologists; it is rather a site for the extra-mathematical composition of the multiple conditions of an era. Badiou readily admits that by the time of writing in 1988 set theory was no longer considered the most fundamental or exciting field of mathematical development. His choice of set theoretic ontology is instead a philosophical attempt to weld the post-Cantorian era of science with a new idea of the subject. Although the imperative is for philosophy to stay broadly up to date with the mathematical resources it draws upon, there is certainly room to manoeuvre depending upon the philosophical questions at hand, which philosophers are free to determine themselves within the remit of philosophy's general conditioning by its outside. Admittedly, Badiou's own shift away

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⁴³⁹ Paul Cohen cited in Akihiro Kanamori, "Cohen and Set Theory", *The Bulletin of Symbolic Logic*, Vol. 14, No. 5 (Sept 2008), 360.

⁴⁴⁰ Paul Cohen, "The Discovery of Forcing", *Rocky Mountain Journal of Mathematics*, Vol. 32, No. 4, (Winter 2002), 1080.

from metaontological theorising of the subject in later years – exemplified by the section on the typology of subjects in the *Logics of Worlds*, disjointed from the topological heart of the Greater Logic⁴⁴¹ – has served to lend the impression that certain foundational (intra-mathematical) commitments lie behind his allegiance to set theory's articulation of being qua being. Badiou has occasionally even seemed to slide explicitly towards this position when, for example, he admits that I had to come to terms with Set Theory's rival theory regarding mathematical foundations: category theory. But at least on the terrain of *Being and Event's* justification of its use of mathematics, it is unambiguous that following developments in set theory leads towards a metaontology of the subject: from the opening remarks of the Introduction to the way the meditations culminate in an interpretation of Paul Cohen's forcing technique. Accordingly, it follows that our own judgement on Badiou's success should stand or fall with whether this new idea of the subject

Unlike in *Being and Event*, where a theory of the subject represents the culmination of the treatise, in *Logics of Worlds* Book I setting out a theory of the subject is not integrated with the logics of appearing laid out in the Greater Logic which begins from Book II onwards.

⁴⁴² Prior to the completion of *Logics of Worlds* Badiou discussed these changes with Bruno Bosteels and Peter Hallward in terms of wishing to eliminate the dialectic of finite subject and infinite truth, claiming, proudly, to have "done away with the moment of the naming of the event." (Alain Badiou, "Beyond Formalism: An Interview", *Angelaki: journal of the theoretical humanities*, Vol. 8, No. 2 (August 2003), 133) Once the subjective moment of naming the event is removed, this could be seen to imply a move towards a demarcation between ontology (set theory) and onto-logy (category theory) centred on foundational concerns viz. thinking inconsistent multiplicity rather concerned with a theory of the subject. The subject is in asense pushed to the side.

⁴⁴³ Badiou, *Briefings on Existence*, x.

drawing out metaontological concepts from mathematics. So that no prior knowledge of the text is assumed, this will involve an exposition of the main sections of the book, before arriving at the crux of the argument with the section dealing with Paul Cohen's forcing technique.

5.3 Being, event, intervention

The axioms of Zermelo-Fraenkel (ZF) set theory provide the tripartite specifications of Being, Event and Subjective Intervention for Badiou's metaontology; the text's presentation of these being chronologically synchronous with the development of set theory's axioms and techniques across the 20th century. The axioms associated with Being are referenced to the less contentious early 20th century axioms, in contrast to the more controversial additions later on such as to the axiom of choice (forming ZFC), Gödel's proof of the consistency of constructability, and leading up to Cohen's method of forcing discovered in the early 1960's. Given the limited space to present Being and Event's dense metaontological reading of the development of set theory, the table below summarises the three main movements of the text and their relation to set theory's axioms, the mathematical ideas they embody, and their philosophical interpretations - divided in this way to reflect how Badiou's take on mathematics reflects Lautman's. In the paragraphs which follow we rapidly abridge the main sections of the book's mathematics and metaontology in order to take us as quickly as possible to the theory of the event and the subject.

Architectural map of Being and Event – Main movements and their ZF-C axioms, mathematical and philosophical Ideas

	Axiom	Mathematical Idea	Philosophical Idea
	Separation	Sets' existence is given. The language separates sets' relations.	9
Being	Power-set	The power-set p(a) of any set (a) has more 'parts'; its cardinality is greater.	
Event	Foundation	Sets cannot belong to themselves: \sim (a \in a).	The event is non-ontolologial: its self-belonging is prohibited by set theory.
	Constructability	All of set theory can be rendered in a constructible universe.	Axiom of foundation redundant; axiom of choice more a theorem of well ordering. All excess banished. Constructability is the form of knowledge.
Intervention	Infinity	There exist infinite sets.	The actual infinite is decided. Infinite sets necessary for axiom of choice, for unnameable multiples.
(Subject)	Choice	A function of an element of any set can be decided to represent it.	
	(N/A)		Form of the generic ♀. Theory of the Subject to truth.

a. Being

The absence of a definition of a set within the ZF axioms is an important starting point for understanding Badiou's metaontology since it immediately rules out any primordial definition of Being. 444 Axiomatic set theory is rather structured presentation which prohibits the presentation of being so to not fall to pieces under the weight of its own inconsistencies ('large' paradoxical sets, such as those exposed by Russell's paradox). There is therefore a double move involved in Badiou's interpretation of being within axiomatic set theory. On the one hand, the axiom of separation, whereby all sets are constructed out of other sets, prescribes a mathematical language foreclosing any direct access to being, because every existent is already assumed. Sets are given; the language of presentation (set theory) only separates out existents and structures their relations. On the other hand, in any situation other than ontology - in non-ontological situations this is to say - the inconsistent multiple (the paradoxes the axiomatic is designed to suppress) is being, because it is ruled out from presentation within any structure because of the law of the 'count as one'. However, the operation by which structure renders inconsistent being imperceptible is retrospectively graspable by ontology; its outlawed inconsistency may nothing within any situation, but for ontology it is not a nonbeing.445

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⁴⁴⁴ Badiou, *Being and Event*, 42-44.

⁴⁴⁵ Ibid., 53.

The imperceptible, inconsistent nothing within any situation Badiou terms the void, and following set theorists' inscription of the empty set he represents it with the symbol \emptyset to reinforce that this nothing is strictly unpresentable except as a lack. Ontology is only a theory of the void, because if ontology presented the other terms in its 'presentation of presentation' it would put the void on the same level of structured presentation alongside every other inscription; ontology would collapse to mere presentation of structure rather than delving deeper into the unstructured Being of structure. 446 The axiom of the powerset opens up a distinction allowing ontology to grasp the non-presentable existence of the void. The axiom prescribes the absolute excess of inclusion \subset over belonging \in . Belonging is the count forming the structure of the presentation of a situation, whereas inclusion operates as the meta-structure, or the 'state' of the situation - the count of the multiples of the multiples (or, sets of sets) forming a re-presentation greater than the 'initial' multiples. In a play on words designed to establish affinity with the Marxist revolutionary tradition, the state is described as a 'representational state': "Marxist thought relates the State directly to sub-multiples rather than to terms of the situation... By consequence, as a political programme, the Marxist proposes the revolutionary suppression of the State; thus the end of representation and the universality of simple presentation."447

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⁴⁴⁶ Ibid., 57.

⁴⁴⁷ Ibid., 105.

The excess of representational inclusion over presentational belonging — a "dialectic which is knotted together" — lays the road to Badiou's new theory of the subject. Albeit true that Badiou maintains two 'levels' in his inconsistent-being/consistent-presentation ontology, with only the latter perceptible for 'inhabitants' of a situation, because the void is universally included within metastructure/re-presentation (the power-set) its presence as an empty set (as a nothing $\{\emptyset\}$) is implicated in the gap between sets belonging and included in a situation. What could have been a potentially static juxtaposition of ontological inconsistent multiplicity with structured, consistent presentation possesses a dialectical inflection from the initial axioms of ZF onwards.

Badiou's distinction between nature and historical events clarifies the above point in the assertion – and this seems to be nothing more than an assumption based on a very classical philosophical Idea of Nature⁴⁵⁰ – that 'natural' multiples are ordinals.⁴⁵¹ These sets' transitivity from one to the other implies a maximal coincidence of belonging and inclusion: there is no ordinal included which also does not also belong to another ordinal. With the atomism implicated by the transitivity of ordinals – a halting point for the properties of ordinals beneath which there is no

⁴⁴⁸ Ibid., 84.

⁴⁴⁹ Ibid., 87.

⁴⁵⁰ In a personal discussion with one of the most astute readers of the use of mathematics in Badiou's philosophy, Luke Zachary Fraser agreed with my estimation of the arbitrariness of this assumption, and he also questioned the insight gained by equating nature with ordinals.

⁴⁵¹ Badiou, *Being and Event*, 131.

more fundamental substratum – the void is universally included but has no dynamic to leave a mark in the gap between the meta-structure of inclusion (the power-set) and the structure of belonging (presentational set). Nature is in static equilibrium because of its ordinal numerary structure, hence leaves no room for events and subjects. Badiou concludes that it is "thus true that 'nature' and 'number' are substitutable." Solely by historical events can the natural order be unsettled. These happen at *evental sites* in non-ontological situations where a multiple asserts itself: a multiple in which none of the elements are presented in a situation. When the evental site is counted within a situation it has the void as its minimal point of singularity, which is why Badiou speaks of it as *on the edge of the void*. How this conception does not end up reduplicating the inert atomism of natural ordinals will lead us all the way to Badiou's crowning theory of the subject. But for a subject, first an event.

b. Event

Critical for proper comprehension of Badiou's theory of the event is the coimplication of *evental-sites* (singularities produced by the structure) and *events* themselves. The evental site produces the conditions for an event, yet does not necessitate an event. In what appears to be a rather redundant prohibition given that the theory of natural multiples as transitive ordinals blocks the excess of inclusion necessary for an evental site, Badiou confirms "once and for all that there

⁴⁵² Ibid., 140.

⁴⁵³ Ibid., 202.

are no natural events, nor are there neutral events. In natural or neutral situations, there are solely *facts*."⁴⁵⁴ Badiou does not waver in insisting that the existence of the event through subjective force is predicated on the thinking being making it so. Significant for enabling the subjective procedures which will maintain the event, the event is the first non-ontological concept introduced in the text. It is prohibited by the ZF *axiom of foundation*, one of the main consequences of which is that no set can belong to itself. Thus, the event's self-belonging, non-ontological matheme means that the event both belongs as a nomination of itself (e_x) and of its site within a situation (X):

$$e_x = \{x \in X, e_x\}$$

"[T]he event is a one-multiple made up of, on the one hand, all the multiples which belong to its site, and on the other hand, the event itself." If this appears to establish the event as a transcendent eruption, supernumerary to the situation, the meditations of *Being and Event* devoted to the event (16-18) do little to establish any contrary impression. The event, an unpredictable eruption from the standpoint of an inhabitant of a non-ontological historical situation, demands subjective intervention because of undecideability regarding whether it belongs to the situation. It is not enough to say 'there has been an event', rather the wager of the event is to affirm

⁴⁵⁴ Ibid., 178.

⁴⁵⁵ Ibid., 179

that it belongs to a situation, when nothing of the event is presented in the situation. 456

If one removes the event from its situation indexed to a sequence of preceding events ('evental recurrence') then the "speculative leftist" deviation degenerates into proposing "a primal event", "a radical beginning", or an "absolute commencement". 457 The Two of the event – the event and its site – are both equally important to affirm or else begins the inevitable slide into static Manicheism. Affirming both is a procedure of fidelity to the consequences of the event by securing its lasting impact through a disciplined labour of fidelity. Although the event is rooted in an ontological disjunction in structure, the emphasis nevertheless clearly lays expost on the side of the subject through the naming of the event and its declaration as part of the situation. Again, it might appear that with the procedure of faithful evental nomination the schema has settled into a comfortable binary: a taut mathematics of structure, versus a romantically inexplicable, subjectively induced belief system entirely disjoint from ontology. Yet this is far from the case, as the return to the ZF axiomatics' most controversial supplement – the axiom of choice – will show.

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⁴⁵⁶ The split within the 'matheme' of the event between the event and its site hearkens back to *Theory of the Subject*'s notion of scission: if one only affirms the site, "nothing will have taken place but place" (Ibid., 205), or in other words, you end with 'rightist relapse' as the Hegelian Badiou of 1982 would have put it.

⁴⁵⁷ Ibid., 210.

c. Intervention

The Idea of subjective intervention is inscribed into metaontology by the axiom of choice. A source of controversy for mathematicians in the early twentieth century, the axiom pertains to the application of functions within *infinite sets*. Given that from here on in the rest of Badiou's theory will be equally dependent upon the transfinite, a few preliminary words on the axiom of infinity are first required. For Badiou the decision to affirm the transfinite – which the axiom of infinity combined with the power-set necessitates - is crucial for the mathematics (axiom of choice, forcing) he will draw upon to prove the possibility of subjective intervention. It is a pivotal axiomatic for the inscription of subjective decision within set theoretic ontology. But why accept infinity? The actual infinite's existence remains an open question, dividing mathematicians, physicists and philosophers alike. Philosophical speculation, scientific process, or mathematical foundationalism cannot adequately legislate upon the question. The lack of criteria for making a decision on the actual infinite is thus central for placing a decisionistic theory of the subject at the heart of Badiou's metaphysics. 458 Additionally, in a supplementary argument against finitary or denumerable, transfinite mathematical paradigms - beyond simply the circularity of making an affirmative decision on infinity that will allow an ontology of decision to be developed - Badiou rejects intuitionism and contrasts the richness of the

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⁴⁵⁸ For Badiou, Cantor's significance lies above all else in his decision to conceive the infinite as an actual totality, and the productive, yet groundless, consequences for mathematics this decision initiated. The Cantor event, and its consequent sequence through Zermelo-Fraenkel, Gödel and Cohen, is used by Badiou to demonstrate the existence of absolutely undecidable propositions resisting all proof and necessitating the procedure of an 'evental nomination' (lbid., 101) — a subjective, and subjectifying, intervention.

mathematical domain permitted by properly transfinite set theory against their barren, denumerable twin towns. ⁴⁵⁹ In any case, the wager on the infinite is cast by ZF's axioms and Badiou keenly follows.

This is important because in the case of finite sets the choice procedure of finding a representative element of all a set's multiples poses few problems, because there is a minimal (non void) element to perform the role. The function of choice needs no axiomatic legislation owing to the fact that the element can be procedurally derived. In an infinite set, on the other hand, defining a function faces the problem that a single element has to represent an infinite number of elements: an operation with no definable rules given the excess of the immeasurable infinite over the finite, with no halting point of minimality other than the universal inclusion of the void. 460 It follows that the axiom of choice is required to permit the arbitrary assignment of a representative element within an infinite set. For mathematicians, the axiom maintains the *existence* of a selection set on the force of assertion.

None of this should be taken to imply that the axiom of choice should just be considered like any other ZF axiom. The fact that after being included within the ZF axioms set theory is abbreviated as ZFC is sufficient to demonstrate the

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⁴⁵⁹ Badiou makes this argument with reference to the constructible universe of set theory in which the cardinals (powers of infinity) succeed one another like ordinals and thus banish the excess of immeasurable transfinite cardinality from set theory: "the constructive universe appears to be one of astonishing poverty, in that it reduces the function of excess to nothing, and only manages to stage it by means of fictive cardinals." (ibid., 314.)

⁴⁶⁰ For an accessible presentation of the problem of the minimality of shared elements in an infinite set see Michael D. Potter, *Set theory and its philosophy* (Oxford: Oxford University Press, 2004), Chapter 14, 238-260.

supplementary character of choice. The difference of this axiom is that if supposing the existence of a set, the function (the set of choice) has no explicit link to it: the function's existence is not prescribed by the set, its uniqueness to perform the function is not assured, and it is impossible to know which element the representative set is supposed to be representing. Mapping this within Badiou's philosophical interpretation, insofar as the choice permitted by the axiom "is subtracted from the count" (that is, the operation of choosing cannot be presented in the language of set theory) it is "an Idea which is fundamentally different from all those in which we have recognized the laws of presentation", and thus "within ontology, the axiom of choice formalizes the predicates of intervention. It is a question of thinking intervention in its being; that is, without the event". 461 Or put differently, its unpresentable operation (only the result is presented) affirms the ontological existence of the subjective form of intervention also carried across in the non-ontological idea of an event. By splitting early twentieth mathematicians apart in a similar way to Cantor's transfinite, Zermelo's axiomatic intervention was in essence "a political conflict, because its stakes were those of admitting a being of intervention; something that no known procedure or intuition justified."462 It was an event within the situation of ontology – but note, only for the situation of ontology, for in all other situations events are non-ontological. The philosophical denouement is that since the axiom of choice is only of relevance with regard to infinite sets, and

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⁴⁶¹ Badiou, *Being and Event*, 226-227.

⁴⁶² Ibid., 228.

only in an infinite situation is the form of intervention possible, Badiou is obliged to make a "fundamental ontological decision" that "in the last resort, every situation is infinite." Henceforth, all truths are infinite.

At this point (Meditations 31 onwards) a disjunction in the book's approach occurs which is crucial to flag up for our argument regarding the relationship of philosophical metaontology to non-ontological historical situations, ergo to the question of the authority of the philosopher viz. political truth procedures. It is therefore worth recalling some of key points elaborated heretofore.

- That ontology is a situation means it presents presentation; it is the study of the void based underbelly of presentation only possible from the vantage point of mathematics. Both ontological and non-ontological situations are founded by the ZF set theory axioms: a universe of transfinite immeasurability. In ontological situations ontology can view its situation from the outside; in non-ontological situations this is impossible.
- Hence, although the ontologist is aware of the incompleteness of presentation, for an inhabitant of a non-ontological situation (and we can also include the metaphor of 'real world' politics under this designation) a supernumerary event taking place at an evental site is needed in order for it to be named as part of a situation by a subject.
- The event is thus necessary to initiate change for an inhabitant of a nonontological, historical situation *inside* the ZFC universe because of the ontological/non-ontological distinction prohibiting an inhabitant from

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⁴⁶³ Ibid., 235.

intuiting what could be changed in lieu of an evental site opening up the possibly to affirm the new.

We stress these points again, for they demonstrate how subtly interwoven the idea of the event is with the ontological/non-ontological distinction (hence, also, the relation between metaontology and non-ontological situations). The event is the cornerstone idea preventing the collapse of the situations into one another, therewith preserving the creative, truth bearing role for non-philosophical subjects. The event is what makes philosophy ultimately subservient to non-philosophical truths, but it is also what allows philosophy to think the procedures of an event and subjective affirmation without creating truths itself. Events circumscribe the philosopher to the level of abstract thought about processes of change. These remarks are necessary in order to appreciate the discrepancy between Badiou's theory of the event in the middle meditations of the book in contrast with how Badiou completes the arc of the text with his theory of subjective intervention within a situation that creates (by forcing) a generic extension of it. Because when proving via Cohen the possibility of subjective decision to remake the situation within a transitive model of set theory in the later meditations Badiou undermines the structural basis of the evental site (excess of inclusion over belonging) for an inhabitant of the situation. This leaves, we will argue, only the ontologist Subject to suppose an event for the inhabitant from the outside – that is, to provide the impetus for the inhabitant subject to force change. Cognizance of this point requires us to continue to follow Badiou's text by passing through both the constructible universe

of set theory and how, from within a similarly delimited model, Paul Cohen's method of forcing generic extensions completes Badiou's theory of the subject.

5.4 Constructible universes and the vanishing event

Gödel's proof of the consistency of a constructible inner model of set theory within ZF established the legitimacy of a model in which Cantor's continuum hypothesis could be proven. The constructible model is created through an iterative process wherein only the parts of a set which can be assigned properties through formulas are permitted: no indeterminate or unnameable parts are allowed entry. The process of hierarchically ascending up levels of construction along a denumerable ordinal index retains only those parts which formulas can assign properties to. Consequently, there is a provable equivalence between the 'class' of constructible sets (L) and the universal 'class' (V), or V=L.464 Within this model of ZF its quasi-completeness – quasi, because Gödel's incompleteness theorem establishes the impossibility of the completion of a denumerable model - means that it is impossible to demonstrate that any sets are not constructible. The immeasurability of cardinality in a nonconstructed universe is reduced to an ordered succession of constructible cardinals leaping over the non-constructible, immeasurable sets effaced by the delimitations of the constructible universe. Therefore, in the constructible model the axiom of choice is provable, but also curtailed to the level of a theorem constructible from the other axioms, since the excessive cardinality demanding axiomatic prescription of a

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⁴⁶⁴ Paul Cohen, *Set Theory and the Continuum Hypothesis* (New York: Dover Publications, 2008), 88.

choice function for infinite sets is rendered unnecessary by the ordered hierarchy of cardinal construction. In Badiou's estimation this is a "flattened and correct universe in which excess is reduced to the strictest of measures, and in which situations persevere indefinitely in their regulated being." It is also a universe prohibiting both the structural possibility of an evental site and the interventional form of a subject's nomination of an event (since the operation of the axiom of choice is unnecessary).

But something odd then happens in Badiou's metaontological schema. For, in spite of all that has been said about constructible models preventing the emergence of evental sites, it is precisely from within Cohen's similarly transitive, denumerable universe (the 'ground model') that Badiou will seek to prove the possibility of forcing truths through subjective intervention. The generally neglectful attitude to Badiou's theory of the subject is again evidenced in the fact that nowhere in the literature has anyone questioned exactly why Badiou chooses to follow Cohen's demonstration of forcing in this semantic model when more intuitive variations have subsequently been developed. Another motivation for questioning why Badiou makes use of Cohen's approach, when he would almost certainly have been familiar with the more

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⁴⁶⁵ Badiou, *Being and Event*, 304.

⁴⁶⁶ Although, Jean-Toussaint Desanti, teases the reader with a promise to ask "how is it that Badiou seems to have no other option other than to accept completely the 'procedure' of forcing, and more specifically, the version of it put forward by Cohen himself?" he frustratingly neglects to answer his own question. (Jean-Toussaint Desanti, "Some Remarks on the Intrinsic Ontology of Alain Badiou" in *Think Again: Alain Badiou and the Future of Philosophy* (London and New York: Continuum, 2004), 63.)

intuitive approaches developed subsequently, is provided by a problem confronting readers seeking secondary literature on forcing: the use of the Boolean valued model variant by the few existing 'beginner's guides'. 467 This procedure differs from Cohen's in that it creates a Boolean algebraic model \$\mathbb{B}\$ within the standard model M of ZF, and then uses an ultra-filter mapping to verify or disprove independence results. 468 Our suspicion is that Badiou sticks with Cohen's original model-theoretical, semantic approach because it maintains a more clearly demarked sense of the internal/external, and hence something more like the ontological/non-ontological philosophical distinction upheld throughout Being and Event. But to understand this decision's implication in the suppression of the evental site and what it means for the philosopher's authority in nominating event requires us to wade into the technicalities of forcing.

From the perspective of Badiou's philosophical metaontology, the final section of *Being and Event* concerned with forcing is restricted to the ontological situation. Problematically, although these Meditations are restricted in this way, something very much like the ontological/historical situation distinction is revived through an implicit demarcation between the ontologist 'outside' the model and the

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Timothy Y. Chow, "A beginner's guide to forcing". Available online at: http://www-math.mit.edu/~tchow/forcing.pdf [Accessed 19 August 2011]

⁴⁶⁸ Curiously, and for reasons unknown, Badiou describes the Boolean approach as a "realist" interpretation of forcing – this despite the fact that the development of syntactic and Boolean approaches arguably contributed to Cohen's own decision in favour of a *formalist* philosophy of mathematics. Kanamori, for one, suggests that there "is a quiet resonance here between Cohen's coming down on the Formalist side and his syntactic approach to formal relative consistency". (Kanamori, "Cohen and Set Theory", 369.)

inhabitant 'internal' to the model. 469 Now, even though this flatly contradicts the distinction between nature as transitive and historical situations as non-transitive in the earlier mediations of Being and Event, it would seem safe to assume that the non-ontological, historical situation is transposed internally to Cohen's model in the later Meditations. Therefore the event, since it is prohibited by ontology by the axiom of foundation (which Badiou mentions) and also impossible within a transitive model (which he does not), receives a surrogate in the meditations on Cohen in the form of the symbol \mathcal{L} to denote the generic, indiscernible set which will be forcibly constructed (in the mathematical literature: G). The indiscernable in any situation transcribes the idea of the event from non-ontological situations to ontology; it is "an event-without-event". 470 But notwithstanding the way this generic set will be constructed retroactively, thereby matching the affirmational procedure of an event, the insinuated symmetry between the two notions lacks its most crucial component the evental site. Only the affirmational part of an event is reflected in the indiscernible, because in the transitive 'ground model' the excess of inclusion over belonging necessary for an evental site is prohibited. Badiou himself draws attention

Af Nowhere, it must be said, is this stated explicitly, but when Tho posed this point to Badiou in an interview – "you seem to treat non-ontological situations as if they can legitimately be understood as 'models' of the ontological situation (for instance, in order for Cohen's methods to be of any use in understanding truth procedures, our situation must be understood as being analogous to a denumerable, transitive model" – his reply certainly said nothing to correct the impression. (Tho and Badiou, "Interview", 95.)

⁴⁷⁰ Badiou, *Being and Event*, 356.

to the fact that the power-set axiom is not absolute within the model. 471 Or to put it another way, the inhabitant of the model - insofar as we assume by analogy this situation would be a non-ontological, historical situation for a subject - could never witness a rupture of evental excess; only the ontologist (or philosopher metaontologist) can see its potential from a position of exteriority. Here lies the elision between the ontological and non-ontological levels prepared by the suppression of cardinal immeasurability in Cohen's 'ground model' prior to a forcing procedure. It is an apparent anomaly in the reasoning of Being and Event all the more perplexing considering the rapid development of alternative techniques permitting forcing from the starting point of a non-denumerable universe by Cohen, Robert Soloway and others in the years following Cohen's first results. In Cohen's semantic 'ground model', however, where V≠L only after a forcing procedure, from the ontological 'outside' the event is impossible because of its relation of selfbelonging, but from the non-ontological 'inside' the event is equally impossible because of the transitivity preventing an evental site from forming. This will have consequences for how we think the extra-philosophical autonomy of the subject in the four truth procedures, and particularly in politics.⁴⁷² We return to this point

Pay close attention to the way the axiom is 'seen' according to position external or internal to the model: "from the outside, the ontologist can quite clearly distinguish a part of a which, not existing in S [the situation] (because it does not belong to S), makes up part of p(a) [the powerset of a] in the sense of general ontology without making up part of p(a) in the sense given to it by an inhabitant of S." (Ibid., 361.)

⁴⁷² Badiou particularly emphasises the way forcing procedures reflect political procedures. "Ontology will explore how, from a given situation, one can construct another situation by means of the addition of an 'indiscernable' multiple of the initial situation. This formalization is clearly that of politics, which,

shortly. But first some technical exegesis is required to give a brief explanation of forcing.⁴⁷³ For simplification, we work primarily from Cohen's presentation and his use of terminology.

As a point of entry, in his book Cohen insightfully contrasts forcing with the standard mathematical notion of implication. Whereas implication demands that any single statement implies another to be true (e.g., $a \Rightarrow P$, or, if a then P), forcing differs from this classical logic in that when constructing a generic set consistent with the infinity of sets within a model, one needs to construct statements (A) which can be decided true or false for this generic set. Because statements about the generic set cannot contradict the semantics of the 'ground model', this means that by compiling consistent statements about the supposed set it is possible to create a finite set of such statements (P), or what Cohen calls a 'forcing condition'. Thus, a finite procedure of compiling compatible statements regarding the as-yet-unknown generic set permits this set's compatibility with the model. Forcing therefore differs from implication owing to the fact that not just any set a satisfying the set of statements P will also satisfy the requirement of P to impute truth or falsity to a statement A about a. Only a generic set a will fulfil this demand. The difference between implication and forcing rests entirely on the procedure's necessity to operate only on generic sets.

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naming an unpresented of the site on the basis of the event, reworks the situation through its tenacious fidelity to that nomination. But here is a case of politics without future anterior, a *being* of politics." (Ibid., 357-358.)

⁴⁷³ Credit is due here to Luke Fraser for his patient and generous help with my reading of forcing, and the many drafts he corrected and provided feedback on.

Generic sets are thus the lynchpin of the whole procedure. The aim of constructing them is to show how by only using sets already present within the model, one can still construct an extension of the model which forces certain statements to be true or false (this was Cohen's aim when creating forcing, to show how an extension of the model can be created which refutes the continuum hypothesis - henceforth CH). In Cohen's words, the "chief point is that we do not wish α to contain "special" information about M, which can only be seen from the outside, such as the countability of α_0 , and will imply that the model containing amust contain more ordinals than those in M."474 The point is instead to derive information out of M from the inside, by creating an extension of the model (N) containing the generic set, yet preserving the consistency of all the existing axioms and theorems of the initial model. The stipulation against measuring the highest ordinal α_0 is required because simply adding ordinals to the model from the 'outside' (as measuring the highest ordinal necessitates) would result in a collapse of the model. No gain would therefore be made viz. Gödel's proof of the consistency of the CH in a transitive, denumerable model where V=L, because Cohen's new model arising from forcing, aiming to prove V≠L (hence refuting CH), would not be a model at all if ordinals were simply added at will without passing through the generic procedure of ensuring their consistency with the constructive, ground model. Near the end of his Appendix entry on forcing, Peter Hallward insightfully describes the approach as drawing out the tacitly included non-constructible sets in M to force

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⁴⁷⁴ Cohen, Set Theory and the Continuum Hypothesis, 111. [my emphasis]

their belonging in N.475 The point is to 'seed' the 'ground model' with a nonconstuctible generic set containing the requisite information to create a one-to-one correspondence between the ordinals and the desired cardinality of the continuum. It follows that what is required is a process, which by using no more than the internal possibilities of the 'ground model', one can prove the falsity of the CH by adding generic integers, ergo demonstrating that CH cannot be proved one way or the other within ZF set theory - i.e. the hypothesis is independent. In Kanamori's judgement, Cohen's constructions obtained their crucial operational clarity with this requirement in mind: "to start with a (transitive) standard model of ZF and extend it without altering the ordinals."476 Or in Cohen's own reflections on the subject: "Just as Gödel did not remove any ordinals from the constructible universe, a kind of converse decision is made not to add any ordinals." The generic set is so important for this task because it is constructed out of the fixation of sequences of compatible conditions permitting veridical statements consistent with everything else in the model. If an infinite number of generic integers can be paired with the natural numbers by these forcing conditions then CH is refuted. Because choice between these conditions lies at the heart of the forcing procedure, in applying the method one is only ever 'reading off' a limited, finite part of the generic set; thus the set itself cannot be represented as a theorem, which is necessarily finite in length. However,

⁴⁷⁵ Hallward, *Badiou: A Subject to Truth*, 347.

⁴⁷⁶ Kanamori, "Cohen and Set Theory", 360.

⁴⁷⁷ Cohen, "The Discovery of Forcing", 1091.

given that the ordinal index is denumerable we can nonetheless still be sure that a complete set exists. 478 Cohen recalls his concerns prior to fully fleshing out the

⁴⁷⁸ To cover much of the same ground again but including more of the method's technical nuances, forcing involves a retroactive approach beginning with a supposed extended model N to ascertain all possible statements about N and deciding whether they are to be true or false. To this end 'labels' are assigned to all the elements of N with the aim to complete an enumeration of all possible formulas by creating a function φ_lpha which can put the label space \mathcal{S}_lpha into one-to-one correspondence with the set of all such formulas. The procedure of transfinite induction permits the label space $\,S_{lpha}\,$ to be defined as the set of all formulas in which every quantifier (e.g. \forall_{α} or \exists_{α}) has a rank in the ordinal index. The ranking process is necessary for establishing the ordering of statements so that the construction of a finite set of such statements (a forcing condition: P) can proceed in a way so to discern the enrichment and sequential compatibility of statements. In Badiou's express emphasis: the "concept of order is central here, because it permits us to distinguish multiples which are 'richer' in sense than others; even if, in terms of belonging, they are all elements of the supposed indiscernible, \mathcal{L} [the generic set: G]." (Badiou, Being and Event, 362.) For the purposes of refuting CH, order is established by assigning a rank to each statement A composed of (α,i,r) : α being the least ordinal, r the number of symbols in A, and i is either 1 or 0 depending upon whether α is a successor ordinal. Thus, the rank of any statement can be written in suchlike form: $(\alpha+1,1,3)$. As a point of clarification between forcing in general, and the form of forcing used by Cohen in his independence proofs, it is worth noting that many such ranking systems could be used depending on the purposes to which forcing is undertaken. Ordering is critical for forcing, but the form of the ordering is dependent on the purposes of the generic set being constructed. Here Cohen's ordering process is engineered towards forcing a truth or falsity result for a one-to-one correspondence between α_0 and a cardinality of any size – e.g. \aleph_{90} . To do this Cohen creates sets of ordered pairs that match the elements of the natural numbers α_0 (often written ω_0) with elements of the cardinality of the continuum desired in N. If they can be made to match by establishing a complete forcing condition – the generic set in question, forging the extension of the model: N - then CH is refuted by proving its independence from the axioms of ZF set theory. In terms of how ranking conditions serve the forcing procedure, Badiou provides an easily graspable example of the concept by way of a simplified scenario in which conditions are composed of only finite sequences of 0's and 1's. As the conditions are enriched their compatibility is assured by their accumulation. So condition 1 (0,1,0) is enriched by a further condition 2 (0,1,0,0) without contradiction, since C2 contains C1. The centrality of order also pertains directly to the definition of forcing given that a forcing condition is the set of compatible statements. A statement becomes a condition as it is enriched by other compatible statements, with the effect that they force the lowerranked statement. The crux of the matter requires a suspension of the implication $P \Rightarrow A$ because of

technique that "It seemed too much to ask to hope that a finite number of conditions might be enough to decide everything." And in Badiou's metaontological interpretation, the significance of forcing runs along similar lines when he adduces from Cohen's discovery that the infinity of truths is mediated by the finite procedures of a subject. In this procedure, where 'militant investigations' construct the generic set, Badiou ascertains his new conception of the subject, bringing *Being and Event* to the theory of the subject. This subject is no longer presumed as ubiquitous; now it rather supports "a hypothesis of the rarity of the subject, which suspends its occurrence from the event, from the intervention, and from the generic paths of fidelity." Giving birth to truths through forcing compatible connections redefines a notion of truth as an "indiscernible multiple whose finite approximation"

the possibility that a stronger condition Q might force the opposite, i.e. the negation of a statement rather than its verification. P IF A therefore means P forces A unless a stronger condition Q forces the negation of A (Q IF^A). Yet the permanent suspension of forcing implication is prevented once, by transfinite induction, a *complete sequence* of forcing conditions P_n has been established, which is possible in a denumerable model. In this case, where $P_n \supseteq P_{n+1}$ for all n and A, P_n either forces A or forces its negation. P_n is the resulting set on which the extension of M is based and a model for ZF set theory fully consistent with the initial model. So although the set of all P is a set in the original model M, the *complete sequence* P_n accounts for the novelty of *the new, extended model*. N is formed out of an ordered, compatible sequence of forcing conditions, of which all its elements are already contained in M. Once a complete sequence of forcing conditions P_n has been established, N is established – an extension of M and a model for ZF set theory fully consistent with the model it was derived from. So although the set of all P is a set in the original model M, the complete sequence P_n forms the new, extended model. N is formed out of an ordered, compatible sequence of forcing conditions, of which all its elements are already contained in M.

⁴⁷⁹ Cohen, "The Discovery of Forcing", 1093.

⁴⁸⁰ Ibid., 432.

is supported by the subject, such that its ideality-to-come, nameless correlate of the naming of the event". And thus, Badiou particularly stresses, the cause of the subject is 'in the final instance' the event – the subject is "under the condition of an indiscernible, thus of a generic procedure, a fidelity, an intervention, and, ultimately, of an event." In any historical situation, "The 'there is' of a subject is the coming-to-be of the event, via the ideal occurrence of truth, in its finite modalities."

5.5 Paradoxes of formalism

As already remarked upon, however, by pursuing the demonstration of the forcing procedure from within the semantic 'ground model' of set theory utilised by Cohen, Badiou's idea of the event, as a disjunction in the schema between presentation and re-presentation, is foreclosed the possibility of actualisation. The forcing procedure only takes place within an ontological situation, which is why Badiou has to substitute the non-ontological event with the ontological indiscernible. Hence, the dividing line between non-ontological and ontological situations, around which the distinction between metaontology and its conditioning truth procedures is also organised, falls away too in these meditations. If one presumes – and Badiou is quite cryptic on this point – that an 'inhabitant' of the Cohen's model can be said to be

⁴⁸¹Ibid., 433.

⁴⁸² Ibid., 434.

⁴⁸³ Ibid., 434.

inside a historical situation, and if we also remember that within the ontological situation events are impossible, then one is left only to conclude that truth procedures are either sparked by an illuminated subject for change (cause unknown), or else the model's ambiguous interior/exterior distinction reserves a role for the metaontologist to propose an event for a subject. The point is, at the climax of Being and Event, where the new doctrine of truth and the subject will be sealed, the careful demarcations between ontological and non-ontological situations, ontology and metaontology, all become rather blurred and uncertain. If Badiou has up until these meditations gone to extra special lengths to ensure a strict division of labour so that non-philosophical procedures unilaterally condition metaontology, in these final chapters all that is solid melts into air. There seems little to stop Badiou's metaontological conceptual discourse endowing the philosopher a capacity – and certain authority – to make judgements on real political procedures. 484 Partly this is for the reasons already diagnosed by Brassier's criticisms of Being and Event's's metaontological architectonic, where philosophy enjoys a de

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One example: during the 2010/11 'Arab Spring' Badiou's former student, Mehdi Belhaj Kacem, was outraged at Badiou's description of the Tunisian protests as 'riots' because their militancy had not yet coalesced into new ideas. Kacem linked this to both Badiou's exteriority to the realities of oppression in Tunisia as a comfortably secure French intellectual and also to Badiou's persistent loyalties to Marxist-Leninist forms of judgement on the necessary conditions for political change, charging him with Stalinism and indifference to cruelty. (I have discussed Badiou and Kacem's dispute over how to term events in the Middle East and North Africa in the following essay: Nathan Coombs, "Political Semantics of the Arab Revolts/Uprisings/Riots/Insurrections/Revolutions", *Journal of Critical Globalisation*Studies, Issue 5 (2011). Available at: http://www.criticalglobalisation.com/Issue4/138_146_POLITICAL_SEMANTICS_JCGS4.pdf [Accessed 7 Sept 2001].)

facto transcendent status. But the fact that Badiou struggles to rigorously maintain his own intricate demarcations between ontological and non-ontological situations in the final meditations adds to the impression that his system is riven with internal tensions. Of course, the existence of such tensions does not by itself mean that Badiou's system sets itself up as an authoritative discourse for making historical judgements. It is only an indicator that the intricate demarcations set in place in order to put philosophy at a distance from its conditioning truth procedures runs into troubles, suggesting that the lines he draws are not as steady as some readings of Badiou's philosophy might presume. So while this admittedly does not provide a smoking gun argument for showing how Badiou's metaontological discourse can have a role in sculpting the practices to which it is meant to be external, perhaps better to simply say that like Althusser's project, from which Badiou draws so much, adopting a highly formalistic conceptual discourse of historical change by drawing on a complex theoretical interpretation of the sciences will necessarily pose acutely the question of the authority of that discourse. As much as Badiou might struggle to build in the safe guard demarcations that would prevent his understanding of change creating knowledge allowing intervention into a historical situation, in the final accounting his effort may just be an elaborate attempt to avoid an irreducible paradox.

Along these lines, and adding to the ambiguity regarding the relationship between Badiou's philosophy and real political processes, Adrian Johnston has questioned the credibility of Badiou's demarcation of his own philosophical and metapolitical writings from having any influence on the political reality on the

ground. He argues that if "Badiou succeeds in gaining an audience among practitioners of politics, then, contrary to his insistence that political practices condition philosophical theories and not vice versa, it's reasonable to anticipate that there will be extra-philosophical repercussions generated by a reciprocal counterconditioning of politics by (Badiouian) metapolitics." 485 Much the same ambiguity is exemplified by Badiou's description of himself, alongside Slavoj Žižek, as forming a philosophic 'politburo', to which many on the left look up to for their analysis of events. Certainly, the sell-out conferences in London and New York on the 'Idea of Communism' (spearheaded by the Badiou and Žižek) seem to throw into doubt the supposed ring fencing between the intellectual projects of these philosophers and the activist communities who comprise their audience. After all, Badiou has always insisted that ideas can move mountains, or encircle cities. Is it incredible, as Johnston speculates, that Badiouian metapolitics, drawing on a metaontology of historical change, could become a framework around which politics is conducted, and around which the historical events of the 20th century are evaluated? Do not Badiou's own persistent political interventions as a public intellectual and evident willingness to cultivate a community of global community of activists devoted to the idea of communism indicate a certain contradiction here between the ostensible aims of the metaontological demarcation and his own political practice?

To conclude this chapter, it would not be untoward to mention the second part of the treatise, *Logics of Worlds*. Other than the change in style between this text and *Being and Event*, it is interesting to note its increasingly prescriptive

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⁴⁸⁵ Johnston, *Badiou*, *Žižek and Political Transformations*, 38.

political interventions. As mentioned in the introduction to this chapter, motivating the entire work is opposition to an ideology of "democratic materialism". That is, for Badiou, the "humanist protection of all living bodies" 486 comprises the ideological norm of contemporary materialism he seeks to quash. Through a 'materialist dialectic' Badiou wishes to counter this ideology through a mathematical conceptualisation of bodies bearing no resemblance to the anthropological, humanist body revered by practitioners of human rights and relativists of all varieties. Therewith he positions his work against the sum-total ideology of most of the activist left today, who are drawn in "by the doxa of the body, desire, affect, networks, the multitude, nomadism and enjoyment into which a whole contemporary 'politics' sinks, as if into a poor man's Spinozism." 487 Now, even though Being and Event was a riposte to certain ideological tendencies of the 1980's, what is notable about Badiou's targets here is how much distance they put between possible democratic interpretations of his philosophy (i.e. by Bosteels) and his desired modality of political engagement. While Being and Event retains a certain openness to the forms of politics it could be said to model, Badiou's emphasis on the political body as the carrier of truth signals an increasing stress on organization. Alongside his already much noted revival of the notion of destruction which he abandoned after Theory of the Subject, there are also strident remarks made about contemporary libertarian/anarchist tendencies which recall his disagreements with

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⁴⁸⁶ Badiou, *Logics of Worlds*, 2.

⁴⁸⁷ Ibid., 35.

the adventurist wing of French Maoism in the 1970's. Badiou here refuses to concede anything to the 'left wing' tradition.

We thereby eliminate the whole 'left-wing' tradition which believes that a progressive politics 'fights against oppression'. But we also eliminate, for example, a certain modernist tradition which believes that the criterion for art is the 'subversion' of established forms, to say nothing of those who wish to articulate amorous truth onto the fantasy of a sexual emancipation (against 'taboos', patriarchy, etc.)⁴⁸⁸

Combined with Badiou's stress on political truths being carried by organized political bodies⁴⁸⁹ like the Bolshevik party these observations give the impression of a return

⁴⁸⁸ Badiou, *Logics of Worlds*, 62.

⁴⁸⁹ I have already put into print a rather descriptive reading of Badiou's theory of the object. (Nathan Coombs, "Nomological Disputation: Alain Badiou and Graham Harman on Objects", Speculations I (2010),http://www.publicpraxis.com/speculations/wp-135-144. Available online: content/uploads/2010/07/Nomological-Disputation.pdf See also Graham Harman's response, "Response to Nathan Coombs", Speculations I (2010), 145-152. Available online: http://www.publicpraxis.com/speculations/wp-content/uploads/2010/07/Response-to-Nathan-Coombs.pdf [Accessed 8 September 2012]) Unfortunately, there is not the space here to devote any analysis to Badiou's Greater Logic and the nuanced imbrications between theory and politics it might tacitly exhibit. The depth of analysis which would be required to further extend the discussion to Logics of Worlds goes beyond our present capacities. Indeed, it would be no small feat considering the only sketchily contoured bridges between the two works. Badiou himself admits that "Problems of connection and continuity do remain, namely between a 'generic procedure' and 'intra-worldly consequences of the existence of an inexistent'" to which he adds "I leave them for another time, or for others to solve." (Badiou, Logics of Worlds, 39) Solving the ontological discrepancies between the books is a beguiling prospect, but one that will, for the time being, have to wait.

to a more hard-line persuasion somewhat at odds with the ostensible modesty of the demarcation of metaontological reflection from actual political sequences maintained throughout *Being and Event*.

To bring this chapter to a close, we have seen that Badiou's idea of the novelty-bearing events that disrupts the state of affairs, the truth of which sustained by collective procedures lying outside of philosophy, whilst seemingly geared to resolve the problem of intellectual authority in politics leaves a number of unresolved questions. To avoid undue repetition, these can be distilled down to the following: how can the conceptual discourses of philosophy avoid positioning themselves in an authoritative role for making historical judgements about events? Particularly, as is the case with Althusser and Badiou, when they draw upon the sciences to create elaborate conceptual models of historical processes that require a high degree of intellectual mastery to understand, deploy, and contest? What we are hinting at here is a possible transcendental political condition: Unless one is willing to surrender to humanist optimism about the capacity of the masses' spontaneous general intellect to make the right judgements, and at the same time abstain from subjecting these decision procedures to verifiable standards of examination, then the theoretical work of creating formal models of historical change – ontological or otherwise – seems to necessarily endow philosophers with a degree of authority over the judgement of political processes. This indicates, in our eyes, that perhaps rather than engaging in ever more vexed attempts to eliminate scientific and philosophical authority from politics the task is rather to think their effective mediation. That is, our task today seems to involve accepting the necessity of rational conceptual work in political leadership and to theorise how this can be incorporated with a praxis open to contingent events and the frequent irrationality of political processes. We return to this challenge in the conclusion to this thesis.

The next chapter looks at the idea of the event offered by Badiou's student, Quentin Meillassoux. In Meillassoux's theories one can locate the most extreme formulation of the event ever devised within philosophy. Unlike in Badiou's theories, Meillassoux's event possesses an unsettling cosmic power to unravel every law of the universe. Although here, finally, we might imagine that we have discovered a philosophy that puts all questions about the authority of philosophers to rest, perversely we discover the opposite. As we shall see, Meillassoux positions his theory as the successor to the 'historical symbol' of classical Marxism, but by so doing he makes philosophy a sovereign ethical discourse opposed to mass politics and revolutionary enthusiasm.

6. Meillassoux's Gamble

on messianic anti-politics

For no one dares even now to defend philosophy in the full scope of its ambition: the absolute intelligibility of being qua being and the conceptual apprehension of our immortality. 490

The only thing we can know with absolute certainty is the contingency of nature's laws - such is Quentin Meillassoux's startling thesis. More surprisingly still, this apparently destructive claim does not traverse towards melancholic conclusions about the limitations contingency imposes upon knowledge. Quite the opposite, Meillassoux's premise stands for absolute knowledge in a revamped Hegelian sense⁴⁹¹ – it allows us to test a raft of positive claims against what at first seems a

⁴⁹⁰ Quentin Meillassoux, "Excerpts from *L'inexistence divine*", trans. Graham Harman in Graham Harman, Quentin Meillassoux: Philosophy in the Making (Edinburgh: Edinburgh University Press, 2011), 182.

⁴⁹¹ There are many important differences between Meillassoux's absolute and Hegel's, but one crucial distinction is that Meillassoux discusses absolutization in the plural - his derivation of the absolute necessity of contingency is "an absolute" rather than Hegel's the absolute. (Meillassoux, After Finitude, 28). One reading of Meillassoux's 'speculative materialism' as a repetition of a Hegel is unsurprisingly Žižek's, who insists that Meillassoux's conversion of epistemological problem of 'facticity' into an absolute principle is a "Hegelian tour-de-force." Nonetheless, Žižek continues to criticise Meillassoux for remaining trapped in Kant's critical antinomies and for not shifting the

nebulous hypothesis only capable of undermining scientific, metaphysical, moral and political certainty. Meillassouxian contingency does not therefore sound a familiar note of scepticism; its recognition opens up the 'great outdoors' of nature, now freed from philosophy's conviction that only fixating on the givenness of nature for human cognition (a genealogy of thought he describes as 'correlationism'), is capable of granting the world philosophical meaning. Only by breaking free from this transparent cell of anthropic self-reflection can we gain access to the wealth of speculative possibilities our universe cannot logically prohibit. The contention that at any moment gravity could cease to function, a new form of life emerge, or a God rise into being; the fact that Meillassoux's philosophy rules out none of these possibilities, and does so off the back of a rigorous line of argumentation, establishes him as the most extreme thinker of the event in the contemporary tradition, perhaps in the history of Western philosophy.

Yet our principal concern here is not the strange world of Meillassoux's speculative imagination per se⁴⁹², but rather the political consequences of

investigation to what he sees as the properly Hegelian question of how a subject could have emerged from pre-subjective reality (Žižek, Less Than Nothing, 633-647.) However, Žižek brushes over Meillassoux's rejection of the idea that contradictions exist in nature, which in an interview with Graham Harman Meillassoux describes as the reason for his decisive break with Hegel in the process of his intellectual maturity. Further, Meillassoux describes the kind of materialism advocated by Žižek as a "sickened correlationism", desperately seeking to "to detect the trace of an impossible coincidence of the subject with itself, and thus of an extra-correlational residue." (Quentin Meillassoux, "Interview with Quentin Meillassoux" in Graham Harman, Quentin Meillassoux: Philosophy in the Making (Edinburgh: Edinburgh University Press, 2011), 166-168.)

⁴⁹² For dissenting views on whether Meillassoux' speculative imagination is truly compatible with science see Adrian Johnston, "A dieu Meillassoux" in The Speculative Turn: Continental Materialism and Realism, eds. Levi Bryant, Nick Srnicek and Graham Harman (Melbourne: Re.Press, 2011) and

establishing absolute contingency as a founding principle for materialist thought — what are the implications of positing the potential for, and encouraging belief in, events that can undo any law of the universe? For if we are to understand this idea within the tradition of Marxist philosophy⁴⁹³ — an inclusion that some readers might receive incredulously despite Meillassoux's claim that his approach radicalises the critique of ideology⁴⁹⁴ — we are required to pin down the positive political content of his idea of the event. To this end, we need to begin by addressing the inevitable doubts such a reading will engender. Understandably, the idea that Meillassoux does not have a politics, or at least not one that makes its way into his philosophical works in any serious sense, will be persuasive to those whose encounter with his

Gabriel Catren, "A Throw of the Dice Will Never Abolish the Copernican Revolution", *Collapse*, Vol. V (Falmouth: Urbanomic Press, 2009), 453-499.

⁴⁹³ Nathan Brown has been the strongest proponent of this view, arguing that Meillassoux's book "After Finitude might feasibly taken as a contribution to what Althusser calls 'Marxist philosophy.'" Following the line of demarcation between materialism and idealism drawn by Lenin's *Materialism and Empirio-Criticism* Brown emphasizes that one needs to be cognizant of three stipulations for the complexification of the binary in Althusser's attempted transformation of the French tradition of "idealist rationalist empiricism" into the theoretical conjunction "dialectical materialist rationalist empiricism". They are: (1) distinction between the real and its knowledge, (2) correspondence between knowledge and its object, and (3) primacy of the real over its knowledge. In order to maintain Althusser's intra-philosophical demarcation on the side of materialism Brown proposes that Meillassoux derives the thesis of the absolute necessity of contingency as a counter-intuitive defence of the objectivity of science from within philosophy. In so doing Brown claims Meillassoux's thesis fulfils the "philosophical dream" of Althusser's program from the 1960s. (Nathan Brown, "Rationalist Empiricism/Dialectical Materialism: from Althusser to Meillassoux", CRMEP Research Seminar Paper, Middlesex University, London (8 October 2009)).

⁴⁹⁴ Meillassoux, *After Finitude*, 33-34.

work remains transfixed by the speculative orientation of *After Finitude* towards securing mathematical science's grasp on the real.⁴⁹⁵ Through this scientistic lens, Meillassoux emerges as a 'pure' metaphysician – and if one follows his imperative to think the world without the human (pre-life and post-extinction) then the political stances nested in the interstices to his books soon begin to appear *nihil ad rem*.⁴⁹⁶

'Weak' and 'strong' arguments can used to defend the legitimacy of a political reading of his work, however. The weak response is to point out at that while Meillassoux admittedly devotes himself to the naturalistic register in his most first and most famous book, *After Finitude*, there are enough politically suggestive ideas to reconstruct the symmetry between his speculative and political voices. On this theme, Alberto Toscano has already drawn attention to the classical Enlightenment motifs buttressing Meillassoux's assault on fideistic agnosticism and religious 'fanaticism.'⁴⁹⁷ Yet this approach has its limitations. By addressing

For one example see Stephen Squibb, "Aleatory Critique: On the Materialist Genre" in Alexander Galloway, French Theory Today: An Introduction to Possible Futures (New York: TPSNY/Erudio Editions, 2010), Pamphlet 4, 30-37, available online: http://cultureandcommunication.org/galloway/FTT/French-Theory-Today.pdf [Accessed 8 June 2012]. Squibb takes the scientistic reading of Meillassoux to its extreme, by orienting his entire critique against Meillassoux's alleged 'neo-positivism'. Needless to say, I consider this a gross misreading of the real intellectual locus of his work, as this chapter will attempt to show.

⁴⁹⁶ Nathan Brown, "The Speculative and the Specific: On Hallward and Meillassoux" in *The Speculative Turn: Continental Materialism and Realism*, eds. Levi Bryant, Nick Srnicek and Graham Harman (Melbourne: Re.Press, 2011) 145.

⁴⁹⁷ For Toscano, this Enlightenment redux approach, harbouring suspiciously Christian centric sympathies, animates the treatise in the "terms of the French lumières, especially of Voltaire" thereby underwriting a worryingly "conservative thesis that a relativistic proliferation of beliefs, beyond any horizon of legitimacy, is a form of de-Christianization, the obverse of [...an] equally

Meillassoux's stated motivations for the arguments made in After Finitude, Toscano's piece inevitably does not consider the recently published fragments of The Divine Inexistence (Meillassoux's long-awaited tome based on his PhD thesis), which are much more explicit in laying out positive moral, political, and messianic positions which follow from making contingency an absolute principle. With these fragments now in hand though, it is possible to make an argument which does not pivot around the animating impulses of the work, which may (or may not) circumscribe the results of his speculative enterprise. In other words, now fragments of The Divine Inexistence are available, the possibility emerges of providing a strong political reading of Meillassoux's philosophy. What does this reading consist of? It goes further to maintain that Meillassoux's conceptual configuration of the speculative itself prescribes, at least at a high level of abstraction, a particular political disposition. Which is to say, if one follows Meillassoux through to his conclusions then one falls under the influence of a prescriptive political discourse encouraging us towards some sorts of politics and dissuading us against others. Now, note the difference between the two readings. While the first weak political reading makes it possible to discount Meillassoux's political voice, owing to fact that an author's motivations do not necessarily determine their speculative results (a bit like how some claim the Marxian appropriation of the 'rational kernel' of Hegel's

questionable conviction that critical Western rationality is a 'progressive rationalization of Judeo-Christianity under the influence of Greek philosophy.'"(Alberto Toscano, "Against Speculation, or, A Critique of the Critique of Critique: A Remark on Quentin Meillassoux's After Finitude (After Colletti)" in *The Speculative Turn: Continental Materialism and Realism*, eds. Levi Bryant, Nick Srnicek and

Grham Harman (Melbourne: Re.Press, 2011), 86.)

'revolutionary dialectic' disintricates it from Hegel's conservative politics), the second strong reading extracts political *consequences* from the *results* of Meillassoux's ontology of the event, drawing out the ramifications of *what if* people were to accept his ontology – what effect would it have upon their politics?

Pursuing the above approach, we orient our political reading around the themes heretofore developed across Part II of this thesis: namely, what role does the idea of the event play in determining the scope for conceptual thought on the part of philosophers in bringing about change – what effect for the authority of philosophers do Meillassoux's theories have?⁴⁹⁸ The twist here will be that the

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⁴⁹⁸ This approach departs from the existing quarrel between Peter Hallward and Nathan Brown concerning whether the speculative import of Meillassoux's thesis detracts from the kind of philosophical thought necessary to engage concrete processes of change. For whilst the Hallward-Brown debate impresses upon the marginalia of this chapter's argument, insofar as both parties' concern was to demonstrate, one way or the other, whether speculative discourse compliments or detracts from concretely oriented political philosophy, they both stay at a high level of generality viz. Meillassoux's specific philosophical output, consequently understating the imbrication of overt political themes with speculative arguments in both of his major treatises. To take the critic's perspective first, Hallward writes, "to the degree that Meillassoux insists on the absolute disjunction of an event from existing situations he deprives himself of any concretely mediated means of thinking, with and after Marx, the possible ways of changing such situations." To which Hallward also adds, the "current fascination with his work, in some quarters, may be a symptom of impatience with a more modest but also more robust conception of social and political change". (Hallward, "Anything is Possible: A Reading of Quentin Meillassoux's After Finitude" in The Speculative Turn: Continental Materialism and Realism, eds. Levi Bryant, Nick Srnicek and Graham Harman (Melbourne: Re.Press, 2011), 141.) Taking the opposite point of view, Brown, in turn, objects to the insinuation that Meillassoux's readers are unable to distinguish the specifically speculative dimension of his work and that they cannot compartmentalize his theory of the contingency of laws from the concrete processes of working through change in a stable situation. In Brown's words, "A speculative demonstration that whatever-situation is contingent rather than necessary (despite its manifest stability) does not undermine the political urgency of working toward the contingent stability of another situation—toward just and equitable ways of structuring or distributing relations among the

passivity advocated by Meillassoux, while we are advised to wait expectantly for the advent of the 'fourth world of justice', results in an elevation of the role for philosophers far beyond what we have seen Althusser or Badiou's theories admit. Paradoxically, we infer, Meillassoux's extreme theory of the absoluteness of contingency endows the philosopher with a role to direct ethical fervour. We then aim to explicate the connection between this elevation of the authority of the philosopher with how Meillassoux's politics of the event bears more resemblances with Derridean messianism than with the Promethean antagonistics of his Maoist mentor. Specifically, we will see that Meillassoux's central political manoeuvre

given." Quite contrary to undermining this urgency he claims, admitting a certain motivational transitivity between speculative discourse and political subjectivity, "An insistence upon—or a rational demonstration of—the contingency of any stable situation that we might imagine or construct, and which we might care to preserve, would seem to encourage rather than disable the active task of such preservation, however fragile that task may be." (Brown, "The Speculative and the Specific: On Hallward and Meillassoux", 146.)

With respect to considering Meillassoux's idea of the event as equivalent to Badiou's (Harman, *Meillassoux*, 64) only freed from his teacher's anthropocentricism, it is by pursuing the 'strong' reading of Meillassoux's politics described above that we can also prise apart the impression of the two thinker's appropinquity. For one possible misinterpretation is to view Meillassoux's event as a repetition of Badiou's (they both base their ideas on Cantor's transfinite, after all) but extended to the domain of nature – thus seeing Meillassoux viz. Badiou as an equivalent of Engels's dialectics of nature compared to Marx's historical materialism (Meillassoux encourages such an interpretation by pitching his work as an investigation into the 'archi-facticty' of Badiou's categories: why there are events and thinking beings. See Meillassoux, "Interview with Quentin Meillassoux", 169.). Such a perspective would then see the politics of Meillassoux's theory of the event as transitive with Badiou's, with its political ramifications already accounted for in his mentor's work. The flattery cuts both ways too, for at the start of the Greater Logic of *Logics of Worlds* Badiou cites Meillassoux's "irrefutable" proof that appearance does not rest on conscious constitution – that is, "what Quentin Meillassoux calls 'the fossil's argument': the irrefutable materialist argument that interrupts the idealist (and empiricist) apparatus of 'consciousness' and the 'object'." (Badiou, *Logics of Worlds*,

involves combating political messianism by transporting these impulses to the level of individual longing for justice under the aegis of the philosopher's speculative

119). Badiou's warm Introduction to the English edition of Meillassoux's first monograph, After Finitude, further establishes a sense of continuity. In Badiou's estimation the way Meillassoux breaks down the post-Kantian distinction between empirical receptivity and the transcendental subject undermines a binary "which is fundamental for Carnap and the analytic tradition, between formal and empirical sciences." (Badiou, "Introduction" in Meillassoux, After Finitude, vii.) As we noted in a footnote in the previous chapter, this is the very dualism Badiou devoted his own first book, The Concept of Model, to disproving by way of an Althusserian model theoretic critique of logical positivism. There are also other symmetries between the two thinkers. The way Meillassoux annexes religious themes in the service of an ostensibly secular philosophy also could be seen as repeating some of Badiou's boldest gestures, more conspicuously, the adoption of St.Paul's establishment of Christianity as the archetypal case study of a truth procedure in St. Paul: The Foundation of Universalism (Stanford: Stanford University Press, 2005). Nonetheless, Badiou and Meillassoux's divergences in style and approach have already been adequately discussed amongst the community of scholars receptive to their work. To name but a few examples, Ray Brassier has drawn attention to their different treatment of mathematics, contrasting Badiou's more cautious Platonism with Meilassoux's tendencies towards fully blown Pythagoreanism – a tendency only partially obviated by his invocation of the primacy of 'intellectual intuition'. (Ray Brassier, "The Enigma of Realism: On Quentin Meillassoux's After Finitude", Collapse, Vol. II (Falmouth: Urbanomic, 2007), 45). Hallward pursues a similar line of thought when he questions Meillassoux's direct application of transfinite number theory to thinking probabilities in the real world (Peter Hallward, "Anything is Possible: A Reading of Quentin Meillassoux's After Finitude" in The Speculative Turn: Continental Materialism and Realism (Melbourne: Re.Press, 2011), 140). Brown has also noted the more interrogative, classically dialectical approach of Meillassoux's work compared to Badiouian axiomatics. (Nathan Brown, "The Speculative and the Specific: On Hallward and Meillassoux" in The Speculative Turn: Continental Materialism and Realism (Melbourne: Re.Press, 2011), 140.) Yet the principal difference between the two, which will assume such importance for the argument of this chapter, is the role they accord to philosophy. For Badiou, whether we are dealing with politics or science, philosophy can only ever respond to truth events within these self-sufficient fields and draw out their consequences (see Chap 5 of this thesis). Meillassoux, on the contrary, sees philosophy as able to interrogate and positively ascertain the a priori foundations of science. Politically too, we will see, he also sees philosophy taking a driving seat rather than solely the reactive role Badiou attributes to it. As such, the way their ideas of the event mediate intellectual authority over political change sharply diverge.

discourse. And how, in the process, he quite decisively reverses the impetus of Badiou's theory of the event, which (whether successful or not) at least aims to circumscribe philosophical discourse to labouring under conditions originating elsewhere.

We begin with a concise reading of the argument for absolute contingency made in *After Finitude*, noting that this dimension takes a back seat compared to establishing the need for philosophy to devote itself to discovering absolute knowledge. In the second section, attending to some of Meillassoux's political stances revealed in interviews and through themes brought to the surface in fragments of *The Divine Inexistence*, we establish a weak political reading of Meillassoux's theory of the event. This is used to show that Meillassoux's targets extend beyond the figure of the religious fanatic and also encompass opposition to the 'totalitarian' figure of collective political action driven by historicist eschatology. In the final section, by extrapolating on hints provided by his book on the poet Mallarmé, *The Number and the Siren*, we indicate how Meillassoux's speculative prescriptions intersect real political dispositions.

6.1 In the spirit of the fossil?

One of the mysteries behind the enthusiastic reception of Meillassoux's *After Finitude* is that its most exciting claim – to speculatively secure objects' primary, mathematical attributes so that we can think a world indifferent to human cognition – is the one argument never actually resolved in the text. It is more surprising still, because this is the claim which has led some to identify Meillassoux's treatise as the

21st century successor to Lenin's *Materialism and Empirio-Criticism*. The question raised by drawing attention to this curious situation, whereby a thinker's reputation is based on an unresolved argument, is if the interpretation of *After Finitude* as a defence of scientific realism is in fact a misconstrual of its real intellectual locus? By exploring this question we can evaluate if the treatise is instead driven by the demands of a different project.

Despite also intimating that what is at stake is "thought's relation to the absolute," Meillassoux opens *After Finitude* by presenting its purpose as primarily concerned with how we can make sense of ancestral statements: how can philosophy interpret the meaning of mathematical scientific claims such as 'the accretion of the earth occurred 4.56 billion years ago'? Although seemingly an obscure topic of only specialist interest, Meillassoux manages to imbue it with an unexpected urgency for drawing a line of demarcation between scientific reason and the unreason promoted by post-Kantian philosophies. For while the ancestral

Žižek, *Less Than Nothing*, 625; Brown, "Rationalist Empiricism/Dialectical Materialism: from Althusser to Meillassoux"; Johnson, "A dieu Meillassoux". Meillassoux in fact makes no mention of Lenin's work in *After Finitude*, but probably as a result of how his readers have joined the dots between his conception of materialism and that of *Materialism and Empirio-Criticism*, in recent talks he credits some Marxist materialisms as being aligned with his own project, yet still concludes "ultimately this came to nothing, except for Lenin's belated and undistinguished philosophical effort." (Quentin Meillassoux, "Iteration, Reiteration, Repetition: A Speculative Analysis of the Meaningless Sign", trans. Robin Mackay, talk given at Freie Universität, Berlin (20 April 2012), 3. Available online at: http://oursecretblog.com/txt/QMpaperApr12.pdf [Accessed 16 September 2012].)

Meillassoux, *After Finitude*, 1. In a recent talk in Berlin Meillassoux clarifies that: "My thesis ... comes down to saying that thought is capable of the 'absolute', capable even of producing something like 'eternal truths'." (Meillassoux, "Iteration, Reiteration, Repetition", 1.)

statement poses no mysteries for the spontaneously realist modern scientist, or for the majority of the (non-creationist) general public, for many post-Kantians it presents a deeper paradox. Meillassoux's aim is to show why the commonplace realism of ancestral statements – regarding a world before a thinking conscience existed to cognize it, or moreover before any life at all - would be for the line of post-Kantian thought he terms 'correlationism', only a statement for us (the thinking subject), or else strictly senseless. At the same time, owing to the respect for science expected of modern philosophy and the predictable coyness of correlationists in admitting to their anti-scientific bias, Meillassoux's challenge is to show why the problem with interpreting ancestral statements holds with cast-iron necessity for philosophies accepting the correlational imperative of Kant's critical revolution. Crucially, this demonstration is not made for the purpose of advising a retreat to dogmatic, pre-critical philosophy; rather, Meillassoux seeks to show why only the passage through 'correlationism' can deliver a speculative materialism certain, and able to discourse about, an objective world existing before our species and long after we have passed away. 502

To prove why this is the case, and why no dogmatic or naive realism is adequate for shoring up scientific realism, Meillassoux has to hold firm to the rupture of Kant's critical revolution. He sees both the positive and negative dimensions of Kant's break within the history of philosophy, persuading us that,

Meillassoux writes on the necessary passage through correlationism: "I try to give to correlationism its most rigorous form – to isolate the fundamental argument in it... My concern in *After Finitude* is to give a rigorous refutation of this standpoint (and certainly not to accept it) and thus a refutation of the argument." (Meillassoux, "Interview with Quentin Meillassoux", 164-165).

whatever its faults, there is no turning back to pre-critical ignorant bliss. When seeking to abjure metaphysics by establishing science as the primary source of knowledge, Kant, he concedes, made the right choice; but Kant's peculiar configuration of this response, involving a recentering of knowledge on the side of the subject, quite contrary to the advances made by Galilean mathematical science, was nothing less than a "catastrophe", inaugurating a "Ptolemaic counterrevolution" within philosophy. 503 Meillassoux's speculative materialism therefore has to show the possibility of an alternative speculative path in order to demonstrate why we can neither go back to dogmatic metaphysics, nor rest content with Kantianism whilst avoiding slippage to the 'strong correlationism' of his progeny. In particular, he has to show why, in leaving an inaccessible noumenal realm, the Kantian 'weak correlationist' limitations on knowing the real through the categories of understanding necessarily has to give way to the closed circle of 'strong correlationism' (Hegel, Heidegger, Wittgenstein, etc.) where world and subject are always co-constitutive; or, where a world is always a world for-us, sealing off the possibility of a straightforward interpretation of mathematical ancestral statements.

The lynchpin for resolving both of the above criteria is Meillassoux's isolation of the root of the problem in Kant's unexamined acceptance of facticity (Heidegger's term for describing the way the world reveals itself to us through categories of the

⁵⁰³ Meillassoux, *After Finitude*, 118-120.

understanding, seemingly without any rational explanation). For absolutizing what Meillassoux calls his anhypothetically derived principle of unreason. The reason why it is possible to derive the principle in this way ('anthypothetical' meaning a principle that cannot be deduced from any other, but is provable due to inconsistencies in all attempts to refute it) is because in the face of facticity, and if wishing to hold on to the existence of the in-itself, the Kantian faces two choices: either to absolutize facticity (against idealism), or absolutize correlation (against realism). Since the decision to absolutize at least one of the terms is logically impressed upon Kant's weak correlationism, post-Kantianism, if choosing the latter option – as was historically the case with German idealism – has to adopt the pernicious strong variety of correlationism, which, whatever its protestations to the contrary, inevitably transits in the direction of Bishop Berkeley's subjective idealism where to even talk of a thing-in-itself beyond thought becomes a contradiction. The idealist dictum that every X is always a posited X, where thought

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Astute readers of Meillassoux will recognize this point as the crux of his entire argument, the point on which the positive theories of his whole text stand or fall. His anhypothetical derivation, converting epistemological limit into ontological absolute, is Meillassoux speculative *coup de théâtre*. Catren, in an extremely incisive critique of Meillassoux's solution of absolutizing facticity, takes issue with Meillassoux *a priori* assumption that we cannot discover any rational necessity of physical laws (this precisely being the task of speculative physics), accusing him of fomenting confusion between epistemological criticism and ontological idealism, with the result that "Far from defending science from the Ptolemaic counter-revolution that Meillassoux describes so admirably, this narcissitic absolutisation of an inexistent limitation bolsters a certain form of contempt for scientific rationality." (Catren, "A Throw of the Dice Will Never Abolish the Copernican Revolution", 466) I agree with Catren's critique, and believe it complements the argument of this chapter that Meillassoux's principal concern does not really rest with upholding scientific realism but with endowing philosophy with the capacity for absolute knowledge, ultimately at the expense of science.

always returns to itself even whilst trying to escape itself, becomes the logical trajectory of Kant's critical revolution unless one finds another way through the impasse. As Meillassoux sees it, then, the imperative is to overturn strong correlationism from within by choosing in favour of the alternative path from Kant of absolutizing facticity; not on the grounds that there is an absolute reason why things are how they are, but, oppositely, because there is absolutely no reason why things are as they are. Once the only option is thus seen to be absolutizing the principle of unreason, then the hyper-chaos of the ever-possible instability of the laws of the universe is revealed to intellectual intuition. All laws of the universe are shown to rest on nothing but reasonless contingency.

Once reaching this point in his text, Meillassoux admits that the menacing force of hyper-chaos he has unleashed seems to have taken the demonstration far from its initial aim of securing mathematical access to primary qualities. Indeed, it appears that his principle of unreason has undermined the capacity for positive knowledge of the real; now unsettled by the radical contingency lurking beneath the seeming stability of nature. But Meillassoux seeks to offset this impression by showing how certain conditions of positive knowledge can be derived from the principle of unreason. As he maintains, "the whole interest of the thesis lies therein – that to be contingent, an entity (be it a thing, event, law or structure) cannot be

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As Harman notes, it is crucial for Meillassoux's argument that he is able to distinguish 'strong correlationism' (which he will seek to overturn from within) from Berkley's absolute subjective idealism, since the latter would preclude any escape from the correlationist circle. This is the case even through.Meillassoux points out that in respect to the arche-fossil the two become blurred. (Graham Harman, *Quentin Meillassoux*, 20.)

just 'anything whatsoever', with no constraints." Foremost amongst these is the principle of non-contradiction; a principle that Kant assumed and never attempted to derive. By endeavouring to show that a contradictory entity would be a necessary entity – with Hegelian philosophy representing the culmination of this hypothesis par excellence - Meillassoux seeks to disqualify contradiction in the real by reference to the principle of unreason – no entity can be necessary, thus no entity can be contradictory – so that they become two sides of the same anhypothetically derived principle. Meillassoux's absolutization procedure therewith rationally secures both of Kant's principles – the existence of the in-itself and the law of noncontradiction - by passing them through a speculative conversion rendering all things, and all laws, contingent. Yet if the treatise is to live up to the express aim of the critique of correlationism viz. the ancestral statement, then deriving the law of non-contradiction is not enough to pass from the Kantian in-itself to the Cartesian in-itself. This requires, instead, a proof of the absolute capacity for mathematics to gain a firm grasp upon nature's objective properties.

Meillassoux's response to Hume's problem in chapter four of the book is as close as he gets to furnishing us with an ontological argument for securing the mathematical in-itself. His reasoning is as follows: Hume's problem is the illusive necessary connection between events; the problem of proving laws of causality. Although Hume was to abandon the search and switch the focus of the question to

⁵⁰⁶ Meillassoux, "Iteration, Reiteration, Repetition", 10.

human habitual patterns, 507 others have sought to address the problem based on probabilistic reasoning. These attempts, he argues, all revolve around variations of the same assumption: given the totality of all possible conceivable events and the sum total of events that take place in accordance with physical laws, is it not improbable that laws would not change regularly if there were no underlying reason for their apparent constancy? Drawing upon the Zermelo-Fraenkel set theory axioms, Meillassoux seeks to show how these probabilistic arguments all rely on an idea, problematised since Cantor, of forming such a totality of possibilities. 508 And if we concede that the transfinite forecloses the formation of a countable totality due to the gaping, uncountable chasms between the cardinals (and their endless repetition up the transfinite scale), then the whole notion of a probabilistic resolution to Hume's problem loses its sense. Still, he admits this only takes us as far as an ontological hypothesis, leaving us without a proof of how the transfinite secures the stability of natural laws. Thus, the interesting thing is that even as close as Meillassoux gets to pulling together the threads, he falls short in his final attempt to tie together the anhypothetical derivation of the principle of unreason with the Cantorian transfinite. The transfer from an ontological proof of the law of non-

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⁵⁰⁷ In a separate essay Meillassoux also cites Nelson Goodman as one example of a philosopher who simply accepts Hume's abandonment of the ontological problem of necessary connection in favour of shifting the focus to human practices. (Quentin Meillassoux, "Potentiality and Virtuality", *Collapse*, Vol. II (Oxford: Urbanomic, 2007), 55-56.)

As we saw in the previous chapter of this thesis, in ZF set theory this is because the power-set is always 'larger' than the original. Even if we accept that the set could be infinite – if expanded to the scale of the universe – then the axiom of infinity tells us that the power -set's infinity would be 'larger', and the power-set of that set, and so on, travelling up the transfinite scale.

contradiction to an ontological proof of the speculative purview of this *particular* mathematical theorem is left incomplete: the Kantian in-itself is not traversed to the Cartesian in-itself. Similarly, in more recent work on this subject, investigating the connection between the meaningless signs utilised by mathematics and their ability to discourse about a world without thought Meillassoux also concedes that "we have not at all shown that the empty sign allows … the description of a world independent of thought." Meillassoux's *After Finitude* therefore leaves two unresolved absolutisations necessary for securing the realist truth of the ancestral statement. The first being mathematics, which unlike the logical principle of noncontradiction Meillassoux admits to having yet provided no demonstration of its absoluteness; the second being the Cantorian transfinite as the ontological "structure of the possible as such." ⁵¹⁰

Now, given the text's unresolved aim to speculatively secure the mathematical in-itself – and the evident difficulties of somehow deriving a controversial axiom of set theory from the conceptually minimal anhypothetical principal of unreason⁵¹¹ – let us recall that this proof was necessary to give sense to

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⁵⁰⁹ Meillassoux, "Iteration, Reiteration, Repetition", 37.

⁵¹⁰ Meillassoux, *After Finitude*, 127.

Meillassoux writes that he has not yet published a proof of this point (Meillassoux, "Interview with Quentin Meillassoux"), leaving it ambiguous as to whether he has a proof that he is still working on, or whether he has not yet come up with an idea of how to link the principle of unreason with Cantor's transfinite. An indication of the direction he may be heading can be found in the excerpts from *The Divine Inexistence* where Meillassoux claims that quality is a trace of novelty, and also that advents should "be perceptible not only qualitatively but also *quantitatively*", indicating that like his derivation of the law of non-contradiction, his derivation of the Cantorian transfinite as the

the 'ancestral statement'. Only by reference to the ancestral statement and his critique of correlationism's inability to grant its full realist sense, has Meillassoux made a splash as a scientific realist in a continental tradition frequently harbouring suspicions of an objective 'outside' beyond thought. It is his critique of 'correlationism', this is to say, which lies behind the impression of his own philosophy being an (admittedly bizarre) form of materialist metaphysics. Consequently, a scientistic reading of his work that would disparage any attempt to read politics from his speculation runs aground on Meillassoux's conspicuous lack of proof for the point which would secure his reputation as a stalwart of scientific realism, never mind some sort of neo-positivist. What is worse for our scientistic reader, by the close of the book we discover that "our goal here was not to tackle this resolution as such." ⁵¹² In fact, by the final pages we find Meillasoux's aim stated in different terms: "Our aim has been to try and convince the reader not only that it is possible to rediscover thought's absolutizing scope, but that it is urgent that we do so." The focus of the task lies not so much in a lexical order of priorities determined by securing scientific realism, but instead by the imperative to "reconcile thought

ontological 'structure of the possible as such' may be also related to a Hegelian theme: this time to the quantity-quality transformations in The Science of Logic, and the relation between their circumscription to the first power of infinity and their inability to think novelty ex-nihilo (this point was discussed in the last sections of Chapter 3 of this thesis). Meillassoux writes: "only the mathematical discontinuity of Cantorian infinity is adequate to the rupture generated by the advent of qualities." ("Excerpts from L'inexistence divine", 182.)

⁵¹² Meillassoux, *After Finitude*, 128.

and [the] absolute"513 with the correlationist scourge presented as a justification for the task, not its goal. But if Meillassoux readily concedes to having not yet provided the arguments securing the mathematical in-itself, hence leaving his demonstration of scientific realism incomplete, and further, if this was not the main priority of the text anyway, then clearly the concern to re-establish philosophical absolutes is the text's real locus. But for what purpose? What compels the revival of absolutes within philosophy? To answer this requires us to engage a weak political reading of his work.

6.2 A weak reading: against historicist enthusiasm

In chapter two of After Finitude on 'Metaphysics, Fideism, Speculation' Meillassoux addresses the importance of his challenge for undermining the sceptical-fideist alliance. By this he means to implicate, in some part, trends within philosophy with the revival of religion in the late 20th century. As he sees it, the critique of metaphysics, presumed for so long to be complementary with the critique of religion, has resulted in a pyrrhic victory for atheists. By conflating the critique of metaphysics with a solemn censorship on thinking absolutes all philosophy has succeeded in doing is enjoining a suspicion of rational absolutes. In other words, philosophy has acted as a handmaiden for religious obscurantism by opening the door for belief in all absolutes no matter how contradictory, affirming that there is no sense in attempting to ground the absolute in reason. Interestingly, however,

⁵¹³ Ibid.

Meillassoux does not use this move to conduct a classical rationalist critique of belief tout court, but to criticise the specifically de-Christianising tendencies this gives rise to, positioning his intellectual battle against the obscurantist fanatic doling out the "worst forms of violence." 514 Concomitant with the revival of the Hegelian idea of 'absolutes' is a defence of the rational kernel of Christian theology, a doctrine he presents as being assailed by scepticism to the point where the contemporary philosopher is rendered a sad "liberal servant of any theology whatsoever."515 Abjuring the right for reason to adjudicate on the validity of absolutes "establishes how any piety whatsoever enjoys an equal and exclusive right to grasp the ultimate truth."516 For Meillassoux this is the consequence of the particular conjunction of modern, secular thought with philosophical correlationism: "the modern man is he who has been re-ligionized precisely to the extent that he has been de-Christianized."517 Thus, the critique of the de-absolutization of thought "goes beyond that of the legitimation of ancestral statements. What is urgently required, in effect, is that we re-think what could be called 'the prejudices of critical sense'; viz., critical potency is not necessarily on the side of those who would

⁵¹⁴ Ibid., 57.

⁵¹⁵ Ibid., 47.

⁵¹⁶ Ibid., 47.

⁵¹⁷ Ibid., 48.

undermine the validity of absolute truths, but rather on the side of those who would succeed in criticizing both ideological dogmatism and sceptical fanaticism."⁵¹⁸

If we read these remarks as providing both the motivation and real intellectual locus of After Finitude everything falls into place: the text can then be seen as an elaboration of a particular subset of the theological and ethical themes found in The Divine Inexistence. Since most of Meillassoux's readership is surely aware of the strange (a)theological work accompanying his arguments against correlationism in After Finitude, before we introduce a reading of the text let us stress why we have approached the arguments of this more obviously political text in such a seemingly roundabout way. The ordering of our argument in this way has been to pre-empt critics who might hope to firewall a good Meillassoux, who upholds mathematical science in After Finitude, against a bad Meillassoux in The Divine Inexistence espousing perhaps connected, but still, from the point of view of his speculative philosophy non-essential, political and religious stances. Accordingly, if we did not show why his defence of scientific realism is secondary to the need to grant philosophy a speculative hold on the absolute, the strong political reading we are aiming towards by the end of this chapter would be easy to dismiss as an overbearing attempt to transpose Meillassoux's politics onto his ontology. Yet our reading of After Finitude has already demonstrated that the lexical order of his concerns lie with establishing the need for philosophical absolutes above and beyond the question of scientific realism. Further, if we follow the process of his intellectual development we can see that this concern with scientific realism is

⁵¹⁸ Ibid., 49.

something that comes later on in the development of his project to establish the necessity of contingency. To demonstrate the point, let us first recall some of the historical conditions driving the project before, second, approaching the arguments of *The Divine Inexistence*. By so doing, we will see that beyond his opposition to the sceptical-fideist alliance, there are ample indications that his project is also a response to perceived impasses within Marxism.

Without wishing to conduct vulgar biographical reductionism, a few pertinent facts show how Meillassoux's intellectual upbringing was immersed in Marxist philosophy and the influence this had upon the development of his theories. Meillassoux remarks on his father, Claude Meillassoux (a famous intellectual in his own right, influential amongst Althusserian anthropologists)⁵¹⁹, that he was "quite a remarkable Marxist, inventive and individualistic (distant from every party, very anti-Stalinist, very anti-Maoist)." From his father, Quentin Meillassoux would have picked up the anti-historicist current of thought; an important influence to bear in mind when we consider his profession that "Hegel, along with Marx, was my only

In the 1960s and 70s a number of scholars – Emmanuel Terray, Catherine Coquery-Vidrovitch and Pierre Pilippe Rey – attempted to synthesize the work of Althusser with the insights of Claude Meillssoux's ethnography by focusing on the idea of a 'mode of production' – specifically, how 'traditional economies' are synthesized with the capitalist economy to form a complex articulation of modes of production. The 'Meillassoux seminar' that ran for a decade from 1969 was known as a lively cross-disciplinary forum for exchange of scientific and political views. (Mahir Saul, "Claude Meillassoux (1925-2005)", *American Anthropologist*, Vol. 107, No. 4 (2005), 753-757; Bernard Schlemmer, "A Tribute to Claude Meillassoux", *Review of African Political Economy*, Vol. 32, No. 103 (2005), 197-201).

⁵²⁰ Quentin Meillassoux interview in Harman, *Quentin Meillassoux*, 160.

true master: the one on whom I had to depend in order to achieve my own thinking."521 But how can we square Meillassoux's immersion within the ideas of the Parisan leftist milieu with the need to re-establish absolutes, a move that would seem to mark a retreat from materialist to more idealist themes? Some historicisation might help. Meillassoux's doctoral thesis was completed in 1997, forming the basis of the endlessly reworked and still unpublished tome The Divine Inexistence; but he started to elaborate his distinctive philosophical ideas from the early 1990's, a period marked by a sense of fin de siècle after the fall of the Soviet Union, and placing the maturation of his ideas roughly synchronous with the publication of Jacques Derrida's Spectres of Marx. 522 Although by his own testimony we know Meillassoux's formative influences were Hegel, Marx and Badiou - not the deconstructive and poststructuralist canon – the comparison with Derrida is actually more insightful than might be expected because of the way the spirit of the age is captured by both philosophers in a commensurate fashion. 523 For the manner in which Derrida's Spectres of Marx offers to hold on to the skeletal messianic promise of Marxism in the aftermath of the collapse of communism, attempting to salvage the Marxian messianic impulse by disparaging any articulation with real political and

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⁵²¹Ibid., 168.

⁵²² Derrida, *Spectres of Marx*.

In relation to a discussion of Derrida's *Spectres of Marx* Alberto Toscano writes "Though few philosophical positions are ever readily reducible to the status of symptoms, it would also be naïve to disregard the link between the recent period of capitalist restoration and the emergence of concern with the messianic and the event." (*Fanaticism: On the Uses of an Idea*, 24.)

economic forces, is in a number of senses repeated by Meillassoux. Like Derrida, channelling the messianic event against historicist 'metaphysics' goes in hand in hand with ontological speculations about the event, and, conversely, away from the analysis of social, political and economic forces. Going further down this line of thought than Derrida's iconoclastic (and somewhat hollow) fidelity to Marxism permits, Meillassoux couples the rejection of historicist metaphysics with a rejection of Marxism, treating the former as the essential ontology of the latter. And when he couples this with a speculative insistence on the contingency of nature's laws, his theories are then purposively used to reject Marxism, not to provide it with a new epistemology as Althusser tried in the mid 60's, or to furnish it with an ontology of militancy as did Badiou in the 1970's and 80's.

Consequently, maintaining the radical contingency of nature's laws is a doctrine not only directed at undermining religious fanaticism, as it would be later presented in *After Finitude* (perhaps in a way more acceptable for a 21st century continental philosophy readership raised on a diet of Žižek and Badiou), but equally, if not more so, against secular political fanaticism underwritten by historicist ontology, under which Marxism is unproblematically categorised. Indeed, the central theme of *The Divine Inexistence* is precisely the ethical implications of how philosophy can relate values to the real, and the argument is structured around positioning his philosophy to take over this task from Marxism's failed 'historical symbol'. For Meillassoux philosophy is positioned as the perennial attempt to *reconcile* our values with the real after science creates a rupture between the

two.⁵²⁴ In his words, philosophy "is meaningful only once we have a scientific rupture of the religious link between reality and norms." 525 Meillassoux's position is not to accept the nihilistic consequences of scientific knowledge, as in Ray Brassier's Nihil Unbound; he rather sees philosophy's task being to seal the wound opened up by science between value and being, navigating between the two poles of the priest who would drag us back towards a transcendent anchor for human values, and the sophist who, like Tharasyamchus, Socrates' antagonist in Plato's The Republic, declares justice is only a profitable social convention to serve the powerful. 526 What he calls symbolization is the conjoining of these two spheres: the human value of justice with the non-human real. If The Divine Inexistence has a programme it is to take up the mantle of providing a new philosophical symbolization of the relationship between values and a real through knowledge of absolute contingency.

In Meillassoux's view, the history of symbolization has passed through three stages: the cosmological, the romantic, and the historical. First was the regime of the cosmological symbol where, after the dissolution of myth by early natural philosophy, Plato tried to reconcile value and being by inscribing justice into the eternal Ideas. Second was the birth of the romantic symbol in response to the blow

Here we can see an isomorphy with After Finitude, because just as Meillassoux intervenes in response to Kant's critical rupture between epistemological categories and the inaccessible real to provide an ontological resolution, his ethical theory in The Divine Inexistence is positioned as a necessary philosophical resolution between values and the real after they have been sundered by science.

⁵²⁵ Meillassoux, "Excerpts from L'Inexistence Divine", 198.

⁵²⁶ Ibid., 199.

dealt by Newton to the cosmological symbol with his description of planetary orbits following a linear, clockwork motion. Here, with the simultaneous birth of Enlightenment scepticism, Meillassoux sees the replacement of the figure of the sophist with his potentially more destructive modern equivalent, so that "this splendid liberation of fanaticism is accompanied once more by a cynicism that renews the habitual categories of despair."527 With the romantic symbol responding to the break between nature and the social of which Rousseau would become the most famous advocate - the earth bound natural order is associated with the good, and the social with the corrupt. But this symbolization rapidly breaks down under its own biased privileging of natural good (Meillassoux draws upon his Hobbesian subtext, about which we will say more below, by arguing that the pity of Rousseau's noble savage "is no more common in the living than are war, violence and cruelty."⁵²⁸) As such, the romantic symbol is no more than a transitional symbol quickly giving way to the "authentic symbol of modernity"; that is, "the historic Symbol through whose culmination we are still living today."529

It is plausible to consider the historical symbol as the most important for Meillassoux's argument. First, because it is the last of our inherited symbols: the one Meillassoux sees his own philosophy as replacing in order to recommence the fusion of values and the real. Second, because it is here that the political compulsions

⁵²⁷ Ibid., 200.

⁵²⁸ Ibid., 201.

529 Ibid.

motivating his project are most evident. Let us therefore pay special attention to this symbol and to the representation of Marxism implied by its inclusion in the category. In his depiction of the historical symbol Meillassoux gives a straightforward representation of historicist Marxism, one interchangeable with Hegelian historicist ontology. On this reading, the "ruse of history" finds its way through the disorganized jumble of individual actions to secure "economism": an "ultra-objective principle of a teleology of the Good, whether in its liberal or Marxist version." For Meillassoux, perhaps with the likes of Francis Fukuyama in mind, Marxism and liberalism share the same historicist teleology where "every economic reverse amounts to a transient retreat amidst a larger movement towards a necessarily positive outcome." ⁵³¹

The reduction of Marxism to these particular historicist variants serves to move towards generalised cynicism about all political and economic theories and practices which involve mass mobilisation. "The romantic gives way to the Robespierrist cult of the supreme Being. The historical is degraded into the dogma of infallibility, whether of the Party or of the Invisible Hand." Despite the reference to the Smithian metaphysics of the free market, the real critical force of Meillassoux's argument is directed at the damage to the idea of truth caused by Stalin's dialectical materialism, a philosophy "promoting generalized falsehood in

⁵³⁰ Ibid., 202.

531 Ibid.

532 Ibid.

the name of the proletarian Good to come."⁵³³ In a discussion on 'Promethean humanism' this turns into a more general argument against the disastrous consequences of political power where he seeks to overturn young Marx's humanist critique of religion. "What humans transpose into the religious God is not their own essence, as Feuerbach and the young Marx claimed, but rather their degradation of their own essence. For what humans see in God is the possibility of their own omnipotence: the accomplishment of their inhumanity rather than their humanity."⁵³⁴ In any event, humanity having lost its belief in the real movement of history being on the side of emancipation:

Justice deserts being once more, even once we have arrived in the innermost recess of History. We now live the death of the Symbol of modernity, just as the eighteenth century lived the death of the Greek Symbol. The Symbol is lacking once more, and now as ever we confront the alternative nightmares reborn from the ashes: traditionalism and sophistical immoralism. 535

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⁵³³ Ibid., 205.

⁵³⁴ Ibid., 213

⁵³⁵ Ibid., 202.

At the end of this symbol of modernity we are thus faced by the spectre of the religious fanatic and the atheist nihilist, taking us to the contemporary political situation as depicted by *After Finitude*.

Meillassoux's ethical orientation, centred on avoiding the worst excesses of human violence, directly informs the symbolization he proposes to replace the Marxist historical symbol: the 'factical' symbol – a fusion of values and the real based upon knowledge of absolute contingency. Now, this new symbolization will not by itself accomplish anything unless it is wedded to anticipation of a new advent, by which Meillassoux means the epochal ex-nihilo event inaugurating a new cosmic World of justice. Thus, to understand the purpose of Meillassoux's new symbol one also has to appreciate its alignment with a periodisation of the previous World-changing advents of matter, life and thought: all reasonless eruptions of change following from the absence of sufficient reason in the Universe and the excess of effects over their causes. Since no principle, cause, or any agent governs these epochal ruptures, their origin is solely the unreasonable hyper-chaos underlying the seeming stability of natural laws. This has to be put in contrast to intra-Worldly modifications, on the other hand, which are changes possible within the probabilistic distribution of what already exists in World. Meillassoux insists that the distinction is necessary in order to show why rebirth would constitute a new World entirely and could not be "an advent internal to the creative activities of humans."536 This Fourth World – a world of justice – is thus out of the hands of humans to realise themselves even though the immortality it bestows would

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⁵³⁶ Ibid., 189.

provide "the sole life worthy of their [humans'] condition." 537 In order to isolate a universal principle of justice Meillassoux fixes on a Hobbesian axiomatic where relating all species of injustice is the ethical genus of human mortality: its vulnerability to abuse. "And of all these injustices the most extreme is still death: absurd death, early death, death inflicted by those unconcerned with equality."538 The axiomatic of death as the 'factical' limit to any intra-Worldly attempt to realise justice permits him to assume a human-centric horizon to justice on a condition which humans, he believes, (perhaps erroneously) could never realise themselves through any rational volition. Let us pause for a moment though, because despite the appeal of 'absurd death' as the horizon of injustice, especially for a generation sensitive to the moral imperative of human rights, it is really the case that death is the genus of all injustice? What about poverty, inequality, exploitation? All these would be more conventional candidates to occupy the category of injustice in the Marxist tradition. Isolating death as the horizon of injustice places its resolution out of reach of any political movement to correct. Lesser intra-Worldy injustices are thereby placed under the horizon of the ontological injustice of our present cosmicscale World of injustice. The upshot of placing ethical primacy on death, a condition we can only hope will be overcome by the absolute contingency of advent, has the double-effect of allowing humankind to hope for the new World of Justice whilst recognising its impotence to realise it. Yet Meillassoux's argument relies on the

⁵³⁷ Ibid.

⁵³⁸ Ibid., 191.

contention that just because we cannot create this change does not mean its anticipation is irrelevant. On the contrary, by anticipating the new world of justice he claims that "Humanity can be unified by intensively lived values, because they are founded on the active expectation of an ontologically remarkable event that is accessible to every thinking being." 539 Meillassoux seeks to correct the impression of his theory's prescription of passivity, but as we will see only by redirecting political impulses to a subjective, individual disposition.

How does Meillassoux ward off "lazy fatalism under the pretext that the advent of the world of justice does not depend on the power of humans"? ⁵⁴⁰ This is the most awkward of the arguments in The Divine Inexistence, since it purports a link, within thought, of intra-Worldy actions and World changes, without any causal link from one to the other. It also indicates where Meillassoux's speculative ethics provides the clearest signs of a politics of how we should act within our existing World.

6.3 A strong reading: infinitization a.k.a. idealist esotericism

To understand how Meillassoux's fourth world of justice can come into being one needs to distinguish between its contingent advent and the subjective dispositions that would make it into a new world. He thereby aims to link the advent of justice with its intra-Worldly anticipation. The new World's novelty ultimately resides in our

⁵³⁹ Ibid., 191.

⁵⁴⁰ Ibid., 214.

appreciation of it precisely as a novelty, and this can only be accomplished by preadvental expectation. If such a World change is to take place we need to be able to be surprised by the beauty of the contingent alignment of our factical symbolic desire for a concord between value and the real. Why intra-Worldly action is necessary to form a new World, which without such action would otherwise be merely an "improved third World," 541 can be explained by reference to the accumulative nature of Meillassoux's advents, where every novelty is only a novelty apropos the World it has exceeded. For Meillassoux depicts our present 'third World', after the discoveries of his philosophy, as one where "the ultimate has in fact taken place," inasmuch as the ultimate is "the contingent being that knows the absoluteness of contingency." Thus, since we have already reached the ultimate as a rational being, we need to maintain the capacity to surprise ourselves with the novelty of the new World for it to truly to be in excess of our current situation. How can this accomplished? In The Divine Inexistence Meillassoux gives no detail of the 'actions' that would instantiate these practices of expectation. Yet if the realization of the fourth World depends upon our ability to long for the resolution of our values and the real, and if our values are ultimately underwritten by knowledge of absolute contingency, it would make sense that these practices are ones whereby we can, in the greatest sense possible within an intra-Worldly situation, bring our subjectivity into line with an ontology of contingency. Hints of what this might involve can be

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⁵⁴¹ Ibid., 217.

⁵⁴² Ibid., 212.

found in Meillassoux's book on Stéphane Mallarmé's poem, *Un Coup de Dés Jamais N'Abolira Le Hasard* (A Throw of the Dice will Never Abolish Chance). For as Meillassoux hints in *The Divine Inexistence*, awaiting the fourth world one can compare to "the free act to the throw of the dice" ⁵⁴³ – a throw, perhaps, like the Master of the ship in Mallarmé's poem?

Meillassoux' book, The Number and the Siren, aims to show that Mallarmé's poem is coded and that it is possible to decipher this code in order to reveal the way its cryptic repetition of 'The Number' in its verse stands for a wager that a precise number (encrypted in the form of the poem) is Chance – for Mallarmé, Chance itself. Part Two of Meillassoux's book is particularly interesting since he here indulges a speculative reading of the poem in order to draw out the consequences of what he calls the infinitization of Mallarmé's encryption. What Meillassoux means by Mallarmé's infinitization of the poem is the way it is ambiguously coded so that it perpetuates chance. The paradox grappled with is compelling: how can a single number, a most finite determination, represent the undecidability of chance? Let us give an example to demonstrate the difficulty. If one throws the dice, as the Master of the ship in Mallarmé's poem prevaricates about, chance will dictate which number is rolled. But as soon as the resulting number of the throw is revealed – in other words, is fixed – then it is no longer chance, but the result of chance: chance finitized. Is infinitization then better represented as a withdrawal from deciding to

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⁵⁴³ Ibid., 216. [emphasis removed]

⁵⁴⁴ Quentin Meillassoux, *The Number and the Siren: A decipherment of Mallarmé's Coup de Des,* trans. Robin Mackay (Falmouth: Urbanomic, 2012).

throwing the dice, suspending the actualisation of the virtual possibilities and preserving all possible results? If so, then a unique number cannot be chance itself since infinitization would demand that all possible outcomes be preserved. Deadlock it seems.

"The solution," Meillassoux claims, "consists in displacing the demand that the gesture (of throwing or not throwing) be infinite, onto the Number itself. In other words, to throw the dice, to produce a Number – but a 'unique Number' supporting in itself the virtually contradictory structure of Chance." In this way Meillassoux seeks to show how indeterminacy is built into the deployment of a specific number, and how, self-reflexively, this indeterminacy traverses Mallarmé's very act of encrypting the poem so that we cannot even be certain that Mallarmé has in fact coded his poem. Because Mallarmé comes close to making his poem precisely 707 words, the number Meillassoux decodes as the poem's unique Number, but at the same time builds in enough ambiguity so that we can never be sure even if the poem has been encoded, this he interprets as a deliberate act of infinitization on Mallarmé's part: a fixing of the infinite. Meillassoux explains his point in anti-Hegelian terms:

'Fixing the infinite' is indeed the fundamental programme of Mallarméan poetics, a programme that renders it a stranger to those notions, so valorized by modernity, of 'becoming' and 'dynamism' ... What is required is to capture a sudden modification, a

⁵⁴⁵ Ibid., 138.

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transfiguration, a fulguration ... a passed movement annulled as soon it is initiated. And thus a movement of which one could doubt whether it ever took place ... A dialectical infinite, then, that includes its other, but without invoking any dynamism – and in this sense a non-Hegelian dialectic, one without progress, without any surpassing of one step by the next.⁵⁴⁶

As Meillassoux sees it, Mallarmé created enough ambiguity so that it would never be certain if the poem would be deciphered: the poem being a wager cast to sea like a message in a bottle. Thus, both author and reader are locked into the same uncertainty: an uncertainty 'quavering' around a determinate number: "For the code was discovered, and, if we succeed at demonstrating that it is affected by a slight uncertainty, we will have established that Mallarmé's Number and his gesture have indeed been infinitized in the eyes of his readers." ⁵⁴⁷ Infinitization can thus be read as Meillassoux's first intervention into theorising intra-Worldly chance as acted upon by subjects; that is, what a subjectivity based on change, reflecting at a lower level an ontology of contingency, would mean. In a remarkably compressed conclusion to the book, Meillassoux frames his discussion of Mallarmé in terms of an alternative to modernist views of historical progress. Mallarmé's act allows us to

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⁵⁴⁶ Ibid., 140.

⁵⁴⁷ Ibid., 150.

once more *vectorize* the subject with meaning, with a direction freed from ancient eschatology; all that our masters have instructed us to regard as outmoded *par excellence* – those dead Grand Narratives, at best obsolete when fermented by solitary researchers, at worst criminal when clothed in the statist finery of Progress or Revolution; all this would nevertheless have succeeded in making *one* breakthrough up to our time, one only, and at a precise point – a unique Poem that would traverse the 20th century like a hidden gem, finally to reveal itself, in the following century, as the strangely successful defense of an epoch we had buried under our disenchantments.⁵⁴⁸

There is a lot going on in these words, but nonetheless one can discern the basic point. As opposed to modernist narratives of historical progress, inevitably giving rise to criminal revolutions, Mallarmé alone stands out as a shining example of the type of subject fit for an ontology of contingency. In his refusal to give away the secrets of his poem easily, and by forever imprinting it with a mark of undecidability, he became a prophetic subject: one whose ideas speak across the ages from poet to philosopher. If we are right in our interpretation, and if for Meillassoux Mallarmé thus exemplifies a subjective praxis fit for an ontology of absolute contingency, then there is a name for Meillasoux's alternative to the political subjects of the 20th century: esotericism. Or using Badiou's terminology from the *Logics of Worlds*:

⁵⁴⁸ Ibid., 221-222.

aristocratic idealism. Contra mass mobilisation, revolution, or any modality of historical vision oriented around progress that would be freely knowable and rationally disseminated, the subject of change, the subject who knows the ultimate – that the universe is ultimately governed by reasonless hyper-chaos – this subject is one who keeps their cards (or dice) close to their chest and who talks in a prose only capable of being deciphered by the finest minds of an age. One can begin to see what a strong Meillassouxian politics might look like.

In an interview with Graham Harman Meillassoux reflects upon the human losses of the 20th century and their role in motivating his theories. With the contingency of nature's laws being "outside the grasp of our action," the positive result of this political impotence is that the

'eternal possible' frees me from suffering over the appalling misfortune of those who have experienced atrocious deaths, allows me to escape being paralyzed by an impossible mourning for the atrocities of the twentieth century, and also permits me to invest energy in an egalitarian politics that has become conscious of its limits. Indeed, politics is delivered from all charges of messianism, since eschatological awaiting is entirely recuperated by individual subjectivity. This partition of tasks (individual messianism, political finitude) allows us to avoid the totalitarian temptation of collective action. We can efficiently expel the eschatological desire from

politics only be allowing this desire to be unfolded openly in another sphere of existence (such as private life or philosophy). 549

What is most remarkable here for an author of a text named After Finitude and whose intellectual background includes the tutelage of Badiou's Being and Event, where political truths are sustained through an collective, infinite truth procedure, is the emphasis on imposing limits upon political thought, effectively cutting politics down to size and transferring those desires into the realm of individual subjectivity informed by speculative philosophy. If Marx's early innovation can be identified as funnelling the misattributed desire for reconciliation of man with his essence on a spiritual level into the political movement capable of realising the real conditions for emancipation, Meillassoux's move can be read as something of a coup within Marxist philosophy for the restoration of the ethical orientation of pre-Marxist critical idealism. Meillassoux's absolutisation of the event as a cosmic force does indeed take us a long way from Marxist philosophy. By pushing novelty to its utmost extreme - and it is difficult to see how an event could be conceptualised that bears more novelty - Meillassoux's theories are oriented towards establishing a master ethical discourse under the aegis of philosophy's speculative discourse. Novelty does not curtail authority; novelty elevates it.

In Graham Harman's hyperbolic reading he asks us to imagine "the absolute triumph of the philosophy of Quentin Meillassoux by the year 2050", a world where, "A survey done of *Le Monde* in a feature on Meillassoux reveals that 80 percent of

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⁵⁴⁹ Meillassoux, "Interview with Quentin Meillassoux", 163.

European academics now literally hope for the rebirth of humans who have died atrocious deaths." ⁵⁵⁰ Is this a world really worth anticipating?

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⁵⁵⁰ Graham Harman, *Quentin Meillassoux: Philosophy in the Making* (Edinburgh: Edinburgh University Press, 2011), 153-154.

Conclusion

rethinking events

The criticisms offered by the foregoing chapters on Hegel, Marx, Lenin, Althusser, Badiou and Meillassoux should have indicated political problems with their ideas of the event. While all can be seen as admirable conceptual constructions for understanding change within a ruptural paradigm, and while all go some way towards delimiting the authority of theoreticians to predict, govern and judge historical events, at the same time all these theories reach limits. Yet this thesis' approach should also indicate that our central categories of analysis - novelty and authority - do have legitimate purchase on understanding the motivation, formulation, and difficulties of considering change through events. Whilst perhaps not going as far to claim they are transcendental political categories, there is definitely a close connection between the two of continuing pertinence for political theory. Any use of the concept of the event to think process of political transformation will necessarily stress the novelty unleashed. And novelty, although not necessarily negating authority, plays a role in regulating expert, theoretical knowledge as power from governing the future. In the opinion of your author, the event thus has an important part to play in theorising political practice. Existing theories should thus serve to beg the question of how we can better theorise and incorporate events into our political approaches. In this sense, political theory could take a more proactive role in the future in constructing new theories that navigate the problems of novelty and authority. There are ample resources available in the existing traditions of Hegelian-Marxist and Althusserian-inspired theory to draw from. Moreover, there are further untapped theoretical resources that could be utilised to think through these problems. These will be touched up below. Before this, the conclusion will briefly recapitulate the problems identified throughout the thesis.

In Part I criticism was directed at ideas of the event within Hegelian-inspired dialectical materialism. We located the core problem in the incapacity of the accumulative notion of quantity-quality transformations to conceptualise noveltybearing ruptures. Working immanently through Hegel's ontology, chapter one identified the problem with these 'leaps' in the fact that Hegel's notion relies on the dialecticization of the mathematical infinite; this in turn reflecting the historicism of the Logic's categorical aufhebung. Consequently, Hegel's Logic and the 'leaps' dialectical materialism sourced from it do not break from the historicism evident throughout the rest of Hegel's system. Despite the association of Hegelian 'leaps' with suddenness and novelty, in fact they merely restate historicism in metaphysical terms. Further reasons for the inadequacy of the Hegelian-inspired idea of the event were then provided in chapter two by seeing how, in the final instance, Marx's idea of revolution sticks to this imprint. For although Capital's analysis is conducted using an epistemology of real abstraction - as opposed to a Hegelian ontology of contradiction - the presence of multiple, non-historically ordered forms of abstraction in the work's critique of capitalism are not incorporated into Marx's idea of transformation to communism. In order to initiate a sustainable transition process, Marx's economic analysis in Capital indicates the need for undoing two abstractions: the value-form abstraction and the separation of the workers from the means of production. But in keeping with his aversion to post-capitalist economic planning ahead of the revolutionary event, and his latent affinities with Hegelian conceptions of historical development, Marx still sees transition to communism being inaugurated solely by uniting workers with the means of production. In abstract terms, we thus interpreted Marx's idea of revolution as reflective of the way he adheres to the notion that historical change comes about at a single site of transformation, through a dialectical switch. Since this reduplicates the dialectical motor within the Hegelian model of historical change, we therefore concluded that Marx's idea is compatible with the idea of quantity-quality transformations, and, likewise, struggles to conceive a properly novelty-bearing event. In the third and final chapter of Part I, we put these ideas to the test by seeing to what extent Lenin's first-hand reading of the Logic allows him to synthesise Hegel's idea of 'leaps' with Marxist political practice. The conclusion drawn was that whilst in an impressionistic sense Lenin's linking of quantity-quality 'leaps' with Hegel's idea of totality allows him to reappraise linear Marxist historicism, when it comes to using this concept for thinking the processes that can set in motion the transition from capitalism to communism, the quantity-quality transformation proves inadequate to the task. That Lenin proposes the policy of quantitatively expanding industry in order to induce a qualitative transformation from the capitalist to the socialist mode of production starkly exhibits the vicissitudes of Hegelian historicism. In all three

cases, then, the problem with adequately conceiving novelty-bearing events within the Hegelian horizon spills over to encompass a wider set of concerns. While orthodox Marxists continue to pose the issue in terms of a dichotomy between gradual evolutionary processes and sudden revolutionary transformation, we hope to have shown that this temporal distinction is insufficient inasmuch as it does not consider the broader set of conceptual structures for understanding processes of change.

Part II of the thesis switched its focus to the question of the authority of philosophers in making judgements about events. Whereas in Part I theories of the event were principally concerned with forward-looking revolutionary transformations, the heterodox Althusserian-inspired lineage focused retrospective judgement of events. Chapter four began by looking at how Althusser sought to replace Hegelian-inspired dialectical materialism by developing Bachleard's epistemology of scientific discontinuity and fusing it with structuralist notions of social formation. In so doing, and by casting the idea of the epistemological break as the result of the vanishing cause of structural causality, Althusser, we argued, better conceives an idea of the novelty-bearing event than those fashioned from Hegelian dialectics. However, in pitching these breaks as a rupture from ideology to science, his theory of historical change acutely presses the issue of the authority of philosophers to make these historical judgements; a problem he recognises in the corrections of '67 and to which others drew attention in the wake of the events of May '68. Lacking any clear criteria for the nomination of an event, Althusser draws on the authority of science in order to legitimize the notion of a break from ideology to science. Yet unable to locate within scientific practice the resources to validate this break, his discourse assumes a tacitly authoritative status in making decisions about actual historical events. As we then saw in chapter five, in Being and Event Badiou seeks to resolve many of the issues related to the authority of historical judgement by placing his theory of the event within an intricate web of demarcations wherein philosophy is supposed only to play the reactive role. We demonstrated that by making philosophy a metaontological discourse solely interpreting the insights of mathematical set theory for philosophy Badiou's system goes to great lengths to limit the authoritative role of philosophers over political processes. However, both the architectonic of his text and problems with the demarcation between ontological and non-ontological situations problematised his ambitions to remove philosophical judgement from political processes. In the final chapter of this thesis, we engaged a thinker furthest removed from conventional philosophies of the event, yet whose continuities with Althusser and Badiou's project make his theories worthy of inclusion. Meillassoux's notion of the absolute contingency of nature's laws provided further evidence for the fact that valorising novelty-bearing events does not de jure resolve all questions related to the authority of philosophers. This was particularly brought out with respect to the fact that Meillassoux positions his theories as a successor to the Hegelian 'historical symbol' dominating orthodox Marxism. In converting contingency into absolute speculative knowledge Meillassoux places philosophers in charge of the ethical, messianic discourse of preparing for the advent of the 'fourth world of justice'. But in the process, mass revolutionary fervour is recuperated into a cautious,

individualised ethical disposition. The chapter on Meillassoux thus aimed to demonstrate that there is no easy solution to the knot of novelty and authority within theories of the event – exaggerating the former does not necessarily put to rest the problems associated with the latter.

What lessons can we draw from all these results? The scope of our readings and the multiple themes engaged make it impossible to distil our conclusions into a single, satisfying take home point. Nevertheless, we will at least attempt a concise enumeration.

First, philosophies of the event cannot be taken as isolated concepts; rather, they need to be appreciated in terms of their situation in wider conceptual networks. Which is to say, as soon as one begins to talk about theories of the event solely in terms of the temporality of political change then one is almost certainly missing crucial elements of the theory. What Althusser recognised, and which represents a lasting contribution of his research programme, is that our concept of social structure is intimately connected with our concepts of historical change. If one wishes to understand ideas of the events then one also has to scrutinise the concepts of social structure which they are embedded within.

Second, intellectual authority appears an unavoidable consequence of creating conceptual models of social change. To pick up on remarks made at the end of chapter five, as soon as sophisticated models of social change are created – and we have no reason to believe that social change is any less a complex process than other processes subjected to scientific analysis – then this will inevitably endow the philosophers and/or scientists who create these concepts with a degree of authority

for interpreting and guiding processes of change. Rather than going to ever more baroque lengths to circumscribe authority, then, perhaps it is better to acknowledge this inevitability and construct theories that help mediate the authority of concepts with the mass procedures they are supposed to model. Classical Marxism attempts this through the idea of revolution, where the authority of communist theoreticians is delimited by the revolutionary event circumscribing their knowledge. As we have seen, though, this relies on a concept of historical change that seems caught in a contradiction where revolutionary novelty ostensibly delimits the knowledge of communist theorists, but the concept of historical change underlying this notion seems inadequate to deliver this novelty. Whether in its Hegelian or Althusserian guise, concepts of novelty do not eliminate authority; at best they help to prevent theories from assuming the worst excesses of knowledge as power.

Third, there is a reciprocal conditioning between ideas of the event and real social and political changes, even though the two can slip out of sync. As with any conceptual frameworks, ideas of the event can take on a dynamic autonomous to the political and social realities they are supposed to help explain. Indeed, those instances where theory and political reality coincide seem more the exceptions that confirm the rule of their frequent divergence. On this point, Marx's idea of real abstraction might be useful for further theorising of events. For while the idea of the event in orthodox Hegelian-Marxist thought, relying on a dialectical switch pushing history from one era to another, makes some sense given that it reflects the separation of workers from the means of production and the sharp class polarisation of the early 20th century, is this still the case today? In the advanced capitalist states

at least, class has become a more complex phenomenon; the financialisation of capitalism alongside the advance of non-factory based labour, means that these concepts of social change appear somewhat out of date with respect to the abstractions underlying models of change. Any appropriate notion of the event today instead needs to emerge from recognition of changed social circumstances. And this will inevitably involve new articulations of the relationship between novelty and authority, and their relationship to contemporary sites of political practice.

What might a 21st century idea of the event look like? It is a question already being grappled with by experimental, politically-engaged theorists. One example from communization theory particularly stands out. Endnotes, for instance, justify their take on communization theory⁵⁵¹ as "an answer to the question of what the revolution is" in an epoch in which the post-revolutionary transitionary period has rendered redundant by the historical obsolescence of programmatism.⁵⁵² In

Communization takes its name and influence from currents within the French ultra-left of the 1960's and 70's. Noys describes it as "often a weird mixing-up of insurrectionist anarchism, the communist ultra-left, postautonomists, anti-political currents, groups like the Invisible Committee, as well as more explicitly 'communizing' currents, such as Théorie Communiste and Endnotes. Obviously at the heart of the word is communism and, as the shift to communization suggests, communism as a particular activity and process." (Benjamin Noys, "Introduction" in *Communization and its Discontents: Contestation, Critique, and Contemporary Struggles*, ed. Benjamin Noys (Wivenhoe/New York /Port Watson: Minor Compositions, 2011), 8.) We have previously discussed the anonymous communization text, "Communiqué from an Absent Future", issued during the California student occupations in light of the decline of communist Party politics. (Nathan Coombs, "Faint Signal: The student occupations in California and the Communiqué from an Absent Future", *Radical Philosophy* 159 (Jan/Feb 2010), 66-68.)

Endnotes, "What are we to do?" in *Communization and its Discontents: Contestation, Critique, and Contemporary Struggles*, ed. Benjamin Noys (Wivenhoe/New York /Port Watson: Minor Compositions, 2011), 29, 25.

maintaining that their theory is still directed towards revolution – albeit negatively, in the sense of attempting to chart an unknown course through a historical impasse - they recognise the need for concepts of revolutionary change and criticise the still canonical Hegelian-Marxist notion of quantity-quality transformations. They write,

[it is] wrong to think of the revolution in terms of the sum of alreadycommunizing acts, as if all that was needed was a certain accumulation of such acts to a critical point. A conception of the revolution as such an accumulation is premised on a quantitative extension which is supposed to provoke a qualitative transformation. In this it is not unlike the problematic of the growing-over of everyday struggles into revolution which was one of the salient characteristics of the programmatic epoch. 553

What they mean is that one should not presume that a horizontal spread of communes, occupations, co-operatives, or whatever prefiguratively post-capitalist spaces are involved in a communizing procedure will be adequate at a certain scale to tip over into revolution. This example thus demonstrates the close connection between ideas of the event and the concepts used to make sense of current social formations and political practices.

⁵⁵³ Ibid., 28.

We cannot, of course, hope to offer a fully elaborated new idea of the event here taking these concerns on board. So let it suffice to say that in our view any appropriate idea of the event will we have to be based on a theory of social formation matching the complexities of contemporary abstract social and economic logics with the contingency of politics. In this vein, we can only intimate the promise provided by complexity theory to think the emergence of social logics at the macro scale. Tony Lawson's remarks on causation and emergence provide some promising conceptual signposts that could help facilitate this theorising. Looking to found the methodological basis for a science of social processes that nonetheless recognises its relational and contingent properties, whilst avoiding grounding the notion of emergence through methodological individualism, he writes that

social reality is found to be comprised of a multitude of interrelating multiple-component collective practices, processes and events that simultaneously both ground and presuppose a complex system of positions, positioned rights and obligations, that is, social relations, which are always in process, and serve, amongst other things, to organise individuals as social systems of community participants, with the latter sometimes evolving into collective or corporate agents. 554

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Tony Lawson, "Emergence and Social Causation" in John Greco and Ruth Groff (eds.), *Powers and Capacities in Philosophy* (London and New York: Routledge, 2013), 295.

If all social actors occupy mutually constituting positions within the social totality, then a new conception of the event, perhaps informed by complexity theory, should try to theorise how elements of novelty introduced into the system could have recursive effects on other parts of the system. What in effect is being proposed is that we try to further Althusser's synchronic notions of social formation and change, but in a way that would allow for anticipatory practice in the pre-evental world. If we chose not to share the somewhat overwrought concern with authority indicative of existing notions of the event examined in this thesis, then we can adjust our theorising the event so that it would be able to take of advantage of knowledge of tendencies and patterns with the most productive political potential. To some extent, and as paradoxical as it might sound, events should be planned for.

An image which also comes to mind, and which may prove to be useful, is Badiou's notion of seeding the situation in order to produce new truths. In Cohen's forcing procedure, seeding is the implantation of elements within a model in order to test their compatibility with it and to construct a generic set which conserves the features of an original model, but is deliberately adapted to new purposes. Construed as a metaphor for economic and social change, perhaps there is something to work with here. If the grand social revolutions of the modernist era appear to be over, and if macro-level change may now only be possible through the hegemonic capture of the radical wing of social democracy in a time of crisis, then maybe there is leverage in the idea of the event as a process of experimentally seeding changes at multiple sites within the system: that is, seeding an assemblage of dual-economic and dual-power positions throughout the system, elements that

can then interface with one another and be developed in an ongoing, contingent process of constructing a post-capitalist system. Imagine a game of Chinese Go⁵⁵⁵: involving logically but organically placing compatible elements within the system to gain territory piece by piece. This would not mean a reversion to the idea that one can carve out a space free from capitalism or exist within the interstices of the economic totality. For this notion rests on the metaphor of in/out, itself implying certain commitments about social structure and the reproduction of complex systems which may need to be jettisoned. If instead we need to conceive of the social, political and economic totality as a complex system composed of heterogeneous components and feedback loops, then old metaphors of in/out, quantity/quality, all relying on dialectical pairs, will lose their efficacy to think change. Our concept of the event will have to be one that can be interface with our conceptualisation of the real tendencies traversing the system - as in classical Hegelian-Marxism - but it cannot be based on Hegelian dialectical structures of thought. Rather, a new philosophy of the event will be one that can provide strategic direction on the basis of contemporary epistemological paradigms able to think complexity and emergence. Such ideas should still remain sensitive to contingency and novelty, yet they should also enable political organizations to prepare for events and, when they arrive, follow through on a plan to fundamentally reorganise the system to achieve lasting change. We await these theories' creation.

⁵⁵⁵ Credit to Tzuchien Tho for suggesting this metaphor.

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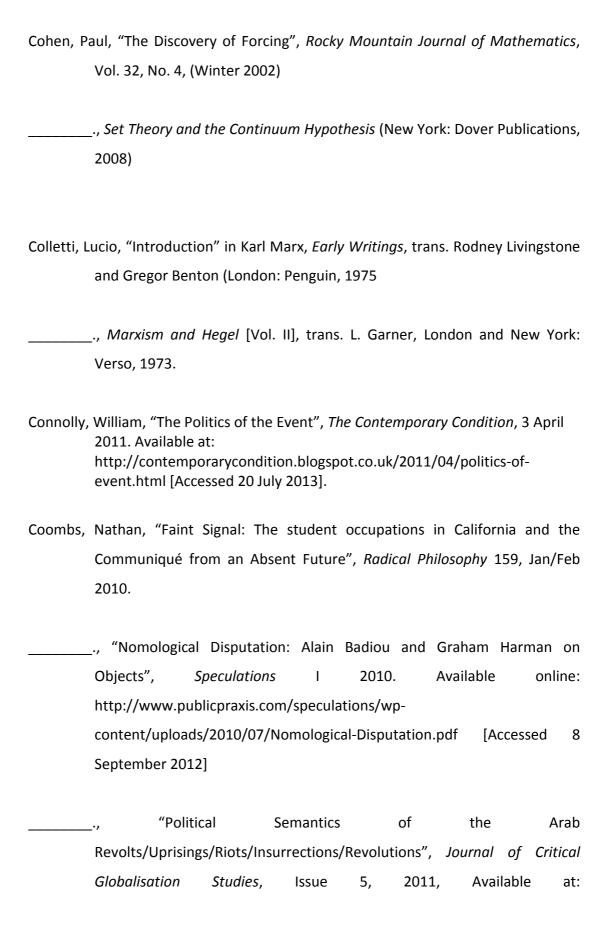
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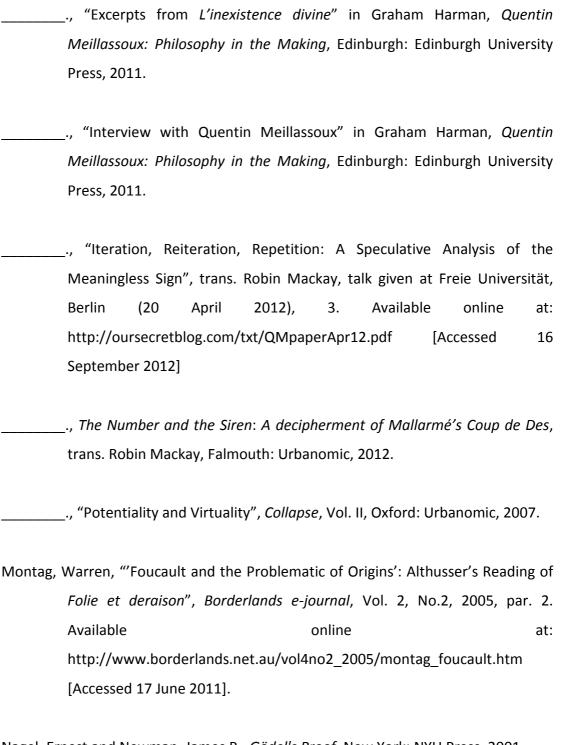
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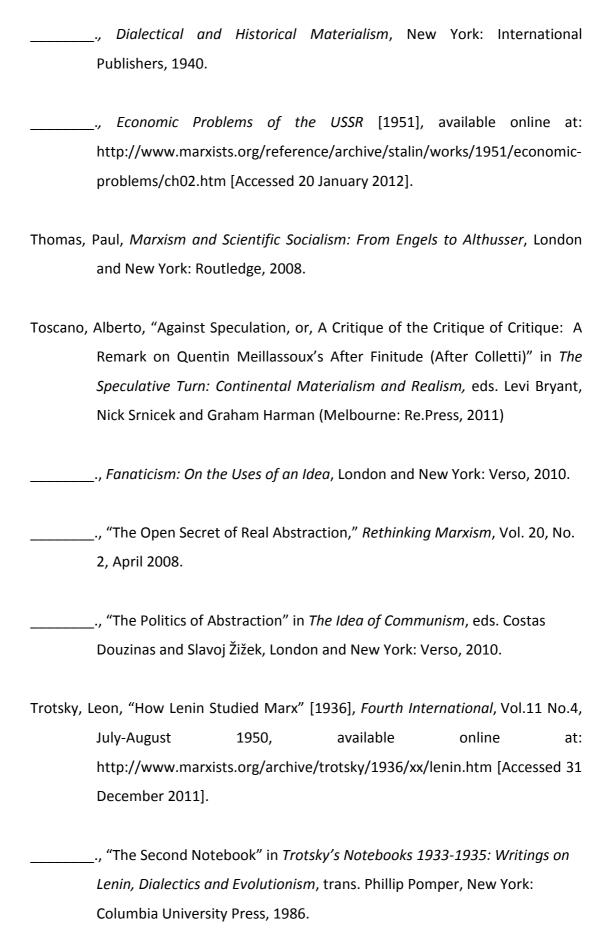
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