Abstract

This thesis investigates the problematic of social and political complexity. It attempts to answer the question of how power operates in a world of complex and globalised social, political, and economic systems. The basic claims of the thesis are as follows. Firstly, we can find the tools to understand social complexity in complexity theory. In turn, the conceptual innovations of complexity theory can be deployed to rethink the pre-existing political theoretical tradition of hegemony. We argue that the most significant existing theories of hegemony have been produced in relation to moments of increasing real world social complexity, and that there exists an under-developed seam of thinking already within the tradition which evokes key concepts from complexity theory. Therefore, the flaws in existing theories of hegemony can be remedied by conceptualising the complexity of hegemony in a rigorous way using the formal resources of complexity theory. To do so, the thesis first defines the necessary conditions for and properties of complex systems, as investigated by complexity science. It then outlines a general theory of social and political complexity. It develops an original reading of Gramscian hegemony, while critically appraising Laclau and Mouffe’s articulatory variant of the concept. It then brings together insights from the field of complexity theory to rethink the basic concepts of hegemony, before applying the theory to the investigation of the persistence of Neoliberalism after the 2008 financial crisis. In so doing, it establishes the grounds for a new theory of complex hegemony, reworking existing political theory to better explain the complex dynamics of our contemporary world.
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Acknowledgements

Firstly I would like to thank my team of supervisors, Jeremy Gilbert, Erica Cudworth, and Tim Hall for their support and encouragement throughout this project.

I extend my gratitude to the various friends and colleagues, without whose intellectual inspiration and companionship this thesis would not exist: Nick Srnicek, James Trafford, Helen Hester, Benedict Singleton, Reza Negarestani, Ray Brassier, and Mark and Zoe Fisher.

Special thanks should go to my director studies, Jeremy Gilbert, for his immense generosity of spirit, ability to always get me back on track, his sympathetic assistance in helping shape the thesis in the direction it eventually went in, and for getting me to read Gramsci in the first place. His patience and unswerving support throughout the various administrative challenges that marked the progress of thesis were also of significant help.

I wish to dedicate this thesis to Francesca Peck, for her years of tolerance and good humour during the research and writing, and to my mother, Lin Williams, for always believing in me.
Introduction

We live in a complex world, a world that appears to escape the ability of anyone to entirely understand or manage it. Many significant contemporary problems, from rolling economic crises, to the oncoming threat of anthropogenic global warming, are in some senses problems of complexity. The global financial, economic, and fiscal crisis which began in 2008, for example, has frequently been identified as one of fundamental over-complexity (e.g. Landau, 2009). A crisis rooted in the complexity of financial products, but also in the sheer complexity of the global financial system as a whole, one which escaped the bounds of any of the (admittedly rather limited) attempts to regulate it. Beyond the financial system, the last thirty-five years have seen ever-increasing globalisation, the disaggregation and complexification of global supply chains, increasing global flows of capital and labour, and the intensification of more complex forms of identity and subjectivity such as individualism (Cerny, 2008; Mirowski, 2013; Murray, 1989). Each of these have increased the abstraction, interconnectivity, multi-scalarity, and sheer complexity of political, economic, and social systems.

If a singular form of politics is to be identified as predominating within this environment, it is neoliberalism. Though it takes many different forms throughout the world, neoliberalism has been the leading political force on a global basis since the 1990s, and in many nations, since the early 1980s (Harvey, 2005; Plehwe & Walpen, 2006). While neoliberal politics certainly does not appear to have any convincing answers to many of the pressing issues related to the ever-increasing complexity of our world at the beginning of the Twenty-First Century, it has developed the tools necessary to proliferate within a complexifying environment, and to generate such complexity in turn. Indeed, many of the proponents and ideologues of neoliberalism claim that its suite of hallmark policy measures, such as financial deregulation, and the marketisation and privatisation of public services, are the only way that complex social systems can be managed at all (Mirowski, 2013, pp. 56, 326). In this they are inspired by the thinking of an early theorist of social complexity, the economist Friedrich von Hayek, whose
work claimed to demonstrate the impossibility and undesirability of effective economic planning and intervention (Hayek, 1962, 1964). The ideology of neoliberalism is, therefore, in a sense an ideology of complexity (Dean, 2013).

To think a politics that might challenge neoliberalism depends, to some extent, on being able to think and strategise within this complexifying world. Yet since the fall of Communist states in the early 1990s, the left has been globally in retreat. New forces have arisen to challenge the global predominance of neoliberal politics and economics, forces such as the alter-globalisation movement of the late 1990s, to Occupy, autonomous horizontalist movements, and the European anti-austerity politics of today (Chesters & Welsh, 2006; Roth, 2011; Sitrin, 2006; Taylor & Gessen, 2011). However, while these movements are capable of surprising moments of success on a local level, the global picture remains one of the overriding predominance of neoliberal ideas, practices, and institutions. The trajectory of most societies today is towards ever-more neoliberal forms, a process which has only intensified since the 2008 crisis (Blyth, 2013). Our present moment therefore raises a number of questions: how can we properly think this profusion of social and political complexity? What might such theorisations imply about the kinds of politics required to address complex global issues, or properly challenge the predominance of neoliberalism?

The basic claims of this thesis are as follows. Firstly, we can find the tools to understand social complexity within the body of thought known as complexity theory. In turn, a social theory of complexity can help inform political theory. The conceptual innovations of complexity theory can be deployed to rethink a pre-existing political theoretical tradition, one which has always been used to analyse complex socio-political phenomena, the tradition of political hegemony theory. The task of this thesis is therefore to establish the grounds for a new theory of complex hegemony, to re-build existing political theory, and in so doing help understand the increasingly complex dynamics of our contemporary world.

i. Why Complexity Matters
How can we understand this complex world, so as we might begin to change it? One potential solution lies within the body of thought which has developed to study complexity itself, complexity theory. Beginning in the natural sciences, and emerging
out of a confluence of different precursor disciplines, (such as thermodynamics, cybernetics, and chaos theory), complexity theory today constitutes a massively interdisciplinary project to define, measure, and understand complex systems (Mitchell, 2009).

It is necessary first of all to offer a rough definition of what complexity is. Complexity, in the formal sense, means more than the ordinary language use of the term, which would be roughly equivalent to ‘intricate’ or even ‘hard to understand’. While complex systems are certainly intricate in form, and may indeed be hard to understand in practice, the sciences of complexity have a more specific idea of what complexity is. A full definition remains the work of the first chapter of this thesis, but for now we can define a complex system as one that is more than merely the sum of its parts (Cudworth & Hobden, 2011, pp. 4–5). In other words, complex systems feature forms of order that emerge from the relations of their components. Emergence is therefore perhaps the most important concept in determining whether a system is properly complex, or merely complicated (Byrne, 1998). Much follows from this basic insight: complex systems need to be studied holistically, the relations between parts are as important as the parts themselves, relations tend to be non-linear, and so forth. From such principles, we can begin to locate order within complexity. Complexity theory, in short, provides an array of formal concepts that can serve to give analysts of complex phenomena some basic grasp of their dynamics, structure, and operation.

Complexity theory has spread from the natural sciences and mathematics into the humanities and social sciences, often mediated by thinkers who pre-empted some of the crucial ideas of complexity, such as Alfred North Whitehead, William James, Friedrich Nietzsche, and Henri Bergson (Connolly, 2013, p. 29) as well as theorists whose thought was partially marked by early waves of complexity ideas, such as Gilbert Simondon, Gilles Deleuze, and Félix Guattari, amongst others. It has filtered into sociology (DeLanda, 2006; Elder-Vass, 2010; Sawyer, 2005), international relations (Bousquet & Curtis, 2011; Cudworth & Hobden, 2011; Urry, 2003; Walby, 2003), and political theory (Connolly, 2011, 2013; Jervis, 1997; Morin, 2006, 2008; Strand, 2007), amongst many other disciplines. There is no singular complexity theory, given its interdisciplinary nature, and also no one way of interpreting this field of knowledge within the social sciences and humanities. Indeed, an important question, which the first two
chapters of this thesis will seek to address, is precisely what complexity is and how its ideas can be legitimately translated into the study of human social phenomena.

ii. Complexity & Hegemony?

To move from a general social theory of complexity to a complexity theory of politics, we need to introduce complexity into some form of political theory, one which addresses questions of power, agency, and strategy. We propose that one way to achieve this is to use complexity to rethink the framework of hegemony, a Marxist political theory concerned with the issue of leadership (in the broadest and most diffuse sense of that term). Why hegemony, rather than some other political theoretical tradition? The work of Foucault, for example, has been often been considered to be attuned to the complexity of social formations, and indeed compatible with complexity theory (Olssen, 2008). Simultaneously, much work on complexity and politics from a left wing perspective has been mounted via anarchist or autonomist thought (Chesters & Welsh, 2006; Karatzogianni & Robinson, 2010; Landstreicher, 2004). Meanwhile, hegemony itself has often been taken to mean merely a cultural form of power, to be simply a synonym for ideological politics (Beasley-Murray, 2010), to be essentially linear and non-complex (Lash, 2007) or alternately, to be limited to the bounds of the nation state (Day, 2005). Likewise, others have recently announced its supersession as theoretically outmoded, unable to grasp the new modes of power in an era of social networks, post-Fordisation of the economy, and globalisation (Lash, 2007; Thoburn, 2007).

Against such ultimately misguided viewpoints, we argue that hegemony is best suited to take on the role of understanding the politics of complexity. As a political theory, since the time of its most important proponent, Antonio Gramsci, it has had the distinct advantage of being both a tool for analysis or critique, and simultaneously one for prospective strategisation. Hegemony is a theory that has developed in relation to the changing conditions ‘on the ground’, a practical tool for building the future, rather than merely an academic exercise in the critique of the present. Because of this, it has two lines of convergence with complexity – in terms of the conceptual vocabulary already used by existing theorists, and in the sense of the historical development of the concept.

Existing hegemony theory displays some significant affinities with the concerns of complexity theory, with an often unremarked upon seam of references to social
complexity and emergence running through the works of many of its leading thinkers. Gramsci’s *Prison Notebooks*, for example, are replete with references to hegemony as an emergent result of an unstable “equilibrium of forces” (1971, pp. 107–8, 132, 172, 182), as well as arising from processes of “spontaneous attraction” (Gramsci, 1971, pp. 60–1), terminology that resonates with the concerns, as well as the conceptual language, of complexity theory. Raymond Williams described his notion of pre-hegemonic ‘structures of feeling’ as being governed by complex interactive processes and being emergent in nature (1977, pp. 121–7), while Stuart Hall, another key analyst of hegemony, theorised Thatcherism as an emergent political phenomenon (1983). Ernesto Laclau and Chantal Mouffe repeatedly discuss social complexity and the growing complexity of the social in their work (e.g. 1985, pp. 28, 66, 71–2), as well as frequently referring to the “emergence” of particular hegemonic positions from specific systems of political articulations (1985, pp. 20, 56, 61, 64). More recently, Deleuzean cultural studies theorists, such as Lawrence Grossberg and Jeremy Gilbert, have drawn explicit reference to “the irreducible and ever-intensifying complexity of social life” as well as to complexity theory more explicitly (Gilbert, 2008, pp. 103–4). Meanwhile Jonathan Joseph’s critical realist work theorises hegemony as an emergent property of the interactions of agency and structure (2002, p. 39), and Bob Jessop has discussed complexity theory as one future path for the hegemonic analysis of state power (2007, pp. 225–243).

Hegemony theory is, therefore, already in sync with the concerns of social complexity. Yet in spite of a frequency of allusions to social complexity, to hegemony as an emergent phenomenon, and even to complexity theory as a body of thought that might provide the fertile ground within which to rethink hegemony, the relationship of hegemony theory to complexity theory has remained largely unformalised. These ideas remain inchoate and germinal, opening the space for a potentially fruitful formalised engagement of hegemony with complexity.

The process of the historical development of the theory of hegemony is also closely related to increasing social complexity within the real world. Many of the crucial shifts in the history of hegemony have occurred at moments when pre-existing Marxist political theories broke down, when faced with a reality that was more complex than previously anticipated. The classic Marxian idea ran that the economic dynamic of
capitalism would over time generate a simplification of social structure, with increasing proletarianisation leading to societies clearly divided into the owners of capital on the one hand, and an increasingly immiserated working class on the other. As Marx and Engels put it in *The Communist Manifesto*:

“Our epoch, the epoch of the bourgeoisie […] has simplified class antagonisms. Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other — Bourgeoisie and Proletariat.”

(1848, p. 34).

The strategy of the revolutionary proletarian takeover of the state was to occur on this basis. The breakdown of the social simplification hypothesis occurred in different ways in different places. The origins of the modern concept of hegemony occurred firstly in pre-revolutionary Russia, where the lack of industrialisation, weak civil society institutions, and preponderance of peasantry meant that any revolution would of necessity have to be a form of class coalition, described under the concept of ‘gegemoniya’ by Plekhanov in 1884 (P. Anderson, 1976, p. 15; Laclau & Mouffe, 1985, p. 50). The later and most epochal reformulation of the idea occurs in the hands of Gramsci, where hegemony becomes a double-faced concept deployed to understand both the multilateral power of the bourgeoisie in the age of the integral state, and the strategy of the working class to surmount it. This transformation took place because of the complexity of social relations in the ‘mature’ democratic capitalist states of the 1930s (P. Anderson, 1976; Gramsci, 1971). Likewise, the subsequent abstraction of hegemony by Laclau and Mouffe was also developed at a moment when reality seemed more complex than previous conceptual schemas allowed, with the arrival of the new social movements of feminism, anti-racism, and queer politics (Laclau & Mouffe, 1985).

The history of hegemony is suggestive, therefore, of a trajectory of refinement and evolution spurred on by the excess of reality’s complexity over existing theoretical understandings. The world is more complex than anticipated, and an evolution of the understanding of hegemony can work to better match this newly complexified situation. It is one of the central arguments of this thesis that we are faced with such a moment today, and that the resources of complexity theory might be put to work to reconfigure
our understanding of hegemony to better match the complexity of power in the contemporary world.

To do so raises a question as to the disciplinary basis for such a project. Both complexity and hegemony theory are bodies of thought that are inter-disciplinary in nature, bringing together diverse fields. Complexity theory, for example, bridges the hard sciences, mathematics, the social sciences, and even elements of the humanities (Byrne, 1998; Cilliers, 1998; Corning, 2002; Gershenson, 2012; Mitchell, 2009). Hegemony theory, respectively, spans empirical political analysis, political theory, international relations, political economy, continental philosophy, and cultural studies (Agnew & Crobridge, 2002; Davies, 2011; Gilbert, 2008; Gramsci, 1971; Joseph, 2002; Laclau & Mouffe, 1985; Williams, 1977). Bringing these two trajectories of thought together is therefore an inter-disciplinary project. While clearly located within the broad remit of political and social theory, it also of necessity touches upon a number of other fields, from the philosophy of science to cultural studies and political economy.

iii. The Structure Of This Thesis

Our project begins in the first two chapters by setting out a general theory of social complexity. Chapter 1 assesses the current status of complexity science, and draws up a set of criteria to determine what a complex system actually is, how complexity can be measured, and what conditions need to pertain for complexity to emerge. From this we ascertain the general features of complex systems. Such groundwork is necessary given the range of often contradictory viewpoints on what complexity is. Having established the basic tenets of complexity, the chapter then assesses some recent methodological work on how complexity theory should be used within the social sciences and humanities. We establish the importance of charting a course between quantitative scientism on the one hand, and a mystical post-structuralism that emphasises indeterminacy on the other.

Having set out what complexity is and how it might be applied to social phenomena, Chapter 2 consists of an exploration of social and political complexity theory proper. To do so we select three problematics for investigation: social structure, political change, and self-organisation. The first section assesses the question of emergence and the reality of social structure: are social structures, institutions, and properties real, and in
what sense? The second section examines political change through the conceptual frameworks of anti-hylomorphism, dynamical systems theory, and phase space. The third section of this chapter explores ideologies of self-organisation, the political implications of different understandings of the ways in which social systems organise themselves. This develops a critique of both left and right wing ideologies of self-organisation. On the basis of this critique, we set out an account of ‘really complex complexity’ – complexly articulated network-hierarchies – as the basic structural form of complex social systems.

Chapter 3 shifts focus to the other side of our project, articulating an account of hegemony theory. We track its origins in the history of early Marxism, through its emergence as the central idea of Antonio Gramsci’s thought in the 1930s, and towards its abstraction and generalisation in the 1980s work of Ernesto Laclau and Chantal Mouffe (Gramsci, 1971; Laclau & Mouffe, 1985). Our central argument here is that the development of hegemony within Marxian thought has followed a path of increasing abstraction in order to better match the increasing complexity of the phenomena it attempts to theorise. We develop a detailed reading of Gramsci’s understanding of hegemony, drawing on recent philological work by Peter Thomas, and the critical realist approach of Jonathan Joseph, to do proper justice to Gramsci as a thinker of multi-lateral power in the age of the integral state (Joseph, 2002; Thomas, 2009). We take note of the multitude of points of convergence between his conceptual innovations and the later ideas emerging from complexity theory, and distinguish Gramsci’s work from its many later misinterpretations, particularly Anderson and Bobbio’s equation of hegemony with consent (P. Anderson, 1976; Bobbio, 1979).

With a distinctive reading of Gramscian hegemony in place, the next section critically considers the abstraction of the concept in Laclau and Mouffe’s discourse theory. We argue that Laclau and Mouffe’s work was the correct move, in terms of abstracting and generalising hegemony, a move made necessary by the emergence of more variegated forms of left politics than those centred on class conflict. Yet the shift towards a social ontology of discourse, operating on language-like relations of difference and equivalence becomes increasingly incoherent the further the object of analysis moves from ideology towards the material, the scientific, the technological, or the infrastructural. As such, we ultimately conclude that the discursive turn in hegemony
theory is one which failed to preserve the full complexity of the social. We finish with a critique of recent arguments which have claimed that hegemony is outdated and has been overtaken by more sophisticated frameworks (Beasley-Murray, 2010; Day, 2005; R. Johnson, 2007; Lash, 2007).

With our readings of complexity and hegemony established, Chapter 4 brings the two sides of our project together to set out a theory of complex hegemony. We suggest a basic framework with four general mechanisms or features: hegemony as an emergent property, as guided self-organisation, as navigation within social possibility spaces, and as the effect of generative entrenchment. With each mechanism, we bring together key ideas from the social theory of complexity together with those from Gramscian hegemony, using a series of socio-political examples to illustrate how the proposed mechanisms work in practice. In order to avoid the pitfalls which befell Laclau and Mouffe, we next theorise how the framework mechanisms of complex hegemony operate in particular local domains. We explore the workings of hegemony in terms of bounded rationality, affect and culture, the economy, the state, technology, and infrastructural phenomena. The final part of this chapter sets out the implications of complex hegemony for strategy and agency, as a process which is partially intentional and partially autonomous in nature. On this basis, it sketches some of the essential coordinates for counter-hegemonic strategy ‘from below’ within this complexified understanding.

Chapter 5 puts the theory of complex hegemony to work in investigating the durability of neoliberal hegemony in the years since the 2008 financial and economic crisis. To do so, we weigh up two recent approaches to the issue, the ideological network school of Philip Mirowski and Dieter Plehwe, which emphasises the agential capacity of neoliberal institutions, and the more embedded and structural stances of Damien Cahill and Colin Crouch (Cahill, 2014; Crouch, 2011; Mirowski, 2013; Plehwe, 2009). We situate the theory of complex hegemony as being able to effectively mediate between the structural and agential biases of these two approaches. We then use the tools of complex hegemony theory to map the major features of neoliberalism within the UK since the crisis: the role of austerity as ideology and economic programme, the importance of post-democratisation and the weakness of alternatives to austerity, and the ‘hegemony of complexity’ implicit in neoliberal political economy.
In our conclusion, we contrast the theory of complex hegemony with some its theoretical ‘close relations’, drawing out the key points of divergence. We consider the broader implications of the theory in analytical and practical political terms, before setting out some potentially useful trajectories for future research. We conclude that in developing a theory of complex hegemony, we equip critical thought with some of the tools necessary to unpick the interwoven forces which govern our world. In seeking to better understand the nature of power, we also seek to supply those political forces marshalled against existing power structures with the means by which they might supplant them. In this fashion, the development of a more complex hegemony theory can contribute both to our knowledge of power, and to our powers to transform it.
1. Complexity: Science & Method

The term ‘complexity’ comes from the Latin *complexus*, meaning a weaving together. In a sense, complexity theory investigates the properties of systems of things in their interwoven causality, rather than taking each thread on its own. It is also itself a synthetic fabric of a theory, arising as it does from an interdisciplinary confluence of cybernetics, non-linear chemistry, network analysis, and the mathematics of dynamic systems. For these reasons complexity both *studies* complex entities, and is *itself* complex in nature. This has led to a high degree of plurality in both scientific and non-scientific takes on what complexity actually is, and what it entails for the social and political world.

This chapter is comprised of two sections. First, we explore the discipline of complexity science, to determine what kinds of systems are complex in nature, and the general principles governing their behaviour. A detailed assessment of the science is necessary because of the highly divergent definitions of complex systems in much of the scientific literature, as well as the often confused appropriations of it in political theory and social science. In the second section we turn to issues of methodology. How can the insights of complexity science be properly applied to the social and political world? Is complexity simply a useful metaphor which we can use to conceptualise the way social systems work, or is it ontologically real? Such methodological questions lead into an assessment of the relationship between post-structuralist thought and complexity, to locate in complexity theory not a re-enchantment of the world, but rather a continuation of Enlightenment scientific and social auto-critique. This will be to argue for a vision of political complexity theory which is generalised in application, systemic in approach, and differentiated in the way it treats human and non-human systems.

i. The Sciences of Complexity

The greatest impediment to a crisp and parsimonious definition of complexity is the divergence of current opinion on what it precisely consists of. It is therefore perhaps
more accurate to think in terms of a plurality of complexity sciences, rather than a single, settled body of thought.¹ For example, a leading article on the topic of defining complexity in a scientific context sets out no fewer than nine different definitions, many of which are contradictory, some of which are incoherent even in their own terms (Ladyman, Lambert, & Wiesner, 2013, pp. 2–4). With so many different definitions, our first task is to synthesise our own rigorous working understanding of complexity from a scientific and philosophical perspective.

The approach to defining this field will necessarily be taken from a number of complementary angles, building towards an overall picture of the state of the complexity sciences today. We begin by outlining the paradigm that complexity science overturns, before turning to delineate its direct disciplinary forebears. Next we set out the ways in which the property of complexity can be measured. Finally (and at greatest length) we examine the necessary requirements for complexity to emerge and some of the key properties of complex systems themselves.

**The Demise of the Clockwork Universe**

Given the still-unresolved nature of what complexity science *is*, it is perhaps easier to introduce the field in terms of what it is *not*, and the scientific paradigm which it replaces or supplements, classical Newtonian dynamics. In the broadest terms, classical scientific reductionism (of which Newtonian physics is the paradigmatic example) attempts to understand the behaviour of the natural world through gaining knowledge of its smallest possible component parts (Coveney & Highfield, 1995). In a sense, classical dynamic systems are no more than the sum of the interactions of their elements. By contrast, complexity approaches seek to understand the behaviour of systems (from galaxies to ant colonies, from chemical reactions to human economies) through a more holistic methodology. In other words, certain kinds of systems exhibit behaviour which cannot be simply reduced to the sum of their components behaviour in a straightforward fashion. This is not to say however that the complexity sciences refuse *explanatory* reduction, since to reduce remains essential to explanation as such, rather than mere description. Instead, this reduction rests upon understanding the mechanism-

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¹ “…what we might call modern complex systems science [is] not a unified whole but rather a collection of disparate parts with some overlapping concepts.” (Mitchell, 2009, p. 289).
independent properties of systems-qua-systems, that is to say a relational account of how systems operate.

Whereas reductionist science generally builds from a bottom up stance, complexity science contends that many systems can only be understood as systems, rather than as large agglomerations of tiny particles (or other relatively small entities). As Miguel et al put it in a recent paper “if the goal of particle physics is the ultimate analysis, that of complexity science is the ultimate synthesis.” (Miguel, Johnson, Kertesz, & Kaski, 2012, p. 2). It follows from this that the complexity sciences are integrative, unlike physics, biology, and chemistry, whose analytical methodology implies increasingly tightly defined specialisation. The trans-disciplinary nature of the complexity sciences is perhaps not unrelated to the difficulties in reaching a firm and exhaustive definition of the field itself, (Gershenson, 2012).

Prigogine and Stengers’ account of the historical dialectic of science identifies complexity as one of a number of post-Nineteenth Century disciplines to challenge the universe of classical Newtonian physics (Prigogine & Stengers, 1984, pp. xi–xxvi). These include quantum mechanics, general relativity, and complexity’s most obvious precursor, thermodynamics (Prigogine & Stengers, 1984, p. 217). Whilst quantum mechanics threatens the clockwork universe of Newtonian dynamics from the perspective of the very small (in temporal and spatial terms) and general relativity likewise via the very large (cosmological scales of time-space) complexity emerges as the threat of midsized phenomena, from chemical reactions and ecosystems to societies.

Arising fully with Isaac Newton’s Principia, the vantage point of classical science is summarised by Prigogine and Stengers as a vision of “the world [as] simple and governed by time-reversible laws.” (Prigogine & Stengers, 1984, p. 7). These laws are systemic, operating within essentially closed systems always tending towards equilibrium, producing an all-embracing universal mechanical harmony, cognisable through mathematics. ‘Reversible’ here refers to the ability to reverse the process being described and achieve precisely the same starting point (in both mathematical and physical terms). In other words, a form of science which refuses to admit the presence of time as a significant and radically transformative dimension of the physical world. From the Newtonian perspective, identified after Laplace with a mathematically secured
seat at the elbow of the divine architect (Laplace, 1951), we might predict the behaviour of the total universe and every component within it providing we possessed sufficient information about its initial state.

**The Disciplinary Roots of Modern Complexity Science**

The first breach in the timeless cosmos of mechanical force depicted by the Newtonian-Laplacian science arose with the field of thermodynamics. As the early Nineteenth Century saw the rise of the steam engine as key power source for a variety of industrial and transportation purposes, there was a growing need to develop a scientific understanding of the mechanical effects of heat. This new science studied macroscopic features (such as volume, pressure, and temperature) rather than the mechanical interactions of individual atoms through their velocity, force, and mass (Prigogine & Stengers, 1984, p. 104). Thermodynamics brings with it notions of entropy, irreversibility, stochastic probabilistic descriptions, and the potential for systems to operate in non-equilibrium states.

In addition to thermodynamics, contemporary complexity theory has its roots in two later disciplines: cybernetics and chaos theory. Each of these is significant as they contain ways of viewing, describing and defining complex systems which are otherwise absent from a purely non-linear thermodynamic account. Cybernetics, originating in the Greek term for ‘steersman’, was initiated by Norbert Weiner and John von Neumann (amongst others) in a sequence of high-level interdisciplinary meetings arranged from the mid 1940s, the Macy Conferences on Cybernetics (Heylighen & Joslyn, 2001, p. 2). Drawing on the linkages between contemporary mathematics, early computer science, and thermodynamics, this new field focused its attention on attempting to describe and model the behaviour of systems through understanding information, feedback, control, and communication (Mirowski, 2002, pp. 26–54). Cybernetics examines these phenomena not just in artificial or technological systems, but also in the natural, social, and neural worlds (Wiener, 1948).

Chaos theory is the third major root for contemporary complexity science, and emerged from a combination of mid-Twentieth Century attempts to simulate various large-scale natural phenomena (paradigmatically weather systems) and forms of chaotic mathematics. Chaos theory uses abstract mathematical concepts such as attractors and
phase space to understand the hidden order which underpins many apparently chaotic systems, (Cohen & Stewart, 1994; Gleick, 1987). Key chaotic concepts include extreme sensitivity to initial conditions, (most famously in the example of the ‘butterfly effect’), fractal geometry and iterative self-similarity in nature and mathematics (Gleick, 1987, pp. 11–31).

Each of these in their own way challenges the Newtonian universe, now revealed as describing only a very specific set of entities and their interactions, rather than being a set of universal principles for the entire physical universe at every scale. Thermodynamics, cybernetics, and chaos theory engender a new scientific language, one which confronts the still powerful popular view of science as micro-reductive discipline par excellence, and opens the door to the suite of approaches and phenomena under the rubric of complexity. Complexity as a scientific field is in a certain sense the latest name for a group of interlinked disciplinary practices which examine systemic properties.

**Measuring Complexity**

One way to begin to answer the question of what complexity means is by resolving how to measure it properly. The simplest way to measure complexity is in the realm of mathematical complexity, where the complexity of a given problem can be measured by the number of operational steps it takes to solve it (Papadimitriou, 2003). At issue here is the tractability of the problem in question, i.e. the practicality of arriving at a solution. Computable problems can be divided into two classes, P and NP. P indicates that the problem can be solved within polynomial time (i.e. \( n^x \)), and hence is generally tractable. NP problems are those which are exponential (i.e. \( x^n \)), and therefore massively more complicated and often essentially intractable. Examples of NP problems include the travelling salesman problem, where a salesman must visit \( n \) cities, minimising the distance he travels in total (Coveney & Highfield, 1995, pp. 35–6). No deterministic algorithmic solution has yet been found for this problem, and as the number of cities increases it quickly becomes intractable for a computer to solve. The solution usually used nowadays for similar optimisation problems are optimised Markov chain algorithms, or ant colony optimisation, which use behaviour similar to that displayed by ant colonies to randomly try routes with reinforcement loops to iteratively get close to the optimal solution for high \( n \) value problems, (Dorigo & Gambardella, 1997).
Another major alternative for measuring complexity relates to entropy or information content. Complexity as Shannon entropy measures the degree of complexity by the level of ‘surprise’ within a given system, reconceived of as a form of message or transmission of information, (Shannon, Weaver, Blahut, & Hajek, 1949). The problem with this mode of measurement is that it would accord entirely random messages of pure ‘noise’ as being the most complex. A potentially more useful version of this informatic way of thinking complexity is in terms of its algorithmic information content as proposed, variously by Gregory Chaitin, Andrey Kolmogorov, and Ray Solomonoff (Crutchfield & Young, 1989). Here degree of complexity is equal to the size of the smallest computer programme capable of creating a complete description of a given system. However, this still accords the highest degrees of complexity to absolutely random formations. Gell-Mann suggests ‘effective complexity’ to get around these problems, measuring complexity as the size of the smallest programme able to create a complete description of the regularities of a system (Gell-Mann & Lloyd, 1996). A closely related alternative measure seeks to quantify complexity via logical depth (Mitchell, 2009, pp. 100–1).

The thermodynamic depth approach, developed by Seth Lloyd and Heinz Pagels, measures complexity as the number of steps in physical reality necessary to create a given system, (Lloyd & Pagels, 1988). This has a degree of intuitive appeal, but the real-world applications of this measurement system seem limited, given the difficulties working out all the stages involved in say, the generation of an individual life form (which presumably would encompass the entire history of the universe to date up to and including the big bang, the formation of the solar system, and the entire history of evolution).

From contemporary information theory, Gershenson & Fernández have recently proposed a number of mathematical ways of measuring different aspects of complexity. They define degree of emergence as a measure of the information a system produces relative to that it receives. Self-organization, is defined as the difference between informational inputs and outputs. Complexity, in this conceptualisation, represents the “balance between self-organization and emergence, related to the balance of order and chaos”, (Gershenson, 2012, p. 17).
Another alternate system of measuring complexity, and perhaps the best as far as thinking about social complexity, follows from Herbert Simon’s idea of complexity as multi-layered hierarchy (H. A. Simon, 2007). From this perspective, the more degrees of hierarchy within a system, the more complex it is. For example, McShea has suggested that within the field of evolutionary biology, the complexity of organisms can be quantified by the degree of nestedness, a kind of structural measure of the relative complexity of a given biological entity (McShea, 2001). McShea has demonstrated that over time, the general evolutionary trend to date has been towards greater structural complexity in terms of the nestedness of the biological systems involved, from Prokaryotic cells all the way up to multicellular life forms and beyond. Using Simon’s hierarchical measure of complexity, we could substantiate the claim that social systems have become more complex over time by analysing the degrees of multilayered hierarchy, from relatively simple social forms with few degrees of hierarchy, to the massively intricate, global scaled multi-layered hierarchies of our present time.

The Conditions for Complexity

The question of what complexity is has been approached from a number of angles: in terms of what complexity stands in opposition to, (Newtonian science), its disciplinary roots, (in thermodynamics, chaos theory, and cybernetics) and the ways in which the property of complexity can be measured. Now we turn to considering what constitutes a complex system, or in other words, what the generally accepted elements of complexity are. These can be divided into two categories: the general conditions for complexity to arise, and the common features those complex systems display once they have arisen.

While there is still significant divergence of opinion on what constitutes a complex system, some generally agreed principles emerge from the scientific and philosophical literature on the topic (Ladyman et al., 2013; Mitchell, 2009, pp. 12–13). The most fundamental requirement, common to all accounts is irreversibility (e.g. time). To this we can add a structural condition, the presence of a number of relatively autonomous interacting elements in a system. Finally, there is a dynamic requirement, that the elements have causal relationships which ‘feedback’ upon one another, generating non-linear behaviour in the system as a whole.
At its most basic level, complexity theory is “the study of phenomena which emerge from a number of interacting objects” (N. F. Johnson, 2010, pp. 3–4). Before we touch on the issue of emergence more fully below, it is first necessary that the system in question consist of a number of interacting component parts. As already discussed, one of the fundamental differences between the types of systems described by thermodynamics and those modelled by Newtonian physics is as simple as the number of elements involved, frequently entailing billions of particles in a liquid or a gas. Even introducing a third body to a gravitational system introduces considerable complexity, (Wild, 1980). Alongside gravitational bodies and large collections of gases or liquids, we might also include human crowds, financial markets, cellular automata, or neuronal networks. What is important in each case is that complexity only pertains to the behaviour of the ensemble as a whole.

Another primary distinctions between the universe of the complexity sciences, and that outlined by classical Newtonian physics, is the presence of time. In the reversible world of Newtonian dynamics, any physical system can be run in reverse, with exactly the same set of mathematical equations underpinning the relationships of the various physical entities. Irreversibility implies the inability to do this (for example, it is impossible to run evolution in reverse). Prigogine & Stengers quote approvingly one of Karl Popper’s thought experiments, where a film is made of a stone being dropped into a sizeable body of water. If we watch the film in reverse, we will see the waves returning towards the centre, before the stone emerges. This process is impossible to actually effectuate in the real physical world, (Prigogine & Stengers, 1984, p. 258).

Encapsulated in this simple image is a fundamental shift in the history of science, and with it comes the potential for systems to have a history, with the possibility for self-organisation, path-dependency, the maintenance of far-from-equilibrium states, and evolution. The grounding for notions of irreversibility can be found within the field of thermodynamics, though Prigogine & Stengers argue for the irreversibility of quantum interactions also (1984, p. 285), which we will consider in additional detail below.

Complex systems feature feedback processes which enable the system to move from one state to another in a way which exceeds linear representation. Feedback is a form of circular causality, where an effect is fed back into its own cause (Heylighen & Joslyn, 2001). It was this kind of circular causality which was first systematically explored by
the early cyberneticians (Wiener, 1948). Feedback falls into two types: negative feedback serves to dampen a process down, whereas positive feedback reinforces it. Feedback, in reinforcing or countering existing tendencies within a system, acts to generate non-linear interactions between component parts. It is also therefore one of the primary motors by which systems are able to self-organise and hence increase in complexity. Examples from biochemistry include autocatalysis, where the presence of a given chemical serves to accelerate the process of its own synthesis, and cross-catalysis, where the products of two different chains of chemical reactions work to set in motion each other’s production (Prigogine & Stengers, 1984, p. 146). Feedback also functions as the key process by which emergence actually happens, principally via the establishment of circular causality between the component parts of a system and the emergent effects, fed back into the constituent elements through downwards causation. Feedback loops can also be identified as being the mechanism by which small changes to the initial conditions of a system can result in large differences in the end result. A famous example of this was the computational meteorologist Edward Lorenz, who in 1963 found that a miniscule rounding error when re-running a weather simulation resulted in radically different results over time (Gleick, 1987, pp. 23–31). As the system iterates and positive feedback operates as self-reinforcement process, such tiny differences become ever more amplified. Such amplificatory relationships between inputs and outputs is known as non-linearity.

In a linear system, change will be additive and directly proportionate (Fig a.) In non-linear systems, changes are multiplicative, and hence outputs may be massively disproportionate to their inputs, (Gleick, 1987) (Fig b.).

![Fig. a. Linear relation between x and y.](image1.png) ![Fig. b. Non-linear relation between x and y.](image2.png)
Non-linear systems are able to interact to create behaviours which are more than the mere sum of their parts, where very small changes in the initial conditions of the system can result in greatly different end results, underpinning the properties of emergence, feedback, the creation of far-from-equilibrium states, and ultimately the ability of complex systems to undergo processes of self-organisation.

**The General Features of Complex Systems**

Systems consisting of a large number of components, within irreversible time, where the components interact through feedback-driven relationships in a nonlinear manner, have all the ingredients to behave in a complex fashion. The specific features complex systems are able to display differ depending on the precise nature of the system, and hence the list of features below may not apply to all such systems. One important distinction to be noted is between complex systems and complex adaptive systems (henceforth, CASs). A chemical clock such as Prigogine’s Brusselator reaction, (which changes colour throughout the mixture at precise moments given the correct influx of chemical inputs) may be a complex system (Prigogine & Stengers, 1984, pp. 146–8) but unlike an ant colony, for example, it does not display adaptive behaviour. It is also to be emphasised that many of the following general features are highly interrelated to one another, often operating as different perspectives on closely implicated phenomena.

**Emergence**

The core property displayed by all complex systems is that of emergence. Indeed, emergence has been described as “the absolute of complexity” (J. Smith & Jenks, 2006, p. 62). Emergence means that, at the level of the system rather than at that of its component parts, new behaviours emerge which are not reducible to the behaviour of those components on their own. The whole acts in a new way. Perhaps the simplest example of this is water. A single H₂O molecule does not have the same properties as a body of billions of them. Here we find the point of distinction between a complicated system and one which is properly complex: the emergent properties of the system-as-a-whole, which render that whole explicable as a system, rather than a series of

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2 Although the oft-given example here is the property of ‘wetness’ we might prefer instead the property of turbulent fluid dynamics, given the fact that wetness remains a secondary property, and a single molecule would be imperceptible to a conscious observer, rendering the familiar example somewhat confused on closer examination.
decomposable elements, (Capra, 1996). Emergence has been defined as “the arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems.” (Goldstein, 1999, p. 49). However, emergence is a hotly contested term that affords no singular definition. We might also consider the difference between emergence on a structural-relational mereological level (a new ‘whole’ emerging from constituent elements) and emergence in terms of properties, powers and attributes.

Emergence is dominated by two distinct takes, which bridge the scientific and the philosophical. **Strong emergence** is the claim that emergent properties are entirely irreducible to those of the sub-components of the system in question. **Weak emergence**, by contrast, contends that whilst there are systemic properties, these can ultimately be traced back to the behaviour of the components of which the system is constituted (Bedau, 1997). On Bedau’s account, the costs of strong emergence (potentially jettisoning materialism entirely, given the literally inexplicable nature of the properties) outweigh the evidence. The danger being that strong emergence resembles a mystical ‘skyhook’ of the kind which undoes, rather than assists, in the task of explanation. For Bedau, however:

“There is a clear sense in which the behaviour of weak emergent phenomena are autonomous with respect to the underlying processes. The sciences of complexity are discovering simple, general, macro-level patterns and laws involving [such] phenomena.” (Bedau, 1997, p. 396).

The mere fact that a system supervenes upon the physical properties of its constituent elements does not mean that reductionist science is the most apt methodology by which to understand it. Instead, a science **at the level** of the emergent whole can better describe (meaning it can compress more thoroughly, can reduce in informatic terms) given the computational limits of reductive science (whether working at the level of the genome, molecular structure, or quantum mechanics).

Emergence can also be explored in terms of whether it is an ontological or epistemological phenomenon. Implicit in the majority of accounts from the world of complexity sciences is the latter position. Indeed, the implicit metaphysical commitment
of the complexity sciences broadly construed entail only that *at the level of explanation* that systems have properties which are best understood at the level of the system, rather than the parts. An alternative viewpoint is offered by Prigogine and Stengers, who hold to a strange form of weak emergentism in their analysis of the relationship between far-from-equilibrium complexity and the world modelled by quantum mechanics. Prigogine and Stengers want to understand the grounding of irreversibility, and locate it in a certain form in the quantum domain, where irreversibility prevents certain classes of initial conditions from existing. Hence:

“Irreversibility no longer emerges as if by a miracle at some macroscopic level. Macroscopic irreversibility only makes apparent the time-oriented polarised nature of the universe we already live in [...] far from being an ‘illusion’, this expresses a broken time-symmetry at the microscopic level. Irreversibility is either true on all levels or none. It cannot emerge as if by miracle, by going from one level to another.” (Prigogine & Stengers, 1984, p. 285).

For Prigogine and Stengers, the irreversibility already present in the quantum domain may emerge in a different form in macro-scaled structures, but is already present at the smallest levels of physical reality. Our own position will endorse a form of weak emergence, one with both epistemological dimensions (demanding level-specific explanations) and ontological dimensions (in terms of identifying complex structures as consisting of nested hierarchies). We develop this argument in the next chapter in an examination of sociological accounts of emergence.

*Downwards causation*

One additional and important concern of emergence relates to downward causation, the ability of the emergent whole to react back upon its constituent elements. As Chalmers defines it, higher level phenomena are able to exert a kind of causal efficacy, creating limitations or opportunities for low level entities (Chalmers, 2006). Chalmers distinguishes between strong and weak downwards causation, where the strong variant’s effects are not deducible even in principle from the initial conditions of the complex system.
In a related sense, Corning develops an account of what he terms synergy, where the powers or properties of certain configurations of elements are not attainable except in particular sets of relations, (Corning, 2002). Here synergy does not necessarily entail something more than the sum of its parts, but rather something different to the sum of its parts. Corning locates emergence as one of many different types of synergetic relationship, specifically demarcated as what happens when “constituent parts with different properties are modified, re-shaped or transformed by their participation in the whole.” (Corning, 2002, p. 11). This is also something captured by Thompson and Valera in their concept of reciprocal causality, (Thompson & Varela, 2001). One can consider downward causation, complex synergy, and reciprocal causality each as special kinds of feedback.

**Open systems**

Feedback occurs not just between different elements of a system, or between a system and its component parts, but also between the system and its environment, (Fromm, 2005). This means that complex systems, especially outside of simulation or controlled experimental situations, are massively open-ended. This is another major challenge which complexity poses to the Newtonian paradigm. In addition to creating methodological issues for the real-world study of complexity, the open nature of these systems is key to many of their properties. Far-from-equilibrium systems, for example, require a degree of openness to their environment in order to draw in energy to power their processes. Complex adaptive systems go further in terms of processing information about their environments in various different ways, most significantly in evolutionary processes of selection by environmental fitness (Mitchell, 2009, p. 13).

**Path-dependency**

Large scale complex systems operate with a history, and as such certain transformations may not only have unpredictable effects (i.e. they are non-linear), but can also ‘lock in’ certain features in ways which are not easy to anticipate. Often these may be relatively arbitrary in nature. One example for social systems is the ‘qwerty’ keyboard, developed initially in an era of mechanical typewriters as a solution to avoid jamming the keys, distributing the most commonly used letters as far apart from one another as possible. The effect of this was that generations of typists learnt to use this keyboard layout,
which meant even when the technical systems were massively upgraded, the keyboard configuration remained (Liebowitz & Margolis, 1995).

Other examples include the automotive combustion engine, the domination of companies who are first to the marketplace with key consumer product innovations, and the long-term constraints imposed by large technical systems on the supply chain ecologies which feed them (Miguel et al., 2012). In a sense, path-dependency is the result of the combination of non-linearity creating sensitivity to initial conditions, within the ongoing irreversible medium of history, allowing contingent facts about the initial state of the system come to exert a form of limited causal efficacy.

Self-organisation
The propensity to generate self-organising behaviour is already apparent from our discussions of the previous general features of complex systems. The term is often used loosely, and can refer to anything from the basic emergence of new wholes, (literally, the organisation of a self), to the emergence of ordered patterns from apparent chaos, to high level adaptation and information processing. We detail some of the major strands of self-organisation below.

Far-from equilibrium states
Another way of thinking self-amplifying systems is through Prigogine and Stengers account of non-linear thermodynamics of far-from equilibrium states (1984). As discussed in the introduction to this section, a major transition from Newtonian mechanics to the world described by contemporary science is the abandonment of the notion that the general state of the universe is one of equilibrium. Prigogine and Stengers delineate three kinds of thermodynamic states: equilibrium, close-to-equilibrium, and far-from-equilibrium (1984, pp. 131–177).

Equilibrium thermodynamic systems are simplistic, obeying the laws of Nineteenth Century thermodynamic science, where heat evens out and everything tends towards an even spread of energy within the system. Close-to-equilibrium systems, essentially chemical reactions fed with the correct catalysts to induce ongoing reactions and thermodynamic forces (for example, a temperature gradient setting up a heat flux) are relatively weak, and can be modelled using linear equations. As such, close-to-
equilibrium systems are predictable, tending as they do towards a state as close to true equilibrium as possible “consistent with the forces that feed them.” (Prigogine & Stengers, 1984, p. 139). These systems continue to produce entropy (unlike their equilibrium counterparts) but settle down into a state which is wholly deducible via general laws from its initial state. Far-from-equilibrium systems, however, are less predictable, non-linear, with reaction rates operating as much more complex functions of sets of forces. Put simply, once the thermodynamic forces affecting a system are pushed beyond a certain point (i.e. towards the region of reactions demarcated as far-from-equilibrium) stability “can no longer be taken for granted.” (Prigogine & Stengers, 1984, p. 140). Certain instabilities become amplified and lead the entire system to shift towards a radically new state. In a sense, far-from-equilibrium systems are those which are most able to support feedback loops.

In their discussion of far-from-equilibrium systems, Prigogine and Stengers employ the concept of a ‘dissipative structure’ to express the ability of heat transfer to operate as a source of order in far-from-equilibrium systems (1984, pp. 142–3). Dissipative structures are macro-scaled entities, existing intrinsically only on the supra-molecular level. These structures acquire energy from their environment, use that energy to maintain or develop their structuration, and resist the entropic tendency towards dissolution. To do so, as well as increasing the complexity of internal structuration, they effectively export or ‘dump’ entropy into their outside environment. They mark the move from chemistry towards biology, with chains of catalytic loops working to generate non-linear cascades of reactions, similar to metabolic reactions in living beings.

Order in chaos, order out of chaos
In thinking of the emergence of order from chaos, a number of principles have been developed from within the field of chaos theory (Gleick, 1987). What is crucial to emphasise here is that ‘chaos’ does not signify total disorganisation, or randomness, but rather a curious form of order. Prediction in detail of chaotic systems is impossible, but large-scale features can be highly ordered.

The first of these is what is termed period doubling, where a linear relationship between parameters first oscillates between two values, then four, then eight, in a predictable
sequence of bifurcations, until it reaches a point of chaos (Fig c.). At each bifurcation point, deterministic description breaks down and only a statistical or stochastic description is now possible, (Prigogine & Stengers, 1984, pp. 177–8). The second large-scale feature of chaotic systems is Feigenbaum’s constant, which holds that each period doubling occurs approximately 4.6692 times faster than the prior one, resulting in a regular asymptotic approach on the way towards becoming chaotic, (Mitchell, 2009, pp. 24–9). Here we have a vision of chaos which rather than being absolute and entirely random, is instead deterministic, in the sense of being able to arise from relatively simple deterministic systems, and in a secondary meaning of giving rise to predictable patterns within the apparently chaotic distribution.

Fig. c. A plot of a logistic map with respect to growth rate, displaying characteristic period doubling bifurcations towards chaos, (reproduced from White, 2009).

If chaos theory gives us tools to think the occluded regularities hidden within chaotic systems, then Prigogine has an alternate viewpoint which seeks to understand how order (in the sense of new quasi-stable states and structures) emerges out of chaotic fluctuations, (Byrne, 1998, p. 16). Here Prigogine moves beyond predictable patterns, and identifies the way in which feedback loops within far-from-equilibirum systems can create genuine order. Fluctuations which give rise to new structures do not do so in a single step, but rather develop through a nucleation mechanism, where a nucleus above
a certain threshold is required to tip the system into a full blown phase transition through a sequence of feedback loops towards a new form of stability (Prigogine & Stengers, 1984, pp. 187–8). This notion of critical thresholds beyond which a complex system will flip from one state through rapid fluctuations to another is reminiscent of the idea of the ‘tipping point’, (Gladwell, 2000). Non-equilibrium, rather than delivering unintelligible randomness, actually creates order out of chaos.

**Networked interrelationships**

Many complex system organisational structures can be analysed as networks, that is to say, as a configuration of nodes, relations, and hubs. Major progress has been made in the last decade in developing a set of general laws for networks, often devised via mathematical analysis. One of the key common features which have emerged to date from network science is the notion of scale-free networks. These feature a small number of high-degree nodes (hubs), self-similarity, and a ‘small world’ structure of low average path lengths and high clustering, with the degree of node connectivity spread over a power law distribution, i.e. with many more low-degree nodes than high-degree hubs, (Barabási & Albert, 1999). Barabási and Albert have proposed that scale-free networks are extremely common because of a process they term ‘preferential attachment’, where those nodes which already have a high degree of connectivity will grow connections at a faster rate than those with a lower degree of existing connectivity (1999, p. 511). This distribution means that on average, networks are generally remarkably resilient, but if specifically attacked at a hub, may be vulnerable to a ‘cascading failure’ (Zhao, Park, & Lai, 2004).

**Nested assemblages**

Emergent systems can themselves become the component parts for even larger emergent wholes. In so doing, systems come to resemble a series of nested entities akin to Russian dolls. As we discussed in attempting to understand how to measure complexity, Herbert Simon considered that complexity itself is intrinsically multi-hierarchical, with each complex system composed of constituent sub-component systems, and each of these in turn further composed of their own component systemic parts, (H. A. Simon, 2007). Though Simon emphasises the near-decomposibility of each system (i.e. that there are always more strong relations within a given system than between it and others) this does not necessarily imply that the typology of hierarchy
which emerge are necessarily linear in nature. Indeed, emergent systems at one scale can interact with others at larger or smaller scales respectively. This multi-scalar interactivity is itself a source of higher level complexity within the meta-system of which they are all components.

**Complex Adaptive Systems (CASs)**

One particular class of complex systems is of special interest, given the range of highly advanced behaviours they display, and these are complex adaptive systems. CASs display sophisticated collective behaviour, signalling and information processing, and the ability to adapt to their environment. Collective action is coordinated without obvious leaders or centralised control system, producing organised behaviour often through relatively simple localised signalling, for example, the way an ant colony coordinates hunting for food through pheromone trails (Dorigo & Gambardella, 1997). The use of pheromone trails to attract other ants to a food source location can be thought under the idea of preferential attachment in network science (where those ants finding food return to their nest and reinforce the trail, over time iteratively generating a map for the entire colony to key food locations). Alternately, we might think this process as an example of Prigogine’s idea of nucleation and the emergence of ordered behaviour through positive-feedback reinforced informatic loops. Both of these analyses effectively capture elements of the kind of low level, simplistic behaviour which is capable of generating larger scale patterns of organisation which adapt the system as a whole to its environment in surprisingly sophisticated ways.

Random components to the behaviour of CASs is often essential, with order and intelligence emerging from the combination of random investigation with self-reinforcing feedback loops, which over time are able to map and respond to an environment or other stimulus. This combination of random distribution with self-reinforcement also lies behind many of the more advanced forms of machine learning, especially genetic algorithms, which deploy a simulated Darwinian selective processes to develop ever more effective approaches to anything from the fitness map for an aerodynamic carapace design to developing new facial recognition techniques (Mitchell, 2009, pp. 129–30).
Relative Autonomy of Parts

While complex systems always feature emergent properties of some kind, even including highly intricate modes of self-organisation as discussed above, each of the parts may remain relatively autonomous even while the whole they collectively constitute is able to modify their behaviour (Morin, 2008). Relative autonomy means that individual components of the system maintain a degree of independence, and are not entirely subsumed within the system they are a part of. This raises the closely related issue of the relationship between elements and the system in terms of information content, especially in systems containing elements capable of information processing at an individual level. This question will be considered in greater depth in the section below on complexity and the social sciences, touching as it does on issues of methodological individualism and its role in understanding complex systems.

It is enough at this stage however to note that the information state of the entire system cannot be contained within any single component within it, (Cilliers, 1998). This is of a piece with the nature of complex systems as more than the sum of their parts, and does not rule out some kind of ‘compression’ of the kind common to fractal mathematics and digital compression data formats. However, some accounts (such as Cilliers) will argue that beyond this informatic limit, each component must only be able to respond to localised information, with emergent order arising from the ‘blind’ interactions of relatively ignorant components.3 Suffice to say, however, the very existence of complexity science as such throws serious doubt on this being an absolute limit to some form of compressed information content of the overall system-state being available to its components, given the fact that the very findings of complexity science would seem to be operating in exactly such a manner.

ii Introducing the Complex Into The Social

Having explored the state of the contemporary complexity sciences, we can now begin to introduce these ideas into the study and analysis of social systems. The listing of the key properties of complex systems in the previous section provides some broad intimations as to how complexity might inform social and political theory. Emergence, downwards causation, path dependency, self-organisation, and nested assemblages, for

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3 There are strong resemblances between this kind of account of complexity and that outlined by economists of the Austrian school, in particular Friedrich von Hayek and his notion of catallaxy (Hayek, 1962, 1964).
example, all have applications in thinking the social. Complexity theory can therefore offer the social sciences a framework in which to understand issues such as:

1. The nature of causality, necessity, and contingency in social systems: are social laws possible, and if not, how can we best understand causality in society?
2. How the parts of societies relate to wholes: are social structures real? How do individual humans relate to and constitute such structures?
3. The non-linearity of the social: can we use ideas of feedback to help model and understand reflexivity?
4. ‘Messy’ or otherwise incommensurable assemblages: How do dramatically different kinds of entity (human, technical, ecological, geological etc) interact to produce emergent political effects?
5. How political and social change occur: how can we explain stability and instability in politics? Can ideas of punctuated equilibria replace both homeostatic and gradualist accounts of the social?
6. Possibility and modality in society and politics: Can we use ideas from complexity to think through what potential new future socio-political-economic equilibrium states might be?
7. The possible epistemic limits to thought and action: can we ever know the totality of social facts? How does this impact the ability of political agents to plan economic and social action?
8. The nature of self-organisation: is society itself a self-organising structure? What are the optimal organisational forms for collective political agents to take?

In this section we begin by examining a series of typologies for classifying different branches of complexity theory in the social sciences. After this orientation in the landscape of social and political complexity theory, we turn towards an analysis of the problems of the relationship between certain strands of complexity theory and post-structuralism.

An Orientation In Complexity Thinking
In assessing how ideas from the sciences of complexity can be used to understand social and political systems, we must first develop some account of methodology, epistemology, and ontology to guide us in our thinking. Just as the scientific account of
complexity is highly heterogeneous and spanning across multiple disciplines, so too are
the applications of these ideas in the social and political realm. To organise an analysis
of these divergent approaches, some theorists have attempted to taxonomise them into
categories. These taxonomies expose key faultlines which must be negotiated in
establishing a stance on socio-political complexity, and a brief exploration of three such
analyses will enable us to outline some of the key problems in applying complexity
thinking to social phenomena.

Perhaps the most common position is to divide the field between generalised and
restricted visions of complexity (Morin, 2006; Strand, 2007). Restricted complexity
allows for complex phenomena, but delimited and essential compatible with
conventional Newtonian science. Here complexity is a matter for a specialised scientific
discipline, which like all sciences seeks generally applicable covering laws to enable
prediction. As Morin puts it:

“The fundamental problem of complexity [is] epistemological, cognitive,
paradigmatic. To some extent, [restricted complexity] recognizes complexity,
but by decomplexifying it.” (Morin, 2006, p. 6).

Generalised complexity, by point of contrast, envisages that the epistemological
limitations implied by non-trivial complexity in the natural and social require a
thoroughgoing rethinking of the way science and social science are conducted.
Complexity-as-paradigm implies the wholesale rejection of reductionism, along with
generalised covering laws (Morin, 2006, pp. 6–7).

As we have discussed in the segment on complexity science, there is an important
distinction between explanatory reduction and ontological reductionism – and as such
complexity theory can be thoroughly reductionist at the level of explanation (to reduce
being to explain) without reducing wholes to their parts. In addition, while we might
only very rarely be able to produce covering laws relating to the behaviour of social
systems, this does not mean that we cannot explain their behaviour through an
understanding of the intersecting dynamics of key causal mechanisms.4 Restricted

4 Which follows a general shift in sociology from covering laws to causal mechanisms, though we must
also note the success of quantitative network social science in discovering generally applicable laws of
preferential attachment (Barabási & Albert, 1999).
complexity is inadequate to properly describe the social, and lacks fidelity to the full philosophical implications of the findings of complexity science. However, it is to be our contention that it is possible to go too far with a vision of generalised complexity. To do so is to ally complexity with certain strands of poststructuralist thought, which over-emphasise the *irreducible* contingency of the social. A generalised complexity paradigm, as applied to social systems, should not preclude calculation, planning, and manipulation. It does however require a quite drastic transformation in how these political processes are conceived and conducted.

Another recent typology is that presented by Bousquet and Curtis, who devise an essentially methodological categorisation of approaches to complexity thinking in the social field. Here complexity accounts can be subdivided into *metaphorical, computational*, and *systems* methods (Bousquet & Curtis, 2011, pp. 56–7). Metaphorical applications of complexity are qualitative, identifying in certain scientific theories of complexity powerful metaphors that can be used as the basis to thinking certain structural and dynamic phenomena within large-scaled social and political systems. In the field of international politics, Bousquet and Curtis hold that this category includes such theorists as John Urry, James Rosenau, and Robert Jervis (Jervis, 1997; Rosenau, 1990; Urry, 2003). Computational approaches largely favour an agent-based approach to the quantitative simulation of complex social systems. Such methodologies are potentially powerful in their ability to effectively enable experiments on otherwise intractably complicated social dynamics. They also, however, entail certain ontological commitments which may not be borne out by the implications of complexity science itself (i.e. methodological individualism – whether at the level of individual humans or nation states). Moreover, they tend towards a flattening of heterogeneity which may limit the full applicability of their findings (Cudworth & Hobden, 2011, p. 47). Finally, in the approach preferred by Bousquet and Curtis themselves, there is a systems methodology. Here systems theory is refurbished via a fully ontological application of complexity, bringing it into line with developments in post-structuralist philosophical and social theory (Bousquet & Curtis, 2011). We might also think this as a methodological variant of Morin’s generalised complexity or complexity-as-paradigm. While our own preference will be largely for just such a systems approach, as will become readily apparent there are more difficulties involved than Bousquet and Curtis
anticipate in bringing an ontologised complexity in the social field into line with many poststructuralist visions.

One final taxonomisation of social and political complexity thinking is developed by Cudworth and Hobden, in a four-fold subdivision based on ontological and epistemological approaches (Cudworth & Hobden, 2011, pp. 36–51). This analysis of complexity theory combines the insights of the generalised/restricted and qualitative/quantitative demarcations. Along an ontological axis, they distinguish between those accounts which find complexity in real social phenomena themselves, and those that locate it only in the models they construct of that phenomena. The epistemological axis is divided into those theories which take a hermeneutic approach to social phenomena versus those which take an essentially naturalist one. This results in four different possible orientations for complexity theory in the social sciences: metaphorical, network, differentiated and consilient accounts. Metaphorical and network approaches essentially translate into the metaphorical and computational methodologies outlined by Bousquet and Curtis. What Cudworth and Hobden’s account makes clear is that both positions share an ontological stance on the nature of complexity – embodying complex structuration and dynamics only at the level of discourse, (whether metaphorical-qualitative or simulatory-quantitative) rather than embedded in real phenomena themselves.

This typology also adds the additional categories of differentiated complexity and consilient complexity, being those approaches that take complexity to be more than a matter of simply how we describe the world (Cudworth & Hobden, 2011, pp. 48–50). These ‘thicker’, more ‘generalised’ stances on social complexity differ in terms of whether the social presents unique difficulties and exigencies to its conceptualisation and formalisation, as compared to natural phenomena. In this sense, consilient complexity thinking identifies no hard distinctions between the natural and the social, and hence both can be modelled with identical tools, whereas differentiated complexity theory acknowledges the additional layers of complexity inherent in human social systems above those of the natural world. Crucial here is the human ability to use intricate symbolic communication methods (paradigmatically: language), to store sophisticated representations of systems in minds/brains, (be they representations of other human beings’ mental states, cognitive maps of the systems they are inside, or
other ideational content) to achieve long-lasting cultural and historical memory, and indeed to deploy all of the above in long-term processes of collective reasoning. Each of these implies substantial additional layers of complexity, more intricate forms of feedback, and more elaborate dynamics. This is not necessarily to reinstall a humanist absolute divide between nature and culture, but merely to insist upon the methodological and epistemological distinctions entailed in human relationality which are absent from other systems.

That the intersection of scientific ideas and the socio-political is a controversial one should not be underestimated here. Tocrudely apply scientific models, concepts, and analyses to social systems runs the risk of a reductionist neopositivist scientism, to recall those such as Richard Dawkins who would reduce the complexity of the social to a mere interplay of genes and memes, (Dawkins, 1976). Conversely, it might also evoke an incoherent confusion of half understood ideas, in the mode lampooned (in a somewhat excessively caricaturing mode) by Sokal and Bricmont (1998). Somewhere between the Scylla of a totalitarian scientism and the Charybdis of a postmodern mysticism lies the proper relation between complexity and the social. Human systems certainly have features which non-human ones do not, and this means that any complexity theory of the social and political world requires us to explain, rather than ignore, these additional features.

From an examination of typologies of complexity thinking, we can determine some broad methodological preferences which will guide our application of complexity ideas. First, we will take a generalised complexity approach, seeking to fully explore the philosophical implications of complexity as it pertains to the social and the political. Second, such a generalised complexity stance will be operative largely through a thorough revision of systems thinking. Finally, in exploring the implications of complexity science for social and political systems, this stance will attempt to steer a course between crudely scientistic applications and obfuscatory mysticism, in holding to a differentiated vision. This will be to accept that human systems impose unique difficulties, whilst also holding firm to the belief that while complexity does impose

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5 See Sawyer, 2005, for an analysis of social complexity which affords full attention to these unique properties of human systems.

6 We might prefer the more complexity-infused evolutionary theory of Stephen Jay Gould here (Gould, 2002).
epistemological limitations, these are not absolute. The issues brought to light by examining the above typologies also draw out the key difficulties to be negotiated in the sections to follow.

Of Babies and Bathwater: Postmodernity and Complexity

One crucial question which has already been hinted at in the discussion of different typologies of complexity thinking in the social sciences is of the relationship between complexity, postmodernity, and poststructuralism. Put in these terms, a generalised complexity theory has many commonalities with French poststructural and postmodern thought, especially in terms of an emphasis on contingency, open systems, and non-linearity. In *Complexity and Postmodernism*, Paul Cilliers makes exactly this argument:

“...A number of theoretical approaches, loosely (or even incorrectly) bundled together under the term ‘postmodern’ (e.g. those of Derrida and Lyotard), have an implicit sensitivity for the complexity of the phenomena they deal with. Instead of trying to analyse complex phenomena in terms of single or essential principles, these approaches acknowledge that it is not possible to tell a single and exclusive story about something that is really complex. The acknowledgement of complexity, however, certainly does not lead to the conclusion that anything goes.” (Cilliers, 1998, p. viii).

While Cilliers’ preference is for Derridean accounts of language and Lyotardian accounts of the collapse of metanarratives, another common option in seeking a philosophical correlate from the field of post-structuralism is to use Deleuze (with or without Guattari). The ease with which complexity and post-structuralist philosophy can be integrated is manifest. Indeed, as Stephen Kemp has argued, the danger with social theory appropriations of complexity is that they often simply take it as a confirmation of what they already believe about the social world:

“...The vast majority of social theorists, [...] already believed that the social world was not predictable and could not be understood by undertaking linear

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7 See for examples of this John Protevi’s *Political Physics* and William Connolly’s *World Of Becoming* (Connolly, 2011; Protevi, 2001).
operations on quantitative information about social phenomena.” (Kemp, 2009, p. 85).

Moreover, there are strong arguments for a more refined account of unpredictability than many social theoretical complexity theorists provide. Rather than a binary of total predictability and unpredictability, Kemp contends we ought to think in terms of a spectrum, with complexity science capable of guiding us in thinking certain structural patterns (2009, pp. 90–91). This also means that, precisely as Cilliers remarks (1998, p. viii), the use of complexity in such contexts should not lead us to the conclusion that ‘anything goes’.

Part of the tension involved in incorporating ideas from complexity science into the study of political and social systems is treading the line between neopositivism on the one hand, and a kind of mysticism on the other. To demonstrate some of the dangers of the conjuncture between complexity and poststructuralism, next we will examine a recent tendency in American political theory, ‘new materialism’. This group of theorists make the error of allying complexity and poststructuralism in a fashion which results in a mystical process philosophy, rendering political analysis and action impotent.

**Complexity as Enchantment**

As summarised by Diana Coole and Samantha Frost in their recent collection, *New Materialisms*, the turn towards post-human political and social theory arises as an attempt to move beyond the ‘cultural turn’ (Coole & Frost, 2010). This switches the focus from language and discourse, towards a return to considering the materiality of things, with one of the chief influences being complexity theory. To explore the limits of neo-mystical appropriations of complexity within the study of social and political systems, we will critically explore the work of two key theorists of new materialism, Jane Bennett and William Connolly.

Bennett’s work examines the politics involved in complex assemblages of human and non-human entities (Bennett, 2010). In a break from the traditional subject-object distinction, Bennett hymns the agentic abilities of all entities, from particles to elephants, skyscrapers to nation states, as a kind of ‘thing power’. Humans, like all entities, living and non-living, sentient and non-sentient, are a part of a univocal
ontology woven into an eco-interdependent web. Human agency, on this account, is an interlocking network of humanity and nonhumanity, with the meshing of the two ever-harder to ignore. For Bennett, matter itself is eulogised as “wonderfully” or even “dangerously” “vibrant”, “lively”, and “vital” (Bennett, 2010, pp. 13–17). The vivid biological adjectives which pepper Bennett’s work are instructive, in that they dramatise the philosophical vitalism which forms the theoretical core of her project and her vision of what matter is. Her blending of Latour’s actor-network theory with Nietzschean vitalism creates an ontology of universal agency, arranged in complex assemblages, where each agent, rather than being a fixed and relatively stable entity, is a constant blur of becoming. Bennett is aware that a degree of opprobrium may be the result of such a trajectory, even joking that she deliberately risks “superstition, animism, vitalism, and anthropomorphism” in doing so (Bennett, 2010, p. 18). However, in seeking to defend a kind of strategic anthropomorphism, she argues that the benefits of a more inclusive approach to the kinds of entities social and political theory examines and takes account of is worth the risk.

Another key new materialist is William Connolly, whose recent book, A World of Becoming, shares many features with Bennett’s work, perhaps most importantly in terms of working from a common basis in vitalist process philosophy, with a decidedly mystical, imagistic stylistic bent (Connolly, 2011). Connolly defends a similar account of agency to Bennett, but his work attempts to knit together vitalism with complexity theory in a more explicit fashion. To do so, he strikes up a position similar to William James’ radical empiricism in seeking to bridge the gap between individualism and holism, a form of ‘connectionism’ where all relations are loose, incomplete, and partial, enabling the titular universal flux to take place. From complexity science he draws the ideas of pre-adaptation, redundant features within an entity or system, that following a radical shift can become decisively important; Poincaré resonances, a kind of feedback generating self-organizing tendencies in a time of transition; and open systems, potentially enabling highly improbable conjunctures between different subsystemic components, (Connolly, 2011, Chapter 1). Matter, for new materialists such as Bennett and Connolly, is an all-encompassing vitalist flux of becoming. Whether conceived as being structured via interlocking networks or ensembles of complex ‘force-fields’ and resonance, this materialism seeks to take into account the animate and the inanimate, the
sapient, the conscious, and the non-conscious, the organic and the artificial. Reality can be spoken of in a singular voice.

This is, ultimately, a rather problematic deployment of generalised complexity theory. In misreading complexity theory, it results in a system of thought that cannot properly explain, but only re-describe, and on this basis it generates a quasi-liberal politics which is frequently a poor guide to action. Within the sciences (including quantitative and computational social sciences) complexity theorists aim to extract general principles about complex systems. In contrast to Newtonian science, complexity approaches seek to understand the behaviour of systems through a more holistic methodology, in examining the emergent features of systems. Yet they still attempt to generate rules, principles, or mechanisms through which the structures and dynamics of systems can be explained. However, this is not always how complexity has been received by the social sciences and humanities. As Connolly puts it, “the arrival of complexity theory in the physical sciences [...] moves natural science closer to the concerns of cultural theory, as it surmounts reductionism.” (Connolly, 2011, p. 17). What is emphasised in these accounts is precisely the elements of complexity which are most comforting to the non-scientific scholar, shaped by recent developments in the post-structuralist tradition: the finitude of human knowledge, radical contingency, and the limited purview of human agency and cognition. The lack of a mechanistic determinist approach has all-too-often been seized upon by those who would seek to obfuscate material reality, in favour of an ontological-linguistic *performance* of processuality, flow, and becoming. This condenses into a mystical quietism, filled with a posthumanist piety for the inanimate and non-human world. A theoretical architecture developed around metaphor, and indeed a singular, all-encompassing metaphor at that, flattens real differences in the world, and proffering an irreductionist methodology in favour of explanatory purchase (Brassier, 2011). Just as a rhetoric of irreduction covers over a hyper-reductionism without a concomitant explanatory gain, a rhetoric of ‘respect’ for every thing obscures a discourse liable to elide the qualitative differences which matter most between entities of different kinds.

Far from a cutting edge materialism, what is offered in the writings of the new materialists is a pre-critical panpsychism. When read into global political situations this results in a ‘lava lamp liberalism’ - an ontology valorising flow, the vibrancy of matter,
and the agency of all things, which is incapable of actually analysing the material world such that we might effectively intervene in it. This does not mean that we should reject all of the individual insights which new materialists like Bennett and Connolly have. Ecological perspectives, for example, should be embraced, given that anthropogenic climate change is potentially the most critical threat to the continued existence of humanity in the Twenty-First Century. However, such considerations do not necessarily entail assenting to a panpsychist animism of neospiritual wonder at the flux of creation. Further, an expansive focus on multiple entities, (human and non-human) and the deployment of ideas of feedback from complexity theory are essential components of a political theory better able to understand the intricate non-linear dynamics of global change. Yet their incorporation does not require us to embrace a pre-critical metaphysical foundation.

Bennett describes her work as an “enchanted materialism” and while this is clearly intended as a provocation, perhaps with a brutal economistic Stalinist Marxism in mind, we should consider it an entirely accurate description of new materialism. Such a discourse of enchantment, while borrowing certain trappings of scientific terminology, results in conclusions which are mystificatory and politically paralysing. This sort of blending of poststructuralist philosophy and complexity-derived concepts also obviates the crucial distinctions between human and non-human systems. However, there is no reason why a generalised complexity theory, in communication with elements of poststructuralist thought, has to lead to this result.

**Complexity as Disenchantment**

Our own stance will be to develop a generalised, systematic, differentiated complexity theory which reads ‘the moment of complexity’ as a moment *within* the tradition of the Enlightenment. In this sense, complexity does not usher in a theoretical discourse where ‘anything goes’, where all-too often that ‘anything’ is a kind of eco-psychedelic theology of enchantment and wonder. It can instead be considered to be an inflection point of Enlightenment *autocritique*, delimiting new fields of knowledge and action as well as demarcating real limits to thought. Complexity science displaces the Laplacian-Newtonian vision of a world of determinist-reductionist physics for mid-sized objects, just as Einsteinian relativity and quantum mechanics do for macro and micro-scaled entities respectively. This means that the political implications of Enlightenment
thinking (humanism, mastery) need fundamental revision. Our differentiated conception of complexity theory requires us to attend to the important additional complexities of human systems, but this does not entail according the human a special ontological role. Similarly, whilst complexity implies the end of a clockwork universe of exceptionless predictive covering laws, we can still determine generally applicable principles to guide action.

A political complexity theory which is generalised, systematic, and differentiated seeks to understand more about the world and its dynamics so as to be able to intervene within it more effectively. Having oriented ourselves in the methodological course we wish to pursue, in the next chapter we will begin a detailed assessment of social and political complexity theory.
2. Social & Political Complexity Theory

In this chapter we assemble an account of social and political complexity. The points of intersection between complexity and social and political theory are numerous, and to examine each of them in turn would greatly exceed the bounds of this thesis. However, guided by our criteria of seeking a generalised, systematic, and differentiated account of complexity, we can select several areas for deeper exploration: social structure, political dynamics, and self-organisation.

First we examine emergence, already delineated as perhaps the most important concept associated with complexity, and its relationship to social structure. This will draw on recent critical realist sociology to answer the central question of whether social structures are real, the relationship between agency and structure, and sketch out the generalised organisational features of emergent social systems. Second, we move from social structure to political dynamics, deploying Gilbert Simondon’s idea of metastable equilibria to orient us in considering how the science of dynamic systems can help conceptualise processes of political change and inertia. Finally, we examine a range of ideologies of self-organisation, in particular those related to the neoliberal economist Friedrich Hayek on the one hand, and ecologically inflected anarchist thinkers on the other. Our aim here will be to critique reified accounts of self-organisation, networks and hierarchies which simplify the intricate complexities of the real world in favour of a relatively crude set of normative conclusions about the inherently liberatory powers of the network. A final conclusive segment outlines what we term ‘really complex’ complexity, which as opposed to typologically idealist theories, is a realist account of the nature of complexity in the social world.

i. Emergence and the Reality of Social Structure

One of the central questions for sociology is of the reality of social structures. Are social structures (meaning both organisational structures and ‘softer’ social properties like norms and institutions) ontologically real, and if so, in what sense? As opposed to
methodological individualists, many sociologists have wanted to defend a relevance for social structures which is independent of individual psychology, (Sawyer, 2005). But if social systems have a reality which is independent of individuals, what then is the relationship between individual humans, human agency, and the systems they are a part of? These issues have informed sociology for some time, in particular in the first wave systems theory of Parsons, influenced by early cybernetics and emphasising structure, stability, and homeostasis, and the second wave general systems approach of Bertalanffy, which began to include ideas of autopoiesis derived from biological systems theoreticians such as Maturana and Valera (Bertalanffy, 1969; Maturana, 1980; Parsons, 1951).

A number of recent sociologists have sought to refine new answers to these questions through detailed theorisations of social emergence, within a broadly complexity theory influenced approach. Of these, we can determine two important schools of thought. The first of these, most recently represented by Dave Elder-Vass, is grounded in the critical realism of Roy Bhaskar and Margaret Archer. An alternative approach has recently been outlined by R. Keith Sawyer, who while similarly holding that emergence ought to be the foundational concept for sociology, argues for a nonreductive individualist account. Both schools of contemporary emergentist sociology stand in opposition to the structurationist school as represented by Anthony Giddens, and also on certain accounts Pierre Bourdieu, which conflate structure and agency as effectively analytically inseparable. By contrast emergentist sociological accounts seek to stress the importance of both individual agency and social structures, and use emergence theory to think the relation between the two. At issue here is how social systems are structured, and what elements within them have real causal power. Resolving such questions is of importance for any political theory in determining which kinds of entity to privilege as being causally efficacious.

**Emergent Complexity-as-Critical Realism**

The emergentist sociology of the critical realist school aims towards thinking the reality of collective (i.e. social) phenomena. In this sense, it holds that social phenomena are created partly through individual action, and yet are not entirely reducible to human intentionality (Bhaskar, 1998). Society is therefore neither reified nor are we committed to a voluntarism regarding human agency. This position is grounded in Bhaskar’s
transcendental realism, which attempts to answer the question “what must the world be like for science to be possible?” (Bhaskar, 1975, p. 57). This is a transcendental realism in the sense of arguing that, for science to be comprehensible, causal laws must be real. This stands in opposition to empiricist accounts, which hold that objects of knowledge are mere empirical events, rather than real structures, and idealist positions which claim that they are simply human constructs. Reality, for Bhaskar, consists of three overlapping regions: the real, the actual, and the empirical. Causal powers and mechanisms, the objects of science, are real but not actual or empirical. Events (along with material entities) are within the actual, with the experiences generated by events being the properties of the empirical domain. In this sense, we can have causal powers which remain unactualised, and even when actualised, they may not result in an experience. As an example of this, Elder-Vass gives the power of flight: the causal power exists even if birds and other flying entities do not – and hence can be real without necessarily being actual, and potentially actual without being empirical, should an actual bird fly outside of the sense receptors of human beings (Elder-Vass, 2010, pp. 46–7). The job of science, on the Bhaskarian account, is to bring these three domains ‘into phase’, through scientific experimentation, enabling us to model causal powers through events we experience.

In social terms, this translates into a ‘synchronic emergent powers materialism’. As a materialist, Bhaskar argues that social phenomena supervene upon their material parts (human individuals, designed infrastructures, biospherical ecosystems, geological systems etc). This account of emergence is synchronic in the sense of pertaining to structural relationships between wholes and their parts rather than diachronic emergence, or emergence occurring in time. Real causal powers are emergent properties, emerging from certain configurations of systemic sub-components (e.g. humans). Moreover, outside of the artificially controlled environment of the laboratory, actual events tend to be produced by multiple ‘messy’ intersecting causes, termed multiple determination, (Elder-Vass, 2010, pp. 48–9). This stands in stark contrast to attempts to model the social with simple covering laws, and places critical realist sociology in line with complexity theory.

Archer’s critical realism draws on Bhaskar’s, outlining a vision of the social where emergent social properties are the result of interactions between the properties of
individual elements within social systems. What her theorisation adds is a *morphogenetic* element: a diachronic explanation of how social structures emerge within time, and come to have independent causal powers. Morphogenetic processes are those that enable wholes to come to be from the parts of which they are constituted, or how those wholes can be modified after they have come into existence, (Archer, 1995). Such processes combine with morphostatic ones, which essentially seek to preserve a structure or state for a system, (Buckley, 1967).

In *The Causal Powers Of Social Structures*, Elder-Vass develops the emergentist accounts of Bhaskar and Archer. For Elder-Vass, emergence in social systems occurs when a whole, formed of parts, possesses emergent properties. His argument for a variant of weak emergence works on the basis of a counterfactual logic: a property is emergent if it would not be possessed by any of the system’s individual parts on their own. This is a *relational* version of emergence, in that it contends that higher level causal properties can be explained by the specific relations between the parts which compose the whole. Entities with emergent properties are themselves composed of subcomponents, with the subcomponents themselves comprised of further elements, generating a structure of multiple layers, branching in a tree-like fashion, (Elder-Vass, 2010). This is the laminated view of an entity as consisting of multiple stratified layers, where each layer comprises a distinct decomposition of the system. When combined with Bhaskar’s notion of multiple determination and actual causation, this presents a way to think the different intersecting causal contributions of different emergent properties at different ontological layers within an entity.

As a sociologist, Elder-Vass’ theory of social emergence stresses the importance of downwards causation, the ability of the wholes formed by components to exert causal force back onto their subcomponents. Within social systems, downwards causation is perhaps the key form of emergence. To defend the reality of downwards causation, he distinguishes between synchronic *compositional* relationships (i.e. that the wholes are made from parts) and a diachronic *causal* relationships (i.e. that wholes can exert downwards causation, in time, back onto their parts). Here causal effects are produced by *all* the relevant layers of lamination within the entity, including the parts and the whole, (Elder-Vass, 2010, pp. 58–63). In the example given by Elder-Vass, a star, composed of particles, possesses the emergent causal power of emitting light. The
particles on their own will not do so (unless placed into some other emergent whole, such as an experimental set up). When the particle components are composed into a whole star (in a synchronic structural relationship) they can then begin to emit light (in a diachronic causal relationship) – as pressure from the mass of vast numbers of particles acts back onto the individual particles, enabling them to emit light. In so doing, it is both the property of the whole and the component parts which work together to enable the causal power to emerge and be actualised.

Using this theory of emergence, Elder-Vass turns towards thinking social structure. There are a number of competing conceptions of social structure in the sociological literature, being conceived variously as institutional (meaning collective representations, norms and values, in the manner described by Durkheim) as relational, (in the sense of actual causal relationships between entities, as in much of anthropology), and finally as embodied, meaning embedded in habits and skills, as elaborated by Bourdieu and Foucault, (Lopez, 2000). Both institutional and embodied accounts of social structure are effectively theories of certain kinds of properties, which belong to certain kinds of wholes. On the other hand, relational accounts require actual entities to be configured in relations, (Elder-Vass, 2010, pp. 83–6). Hence, in opposition to all these accounts, Elder-Vass’ own version of social structure is identified as being social wholes and the causal powers they possess, on the critical realist emergentist account, the only mode of social structure which is ontologically sound. If structure is to be genuinely causally efficacious (in a semi-autonomous fashion), then, for Elder-Vass, it must refer to the emergent causal powers of specific social entities (identified as social groups of different kinds).

Against the backdrop of this social ontology, Elder-Vass constructs a theory of human agency. Human individuals possess emergent causal powers, arising in part from the functioning of the brain. In examining the way that mental properties can be causally efficacious, Elder-Vass identifies two key forms of reasoning influencing behaviour: conscious and unconscious reasoning. This is in line with ‘dual process’ conceptions of human cognition, which sees thinking as divided between quick automatic ‘system 1’ processes and slower, more conscious, and more rational ‘system 2’ processes, (Kahneman, 2011; Sloman, 1996). System 1 reasoning is seen as effectively conditioned in the manner of Bourdieu’s theory of habitus, whereas system 2 entails
processes of reflexive deliberation. Both are emergent mental properties, that have some causal input into decisions, (amongst many other causes in multiple determination of actual causation) and hence into dispositions to certain forms of action (Elder-Vass, 2010, p. 98).

With both an account of social ontology and human agency, it is now possible to theorise particular social phenomena: normative ‘institutions’, organisations, and social events. According to Elder-Vass, the Durkheimian conception of social structure as normative institutions mistakes patterns of behaviour, (i.e. empirical regularities, as such, mere epiphenomena) with causes (i.e. real causal mechanisms). In keeping with his social ontology, instead we must identify which social wholes possess the causal power of generating normative social institutions. The bearers of such properties are what Elder-Vass calls normative circles – social groups which enact the normative practices in question. These groups operate through downwards causation, the reflexive acting back of the normative circle on its members (Elder-Vass, 2010, pp. 122–7). Norm circles can be seen as consisting of three kinds: actual norm circles (consisting of those who enforce a certain norm), proximal norm circles (those that influence norm formation but do not directly enforce) and imagined norm circles, an imagined community in the sense of Benedict Anderson’s imagined communities (B. Anderson, 1985). These different kinds of groups intersect, avoiding absolute top-down determination by social norms, instead resulting in a complex web of different social norm groups, often acting in contradictory ways on an individual. Because of multiple determination, including reflexive rationality about various causes, there is space to allow for social change and transformation.

This model of norm-circles informs the functioning of organisations. Organisations, such as states, corporations, and political parties, are emergent social wholes made up of individual humans, where the structure of the organisation depends on the roles the humans occupy, where roles are theorised via groups of norms. What organisations have that norm circles lack is an additional emergent causal power through internal specialisation. This specialisation is produced by the downwards causatory power of norm circles, generating role specialisation, which results in coordinated non-normative causal processes which exceed those of the individual members of the organisation alone (Elder-Vass, 2010, pp. 145–8). These processes of coordination can include non-
human components, like machines and material infrastructures. Organisations necessarily act through the individuals they are composed of, where “those properties the individual acquires by occupying their role are essentially properties of the organisation as localised in the individual.” (Elder-Vass, 2010, p. 158). Actual social events are always the product of complex networks of causal powers, and all of these come into play in macro-scaled events. Some large-scaled events occur through the actions of macro actors, such as collective entities like organisations. Others occur because of the actions of mega-actors, individual humans who capable of macro effects. Other large scaled events can emerge from the individual actions of smaller scaled actors, without being the result of a collective entity (for example the birth or death rate in a country).

Elder-Vass’ emergentist critical realism presents a form of generalised social complexity theory, one which is differentiated (in seeking to think through fully the unique exigencies presented by human systems over and above natural ones), one which uses a naturalistic mechanism (emergence – which applies to human and non-human systems) to help model how human systems operate. This form of realist social ontology works against the idea that social complexity is intractable, or a total barrier to any understanding of the way the social world operates. Instead it can form the basis for a methodology which works to identify key causal powers in operation, through a process of retroduction (abstracting levels of an entity to locate causal powers and mechanisms) and then through retrodiction (theorising how different causal powers interact in multiple determination to produce complex causal outcomes). Also, while the emphasis of Elder-Vass and other critical realists is predominantly on human beings, there is no reason why we cannot use the emergentist framework they present to think through the intersecting causal powers of non human entities in conjunction with human ones.

The Challenge of Nonreductive Individualism

Another recent account of the sociology of emergence takes a different standpoint on the role of emergence, and what the concept entails for the reality of social phenomena. R. Keith Sawyer’s Social Emergence is animated by the question of how emergence can be made more coherent, when both methodological individualists and collectivists deploy the concept in their work to theorise the way social systems work, (Sawyer,
Sawyer positions his work against both first and second wave systems theory in the social sciences, where the second wave is somewhat idiosyncratically defined to include both Bertalanffy’s general systems theory (Bertalanffy, 1969) and later complexity theory accounts which emphasise the mathematics of chaos, phase space, and attractors. He positions his own theory in the third wave of systems thinking, which is overtly concerned with complex adaptive systems, emergence, and agent-based computational modelling. He is concerned to avoid flatly applying naturalistic concepts and models to social systems, and is keenly aware of the role communication plays in complex social systems.

Sawyer’s emergentism attempts to solve five unresolved issues in the history of the concept of emergence: the reality of higher layers, the independence of higher levels, the question of whether emergent phenomena have causal autonomy, how to study multiple layers, and how to determine which systems actually manifest emergence (Sawyer, 2005, pp. 46–50). In seeking to answer these questions, he grounds his response in contemporary philosophy of mind, another discipline which has sought to use emergence as a central organisational schema. Here he follows a connectionist approach, taking the concepts of token identity, multiple realisability and wild disjunction as the basis for his nonreductive yet ontologically individualist form of emergent sociology. The idea of token identity is that every time a set of components configures itself into a certain configuration of relations, the same resultant emergent property occurs. This is compatible with methodological individualism, in the sense that without further argument, token identity quickly slides into type identity – the thesis that every higher level property has a direct correlate on the material base of the system. To argue against such a reductionism requires the idea of multiple realisability. This was Jerry Fodor’s argument: a mental state like happiness might not have a direct unique physical correlate in the brain. Happiness can be realised by a variety of different physical configurations within human neurology, allowing token identity without type identity, (Fodor, 1975).

Pushed to an extreme, multiple realisability becomes wild disjunction: where the same higher level emergent state can be produced by a variety of different subcomponents without a predictable pattern. Wild disjunction means it is possible to have token identity without type identity, and hence to be ontologically individualist while
requiring explanations at the level of social phenomena themselves (Sawyer, 2005, pp. 66–9). Most social phenomena will have wildly disjunct component configurations, for example the property of being a political party is generated by a configuration of properties belonging to its members, (sets of beliefs and actions), but can be the result of very different sets of component properties. Social phenomena which meet this test (one of complexity itself, in a sense) will not be reducible in a lawful manner. As Sawyer puts it “in complex systems in which wild disjunction obtains, methodologically individualist explanation may be in principle impossible” (Sawyer, 2005, p. 71). As such, this argument lends support to a form of social realism, i.e. the position that social properties have quasi-autonomous causal power, and hence are capable of genuine downwards causation.

While this position appears superficially similar to that presented by the critical realists, Sawyer views the nonreductive individualist position as distinct. Indeed, he present a series of critiques of the critical realist school, in particular focusing on their incomplete notion of emergence itself. At times his criticism of Bhaskar appears founded on certain misunderstandings of Bhaskar’s philosophy of science, in particular his typology of domains: real causal mechanisms, actual events, and empirical experiences (Sawyer, 2005, pp. 80–2). However, Sawyer does point out some potential contradictions in Bhaskar’s account, especially as regards the lack of connection between the theorisation of causality in the natural sciences and an explanation of how higher level social properties relate to the base on which they supervene. Archer’s account of social realism via morphogenetic emergence in time, where social structures generated by past individuals constrain the actions of later generations, is also found wanting. This is because diachronic emergence is effectively unproblematic for reductionists, since it can be explained at the time of the event by reference only to the causal powers of lower level parts. For downwards causation and social realism to be convincing requires a synchronic theory of emergence (Sawyer, 2005, pp. 83–4). Moreover, and most seriously both Archer and Bhaskar appear committed to the confusing combination of materialism (only material things are real) and some notion that social phenomena and properties are ontologically distinct, which comes close to social reification.

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8 Sawyer lists a series of properties for systems which are likely to display wild disjunction: non-aggregativity, non-decomposability, non-localisation, and highly complex rules of interaction. Social systems generally meet all of these requirements, (Sawyer, 2005, pp. 96–7).
Sawyer’s own argument, of the non-reducibility of social causal power in conditions of wild disjunction and multiple realisability is outlined as a remedy to these problems. Rather than generating a new ontological layer, Sawyer’s nonreductive individualist theory works on the basis of the impossibility of effective explanatory reduction. This in turn rests on a distinction between ontological and explanatory levels: social systems supervene ontologically on their component parts, and hence, on this analysis, individuals are ‘more real’ than social structures. What emerges here then is a different explanatory schema.

Perhaps this is not so far from the critical realist position as Sawyer makes out. Because of his misunderstanding over what Bhaskar means when he talks about causal mechanisms as ‘things’, he tends to view the critical realists as describing emergence on the level of entities, rather than properties, (Sawyer, 2005, pp. 80–2). Bhaskar himself, though, states that “generative mechanisms […] exist as the causal power of things”, (Bhaskar, 1975, p. 51) or in other words as the properties of entities. Indeed, as Elder-Vass’ account of emergentist critical realism makes plain, what distinguishes each emergent layer within systems are the particular generative mechanisms and causal powers which those levels possess, (Elder-Vass, 2010, p. 45) – and because these causal powers operate at different levels under different logics, we require different kinds of discourse to best understand their operations, hence the different kinds of sciences (physics, chemistry, biology) and social sciences (psychology, sociology etc).

Moreover, ontologically individualist accounts must always defend themselves from a further process of ontological reduction: why stop at this particular level of reality? For social systems, ontological individualists will argue that humans are ‘more real’ than social phenomena, yet they too face the threat of reduction to neurology, evolutionary biology, biochemistry, quantum mechanics, all the way down to string theory. It always ought to be possible to explore a given micro-macro connection (i.e. how a given layer is generated by its supervenience base of parts), but such micro-macro links do not necessitate the eliminative reduction of the higher layer entities. As Elder-Vass clarifies, he rejects the idea of strong emergence which thinks each emergent layer is an entirely new ontological domain, (Elder-Vass, 2010, pp. 32–3). There is only one ontological world, the world of matter. Layers are simply a way of classing entities with different kinds of causal powers, and hence are secondary. Every entity is a whole made of parts,
where the interactions between parts generate new causal mechanisms, allowing entities to possess new causal powers which the parts themselves would not have on their own. In this way, we can explain how new causal powers exist (in other words explain emergence) without explaining emergence away. As in the analysis of social institutions, Elder-Vass seeks to locate the material bearers of certain powers (in that case: social groups), and therefore rather than being ‘free-floating’, or pertaining merely to individuals, these new causal powers inhere in particular entities, including collective ones. It is for this reason that emergent entities, as well as properties, on this account at least, are real as well as individuals.

Though earlier critical realist positions had their confusions on these issues (with Bhaskar claiming a number of different and slightly conflicting accounts of how emergence operates) we can consider the picture painted by Elder-Vass to be a significantly more coherent version. At the very least, his development of lamination and multiple determination offer resources which can be used to strengthen Sawyer’s case for irreducible explanatory schema. Such laminated cross-layer multiple determinations add an additional layer of complexity into the account provided by Sawyer of wild disjunction: not only are actual events produced by wildly different parts and their properties on different occasions, but individual events can be produced by multiple intersecting causal layers. Each layer supervenes ontologically on the one below in an asymmetrical fashion, meaning that social systems cannot exist without humans, but individual humans could conceivably exist without social systems, and individual humans couldn’t exist without biochemical reactions, but biochemical reactions could conceivably exist without humans. However, in actual causation, multiple laminated layers of an entity act together to influence the final result.

Hence we could believe that, given supervenience, individual humans are ‘more real’ than social phenomena, the position of Sawyer’s nonreductive individualism. While such a stance can support a quasi-autonomous causal power for social phenomena at an explanatory level, it always remains open, on an ontological level, to further reduction to a deeper material substratum. In this sense, it remains aligned with a restrictive, rather than generalised, vision of complexity theory (Byrne & Callaghan, 2014, p. 55). Alternatively, we can follow the critical realists, in particular Elder-Vass, in holding to a more ontologically collectivist position, a position that we ultimately find more
convincing. In either sense, however, emergence requires those theorising the social to develop independent, level specific, explanatory schema.

**The Political Implications of Emergentist Sociology**

As Sawyer states:

> “Social emergence is the central phenomenon of the social sciences. The science of social emergence is the basic science underlying all of the social sciences, because social emergence is foundational to all of them.” (Sawyer, 2005, p. 189).

Indeed, any political complexity theory must seek to deploy the insights from emergentist sociology, to inform the way it thinks the structure of the social, causality and agency.

The critical realist social ontology of multiple layers of laminated entities, each a whole composed of multiple layers of further parts, gives us a way to theorise the structuration of social systems. In a political sense, this kind of structure provides a framework in which to consider a more complex set of systems than merely the individual versus some reified notion of society or the state. This complexified picture includes different kinds of political actor, from individuals, through to informal collectives, from political parties and social movements, to regions and states. Because this formulation is not universally stratified, it also enables us to theorise political entities which do not fit conventionally into any of these categories (for example international governance organisations, networks of think tanks etc).

Moreover, the concept of multiple determination gives us a powerful way to think the operation of causality in social systems. When combined with laminated entities, this provides a suitably complex picture of causality in the political world, with different kinds of entity, operating at different layers, each contributing to particular actual events through their different levels of causal power. As each of these layers operates under its own explanatory schemas, each with their own particular logics, this evades the dangers of the ‘flattening’ different kinds of actor, eliding the real and important distinctions
between the ways they operate, and hence the way we need to explain their behaviours. The critical realist school provides one suitable methodology for picking apart the complex web of causes operating in politics, through iterated processes of retroduction and retrodiction. The open ended account of multiple causation also provides a picture of social causality that leaves room for agency, without amounting to a voluntarism.

Elder-Vass gives us some intimations as to how emergentist sociology informs the theorising of social institutions and organisations, especially as regards the particular kinds of downwards causation these phenomena exert on their members. Ideas such as norm circles can be deployed by political complexity theorists to think some of the dynamics of homeostatic processes in political systems (such as the reproduction of ideology). Elder-Vass’ account of organisations can also be used as the basis for thinking about how role specialisation, generated through downward causation, create new kinds of causal power for the members of organisational forms (for example political parties, revolutionary battle groups, and labour unions).

Finally Sawyer’s ideas of multiple realisability in wild disjunction enable some further forms of assessment for complex systems, over and above the quantitative measures presented in the complexity science segment of this chapter. Political systems which are non-aggregative, non-decomposable, non-localised, and operating under highly complex rules of interaction (as most are) will all display emergentist dynamics.

ii Political Dynamics: Phase Space and Metastable Equilibria

Emergence is one of the key ideas animating social and political appropriations of complexity theory, but emergence alone is an insufficient tool to even begin to fully theorise the social. It also does not exhaust the conceptual and analytic richness of complexity. As such, a diverse group of philosophers and social scientists have sought to employ the language of the mathematics of chaos to think the social and the political. Notions of phase space, metastability, attractors, bifurcations, and symmetry-breaking, often combined with closely related ideas drawn from non-linear chemistry, have all been used to think how social and political systems work. Such ideas deepen our understanding of the structure of the social and political world, and also operate as explanatory schema for long-term dynamics of political change, stability, and

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9 As is the case with Bruno Latour’s actor network theory, (Latour, 2005).
instability. A question these kinds of theories enable us to answer is “how do the mechanisms producing social order periodically produce chaos and pave the way for radical social transformations?” (Harvey & Reed, 1994, p. 391).

In this section we will explore the work of the social scientists of phase space and the post-Deleuzean trajectory of complexity-driven ontology, but to begin to explore some of the implications of these ideas for politics, we commence with an analysis of philosopher Gilbert Simondon, an influence on the later Deleuze and Guattari. A concise exploration of his ideas of metastability and the critique of hylomorphism will enable us to outline some of the major thematic concerns for all the thinkers in this section.

**Metastability and the Critique of Hylomorphism**

One of the earliest philosophical accounts to think through metastability is contained in the work of Simondon. Though this work predates the emergence of complexity theory proper, it is one of the earliest bodies of philosophy to deal with the implications of first wave cybernetics, alongside thermodynamics, quantum mechanics, and crystallography (Combes, 2013, p. 10). In this sense we might classify Simondon as something of a philosopher of complexity avant le lettre. Though increasingly well-known for his work on the philosophy of technology, it is Simondon’s theory of individuation which has the greatest resonances with the concerns of contemporary complexity theory.

Simondon’s central interest in his work on individuation is to sketch an alternative to those positions that think individual entities are either always already constituted, or are the result of ideal form being imposed on otherwise inert matter. These latter positions he names as hylomorphic (Simondon, 1958). In essentially according primacy to the resulting individual, hylomorphic positions fail to give proper account of ontogenesis, (how beings come to be). His process philosophy identifies individual entities to be merely a “partial and relative resolution manifested in a system that contains latent potentials and harbours a certain incompatibility with itself” (Simondon, 1958, p. 300). In other words, the emergence of individual entities is merely one step in a continuum of becoming. Simondon develops an idea of the ‘pre-individual’, that stage of being
where there is no discreteness or individuation. Moreover, entities which have individuated can only preserve themselves in continual becoming, where there are no stable equilibrium points but rather a set of metastable equilibria: punctuated leaps between points of relative stability (Simondon, 1958, p. 301). Metastability is a state in-between perfect inert stability and total orderless flux, one which may allow multiple relatively stable results to emerge. Such a state requires us to think in explicitly thermodynamic terms of energy, entropy, order and disorder. As Muriel Combes puts it:

“A physical system is said to be in metastable equilibrium […] when the least modification of system parameters (pressure, temperature, etc.) suffices to break its equilibrium […] therefore we can consider] before all individuation, being can be understood as a system containing potential energy.” (Combes, 2013, p. 3).

Such systems always retain the potential to be other than themselves, to develop in surprising and potentially contradictory future directions, a picture of transformation in accordance with that painted by the contemporary sciences of complexity. While the complete metaphysics presented by Simondon in his work on individuation is problematic, (in particular when he turns to theorising rationality via a ‘transductive logic’), the concept of metastability and the critique of hylomorphism are important renderings of some of the concerns of complexity theory into the conceptual register of continental philosophy. We will turn to considering the notion of metastability, (as refracted through more contemporary understandings of the mathematics of chaos in dynamic systems) in more detail in the sections to follow. Before we do so, the critique of hylomorphism bares further reflection.

The critique of hylomorphism efficiently encapsulates a number of complexity associated issues, from the epistemic limits of knowledge in complex systems, to the problems potentially associated with centralised economic planning, to the ability of matter to self-organise. John Protevi describes the kind of ‘arche-thinking’ at the core of hylomorphism as being the view that all change is rooted in some kind of command, akin to a master instructing a slave to execute his wishes (Protevi, 2001). Processes of command ignore the fact that matter (be it a literal lump of wood or metal, or social or

10 This notion of the pre-individual has proven influential, in particular on Deleuze’s idea of the virtual. We will deal with this influence in more depth in the section on Deleuze below.
political ‘materials’ like a population or a social group) can only be formed to the extent that its internal tendencies, affordances, potentials and grain can be manipulated to produce such a form as a result. Matter itself is generative of order (through various processes of self-organisation) and any work upon it must necessarily be a kind of collaboration with the material potentialities contained within, rather than a crude application of ideal mental content. While we might initially consider a hylomorphic politics to be basically fascistic, hylomorphic schemas have been common to theoretical accounts of the political since the time of Plato, where the source of social order in the ideal state was identified with a kind of kingly mastery (Protevi, 2001, p. 123). Though accounts such as Deleuze and Guattari’s will tend towards a rejection of mastery in any sense, we might prefer to think the critique of hylomorphism as a crucial process of reformatting an idea of socio-political expertise, necessarily transforming our understanding of control, manipulation, and rule from a top-down command model to one which is more sensitive to the latent organising potentials already existing within social systems. This would be to shift towards a way of thinking action in complex political systems as being grounded in craft, rather than the hylomorphic architectonic vision.\textsuperscript{11} Such an approach will be outlined in the final section of Chapter 4, where we will examine new typologies of action appropriate for complexity.

The Socio-Politics of Phase Space
A number of thinkers of complex materialism after Simondon have come to use the mathematics of chaos as one way of thinking social change moving through stages of punctuated equilibria. One set of theorists who have engaged with these issues come from the social sciences, in particular political sociology, human geography and economics. From an ontological perspective, this group situate their work in accordance with critical realism, realist in orientation, and in opposition to empiricism, positivism, and idealism.

Harvey and Reed present a systematic, synthetic account of how social systems evolve, combining the dissipative systems theory of Prigogine and the evolutionary science of Stephen Gould, along with ideas sourced from the mathematics of chaos (Harvey & Reed, 1994). They propose that social systems are chaotically driven, thermodynamic

\textsuperscript{11} An anti-hylomorphic approach already surely present in the realist tradition of political theory beginning with Machiavelli’s \textit{The Prince} (1958).
entities, grounded in punctuationist evolutionary processes at both a biological and social level. On this account, social systems can be thought of as a special class of dissipative structure. Dissipative structures are dynamically governed by the rules of deterministic chaos, as they are extremely sensitive to initial conditions, and structured with dense periodic points displaying topological transitivity, (Harvey & Reed, 1994, p. 380). Dissipative systems are ontologically layered hierarchical entities, exhibiting emergence and the potential for downwards causation between layers (as already discussed in the sociology of emergence). These systems are thermodynamic entities, of the far-from equilibrium sort theorised by Prigogine and Stengers, capable of creating localised negentropy by importing energy from the outside to fuel processes of internal structuration (1984, pp. 12–14).

Dissipative systems are structurally metastable, capable of forming non-linear patterns of relatively irreversible change, such transformations tending to occur in sequences of assisted bifurcations following a perturbation. Far-from equilibrium systems can pass from relative order to chaos a number of times, with each crisis point of chaos presenting a choice in the sense of the two forks of the bifurcation pattern, and where each ‘decision’ in the history of the system opening new future options (Harvey & Reed, 1994, p. 386). In another take on the idea of emergence, they use the notion of symmetry breaking to describe how dissipative structures are able to evolve in more than just quantitative terms, but also to produce qualitative, emergent shifts. Two types of symmetry breaking are outlined: the first of which governs the usual development of a system, with the second pertaining to “the evolution of evolution itself” – or the ability to obtain entirely new degrees of freedom (Harvey & Reed, 1994, p. 388).

As a special class of dissipative systems, social systems are material (as well as normative), generally non-homeostatic, historical, ontologically layered entities, which also allow for causal influence between layers. These layers include both the natural and the social, alongside the technological, each of which operates according to its own local logics as well as being in relation to the broader complex layered totality. Individual and collective human agents, whilst organised within the logics of these nested ontological layers, as semi-autonomous agents, are capable of ‘deviant’ behaviour; effectively operating as ‘wild cards’ (Harvey & Reed, 1994, p. 390). Such an envisioning of the social presents social change as occurring in leaps, between
punctuated points of equilibria, where social systems are no longer (as in Parsonian systems theory) naturally homeostatic, but rather constantly boundary testing, highly material and thermodynamic entities. This also leads to an intricate schematisation of different societal systems, beginning with the natural world of mid-sized entities, (the world of deterministic chaos and thermodynamics) moving through evolutionary biological systems, ecosystems, towards human economic and cultural production systems, building up to social and political organisational institutions, with hegemonic culture as the final layer (Harvey & Reed, 1994, p. 397). All of these subsystems are interrelated through relations of emergence, but rather than being integrated in a substantialist or holistic manner there is the potential for numerous lines of conflict (in particular, in social systems, class conflicts).

What is important, as Byrne clarifies, is that we understand the local behaviour at each point of bifurcation in a social system (Byrne, 1998). Because of feedback, minor changes at this juncture can create massively disproportionate results, in particular in pushing systems to ‘decide’ between different destination points. A political theory which wants to understand processes of radical change will focus at just these points, and on defining precisely what parameters are important in influencing macro-scaled state changes, and how non-linear feedback loops operate as causal mechanisms to generate disproportionate effects (Byrne, 1998, pp. 24–5). Given these concerns, Byrne’s development of ideas drawn from Harvey and Reed focuses more closely on issues relating to phase space.

The human perceptual system did not evolve to perceive dynamics, and as such we require a highly abstracted but still essentially spatial or geometric way of thinking dynamics and potentiality – phase space. The ‘space’ of phase space “contains not just what happens but what might happen under different circumstances” and as such is, in a sense, “the space of the possible” (Cohen & Stewart, 1994, p. 200). Thought another way, phase space is a tool we can use to think about the relationship between systems and their different parameters, an abstract n-dimensional space within which all the possible states of a system can exist. Each parameter adds a dimension to this abstract space, with the state of a given system being describable as a location, given by coordinates corresponding to the values of the particular parameters the system is operating according to. (Byrne, 1998, pp. 173–4). While phase space doesn’t actually
exist as a corporeal object, it is able to exert real causal influence (Cohen & Stewart, 1994, p. 207). Such a causal influence is captured in the idea of attractors, which are emergent properties of dynamic systems with downward causatory effects, or put most simply “the things that the dynamics converge towards if you wait long enough” (Cohen & Stewart, 1994, p. 206). In formal terms, attractors enable mathematicians to think about systems which don’t have trajectories spread evenly across their phase space, but which are localised – in other words, a way to conceive of specific dynamic tendencies.

A simple system driven to equilibrium operates according to a point attractor: a single point in phase space towards which the system is ineluctably drawn. Pendulums are one example of this, always eventually returning to a singular state once their kinetic energy is exhausted. Systems may also behave in a cyclical fashion, (like predator-prey population dynamics) and can be described in phase-space terms according to a torus (doughnut-shaped) or closed loop attractor (Gleick, 1987, pp. 134–7). Other systems can have multiple points or surfaces of attraction. The Lorenz attractor describes some of the properties of chaotic systems. At certain parameter points the system displays trajectories which tend towards one of two attractors, but above a certain point the fixed point attractors are transformed into repulsors, creating an extremely complex pattern of trajectories as a result. Strange attractors of this sort display self-similarity in terms of structure and enable small differences in initial conditions to have dramatic effects as the system runs over time (Lorenz, 1993). Attractors can transform themselves, obtaining new geometric shapes as key parameters alter, and can also split, or disappear entirely, often due to very marginal shifts, as in René Thom’s catastrophe theory (Thom, 1975).

In thinking through the relationship between ontologies of nested social systems and phase space, Byrne asks whether ‘the social’ is a system itself or whether an abstract ‘social’ effectively operates as a phase space for the social systems contained within it, eventually arriving at the answer that is both (Byrne, 1998, p. 25). In this sense, on the one hand social systems are material, nested, hierarchical, thermodynamic entities. On the other they exist with properties and trajectories describable within the abstract domain of phase space, with changes in social systems thinkable through the interplay of different attractors. This combines with Byrne’s essentially post-Enlightenment take on complexity in social systems. Rather than follow a ‘post-modern’ vision of
complexity as marking the impossibility of prediction in the face of irreducible contingency, (‘anything goes’ complexity) instead he proposes that whilst we might not be able to predict precisely what will happen, what happens itself will be drawn from a relatively limited range of options, potentially mappable via phase space (Byrne, 1998, p. 26). As regards the relationship between mastery, complexity, and post-modernity, Byrne puts it as follows:

“[It is] mastery which is offered so often as the crucial distinguishing difference between the postmodern and the modern. [It] is perfectly right to identify this retreat from domination as a possible postmodern element in the science of complexity, [but] it is only one possibility. It is also possible that complexity can serve as the basis of a different sort of rational project which allows for, and indeed asserts, the absolute necessity of conscious human agency in knowledge-based social transformation.” (Byrne, 1998, p. 45).

Such a vision of the uses of complexity theory works through a quantitative systems approach. Given that political systems and structures are metastable, it is at the point of bifurcation and outright transformation in the attractors governing the systems that we must focus our attention. The most important of these transformations are when the governing attractor(s) change, due to a change in a control parameter. This is the familiar idea, endorsed even by neoliberal thinkers such as Milton Friedman (2009, p. xiv), that it is at points of political and social crisis that broad systemic transitions can occur. The language of dynamic systems theory, of phase space and attractors, provides some formalisms to think this, as well as the notion that quantitative social science methods can have some utility in attempting to locate the control parameters for social systems. The implication being that because such control parameters only require minor quantitative shifts to achieve potentially very significant changes, complexity social science can inform actual political praxis. This is a kind of post-complexity cybernetic Marxism, a scientifically enhanced version of the maxim from *The Eighteenth Brumaire of Louis Bonaparte* that holds that “men make their own history, but they do not make it as they please” (Marx, 1852). In a fashion which recalls the Chilean experiments with cybernetic economic and political planning in the 1970s under Salvador Allende (Medina, 2011), Byrne talks in utopian terms of “reading the dials and steering the ship”
with big data systems providing quantified histories to inform planners, who instigate
democratic debate about future trajectories for social systems (Byrne, 1998, pp. 155–6).

Complex systems analysis might enable us to discover which options likely lie ahead,
but not which precise ones will occur. It is only through human agency, conceived as a
key perturbatory force at times of phase transition, that these options are decided upon.
In a series of case studies, Byrne presents a number of ways this kind of approach can
be applied. One of these is to think the spatial dynamics of nested systems, where
different spatial levels influence the phase space dynamics more localised systems
operate under. The victory of Thatcherite neoliberalism in the UK depended on certain
highly contingent events, (for example the victory in the Falklands war and the SDP
split from the Labour party) these points enabled the creation of a new attractor at the
national level, (chosen from a limited range of possible options) which in turn served to
curtail the phase spaces of more localised systems, such as Teesside in the North-East of
England (Byrne, 1998, pp. 107–9). Interventions by the national government to install
marketised planning regimes, for example, altered the autonomy of local city and
regional governments.

While this school of realist complexity Marxism represented by Byrne, Harvey, and
Reed gives us many tools to think (and indeed effectuate) a complexity-driven politics,
it has not been without critics. Sawyer, for example, positions these kinds of accounts as
being in the second wave of systems thinking, in applying ideas from the mathematics
of chaos and dissipative systems thermodynamics to social and political systems
(Sawyer, 2005, pp. 18–20). The question here is twofold: firstly, of whether these kinds
of conceptualisations flatten the unique properties of human social systems into a
naturalistic framework; and secondly, can we really say that social systems are
thermodynamic entities (Paolucci, 2002)? As to the first question, both Byrne and
Harvey and Reed ‘make space’ for the unique properties of human social systems – in
terms of agency and in terms of non-trivial emergence. As regards the second critique,
what their accounts both emphasise, in a manner which is a useful corrective to overly
linguistic-normative visions of the social, are the materiality of social systems – that
even normative elements are grounded, ultimately, in the ability of human societies to
draw in energy from the outside, to use this energy to create structure, and to dump
entropy into the environment, and as such can be identified as being what Levi Bryant will call thermopolitical theories (Bryant, 2013).

Though individualists such as Sawyer will ask whether these theories can account for “sociological inflows […] information, power, or monetary goods” (Sawyer, 2005, p. 19), we might equally question a theory which fails to accord thermodynamic infrastructures sufficient importance. Sawyer’s claim that social systems are generally equilibrium systems rather than being far-from equilibrium dissipative ones does not particularly square with empirical reality, and in addition seems only to be the result of his non-reductive yet individualistic take on social systems. It is true that these theorisations, unlike those of emergentist sociology, tend to underestimate the role of communication between agents, yet this is a consequence of seeking to represent the larger-scale dynamics of social systems, which is more useful to thinking the macro-political than an individual-focused approach. There also remains no reason why a theorisation of the socio-political should not employ both emergentist ‘bottom up’ sociological methods, able to map communication, with broader scaled perspectives from dissipative systems and dynamic systems theories.

**From Phase Space to the Virtual**

The sociology of phase space has given us a number of resources to think large scale social and political change, from empirically testable propositions to models capable of guiding actual intervention. While these are valuable, for a deeper philosophical treatment of ideas of phase space, we need to turn to the work of Deleuze and his followers and collaborators. As John Protevi puts it, it is Deleuze who “directly tackles the question of complexity theory, the study of the self-ordering and emergent properties of material systems” (2001, p. 7). The influence of the concerns of complexity theory are never more present than in Deleuze’s concept of the virtual, perhaps the master concept by which to understand the entirety of his work (Hallward, 2006). To summarise very crudely by way of introduction, Deleuze hews to a similar broad schema to Simondon.¹² In this sense, he theorises an ontologically monistic process philosophy which sees individuals (the actual) as processes emerging from a pre-individual state (the virtual) (Deleuze, 2002).

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¹² Deleuze also shares with Simondon the critique of hylomorphism (Deleuze & Guattari, 1980, Chapter 12).
The theorist who has best elucidated the linkages between the virtual and the mathematical formalisms of dynamic systems theory is Manuel DeLanda. His reading of Deleuze’s work has the considerable advantages of both putting it into more explicit communication with the sciences of complexity, and also in his hyper-realist reading, effectively minimising the metaphysical excesses which emerge in certain interpretations of Deleuze’s thought. We have already noted the difficulties encountered by the new materialists in cleaving to an essentially Deleuzean ontological schema in eliding certain key distinctions, in particular the flattening of the causal and the rational in their account of agency. Simultaneously, the distinctions between the critical realist ontology of real/actual/empirical and the Deleuzean picture of virtual/actual will require negotiation before any putative integration of these viewpoints is possible.

DeLanda’s basic move is to precisely identify the virtual with the world of dynamic processes (DeLanda, 2002). For DeLanda, the language of phase space and attractors maps directly onto Deleuze’s account of multiplicity and singularity. The Deleuzean concept of ‘multiplicity’, in this reading, translates to “a nested set of vector fields related to each other by symmetry-breaking bifurcations, together with the distributions of attractors which define each of its embedded levels” (DeLanda, 2002, p. 30). The mechanism-independence of multiplicities, formalised through dynamical systems theory, gives them the quality of concrete universals, giving form to processes without the end point of those processes bearing any further necessary relation to one another. Both the virtual of multiplicities (phase space plus attractors) and the actual of the entities whose dynamics are contoured by those multiplicities, are fully real (Deleuze, 1968, pp. 208–9).

This basic ontological set up informs DeLanda’s account of social and historical processes and structures. The most important idea here is that of the assemblage, a term DeLanda draws from A Thousand Plateaus, (Deleuze & Guattari, 1980). An assemblage is a whole consisting of parts, interrelated through relations of emergence (upwards and

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13 We can contrast DeLanda’s scientific realist take on Deleuze’s ontology with that of the critical reading by Hallward (DeLanda, 2002; Hallward, 2006). In particular, Hallward will emphasise the creative, rather than causal nature of the virtual, in contrast to DeLanda’s reading through ideas drawn directly from dynamical systems theory.
downwards), in time (DeLanda, 2006). In their general specification these structures are highly familiar, being essentially similar to those described by emergentist sociology. However the Deleuzean background adds a number of interesting concepts to the basic emergentist mereological set up, which we will now survey.

Assemblages are distinguished from totalities, given that the parts within a given whole may only be contingent, and therefore assemblage theory stresses relations of exteriority (DeLanda, 2006, pp. 10–11). DeLanda (following Deleuze) also holds that two important parameters govern how an assemblage acts. One of these is the role of the component parts, an axis which runs from the parts playing a purely material (i.e. structural) role, to the parts playing a purely expressive one (DeLanda, 2006, p. 12). Parts of social assemblages playing a material role may be related to material infrastructure, or processes of production. Parts playing an expressive role may be involved in symbolic communication, or through non-linguistic behaviour. The other parameter relates to whether the assemblage is undergoing processes which increase its homogeneity or external territorial barrier, or reducing it, or whether it is undergoing processes of territorialisation or deterritorialisation, (DeLanda, 2011, p. 187).

To these parameters, DeLanda adds a final third of his own: coding and decoding, the ability of assemblages, through specialised form of expressive parts, to learn and hence to deterritorialise. Assemblages themselves are actual, with the morphogenesis of assemblages governed by the virtual (DeLanda, 2006, p. 124). Social assemblages therefore proceed via non-linear processes, whilst also admitting to more human-specific mechanisms (reasons and motives, for example). Armed with this specification of assemblages, against the backdrop of a complexity-identified account of the virtual, DeLanda is able to theorise a variety of particular social assemblages, from individuals and networks through to organisations, cities, and nation states. However, within this schema, there is no room for ‘reified totalities’ like society-as-a-whole, only particular social assemblages (DeLanda, 2002, p. 153), as DeLanda seeks to stake an anti-essentialist position.

While the DeLandean presentation of the virtual and assemblage theory provides a number of incisive systemic models and dynamic concepts, his overall emphasis is distinctly apolitical (if not outright uncritical) in nature. To fully draw out the political
implications of this schema requires a return to the work of Deleuze and Guattari. While the intricacies of the political theory of Deleuze and Guattari is too complicated to fully elaborate here, we will attempt to briefly explicate certain key strands of their thought. Just as they cleave to a univocal metaphysics, for Deleuze and Guattari, “everything is political”, since theirs is a politicised ontology (Deleuze & Guattari, 1980, p. 235). Just as their univocal ontology creates problems in flattening the relation between the space of reasons and the space of causes (Sellars, 1963), this politicisation of being itself is hard to square with a realist take on the human-independent nature of reality\(^\text{14}\). Hence our treatment of the Deleuzo-Guattarean account of politics will focus on their conception of power, ignoring the more normatively charged work for example on micropolitics, becomings towards the virtual, and destratification.

Most significant is their theorisations of capitalism as system of deterritorialisation and reterritorialisation, alongside the later concept of the control society. Capitalist social systems, as opposed to previous forms, work to liberate previously fixed flows of desire, energy, and materials (Deleuze & Guattari, 1972). Previous social codes, from caste systems to religions, and often enforced through taboos, are now broken, to be replaced by a new system of axiomatics. Capitalist social systems are in this respect deterritorialised, and continually deterritorialising, whilst simultaneously using these processes of loosening and expanding their borders to reterritorialise. Put simply, capitalism frees up the complex codes of prior social systems, in a ‘liberatory’ moment, only to simultaneously put in place an even more rigorous, (though more abstract) new set of rules to govern these liberated flows. In this way capitalist social systems continually push against their own immanent limits (Deleuze & Guattari, 1972, p. 267). The true revolutionary potential of absolutely liberated flows of desire, energy, and materials is always kept at bay, as this is the real and absolute limit to capitalist social forms. Hence whilst capitalism is liberatory and innovative, it is also on a fundamental level conservative, inhibitory, and reactionary. Against this backdrop, Deleuze and Guattari attempt to answer their key question: how it is that humans come to desire their own repression.

\(^\text{14}\) Though Deleuze and Guattari’s idea of what politics itself is is a far more abstract, expansive and elusive one than conventional normative anthropocentric accounts. This too is not unproblematic in so far as universalising politics at the level of ontology arguably robs politics of its specificity.
The answer given in *Anti-Oedipus* is that capitalism configures the social so as to produce unconscious libidinal investments which do not accord with material interests. A second and more complex answer is given in the later notion of the control society (Deleuze, 1992). Control societies replace the disciplinary sort theorised most famously by Foucault, in introducing an even subtler system suited for post-Fordist social systems where “liberating and enslaving forces confront one another” (Deleuze, 1992, p. 4). Whereas the enclosures of the disciplinary social systems moulded the people within them, the control society flexibly and invisibly modulates them. Such a system of constant modulation is akin to the negative mirror image of a complexity socio-cybernetics as envisaged by Byrne: a continuous form of complex control dampening any engagement by collectives for radical change.

**Critical Realism and Post-Deleuzean Ontology**

Both the traditions we have examined in this section have much to offer a political complexity theory, but one question remains as to what extent the accounts of the social scientists, grounded in an ontology of critical realism, can be put into contact with that of Deleuze, Guattari, and DeLanda. While many of the concepts and scientific influences used are identical (nested hierarchies of emergent self-ordering thermodynamic social entities, operating according to dynamic principles governed by the distribution of attractors and geometry of phase space) the underlying ontologies have some intriguing differences. Chief amongst these is the distinction between Bhaskar’s real/actual/empirical and Deleuze’s virtual/actual. However, if we conceive of the virtual along the lines suggested by DeLanda, this distinction may not be as difficult to surmount as it first appears. The Bhaskarian ‘real’ is the domain of causal mechanisms, with the actual corresponding to the universe of physical entities and events. Conversely, for Deleuze (via DeLanda) both virtual and actual are real, with the virtual the realm of causal dynamics. Here then is the possibility of drawing together these accounts with Bhaskar’s real/actual corresponding to Deleuze’s virtual/actual. Given the freedom with which recent acolytes of both have sought to theorise the real or virtual through dynamical systems theory, this seems at least in principle a legitimate point of convergence.15

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15 One of the few philosophers to have noticed this potential convergence between Bhaskar’s critical realism and DeLanda’s presentation of Deleuze is Graham Harman, (Harman, 2008).
One issue which may prevent such compatibility is outlined by DeLanda. He argues that the account of Deleuze’s virtual entails a rejection of the idea of scientific ‘law’ as exceptionless regularity, in favour of the productive powers of causes themselves (DeLanda, 2002, pp. 154–5). Following Ian Hacking, DeLanda contends that actual scientific practice is embroiled in interventions in complex causal systems to discover the causal mechanisms operating within them. Only philosophers of science, on this view, remain focused on a basically Newtonian conception of scientific laws – i.e. a deductive-nomological stance of explanation grounded in laws without exception (DeLanda, 2002, p. 157). Bhaskar presents a ‘causal powers’ understanding of causality which appears at least superficially to be not too distant from this account. Rather than the deductive-nomological model of Hempel, (seeking to deduce theorems from law-like regularities of empirical conjunction) it focuses upon the mechanisms (causal powers) that actually generate the event in question, (Elder-Vass, 2010, pp. 43–4). However, we must remember that Bhaskar’s overriding motivation for his transcendental realism is to demonstrate the reality of scientific laws (Bhaskar, 1975). While these may not be deductive-nomological in structure, they are ‘transfactual’ i.e. they always pertain. However this pessimistic picture is complicated by the shared interest in actual causation always featuring multiple intersecting causal powers. In practice, Bhaskar’s position may not be far from DeLanda’s, and indeed even at the level of real causal powers, Bhaskar’s picture of what laws actually are is clearly distinct to the positions which DeLanda attacks.

What does definitively distinguish these positions is DeLanda’s commitment to anti-essentialism, which he explicitly opposes to Bhaskar’s position that science deals in real essences (DeLanda, 2006, p. 128). Bhaskar’s position is not one of eternal Platonic forms, but of taxonomic essences – the idea that the classifications of science (e.g. biological species or classificatory groups of chemical elements) index something real in the world. DeLanda cannot countenance such a position, in that he wants to ground assemblages as real material entities, each the result of a particular morphogenetic history. This position cannot support the idea that, for example, animal species are ‘individuals’ (DeLanda, 2006, p. 27). The only universals DeLanda will allow are within the mechanism-independent world of the virtual: the geometry of phase space and attractors. In this regard, at least, Bhaskar and DeLanda cannot be reconciled. It is however true that many of Bhaskar’s followers and fellow travellers, such as the phase
space sociologists explored in this section, don’t necessarily make any explicit commitment to taxonomic essentialism, and one can have a causal powers ontology without it.

iii. Ideologies of Self-Organisation

Though we have yet to touch explicitly on the idea of self-organisation, in a sense, we have already implicitly been dealing with models of social and political self-organisation. Akin to many complexity concepts, (which, appropriately, are intimately interwoven sheaves where each refers closely to several others) self-organisation is implied in both the downwards causation of socially emergent phenomena, and the material self-ordering of phase-space driven thermodynamic systems. More unambiguously, Simondon’s critique of hylomorphism (as rejecting the domineering imprinting of inert matter with ideal form) gives us the outline of a complexity theory of material social systems as self-organising. What remains to be mapped in more detail are those political accounts which privilege ideas of self-organisation in more explicit terms.

We will draw on two radically differing positions on self-organisation, primarily the neoliberal proto-complexity economic and social theory of Friedrich Hayek, and the ecological anarchistic thought of Petr Kropotkin and Murray Bookchin. We will also examine related strands of more recent political theory broadly in tune with these positions (following from Hayek by examining the work of John Gray, Kevin Kelly and Nick Land, and following from Bookchin with Graham Chesters, Ian Welsh, Athina Karatzogianni and Andrew Robinson). What binds together these disparate (if not outright opposed) takes on self-organisation is the issue of freedom, alongside the more practical political questions of social and economic planning, and the nature of optimal organisation. Here then is the strongest indication yet as to the potentially contradictory political uses of the ideas of complexity. Accompanying Enlightenment and anti-Enlightenment uses (as identified in the distinction between the ‘let it be’ of new materialism and the interventionism of the phase space thermodynamic Marxian sociologists) are different visions of the meaning of freedom implied by an understanding of the social-as-complex. Intriguingly, both currents have been endorsed by later divergent post-Deleuzean theorists. While we will not precisely support either
school of thinking, the tensions between them will prove productive in extracting the major potential political implications of self-organisation.

**Hayek and the Philosophy of Ignorance**

Hayek’s economic and social theory is grounded in an epistemology possessing substantial resonances with complexity theory. Hayek’s central idea is that complexity presents unique problems for a traditionally rationalist conception of social action. As Hayek himself puts it, “it is high time […] that we take our ignorance more seriously” (Hayek, 1964, p. 65). He executes this idea through a combination of methodological individualism with a social evolutionary perspective. A primary source for Hayek’s methodological individualism is in his critique of statistics as eliminating complexity through aggregation, by refusing to adequately treat individual components of a given system as intricately connected in specific determinate ways (Hayek, 1964). Hence Hayek prefers to think the social in evolutionary terms, identifying in evolutionary theory a mode of general pattern recognition (the selection of forms in time under competition pressures) which avoids the covering law model. We can explain why animal physiology (for example) alters over time, without being able to predict in advance how specific species will change in the future (Gaus, 2006). In addition to this, Hayek combines Kantian, Popperian, and Wittgensteinian epistemological themes to generate a view of the human mind as fundamentally unknowable (Gray, 1998, pp. 23–4). At the level of the human mind, we are in part guided by pre-conscious rules (which operate on consciousness without themselves being part of conscious processes), and hence which we can never fully know, rendering total intellectual self-knowledge an impossibility.

This gives rise to Hayek’s variant on Simondon’s critique of hylomorphism, (the critique of constructivism) which holds as an error the idea that order cannot emerge without the intervention of a designer (Gray, 1998, p. 29). At a social level, spontaneous order arises without a governing intelligence, in a form known as catallaxy. On this account, social institutions and practices emerge through the actions of human agents, but without being fully reducible to their specific intentionality, since social knowledge is largely tacit and practical rather than explicit and theoretical in form (mirroring Hayek’s explanation of the human mind). Combined with an evolutionary approach to the selection of different traditions (bundles of norms, practices, and interpretative
frameworks), this leads to the emergence over time of shifting social orders. Certain practices become selected over others through processes of cultural competition, producing a highly complex emergent order beyond the ability of any individual or collective planning agency (Gray, 1998, pp. 32–4). In this way, Hayek’s approach to social institutions emphasises their capacities as information processing systems (paradigmatically, but not exclusively, in the form of markets). Knowledge is local, partial, and fragmented across numerous individuals and collectives in a social system. Discovery mechanisms, such as markets, are able to synthesise this disjointed knowledge through impersonal communication mediums like the price system.

Though Hayek is methodologically individualist on one level (refusing statistical aggregative explanations as eliding real complexity) he also outlines a social world consisting of intricate, dynamic processes which emphasises the relative ignorance of individual humans: blind to both the full contents of the rules their minds operate under, and the true functionality of the social systems they inhabit. This is a vision of human agency which is far from the rational self-maximising agents of rational choice theory. Beneath our veil of individual and social ignorance, some clear implications emerge. Firstly, social science is limited to general pattern recognition only, rather than precise covering law-driven predictions (Hayek, 1964). Second, public political policy must focus only on the intentional revision of institutions like the legal system, rather than more generalised and direct forms of economic and social engineering (Hayek, 1962). Third, we have no objective way of judging one set of traditions as being superior to another, given our always-partial knowledge.

Put together, these have some highly normative repercussions. As Gray summarises: “the impossibility of socialism […] derives from its neglect of the epistemological functions of market institutions and processes.” (Gray, 1998, p. 39). Hence Hayek’s answer to the socialist calculation debate is epistemologically coloured: to think socialised systems of production as possible is to commit to a fundamental misunderstanding of the nature of social knowledge and the limits to the ability of individual conscious systems to process it. Planning is not so much inefficient, as epistemologically impossible, even in principle (Gray, 1998, p. 38). Such interventions as are necessary ought to be restricted simply to the legal domain, ensuring the ‘rule of law’ is consistent, relatively neutral and equitable, and in particular capable of securely
upholding the laws of property. This presents economic and social order as akin to a hive of entrepreneurial ants: following price signals rather than pheromone trails, each relatively ignorant of the total systemic effects of their actions.

Certainly, Hayek’s theory of self-organising social processes was prescient. It also, however, suffers from a number of serious flaws. First, at an epistemological level, if Hayek is correct as to the nature of social rules and knowledges as always in excess of our conscious and rational access to them, we might reasonably want to know in more detail how he himself knows this. While it might be a generalisable conclusion from a logical principle, such as Gödelian incompleteness, even if the logic of formalised rule systems imply the impossibility of total knowledge (or perhaps better, consistent stipulation of all rules), we might consider this excessively inflated as to functionally ban any interventions. This is especially so given the potential for immanent self-contradiction in a version of social science as itself governed by rules of conduct which its participants are unaware of. Here it would appear Hayek is actually rationalist, at least to the extent that he can posit the limits to rationalism (and Kantian in a certain sense but shorn of the characteristically transcendental perspective).

Second, there is the ideological attitude to markets as a quasi-naturalistic phenomena. As Gray points out, (channelling Karl Polanyi), free markets as historical entities, rather than ideal ones, are frequently the product of massive state intervention (Gray, 1998, p. 146). This contradiction is itself expressed in the history of the neoliberal political project, seeking to create ‘free’ markets via extensive state-led policy, even to the point of deposing governments, a political project which Hayek himself enthusiastically participated in (Harvey, 2005; Robin, 2013). Hayek also tends towards underestimating the role of planning in driving economic innovation. This would include both governmental involvement in allocating research funds (crucial drivers of innovation in the Twentieth Century in particular, from satellite technology to the internet) as well as the internal planned economies of large corporations.

Third, there is the problematic association of an antirationalistic commitment to conservative socially inherited forms and a pseudo-Enlightenment idea of social

16 Though it is worth noting here that Hayek’s views on the natural or non-natural status of markets shifted over time, towards a more synthetic, anti-naturalistic viewpoint nearer the end of his career (Mirowski & Plehwe, 2009).
progression through market mechanisms: free markets essentially care nothing for traditions. Even sympathetic interpreters such as Gray (who are convinced of the argument against centralised planning) find Hayek to have no account of why liberated markets will not dismantle the very social traditions which, he argues, have evolved to support them (Gray, 1993). In this regard we can see the merits of the schema of deterritorialisation and reterritorialisation presented by Deleuze and Guattari, capturing better the perverse relationship between impulses towards liberty and control, towards innovation and tradition, under capitalistic systems (Deleuze & Guattari, 1972).

Finally, (and in spite of its adherence to a methodological individualism) the Hayekian account of emergent self-ordering as catallaxy tends to ignore or under theorise the exact mechanisms of coordination which are the actual deep structure of social forms, from markets to political systems. Most specifically, this is in terms of ignoring most of the communication methods in society except for impersonal operators like the price system (Farrell & Shalizi, 2012). In sum, there are many forms of knowledge which are best communicated in more explicit and intentional forms, and empirical markets of all kinds will be rife with forms of communication (business reports, insider trading tips, market research) which seek to supplement or circumvent the price system as sole communication medium. Moreover, markets which emphasise only the price signal may end up engaging in deeply perverse behaviour which threatens the security of the system as a whole (as in all financial or asset bubble scenarios).

Post-Hayekian Nihilisms: Agonistic Metaliberalism and Technocapitalism

With the flaws in Hayek’s own system palpable, two trajectories spin more or less directly off from Hayekian ideas of self-organisation. One side of this is represented by Gray, who seeks to remedy the flaws in the Hayekian understanding with a more conservative outlook. The other is represented in mainstream business ideology by the techno-utopianism of Kelly, and in more philosophical form by the 1990s work of Land. While these viewpoints are essentially opposed, along with developing a basically Hayekian schema of self-organisation, they are also both willing to draw the kinds of nihilistic conclusions which mark the terminus of the post-Hayekian mode of thinking social complexity.
Gray’s work, after he decisively concluded his 1980s infatuation with Hayek, continues the Hayekian theme of the limits to conscious rationality. But it does so with a much firmer assault on the Enlightenment project than Hayek himself would countenance. Gray argues that market fundamentalism is just as much a project of Enlightenment values as Marxism (Gray, 2007). Indeed, on this view all universalising projects are basically hubristic, in the sense that the values which underpin them end up exposing their own groundlessness. Not only are Marxian schemes of centrally coordinated planning epistemologically impossible, but so too are dreams of market-driven societies. The complexity of the (post-)modern world undermines an idea of either rationally or divinely grounded value, a position he draws from Nietzsche. But instead of taking the Nietzschean route of affirming the most nihilistic of all thoughts, Gray prefers the Heideggerian strategy of ‘releasement’ (or letting things be) effectively preventing any attempts to intervene and transform social systems according to our intentional purposes (Gray, 2007, p. 229). This results in what might be termed an agonistic metaliberalism. Gray himself holds that liberalism is today’s most pervasive embodiment of the Enlightenment project, in its (ultimately poorly grounded) vision of emancipation and universalism. It is also undermined on an empirical level because its claims about the necessary interconnection between free markets and industrialised capitalism and moral universalism appear to be singularly unsupported by history. Nevertheless, Gray’s position of Heideggerian releasement results in a sort of metaliberalism, in the limited sense of withdrawing the moment of judgment on competing social traditions, an acceptance of diversity in the wake of the collapse of the project of universalising political morality.

In spite of its courage in confronting the antinomies of nihilism and the real complexities of contemporary global social and political plurality, this position is unsatisfying on multiple levels. First, devoid of foundational normativity, it cannot support its aims (bringing social traditions closer to nature, refusing mastery etc). Second, it does not seem to account for the likelihood of failure in practice: any society which ‘lets things be’ in an agonistic environment of competing traditions will clearly be superseded over time. Further, when faced with a future of devastating climate change, ‘letting things be’ might not be a terribly attractive option (whether this means wide scale intervention now to prevent the most disastrous temperature increases, or
later geoengineering and adaptation plans). This results in a solution to the problem of nihilism which is even less convincing than the Nietzschean idea of eternal return.

A rather different strand of post-Hayekian thought might be termed technocapitalist in its outlook. Rather than maintain a conservatism about social traditions and turn the Hayekian epistemological sabre back on itself, these positions develop the market-centred side of Hayek’s thinking, injected with more contemporary ideas from the sciences of complexity. In its populist-ideological side, this is represented by the writings of Kevin Kelly, former executive editor of the technology magazine *Wired*. Characteristic of many ideologues of capitalism since the 1990s, Kelly hymns a hyper-capitalist economic and social flux, eliding between the natural, the social, and the technological, through a complexity-derived set of ‘biologic’ metaphors (Kelly, 1994). In this fashion ideologues of this sort represent the pro-capitalist side of the kind of vitalism trafficked in by the new materialists. Complexity metaphors mesh with post-Fordist ‘knowledge economy’ production paradigms, as social, ecological, and technological systems become so entwined as to be impossible to ever master properly. The universal economy which emerges from these intersections is self-organising, via similar feedback mechanisms to those described by Hayek, and hence intervention by governments and other political actors must be kept to a minimum. Kelly combines this expanded view of Hayekian catallaxy with a chaos-meets-Schumpeter approach to entrepreneurial ‘creative destruction’ (S. Best & Kellner, 1999). Kelly’s work is intellectually dubious in its flattening of various semi-autonomous domains, and politically reactionary in its uncritical cheerleading for capitalism, but such viewpoints maintain a cultural currency amongst business elites. This is particularly the case for Californian technology entrepreneurs, (for example those now running companies such as Google, Apple, and Facebook) who are important architects of key aspects of our current techno-social infrastructure.

This ‘cynical hippie’ picture of self-organisation remains basically utopian in spirit, in spite of its apparent amorality. A considerably bleaker schema is offered by Nick Land. While never explicitly mentioning Hayek, Land’s work effectively builds on the Hayekian dictum that “progress is movement for movement’s sake” (Hayek, 1960, p. 41), and ideas of spontaneous capitalist order as somehow beyond individual human agency. This is merged with the most pro-capitalist edges of Deleuzean thought – but
rather than identifying capitalism as both deterritorialising and reterritorialising, it emphasises the liberatory processes. This exentuates tendencies already present in Hayek, painting a picture of capitalism as not simply entirely beyond human intervention, but no longer even operating for even vaguely anthropocentric purposes (Land, 2011). Intervention is more than an epistemological error, but now an ontological impossibility. This matches up to a post-Deleuzean account which abandons any pretence towards leftist emancipation in favour of lauding capitalism-as-planetary intelligence system, a global technical apparatus which in a process of absolute deterritorialisation strips away all previous human sociality, destratifying pre-existing organisation, even unto the death of the species itself (Land, 2011, p. 441). Here the ‘creativity’ of self-organising systems reaches its most nihilistic limit in a technologically-augmented capitalism which obtains an absolute autonomy from the anthropocentric order which still functions, at least in part, as its components. Though undeniably extreme, Land’s Hayekian-Deleuzean science fictional envisioning of capitalist self-organisation is only a development (perhaps to the point of reductio ad absurdum) of pre-existing leanings in both these schools of thinking.

The idea of self-organisation as emergent catallaxy entails an ideology of loss of control, thought above all through the epistemological limits of explicit knowledge, but also expressed in ideas of the impossibility of utopian universalism in complex postmodern global society, and in technocapitalist visions of autonomous economic and technical systems. While structurally dependent on the relative ignorance of individual and collective human agents of the emergent properties of the system as a whole, such theories never properly elucidate the kinds of control mechanisms necessary to maintain such ignorance. Moreover we can consider the nihilistic tenor of the inheritors of Hayek (be they conservative or technocapitalist in orientation) to be indicative of the political effects of such ideologies. In this sense, catallaxy theories of self-organisation lead complexity-influenced understandings of social systems towards politically paralysing ends. Beneath the catallaxy, individuals and collectives are subject to the vagaries of an emergent order beyond comprehension and intervention’s reach.

**Mutual Aid and the Ecology of Freedom**

Perhaps the most fully worked out alternative ideology of political self-organisation comes from the anarchist tradition. At a basic level both complexity theory and
anarchism are concerned with how systems are able to organise themselves without intervention from the outside environment. Political anarchism traditionally means a project to construct social forms without sovereign leadership, or hierarchical authority structures, safeguarding an autonomy for each individual through political forms devoid of representation (Landstreicher, 2004). An influential strand of anarchist thought has sought to develop an expansive account of freedom in self-organisation in a manner akin to ideas from complexity theory. This notion of freedom in self-organisation is notably distinct from that offered by Hayek and his descendents. Rather than thinking self-organisation through autonomous agent-ignorance preserving processes (the catallaxy) these political theories focus instead on ideas of cooperation, theorised either in terms of mutual aid, or affinity.

Mutual aid is a key concept for anarchist thought, one which emerges from an evolutionary approach to the social which stresses processes asides from competition (Kropotkin, 1972). Relations of reciprocity and cooperative imbrication (mutual aid) are selected for at a natural and a social level because of the advantages cooperation is able to confer on those entities taking part. While both social and natural history is marked also by dynamics of competition (between individuals and traditions) any picture of evolution is incomplete without also considering processes of mutual interdependence. As Kropotkin puts it “sociability is as much a law of nature as mutual struggle.” (Kropotkin, 1972, p. 11). Such theories can help explain why evolutionary change in the natural world appears to occur in phases of punctuated equilibria, operating across entire systems of species, rather than slow and steady variation (Gould, 2002). While in the natural world interdependence relationships will largely be the unintentional results of coevolutionary dynamics (such as the emergence of mutually interdependent niches in food webs), in social systems evolutionary imperatives intersect with intentional ones. Such intersections also enable the development of conflicts between modes of social being which operate on the basis of mutual aid and emergent hierarchical institutional and organisational structures which seek to replace it (Kropotkin, 1972, Chapters 7–8).

Bookchin builds a theory of social ecology on top of the basic anarchist ideas of mutual aid as evolutionary emergent delineated by Kropotkin. His major innovation is to link issues of human social domination (through hierarchical social structures) with
questions of the relationship between humans and the natural world. The idea of humans dominating the non-human world, on Bookchin’s account, arises in part as an effect of the emergence of intra-human relations of dominance (Bookchin, 1982). ‘Organic’ societies (i.e. those alleged to be without hierarchies) are identified as having a different attitude towards the natural world. Evidence for this comes from the very different religious beliefs and linguistic structures of contemporary societies closest to our ‘organic’ predecessors (Bookchin, 1982, Chapter 2). This presents an image of domination as a contingently developed historical property of our ‘second nature’, in turn requiring an explanation of how it is that hierarchy comes to predominate over a basically originary horizontalist freedom.

Hierarchical domination emerges, as Bookchin would have us believe, at some point in the Neolithic era, as human social forms gained greater technical agricultural and tool-using expertise (Bookchin, 1982, p. 64). The generation of surplus food stocks enabled a different kind of power structure to sediment. In a manner which recalls the Frankfurt School critique of instrumental rationality (Adorno & Horkheimer, 1997), Bookchin locates the problematic birth of hierarchies as being closely related to the advancement of technical knowledge. As early humans began to use technologies more thoroughly to reduce scarcity, so too did techniques of control start to become applied to human society, as well as to the natural world (Bookchin, 1982, p. 65). Alongside this, role specialisation is theorised as beginning along gender, age, and ethnic bases, with particular emphasis on the shift from a matriarchal to a patriarchal social logic. But Bookchin himself, in distinction to other later primitivist eco-anarchist thinkers such as John Zerzan, (Zerzan, 1999) does not hold that technology is intrinsically harmful. Technology enables the emergence of a technics of oppression, but the key figure in actually implementing such social hierarchies are early elites. While these elites are made possible by the creation of a surplus, it is their attempts to control the surplus through manipulation and subordination of women, the old, children, and outside group ethnicities which truly marks the genesis of hierarchy (Bookchin, 1982, p. 348).

Human history can therefore be identified as the result of the interplay between attempts at establishing hierarchical domination, and more originary processes of mutual aid and consensual spontaneous forms of cooperative organisation (Cudworth & Hobden, 2011, p. 130). The only way out from such a conflict is in a radical social ecology, returning
relations now constituted through domination back to ones of mutual reciprocity, both intra-human and between human social forms and the natural world (Bookchin, 1982, pp. 357–9). Such a mutualist picture connects the anarchist struggle against social domination with an environmental ecological perspective. One imperative towards the overturning of relations of social dominance comes in the threat our technological and economic activities pose to our mutually co-constituting environment. Beyond such environmental ecological drives, there is a sense that anarchic self-organisation along mutual lines is simply the true order of the universe itself, “the spontaneity that lies at the core of a self-organizing reality [which leads] toward ever greater complexity and rationality” (Bookchin, 1982, p. 365). As such, asides from any instrumental considerations, mutualist self-organisation in non-hierarchical structures is, on this view, ultimately an end in itself.

**Affinity and Social Movements**

Anarchist social ecologies have been built upon more recently by a series of analysts of social movements. Crucial here is the structural form of the network, the sine qua non of early Twenty-First Century theories of self-organising systems. One account which directly matches ideas from complexity theory to an anarchistic-leaning political theory is that given by Chesters and Welsh, blending the language of phase space, network theory, and the work of Deleuze and Guattari, to explore the dynamics of global social movements (Chesters & Welsh, 2006). New social movements (including the alterglobalisation movement and various indigenous movements) are here modelled as operating according to the logic of the network, a fluid and creative ‘rhizomatic’ logic as set against the hierarchical form of most political structures. Their organisational structure is more than a strategic advantage or necessity, but is considered to directly prefigure forms of sociality to come after the defeat of capitalism, with such movements acting in accordance to an anticapitalist attractor (Chesters & Welsh, 2006, p. 106).

Following a similar trajectory, but more explicitly focused on the question of networks and hierarchies, are Karatzogianni and Robinson. They set out a typology of the network as social logic, based on the relational operator of affinity. Networks can take two major forms: affinity networks and reactive networks (Karatzogianni & Robinson,

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17 One intriguing reference point which would sit well with the schema presented by Bookchin (and indeed John Gray) is offered by the archaeologist Joseph Tainter, who theorises a key contributing factor to the eventual collapse of ancient civilizations is the problem of complexity (Tainter, 1988).
Affinity based networks correspond to the rhizomatic form, marked by a dynamic set of horizontal interconnections, whereas the reactive form of network shares more properties with the tree-like hierarchical form (Deleuze & Guattari, 1980, Chapter 1; Karatzogianni & Robinson, 2010, pp. 15–20). These networked structures exist alongside the social logics of the state and capitalism, operating, on this account, under more purely hierarchical principles.

Akin to Kropotkin and Bookchin, Karatzogianni and Robinson hold the basic social organisational logic to be that of the affinity network, non-coercive and entirely without hierarchic moment. Affinity networks’ parts operate under a ‘swarm’ dynamic, free of leadership and open to the outside (Karatzogianni & Robinson, 2010, pp. 55–61). Above all, affinity networks are characterised by their voluntary nature. They form networks of connections through addition and inclusion, rather than hegemony. While they admit that capitalist and state systems may partly incorporate networked components, both state and capitalist social logics ultimately depend on a grounding in the figuration of the hierarchy. Only the affinity network offers a ‘pure’ form of the network, a ‘non-alienated’ way of living which again recalls Bookchin’s account of pre-hierarchic human social forms (Karatzogianni & Robinson, 2010, p. 143).

Affinity networks and mutualist social ecologies present a much needed corrective to the presentation of the self-organising system in Hayek and his descendents. They have the definite advantages of giving a more explicitly political reading of networks as self-organising form, and in their attention to processes of network formation (mutual aid and affinity). Simultaneously, however, anarchist presentations of the network as a normative goal forget some of the lessons Hayek still has to offer. This is especially so in terms of the epistemological side of self-organising systems: while Hayek may go too far in proposing a total ban on intervention given the tacit status of most social knowledge, his vision of the catallaxy does capture certain features of the network form and the emergent order which it produces. Theorists of mutuality and affinity as connective protocols for self-organising social and political networks generally fail to think about the epistemological implications of emergence. While stressing connectivity

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18 We can legitimately identify Karatzogianni and Robinson as misreading the operations of hegemony here. While hegemony can certainly serve the purposes of hierarchic social organisations, it always does so at least partly through consent (at a minimum tacit consent). The full implications of this will be explored in the next chapter.
on the basis of explicit consent, they often ignore the status of the order which emerges from such interactions. While it is presumed (most strongly by Karatzogianni and Robinson) to be an unqualified good, the properties of dynamic self-organising systems are never entirely predictable in this respect. At the very least, we would contend that while Hayek under-thinks the mechanisms by which social systems coordinate themselves, in favour of the overarching catallaxy order which emerges, anarchist-leaning thinkers of self-organisation tend to stress the consensuality of relations between human components over the order which they collectively form. An entirely ‘pure’ network, without hierarchical mediation, would appear to have few methods by which to think the emergent order which it constitutes. But are such ‘pure’, non-hierarchical networks even possible?

iv. Of Networks and Hierarchies: or, ‘Really Complex’ Complexity

As has emerged from our discussion of different ideologies of self-organisation, a key conceptual figuration in social and political complexity theory is the network-hierarchy binary. The normative side of these positions, (whether skewed to the right wing, as with Hayek, or to the far left, as with the anarchist-leaning theorists), always privileges the network form over the hierarchy: we need more good networks and less bad hierarchies. In this sense, Hayek will argue that state-led economic planning is an unmitigated epistemological error, just as Bookchin will contend that hierarchical social structures are inherently alienating and exploitative. This is not to say, by way of structural similarity, that these positions are in some sense politically identical, which would be to slyly conclude that Bookchin is somehow a neoliberal thinker or Hayek an anarchist one. Rather it is the case that ideas of the network as creative information processor and dynamic non-coercive social form have become more or less culturally omnipresent, particularly in the wake of the rise of post-Fordism, the ubiquity of networked communications and computing systems, and the shift after 1968 towards suspicion of traditional Marxism-Leninism on the left. Much of this discussion, however, relies on reified, ideal type notions of what networks and hierarchies actually are. Ideologies of horizontal networks are problematic in terms of how they (fail to) correspond to empirical reality, in terms of the intrinsic properties of networks themselves, and in terms of the idea’s conceptual coherence.
Just as Hayekian catallaxy in practice requires massively coercive interventions from centralised state authorities to implement, the picture of anarcho-autonomist affinity networks gets considerably more complicated in reality. One characteristic argument against the innately liberatory properties of networks is that they don’t erase power relations, but rather conceal them. This is Jo Freeman’s contention, that networked, non-formalised structures within political groups reproduce the power relations they are meant to exclude, and in the process weaken, rather than strengthen, the group itself (Freeman, 1972). Social network science can tell us much about these informal power dynamics. Barabási and Albert’s theory of preferential attachment, where the more connections a node on a network has the greater its ability to obtain further connections, is one way to consider these issues (Barabási & Albert, 1999). Here a power law distribution of node connectivity pertains, generating a distribution curve where a small number of nodes have massively more interconnections than the vast majority. As a generally observable property of networks, this suggests that hierarchies can emerge within the networked form, and that even social networks constituted entirely through consent will continue to generate such hierarchies. Empirical analysis of relatively non-coercive networks such as online social networks tends to confirm this (Mislove, 2011). Radical political ideologies which excessively reify the network paradigm also tend to cover over the real differences between different groups collected under the term, for example the very real differences between western alter-globalisation protestors and Zapatista groups. In addition, they tend to ignore the exclusive nature of open spaces in practice, to disregard the a priori exclusion of certain kinds of beliefs and practices in the construction of the open spaces of affinity networks (Nunes, 2005).

If networks can create hierarchies, (as in the power law distribution of connections in scale-free networks) and hierarchies can create networks, (as in state and capitalist networked enterprises) then this poses a further question: what is the ‘organisation’ in self-organisation? Biological organisation, for example, is often thought in terms of the specialisation of parts within an organism, (McShea, 2001) and frequently the thinkers we have analysed in this chapter hold that the characteristic structural property of complex social systems is intricately nested hierarchies. Hence we must outline, asides from the typological rhetoric around networks and hierarchies, what can be termed as ‘really complex’ complexity. What ‘really complex’ complexity presents, in the social and political world, is a picture of complex dynamic systems which consist of subtly
interwoven combinations of both networked and hierarchical structures. Here complex hierarchies exist, which do not simply correspond to an ideal type schema of essentially domineering top-down bureaucratic organisations. ‘Really complex’ complexity moves beyond typological purity and towards the intricately interlaced fabrics of the social real.

At a very minimal level, any kind of self-organisation relies upon the ability of emergent properties to in turn possess downwardly causatory effects back onto the component parts of the organisation. The effects of such downward causation must be to modify the behaviour of the parts themselves, such modifications being the organisatory effects. Organisation, then, consists in internal differentiation, through component part specialisations and intricate, non-linear (but non-absolutised) hierarchical interrelationships, formed through the emergence of higher layers of structuration. Some of these organising effects of downwards causation may result in more or less structured and more or less permanent differentiation. Sometimes, in certain parts of this structure, we will find relationships which come closer to relatively static top-down ‘command’ systems, at others, more fluid horizontal interconnections, though our ability to distinguish the properties of more networked or more hierarchical forms will depend to some extent on the timescales we look at them within. But nowhere will be found the ideal types which dominate much of the discussion of self-organisation, the absolute rhizome or tree (to use Deleuze and Guattari’s vocabulary). Instead, ‘really complex’ complexity enables the consideration of interconnected regions of heterogeneous structural composition, and in particular the micro-macro relationships between layers of emergent structuration. This conception now allows us to make some general points about structural types and their implicit conceptions of freedom, about the benefits of heterogeneous structural forms for information processing, and about the relationship between self-organisation and external intervention.

First, to the question of freedom. A ‘really complex’ complexity theory does not draw crude normative proscriptions from different kinds of organisational structure: some top-down hierarchies are more beneficent than others, just as some more horizontal networked structures are, their status always depending on actual context. Political freedom can no more be assured by the network than it is necessarily doomed by the
hierarchy. As we have seen, both Hayekian and anarchist ideologies of self-organisation privilege a kind of negative liberty. They would have us believe that freedom is, in some sense, natural, and hence can be maximised by removing hierarchic manipulation. This position can be sharply counterpoised to alternative accounts which would consider freedom to be as much a synthetic construction as a natural property of human beings, as in positive liberty (Berlin, 1958).

Second, to the potential benefits of heterogeneous structures as information processors. Henry Farrell and Cosma Shalizi have theorised that there are considerable information processing and hence decision-making benefits to structures that combine more hierarchical and more networked components (Farrell & Shalizi, 2012). Highly horizontal interlinked networks and top-down hierarchical social forms, as they outline, will both tend towards the limitation of perspectival heterodoxy, which in the long term limits the range of options being explored as possible solutions to a given problem. What they term as ‘cognitive democracy’ serves to preserve diversity which, under experimental conditions, works to increase the likelihood that solutions are explored for longer before the agents involved seek a payoff (Farrell & Shalizi, 2012, pp. 22–3).

Finally, to the question of the relationship between self-organisation and external intervention. Self-organisation exists side-by-side, (and often deeply imbricated with), organisation from the outside, with both giving rise to greater or lesser degrees of internal differentiation. For example markets, even on the Hayekian account, still require regulatory, state-generated legal structures to function properly. This is not to reinstate hylomorphism by the back door, however. Rather than returning to a notion of matter as inert and requiring activation from the outside, any external intervention in a self-organising system will necessarily have to employ the affordances and tendencies already at work within that system, in a kind of collaboration or conspiracy.

This chapter has put in place the fundamental elements of a general social and political complexity theory. We began by exploring a key debate in emergentist sociology, between individualist and non-individualistic takes on the phenomenon of social emergence, ultimately opting for the latter option. We explored the question of political and social dynamics, stability, and change, through Simondon’s ideas of metastability and anti-hylomorphism, before navigating the political theory of phase space. Finally
we examined leading ideologies of self-organisation, and plotted a path towards an idea of ‘really complex complexity’, a meshwork of network-hierarchies, as being the general structure of the complex social. With the basic components of a social and political complexity theory now established, we must divert our attention towards the other side of our project, and begin to address the question of *hegemony*. 
3. Hegemony: Gramsci & After

By the late Twentieth Century hegemony materialised as one of the key terms in political discourse through which power is conceptualised. Given this very ubiquity, hegemony has come to be understood in quite divergent, or even opposed ways – signifying everything from party political alliance to geopolitical domination, from processes of ideological manipulation to vectors of political subjectivation. In this polyphony of meaning, distortions and confusions have arisen, particular in the hands of those who would seek to proclaim the end of the usefulness of the term. While superficially seductive, such rejections offer little to replace hegemony’s ability to think (and hence to strategise within) the complexity, contingency, and immanence of the social. Indeed, the most interesting and well-developed forms of thinking hegemony have sought to grasp the inherently complex nature of the social and its political construction. Hegemony is therefore perhaps the most well-suited political theoretical concept to be revisited and upgraded through the resources of complexity theory – and to function as a mediator between generalised theories of social complexity, and political theory proper.

This chapter consists of an analysis of the concept of hegemony. It traces its origins in early Marxism, through sedimentation in the thought of Antonio Gramsci, and reformulation in the 1980s, and towards a defence of the concept’s contemporary relevance. This chapter has two main lines of argument. The first is to posit that the development of the concept of hegemony within Marxist political theory marks

19 Hegemony is a ubiquitous term in a number of disciplines. The best contemporary encapsulation of debates in the Marxist tradition on hegemony is Thomas (2009), though note also Buci-Glucksman’s earlier treatment of Gramscian state theory (1980). For the most important post-structuralist appropriations see Mouffe (1979), Laclau and Mouffe (1985), Laclau (1990), Laclau (1996), and Butler et al (2000). The classic cultural studies applications and developments of the idea in conjunctural analysis are found in Hall et al (1978), Hall (1988), and Hall & Jacques (1989) (amongst numerous others). For a good example of the breadth of neo-Gramscianism in international relations see Cox (1983), Bieler and Morton (2004), and Antoniades (2008). Indicative recent deployments of hegemony in gender theory can be found in Hearn (2004), Connell and Messerschmidt (2005), and Kronsell (2005). For discussion of the significance of economic hegemony in political economy see Agnew et al (2002) and Keohane (2005).

20 Recent works to contend the usefulness of hegemony are Day (2005), Lash (2007), Thoburn (2007), and Beasley-Murray (2010).
increasing attempts to think the ever-more complex nature of the social, political and economic world. The concept of hegemony since Gramsci has taken a path of increasing universality of address through an accompanying increase in abstraction. The increasing scope of the concept, in terms of the range and complexity of political phenomena within its reach, has enabled new political struggles to be given coherence and meaning. The concept of hegemony has developed to think how power in socio-political-economic systems operates, considering such systems as consisting of multiple interacting component parts (from different sectors of the state apparatus to political parties and social movements) with self-organising dynamics, intricate hierarchical or stratified emergent structures, and multiple potential configurative possibilities. As such, hegemony in its Gramscian, structuralist and post-structuralist phases is generative of a political theory with a number of points of convergence with systems theory, second wave cybernetics, and complexity. It will be argued therefore that hegemony is already in some fashion an inchoate complexity theory of political action.

Our second line of argumentation will run that, corresponding to this immanent movement of the concept of hegemony towards analysing deeper complexity, the problems with recent versions of the concept can themselves be remedied via a more thorough application of its immanent principle. That is to say, just as hegemony marks the complexification of Marxist-Leninist thought (with Gramsci) and post-structuralist Marxist theory (with Laclau and Mouffe), so too might insights from complexity theory be used to theorise more fully the workings of hegemony today.

i. Gramsci’s Hegemony Before turning to post-structuralist and contemporary re-imaginings of the concept of hegemony, it is first necessary to delineate what Gramsci, the figure who did the most to develop the idea of hegemony, actually meant by it. This is not necessarily an easy task, given the apparently variable meanings the term has even in Gramsci’s own writings, putting aside the vast mass of secondary literature which has accrued on the topic. Much of the controversy which accompanies hegemony arises in part from misunderstandings as to its precise meaning in the work of Gramsci, which enables a variety of perennial debates in Marxist and left political theory to be rehearsed in discussions around the meaning and contemporary relevance of the concept. The crucial questions here are as follows. Where is hegemony located – within civil society, political society, or elsewhere? What form does hegemony take – is it real,
material, or ideological? What is the relationship between hegemony, often figured as entirely political in character, and the economic (including questions of Marxist social ontology in the form of base versus superstructure debates). Is hegemony simply leadership through consent or can it partake in more coercive apparatuses?

To get to grips with these questions means understanding how hegemony evolved up to its formulation by Gramsci himself, the role of hegemony in Gramsci’s broader political theory, and the different interpretations of his idea which have followed – in particular the tension between Perry Anderson’s famous critique (1976), which seeks to delineate the distinctions between civil and political society, and those of more recent interpreters, for example Peter Thomas’ philological account which complexifies the picture considerably, while remaining in fundamental fidelity to Gramsci’s own conceptions (Thomas, 2009). This section is necessarily interpretative in nature – seeking to clarify what Gramsci himself might have meant by the term before we expand the frame of reference to encompass a broader understanding of hegemony – i.e. to answer the question of what hegemony is. But this will already be to argue that hegemony is a more complex notion than many of the traditional interpretations imply, encompassing state, civil society, and economy. It is on such a basis that we can assess both the post-structuralist project of Laclau and Mouffe to expand the reach of the concept of hegemony, (Laclau, 1990; Laclau & Mouffe, 1985), and create a theoretical foundation upon which to base our own extensions of the concept.

The Origins of Hegemony

The prehistory of the term hegemony is a good demonstration of the overall trajectory of the concept. Arising in a time of crisis for existing left political theory, the early form of hegemony is deployed to get to grips with a more complex situation, a moment of updating analytical tools and strategic frameworks to better respond to the evolving complexity of power in capitalist societies. The idea of hegemony in Marxist political thought emerges first in the writings of G. V. Plekhanov in 1884 as ‘gegemoniya’, the idea that the working class of Russia needed to do more than merely fight against capitalists in their workplaces, and mount a political assault on Tsarism in general with the working class taking the leading role in a national struggle (P. Anderson, 1976, p. 15). The problem such a concept was designed to resolve was the issue of the apparent ‘unripeness’ of the Russian conjuncture in the late Nineteenth and early Twentieth
Centuries. With the developmental conditions for communist revolution figured as being those of a highly developed industrial economy, coupled with a bourgeois political state, Russia’s underdeveloped industrial sector, absolutist monarch, large peasantry, and weak civil society institutions, appeared unpromising (Plekhanov, 1974). Hence accompanying the idea of hegemony comes a rejection of crude economism, (or the notion that the development of the productive forces alone would be able to inculcate a revolution), matched with a politics of efficacy: to win power, the working class needs to lead an alliance of other groups against the rulers of their society, rather than merely stage strikes against capitalists. Moreover, and necessarily given the stageist conception of development towards communism, which was widely accepted at this time, this was to be a bourgeois revolution led by the working class.²¹

Lenin’s treatment of hegemony, in What is to be Done? (1971) and other prerevolutionary writings, develops this understanding of hegemony while retaining its essential character. Lenin theorised that a workerist politics grounded in trade unionism could only lead towards an ineffectual politics of amelioration: the working class would be satisfied with a ‘corporatist’ solution of better working conditions under a more democratically inflected capitalism. Therefore, to develop a new, more radical kind of political consciousness amongst the working class of Russia, and to win broader political victories, required the working class to act as leaders of a revolutionary coalition. Such a leadership meant that the working class must act, in their struggle against the Tsarist state, partly in the political interests of their partners in such a collation – in particular the peasantry. As Laclau and Mouffe puts it, hegemony in this early sense names a new and anomalous relation between the working class and tasks that, given the previous theories of mechanistic economic determinism, were apparently alien to them, the process of “political leadership within a class alliance” (1985, pp. 50–5). In light of the complexity of the Russian political and economic situation, hegemony enters as a conceptual and strategic operator to bridge the gap between what theory should suggest would happen (a stageist conception of historical political and economic development) and the actual exigencies of the real political conjuncture at hand.

The Gramscian Moment

²¹ As Laclau and Mouffe put this, the “clarity of history is marred by the emergence of an anomaly: the bourgeois class cannot fulfil its role, and this has to be taken over by the other character” i.e. the working class (1985, p. 50).
While the prominence of the term declined in Russia following the revolution, it continued to be much discussed amongst the Third International, in the context again of evading corporatist co-optation of class struggle through the working class taking a leading role over a coalition of other classes. Anderson notes that it is within debates amongst the Third International that a new figuration of hegemony, one later to be developed by Gramsci, first emerges: hegemony as descriptive of the power of the bourgeois state, as well as of the strategy of the working class to take power (P. Anderson, 1976, p. 18).

In *The Prison Notebooks* Gramsci broadens and deepens the idea of hegemony in a number of important respects.22 Primary amongst these is a full treatment of the Janus-faced nature of hegemony – as normative strategic prescription for proletarian political practice, and as an analytical optic through which the machinations of bourgeois power can be understood. In this sense hegemony, when applied to either working class or bourgeois power, refers to both practices designed to win power, and the practices used to maintain that power once won. Second, Gramsci’s development of the idea shifts its locus of interest from Tsarist Russia towards the modern European capitalist states, which featured sophisticated civil society elements, well-developed industrial sectors, and bourgeois rule, often in a form of electoral democracy. Third, this new mode of understanding hegemony subtly modifies the sense of leadership indicated by the term (Boothman, 2011). As used in pre-revolutionary Russia and by the Third International, hegemony primarily indicated a mode of political leadership by the working class of an alliance of other classes. For Gramsci the idea of leadership in hegemony is nuanced to mean a more diffuse notion of intellectual and moral leadership, as well as encompassing the older meaning. In developing hegemony as a generalised theory of power in the integral states of Western Europe in the 1930s, Gramsci conceived a systematic Marxist political philosophy adequate to his political conjuncture, in the process considerably expanding the framework in which political power can be thought. In the sections which follow, each of these innovations will be considered in turn, and in relation to the broader conceptual system which Gramsci puts into place to make sense of them, including such notions as passive revolution, political common sense, intellectual and moral reform, civil society, and historic bloc.

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22 Boothman notes that alongside the Marxist inheritance, Gramsci was also inspired by Benedetto Croce’s speculative philosophy of history, and Machiavelli’s ‘dual natured’ conception of the prince as capable of using both violence and civil measures (Boothman, 2011, pp. 61–3).
The Relation of Forces

Gramsci’s hegemony plays out against a twin landscape. Most prominent is the determinate terrain of the integral state - the combination of civil society and political society, in relation to the economic. It is theorising the operations of the integral state which absorbs much of Gramsci’s attention in his prison writings. But lying behind this is a more fundamental social ontology: the ‘relation of forces’. This social ontology portrays power as entirely immanent in nature, without any transcendental position from which it is necessarily exercised. Power is diffused throughout the relations of society, rather than being relatively simple and based on either pure top-down unilateral domination or a transcendent juridical concept of sovereignty, as paradigmatically in Hobbes (1996). However, power is not diffused equally throughout the social – local, contingent loci of power do exist, and it is these differential functional centres of power that Gramsci’s theory of the integral state attempts to analyse.

Gramsci’s notion of hegemony, as grounded in the relation of forces, focuses our attention on how, as Stuart Hall puts it, “different forces come together, conjuncturally, to create the new terrain, on which a different politics must form up.” (1991, p. 131). Hegemony is conceived, broadly speaking, as a result of the interplay of all the diverse forces in a social system, an equilibrium point existing between the different forces governing the relations between elements. Hegemony as unstable equilibrium (of relational forces) is repeatedly cited by Gramsci in The Prison Notebooks (e.g. pp. 107-8, 132, 172, 182, etc). While it would possibly be a forced reading to claim that this is identical to the idea of emergence arising from complexity theory, it is certainly at least suggestive of the fact that Gramsci’s conception is open to such an interpretation. It is perhaps for these reasons that Joseph understands structural hegemony as just such an emergent phenomenon:

“Hegemony is not simply created by social groups; it is realised by them. It is dependent upon an underlying or lower level of social relations which allows for its expression. But the expression of hegemony does have its own character and dynamics irreducible to that out of which it emerges.” (Joseph, 2002, p. 39).
The conception of power inherent in Gramsci’s social ontology forces implies a complex emergent order, the result of diverse social practices. This means that, far from society being the result of the adjoining of relatively distinct sectoral components, that a contingent and dynamic social totality exists, more than the sum of its parts, and the result of the interactions of social practices. In terms from complexity theory, this means that the emergent properties of a configuration of relations between elements in a social system generate an emergent order with its own downward causatory organisational properties.

Gramsci sets out three levels at which the relation of forces can be disentangled: the structural, the political, and the military (1971, pp. 180–5). The first of these, the structural, corresponds to the economic-productive sphere, the material productive forces which establish social differentiation (i.e. most importantly: classes). The most significant for Gramsci is the second category, the relation of political forces, or the levels of self-organisation of different social groups. Here three moments of differing intensities of political self-consciousness and organisational efficacy are identified. First is the level at which a given group feels solidarity, but only at the economic-corporate level – with those of their own immediate kind, rather than a broader class sharing similar interests. Second is the moment of the crystallisation of a wider class interest, but “still in the purely economic field” (1971, p. 181). The class will work towards effectuating their interests through the machinery of the state, but without challenging the existing structures themselves. Finally, in the third moment, is the moment of hegemony, wherein the class identifies that to further their own interests, they must necessarily begin to collaborate and speak for other groups, “the most purely political phase” (ibid). This is the point, Gramsci claims, when the social group is able to move beyond the economic structure and into the superstructural elements – where “germinated ideologies become ‘party’” (ibid). Here the interests of the dominant group, and their expansion and increasing power, are presented as representing the national interest, as ideological struggle “attempts to forge unity between economic, political, and intellectual objectives […] on a ‘universal’ level” (Mouffe, 1979, p. 180).

It is here, also, that the complex interplay between coercion and consent takes place.

Domination And/Or Consent
Power within developed societies, as Gramsci identifies it, depends on two interlinked relationships: domination on the one hand, and intellectual and moral leadership on the other, or *coercion* and *consent*. “A social group” writes Gramsci, “dominates antagonistic groups [while] it leads kindred and allied groups” (Gramsci, 1971, p. 57). In this sense, the thread of hegemony as alliance is carried through from the Third International days, while extending the remit from describing a political strategy for proletarian political activity to a more generalised theory of political action applicable to bourgeois rule as well. However, Gramsci’s ideas of alliance and leadership appear to entail a more complex understanding of the term than in previous formulations: the idea of hegemonic praxis as capable of acting as a spontaneous attractor, generating self-organising social and political currents in its wake. Diffused or ‘molecular’ elements within a conjuncture (as Gramsci puts it, with shades of the later Deleuze and Guattari) can be mobilised into alliance spontaneously, given a coherent enough political class (1971, pp. 60–1). Such ‘spontaneous attraction’ again finds Gramsci describing hegemonic practice in terms which are strongly reminiscent of those used by complexity theory, admitting to a family resemblance to the spontaneous emergent order and the phase space attractors of dynamical systems theory.

The nature of consent is more than simply alliance though, and entails both active and passive consent. While the latter is underdeveloped in much of Gramsci’s prison writings, in a famous section on ‘the intellectuals’ he describes the “spontaneous consent given by the great masses” to the rule of those who held control as a class of the means of production, while coercive state power is required to control “those groups who do not ‘consent’ either actively or passively” (Gramsci, 1971, p. 12). Such a spontaneous consent would logically include both those who were enthusiastic supporters of a given dominant group, and also those who were merely not roused to antagonism. This kind of consent, as well as much of the potential for alliance, depends on the ability of a given social group to exert intellectual and moral leadership (or at least the appearance of such) i.e. upon ideological production.

While hegemony in many parts of *The Prison Notebooks* appears aligned with the engineering of consent, the relationship between hegemony and domination is not as clear cut as it may first appear. As Gramsci goes on to elaborate:
“Political leadership becomes merely an aspect of the function of domination – in as much as the absorption of enemy elites means their decapitation, and annihilation often for a very long time […] there can, and indeed must, be hegemonic activity even before the rise to power […] one should not count only on the material force which power gives in order to exercise effective leadership.” (Gramsci, 1971, p. 59).

Necessarily, given Gramsci’s relational social ontology (the relation of forces), consent and coercion are to a certain extent mutually enabling, in reciprocal positive feedback relations with one another. As a social group goes about the process of engineering their hegemonic project, consensual hegemonic relations are used to obtain state power, which in turn enables coercive power to be exercised, simultaneously enabling a broader array of consensual relations to be achieved. While Gramsci does indeed at times equate hegemony with consensual articulations in opposition to coercive ones, (1971, pp. 169–70) potentially, at least, rather than being opposed, these relations are mutually reinforcing, both moments within an overall process of hegemonisation.

Such an interrelation of coercion and consent, hegemony and domination, mitigates against the kind of relatively straightforward reading offered by commentators such as Anderson (1976) and Bobbio (1979). These readings make the equation that, for Gramsci, ‘hegemony = consent’. As Anderson argues, Gramsci’s discussion of the ‘dual perspective’ in political action (i.e. consent and coercion) sets up an explicit opposition between the two terms (P. Anderson, 1976, p. 21). Moreover, such an oppositional relationship between coercion and consent is the theoretical prelude for a reading which wants to firmly identify Gramsci as being a theorist of consent on the terrain of civil society, all the better to indict contemporary Eurocommunists for similar strategic emphases.

However, as Gramsci himself makes plain, the exercise of hegemony in the integral state depends upon a combination of force and consent in balance with one another (Gramsci, 1971, p. 80). These two kinds of political relationship figure as “theoretically distinct but really united as moments […] of a political hegemonic project.” (Thomas, 2009, p. 167). In other words, the relations of leadership and domination “do not form separate worlds” (Buci-Glucksmann, 1980, p. 62) since the establishing of popular
ideology and a system of alliances – of hegemonic leadership – is the pre-condition of state power and hence effective domination over the broader social milieu. When force is required, successfully maintaining hegemony generally requires that its use be identified as being with the consent of the majority, at least in the media. Gramsci outlines this as follows:

“The attempt is always made to ensure that force will appear to be based on the consent of the majority, expressed by the so-called organs of public opinion – newspapers and associations – which, therefore, in certain situations, are artificially multiplied.” (Gramsci, 1971, p. 80).

What is characteristic of hegemonic rule, then, is the necessity to cloak even force in the veil of consensual relations – but the utility and necessity of force within the hegemonic project remains. Under Thatcherism, for example, it was important to present the effectively paramilitary crushing of the 1984 miners’ strike as being consensually agreed upon, at least by the majority, while victory in such a struggle assured the ability of the hegemonic group (the UK Conservative party) to generate further active consensual alliances with other groups, as well as promoting an apathetic passive consent from many who might otherwise have sought to antagonise the hegemon (Milne, 1994). Hence while hegemonic practice is clearly more closely linked to the consensual than the coercive in Gramsci’s writings, the overlap and mutual interrelation of the two dimensions is such that coercion is vital to the overall process of hegemonisation, of the engineering of social relations to solidify a social group’s power.

Re-engineering Common Sense
In Gramsci’s analysis of a rising social group, the highest moment of their development within the relation of forces comes at the point when they begin to articulate their own interests as the interests of other groups – what Gramsci identifies as ‘intellectual and moral’ leadership. What is the relationship between the production, dissemination, and manipulation of ideology, and the operations of hegemony more broadly conceived?

“To the extent that ideologies are historically necessary” writes Gramsci, “they ‘organise’ human masses, and create the terrain on which men move, acquire consciousness of their position, struggle, etc.” (1971, p. 377). In this conception,
ideology is not a free-floating set of mere ideata, but intimately related to a given social, political, and economic configuration. Such that ideology has a causal power (to organise the actions and thoughts of people), it must be the organic result of significant social and economic processes. Put another way “material forces are the content and ideologies are the form, […] the material forces would be inconceivable historically without form and the ideologies would be individual fancies without the material forces.” (ibid). Not only must efficacious ideologies arise from material processes, but they are also in some sense a pre-condition of the existence of a particular configuration of material forces. Ideology for Gramsci is therefore “not just a philosophical world view” it must also “entail orientations for action and must be socialised in the masses” (Larrain, 1983, p. 87).

One way to decipher this is via Gramsci’s discussion of the role of intellectuals. While for Gramsci, every human is capable of being an intellectual, it is the professional intellectuals (academics, journalists, educators, artists, civil servants, priests, lawyers, doctors, and technical supervisors) who are most of interest to his theorisation of the operations of hegemony – in particular those who organically represent significant material forces in society or the economy. It is these professional intellectuals who perform much of the ideological work of intellectual and moral reform and leadership (R. Simon, 1991, Chapter 8). ‘Reform’ and ‘leadership’ indicate that Gramsci believed ideology, while arising from material conditions, was capable of more than simply representing or in some sense narrativising the interests of an already well-established elite. Instead, the work of professional organic intellectuals of all kinds is productive, acting as a binding agent across a social and economic formation. To lead an alliance of groups and forces, a social group needs to present itself as in some respect standing in for a regional or national area as a whole, to succeed in “persuading the other classes of society to accept its own moral, political, and cultural values” (Joll, 1977, p. 79). It is this work which the organic intellectuals are tasked with, producing ideological products to craft a unity “through which a multiplicity of dispersed wills, with heterogeneous aims, are welded together with a single aim, on the basis of an equal and common conception of the world” (Gramsci, 1971, p. 349).

To do so requires a careful process, not so much of engineering, but of re-engineering political common sense. In order for ideological products to be efficacious, they need to
be both related in some respect to material forces and interests, and simultaneously to act to transform and conjugate those materials to generate a new social configuration. Rather than imposing pre-conceived ideologies from above, this requires a complex, negotiated process of working with existing beliefs, prejudices and predilections (in Gramsci’s own work, largely related to ‘national popular’ beliefs). Transforming these beliefs and ideas into new forms serves the interests of the leading or rising social group in creating an ideological glue to fix together diverse social forces. Shifting the terms of the ‘national story’ to reflect the values endorsed by the leading group enables an articulation of their class interests with those of groups outside their class, but who identify with various national characteristics. One of the most important ways of achieving this, given that “every relationship of ‘hegemony’ is necessarily an educational one” (Gramsci, 1971, p. 350), is through the education system of schools and universities, “the instrument through which intellectuals of various levels are elaborated” (ibid, p. 10). In the UK, for example, battles over how to represent our ‘national story’ in history education have been a leitmotif of recent education policy, demonstrating the persistent significance of the school system for enabling leading social groups to mediate their narrow class interests with a broader, nationally-inflected perspective (Wintour, & Morris, 2014).

Ideological work aims at transforming the common sense of individuals, or the set of largely unconscious coordinates through which they interpret the world, and hence to alter their actions. A common sense need not bind all subaltern groups in active allegiance to the leading group, but simply needs to configure passive consent, i.e. to prevent active antagonism (Gramsci, 1995, p. 15). While proceeding largely through civil society and consensual relations, intellectual and moral leadership is vital within the broader process of hegemonisation and establishment of a hegemonic apparatus or historic bloc – to establish the conditions necessary for the accruing of alliances required to seize state power, to neutralise antagonisms, and to clothe the use of coercive force where needed in the modest garb of collective consensual respectability.

**The Mystery of the Integral State**
Many of the difficulties of disentangling coercion and consent arise because of the complexity of the entity Gramsci expends much of his energies attempting to theorise: the integral state. At its simplest, the integral state is the term used to demarcate the developed nation-states of Europe in the 1930s, electoral democracies with semi-autonomous civil society institutions such as schools and universities, churches, newspapers and other mass media, clubs and other non-state associations such as labour unions, and the family. Political society or the political state corresponds to the executive, the judiciary, the police force, and the administrative apparatus of regulators, tax collectors, and bureaucrats. Alongside this is the economy itself – consisting of workers, businesses and business organisations, as well as factories, infrastructures, and material flows of energy and matter. The term ‘integral state’ marks the combination of civil and political society into an integrated entity, in conjunction with the economy. The question, then, is of the nature of the integration of these component parts, and hence the question of the location of hegemony: from where is it exercised, and what is its particular domain?

Perry Anderson points to three conflicting potential set-ups of political state and civil society in *The Prison Notebooks* (1976, pp. 12–14). The first (see fig. d.) seems to locate the state and civil society in a spatial relationship, with each distinct and contrasting. “When the State trembled” writes Gramsci, “a sturdy structure of civil society was at once revealed. The state was only an outer ditch, behind which there stood a powerful system of fortresses and earthworks” (1971, p. 238).

Fig. d. ‘Civil society vs. the state’

Fig. e. ‘State = political society + civil society’

Fig. f. ‘State identical with civil society’

In the second figuration picked out by Anderson, (see fig. e.) Gramsci makes the following equation: “[the] state = political society + civil society, in other words hegemony protected by the armour of coercion” (1971, p. 263). In this version, the state
now encompasses both civil society and political society, with political society’s coercive apparatus protecting the hegemonic relations of civil society. From this viewpoint the state consists of two components, one of which being civil society (P. Anderson, 1976, p. 12). In the third set-up, (see fig. f.) the state becomes identical with civil society, as “in actual reality civil society and State are one and the same” (Gramsci, 1971, p. 160).

Corresponding to each of these configurations is an apparent location of hegemony. In the first, hegemony is a property only of civil society – it is therefore within the systems of the non-state society (media, associations, educational institutions etc) that hegemony is exercised. In the second, which merges civil society as a distinct but incorporated aspect of the state as a whole, hegemony appears to remain the function of civil society institutions and structures, but now themselves within the purview of the state proper. In the third set-up, hegemony becomes dislocated and both civil and political hegemony appear possible.23

How are we to make sense of these seemingly irreconcilable configurations of the component parts of the integral state? One way we might understand the relationship between civil society and political state (and ‘the state’ more generally) is as topological locations, as suggested by Italian commentators on Gramsci such as Bobbio (1979) as well as Anderson. This would be to conceive of three levels: the economic ‘base’ and two superstructural components (civil society, political society) – each topologically excluding the other. Here we would be led to believe that civil society and political society occupy distinct territories, as if discrete locations within a 2-dimensional space. Moreover, whether enthusiastically endorsing (Bobbio) or critiquing (Anderson) such a set-up, both claim Gramsci as the thinker of the primacy of superstructure over structure, civil over political society, consent over coercion. This would, however, appear to flatten the intricacies suggested by Gramsci’s apparently multiple typologies of the relations between these elements.

A convincing alternative, therefore, is presented by Thomas in the form of a 3-dimensional set-up, where civil society and political society are not so much discrete

23 See Anderson (1976, p. 18) for a discussion of the potential separability of political and civil hegemony.
mutually exclusive *locations*, but rather different kinds of *functions* which interpenetrate one another (2009, pp. 170–3). We might consider a number of institutions and practices as being in certain roles belonging to civil society, in others to the political state, while both functions are effectively integrated within a hegemonic apparatus. These superstructures are erected on the economic ‘base’ in the sense of being:

“agonistic forms that compete to become the essential form of appearance of a content that is itself contradictory—that is, they seek to resolve the contradictions in the economic structure of society […] either by pacifying and effacing them, or by emphasising their unstable nature and driving them to a moment of crisis.”(Thomas, 2009, p. 172).

From this standpoint, hegemony is a transversal practice and set of relations, between and within the political and civil society functions of the integral state, a “particular practice of consolidating social forces and condensing them into political power on a mass basis—the mode of production of the modern ‘political’” (ibid, p. 194). A hegemonic project necessarily entails transits from the civil towards the political, since the objective of the hegemonic project is state power, and without developing a civil hegemony into a political one, there would be little preventing the existing political hegemony from deploying coercive power to disrupt or destroy the nascent alliances of the rising social group. In this conception, what distinguishes bourgeois society from a potential future communist one is precisely the subordination of civil society functions beneath those of political society, where the function of political society within the integral state is to organise and subordinate the ‘raw material’ of the subaltern classes (Gramsci, 1971, p. 52). As Thomas elaborates, we might consider political society to be the “condensation or institutional organisation of the social forces in civil society”. (2009, p. 193). It is in this sense that we can locate hegemony in relation to the functions of the integral state – as ‘mode of production of the political’, infusing both civil society social functions and (necessarily) political functions, as a condensation of the relations of forces within civil society.

We can now identify why Gramsci was able to deploy three very distinct set-ups of the relationship between civil and political society in the integral state. In the first formulation, political society appears as a flimsy addendum to the sturdy reinforcements
of civil society – in a moment of crisis, while in the second, the reverse appears true, as civil society requires ‘armouring’ with the coercive apparatus of the political state. Rather than being antinomic these two conceptions capture different phases of interrelation, where in a moment of crisis, the coercive apparatus is revealed to be less effectual than the consensual, (which is why Gramsci insists that successful rule in the integral state cannot depend on coercion alone) while in a functional hegemonic apparatus the consensual can be effectively married to the ‘armour’ of coercive power. Finally, the third configuration, where the state is ‘identical’ to civil society, can be made sense of as being the result of a well-established hegemonic articulation – where the state and political society can be presented appropriately as being the fulfilment of the set of relations within civil society (rendering them effectively, if perhaps non-transparently) ‘identical’.

The political implications of this are as follows: in rejecting hard, exclusive, or ‘organic’ distinctions between civil and political society, Gramsci recognises something unique in the structural make-up of the integral state, in the process evading “the false alternative erected by both liberalism and fascism” (Buci-Glucksman, 1980, p. 93). On the one hand, the liberal ideal of some kind of purified civil society, free from political interference is warded off, by recognising the imbrication of political and civil society, and of coercion and consent. On the other hand, the fascistic direct identification of the social with the political or the function of domination as such is also kept at bay, given that the hegemonically integrated state, as Gramsci is wont to repeatedly inform his reader, requires more than force alone to control.

**Historic Bloc – Hegemony and Economy**

Hegemony operates beyond civil society as a generalised structuring principle of the social and political, but where does this leave it in relation to the economic? A basic vulgar Marxian economism might suggest that we conceive of the economy as primary, functioning as a ‘base’ of productive forces upon which sit various epiphenomenal superstructural domains – civil society and the political state, occupying a purely expressive and non-causatory role (Kautsky, 1892). While Gramsci does indeed refer to ‘structure’ and ‘superstructures’ in his prison writings, it is important to emphasise that the abiding nature of hegemony is to complexify such reified categories. The concept of the historic bloc is introduced by Gramsci to help think through the relationship
between structure and superstructures, i.e. the economic and the political/social. Gramsci defines the historic bloc as follows:

“Concept of ‘historical bloc’, i.e. unity between nature and spirit (structure and superstructure), unity of opposites and distincts” (Gramsci, 1971, p. 137).

And later as:

“Structures and superstructures form an ‘historical bloc’. That is to say the complex, contradictory and discordant ensemble of the superstructures is the reflection of the ensemble of the social relations of production.” (1971, p. 366).

Such a concept is to be contrasted with the vulgar economistic schema where “structure [is] a ‘hidden god’, a ‘noumenon’, in contrast to the ‘appearances’ of the superstructure” (1971, p. 138). As such, the ‘reflections’ of the economic sphere in the political and civil functions in a historic bloc are not as straightforward as a unilateral determination of the social and political forces by the economic. Gramsci clarifies this relation as being one of a “necessary reciprocity between structure and superstructure” (Gramsci, 1971, p. 366) – reciprocity, rather than unilateral determination.24

As Gramsci notes repeatedly, political hegemony depends not just on the ability to ‘condense’ a set of alliances and ideologies from civil society into the political state of executive, judiciary, and bureaucracy, but on the ability of a social group to control or lead – in other words to hegemonise around – production. This means both that the social group needs to demonstrate its ‘leading’ role within the sphere of production, and to use the tools of the state and civil society to re-engineer the production process to better reinforce its position (Gramsci, 1971, pp. 279–232). Sometimes leading groups may need to change their system of alliances or their ideological articulations to reflect transformations in productive processes. At other times, social or political imperatives may necessitate intervention in the economic arena. Hence while hegemony has traditionally been aligned predominantly with consensual relations within civil society, it is intimately implicated in the economic. Within a hegemonic apparatus, hegemony

\[24\text{ We might profitably compare, as most commentators on hegemony appear to, this stance to that of the Althusser of the mid 1960s, and his notion of economic determination in the last instance (Althusser & Balibar, 1971).} \]
must bind together each of these differential societal functions to effectively ensure the coherence of the entire edifice across a vast array of different institutions, practices, and sectors (Buci-Glucksmann, 1980, pp. 47–9).

In its most structurally secure and historically persistent form, such a hegemony is termed a historic bloc, the point where a leading social group has hegemony not just in civil society, or control of the state apparatus, but also within the production process. In a sense, only in the historic bloc is there a coherent ‘reflection’ of the productive ensemble of relations (the economic) in the social and political (and vice versa), a unity which also allows a “creative process wherein the superstructural activities of men ultimately transform the infrastructure” as Texier puts it (1979, p. 58). In sum, the materials on which hegemony must work arise partly as a result of particular configurations of economic processes. These configurations will give rise to basic classes, as well as leading roles for certain kinds of workers or owners in certain distinct fields of labour and spatial territories. It is on this basis that hegemonic projects must be conducted, but given that hegemony must necessarily move beyond narrow class interests, such projects are not absolutely determined in any sense by the relations in the economic sphere. At the point of maximum coherence and harmonisation between social functions (economic, civil social, and political) a historic bloc will emerge, whose very resilience is generated by the reciprocal causal interrelationships between its functional elements.

**Organic Crisis, Passive & Active Revolutions**

Though historic blocs are the most enduring configuration of hegemony, they do not last forever. The collapse of a hegemonic apparatus is termed an ‘organic crisis’. These kinds of crises, Gramsci theorised, can last decades and are the result of “incurable structural contradictions [which] have revealed themselves (reached maturity)” (1971, p. 178). We might think of this as the point where the coherence of the historic bloc breaks down, and the tensions which were ‘fixed’ in the ongoing process of hegemonisation break loose and threaten the ongoing existence of the whole configuration of the social formation. It is at this juncture that hegemonic conflict breaks out between those forces and social groups who would seek to shore up the collapsing set of relationships, and those that desire a new articulation.
Such crises are the backdrop for two different kinds of revolution: passive and active. Gramsci’s development of the term passive revolution (adapted from Vincenzo Cuoco) is in the context of his analysis of the Italian Risorgimento, the unification of Italy and the rise of its bourgeoisie under the Moderate Party. Passive revolution is essentially a revolution from above, where hegemony is only achieved by a portion of the ruling class over the rest of that class, and where the use of force is necessary because of the lack of hegemony over other groups (Gramsci, 1971, pp. 107–114). Passive revolution, often in the wake of new developments in economic relations and production processes, are effectively a faction of the ruling class acting to pre-empt more popular or active revolts from below (Joseph, 2002, p. 33). A re-organisation of civil society and political relations of forces may be sufficient to translate transformations in production processes into a new political settlement. The historical experience of the Risorgimento, as Gramsci analyses it, demonstrates the inevitable fragility of such processes – rather than creating a modern Italian state, as they had ostensibly intended, “they in fact produced a bastard” (1971, p. 90) which proved unstable and relatively inept at motivating the enthusiasms of the masses. Gramsci also identifies Italian fascism and the American New Deal as other examples of passive revolutions in response to developing organic crises.

By point of contrast stands the active revolution, represented in history for Gramsci by the French Jacobin revolt, and in prospect by what he termed ‘the modern prince’ – or the vanguardist communist party. As Gramsci puts it “the modern prince [...] can only be an organism, a complex element of society in which a collective will, which has already been recognised and has to some extent asserted itself in action, begins to take concrete form. (Gramsci, 1971, p. 129). Gramsci’s conception of this new form of party is a “unitary but plural” mode of organisation, “a laboratory for experimentation in the forms of democratic practice [necessary] to carry outside the party into society” (Thomas, 2012, p. 4). It must use all the tools he has analysed the bourgeois leading groups of deploying within the integral state, in particular to shift beyond attempting to control the production process alone, and setting itself the task of propagating intellectual and moral reform on a broader stage, the objective being to realise a “superior, total form of modern civilisation” (Gramsci, 1971, pp. 132–3). Given the importance Gramsci placed on education as perhaps the single most significant vector of ideological hegemonisation, it is no surprise to find that his conception of the modern
prince entails a heavy emphasis on its role as a pedagogical mediator (ibid, p. 191). The development of critical consciousness, on Gramsci’s speculative account, will enable this new form of party to exert a new kind of leadership, based on a collective consent, a highly relational form of democracy rather than a mere bureaucratic centralism.

Hegemonic Structure and Agency
Given that Gramscian hegemony is meant to theorise both the structural power of bourgeois societies and the hegemonic projects which might be deployed to transform them, (by both proletarian and non-proletarian actors) it is necessary to distinguish between the structural and agential sides of the concept. Put straightforwardly, this would be the difference between sedimented hegemony embodied in the set of relations articulated by the leading class group in society versus the actions of those who would, via passive or active revolution, seek to achieve a new and different set of hegemonic relations.

This distinction is advanced most clearly by Jonathan Joseph (2002) – who sharply distinguishes between the structural side of achieved or embedded hegemony, and the agential side of hegemonic projects. Joseph attempts to position a Gramscian hegemony between the twin poles of humanist or post-structuralist readings (conceived as overly agential in their emphasis) and more structuralist ones, such as those offered by Poulantzas (1973), which he argues emphasise structure to the detriment of agency. This he grounds in a critical realist account of social structures and action – the transformational model of social activity, where society is both the material condition for and outcome of human action. Joseph accurately argues a Gramscian hegemony ought to be interpreted as operating under “conditions of social and material causality” (2002, p. 85). In this sense, the economic and other structural conditions for hegemony must be analysed in addition to the more purely political aspects. The two sides of the equation, hegemonic projects and hegemonic structures are imbricated in one another. Structural hegemony secures the unity of a set of social systemic components – the economy, the political state, and civil society. Such social structures then act as the material precondition for hegemonic projects – both the cause of hegemonic projects, in the sense that agents emerge within this interplay of social systems and structures, and the material from which future hegemonies must be constructed. It is through the
hegemonic project’s manipulations and reconstructions of these elements that new structural hegemonies emerge, (2002, pp. 125–9).

But for all his protestations of merely executing an innocent ‘dialectical abstraction’ in his decomposition of hegemony into these two terms, (2002, p. 128) Joseph’s relatively clear-cut distinction between structure and agency tends towards a simplification of the imbrications between the two. He tends to assume that once hegemony is achieved a given hegemonic apparatus will be able to reproduce itself relatively smoothly without further hegemonic work. While Joseph does state that reproduction of hegemonic structures requires human action, such agency is essentially conceived as being relatively unconscious, a sleeping automatism largely in accordance with structural determinants. While this may well be true of large sectors of the population, crucially the leading group(s) within a hegemonic apparatus are required to exert effort (material resources, ideological production, articulation of interests and alliances with other groups etc) on an ongoing basis. As Gramsci describes the process of a class maintaining its hegemony:

“The life of the state is conceived as a continuous process of formation and superseding of unstable equilibria […] between the interests of the fundamental group and the subordinate groups – equilibria in which the interests of the dominant group prevail, but only up to a certain point” (1971, p. 182).

Joseph’s position also underplays the dynamicity of hegemony, presuming relatively stable structures entail staticity, rather than directionality. In other words, while we can indeed distinguish between the agential and structural moments of hegemony, even an achieved hegemony requires work to maintain, and itself is capable of doing more than merely replicating its own conditions of possibility, in the sense that even structural hegemony is always an ongoing process of transformation, and can be conceived as a governing direction of travel for social ensembles as a whole (Gilbert, 2013a). This is particularly so under inherently dynamic economic systems such as developed capitalism.

While Joseph is keen to render his reading of Gramscian hegemony in tones far from overly agential ones, his understanding of social change is effectively hylomorphic in
that it locates transformation only in agency – rather than also being possible in the material generativity of structures themselves. This is largely a legacy of his reliance upon Bhaskar's transformational model of social activity (Bhaskar, 1994). By contrast, to properly be a realist or a materialist would mean that we would have to take seriously the idea that social structures are dynamic, and that the natural phenomena on which they supervene (global geological, climactic, and ecological systems) are also capable of relatively autonomous transformational processes.

These two sides (the work necessary to maintain hegemony and the mobile metastability of achieved hegemony) are closely interrelated. If even social structures are dynamic, and constantly in a form of motion (towards becoming or decay) then an achieved hegemony needs to be more than the result of a past hegemonic project, but an ongoing task, the mission of (imperfectly) ensuring such processes of structural change head in the direction desired by the leading group. Simultaneously, consistent hegemonic work by the leading group, combined with an interplay of other agential forces (for example warding off counter-hegemonic projects and maintaining relations with subaltern groups) will tend towards generating structures which are themselves dynamic.

One final point which is worthy of attention in the relation between agency and structure is the nature of intentionality. Is structural hegemony reducible to the intentions of the leading social group? Joseph is useful here in asserting a realism – i.e. the claim that while social phenomena are reflexively interrelated to different kinds of human intentionality, they are not simply reducible to it (2002, p. 72). While leading groups execute hegemonic operations so as to constitute the social to serve their interests, hegemony itself is not reducible to those intentions, and structural hegemony can generate unintended consequences. In this way we can (again) conceive of structural hegemony as being an emergent property of the interactions between hegemonic projects and structural preconditions.

Gramscian Complexity?
The above discussion has touched upon most of the major aspects of Gramsci’s work on hegemony, with particular attention paid to the sophisticated manner in which he links together this central concept with his broader understanding of social ontology, state theory, the role of ideology, the interplay with coercion, and the importance of the economic. The resemblances of Gramsci’s theory of hegemony to ideas from complexity theory have also been noted. Chief amongst these is the notion that hegemony is an emergent property of particular intersections of hegemonic projects and structural determinations, which is capable of its own self-organising effects. Gramsci’s fundamental social ontology of the relation of forces, and the need to constantly re-make hegemony, or risk the threat of organic crisis and the collapse of a historic bloc, should also remind us of the kind of thermodynamic conceptions of social systems we have explored in the previous chapter. Gramsci’s analysis of the integral state, with its complexly imbricated mutually co-constituting functions, is strongly reminiscent of some of the ideas of second wave systems theory. Finally, in Gramsci’s discussion of hegemonic contestation in the wake of an organic crisis, unstable equilibria, and the idea of attempting to find a coherent fix across multiply stratified social, political and economic forms, all clearly have resonances with the conceptual frameworks of dynamic systems theory and its conceptual repertoire of multi-parameter phase spaces and attractors.

This is not to say that Gramsci is a complexity theorist avant le lettre, but rather that in attending to the real complexities of his political conjuncture he was forced to think in new ways about how the political dynamics of modern societies operated, in turn inflecting his work with similar conceptual articulations as the later complexity theorists themselves.

ii. Post-Structuralist Hegemony

For all his sophistication and invention, Gramsci was a thinker of his times. His theoretical inventions were shaped by the practical political need to understand better a particular conjuncture – the integral states of the 1930s, and the rise of Fordism and fascism. There is still much of value in Gramsci’s work, especially once we have done with simplistic readings centring on the misleading equivalence of ‘hegemony = consent = civil society’. However, it must be admitted that since Gramsci’s era a number of important transformations have occurred. The rise of radical politics organised on the lines of race, gender, and sexuality (Laclau & Mouffe,
1985), alongside the shift from Fordism to post-Fordism (Murray, 1989), increasingly globally integrated production and distribution circuits, the expansion of financial power (Lapavitsas, 2013), and the mounting crisis of electoral democracy (Crouch, 2004), all serve as spurs to reconsider hegemony for our own times. How has the concept been transformed to meet these political and theoretical challenges? Is it still adequate to think the socio-political complexities of our era?

Perhaps the most substantial re-formulation of hegemony after Gramsci has come with the post-Marxism of Ernesto Laclau and Chantal Mouffe. While initially devised in reference to the Marxian tradition, in particular Gramsci, (Laclau & Mouffe, 1985) this influential approach to hegemony increasingly developed its own unique set of frameworks and concepts (Butler, Laclau, & Žižek, 2000; Laclau, 1990; Mouffe, 1993). Its genesis can be explained as being the result of the intersection of two sets of phenomena. First, at the level of political practice, there was the emergence of new social movements, (anti-racism and civil rights campaigns, second and third wave feminism, queer politics) which contested on terrains in addition to or instead of the class relation. This was combined with a concomitant rejection of the party form in post-1968 radical left politics and a decline in the effectiveness of organised labour movements (especially from the mid-1980s onwards as neoliberal anti-union measures asserted themselves). Second, at the level of theory, there was the intersection between the point of ‘high’ Gramscianism in the late 1970s and early 1980s, (in Marxist political theory and British cultural studies alike), alongside the decline in interest in the structuralism of Louis Althusser (Hindess & Hirst, 1977) and the increasing dominance of post-structuralist thinking, principally Lacan and Derrida. This was the era of political ‘new times’, the era of the emergence of post-Fordism and postmodernity alike (Hall & Jacques, 1989; Jameson, 1991).

The abiding motivational concern which emerges from the conjuncture of these changes in theory and practice, as Laclau and Mouffe present it in Hegemony and Socialist Strategy at least, is the rejection of economism, and relatedly, the downgrading of class as the central category of left political theoretical analysis (1985). On this assessment,

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25 Geoff Boucher notes four dimensions to the ‘new times’ which Laclau and Mouffe are responding: the philosophical: the end of the relevance of the Enlightenment project; the social: the increasing complexity of social relations, categories, and groups; the political: the emergence of new social movements; the historical: the disarray of the communist project (Boucher, 2008).
there is a theoretical vector from the vulgar economism of the likes of Kautsky through to the more politically pragmatic Lenin, the hegemonically sophisticated Gramsci, and later Laclau and Mouffe, a trajectory of continual reduction in the role played by the economic in determining the political. This is certainly how Laclau and Mouffe present this story:

“As the area of [hegemony’s] application grew broader, from Lenin to Gramsci, the field of contingent articulations also expanded, and the category of ‘historical necessity’ – which had been the cornerstone of classical Marxism – withdrew to the horizon of theory.”(1985, p. 3).

Such a viewpoint presents the slow emergence of the political as an autonomous domain, (in theory and reality) with Gramsci as something of a ‘John the Baptist’ figure, officiating as post-Marxism stages the final defeat of economism.

There is another way of interpreting this conjuncture, and hence of assessing the success of Laclau and Mouffe in theoretically grasping it. The shifts of the ‘new times’ might be better interpreted as presenting the problem of the increasingly complex set of dynamics in contemporary societies. Laclau and Mouffe themselves mention social complexity repeatedly, (e.g. 1985, p. 28, 66, 71–2, 85, 96–7, 109, 150–1, 191–2 etc) often precisely in terms of increasing complexity. But while it is an abiding thematic of their work, it is often subsumed beneath other concerns: cutting the ties of the socio-political to determination by the economic, or a broader fight against essentialism, rationalism, and the legacy of the Enlightenment. Often these other imperatives are assumed to be identical to trying to represent increasingly socially complex times.

Examining the shifts in thinking hegemony from the angle of social complexity, however, has two chief advantages. First, it enables us to critically assess Laclau and Mouffe’s re-assembly of hegemony theory from at least partially within their own frame of reference. As such, shifts away from mechanistic economic theories can be included under the rubric of attending more closely to the real complexities of social systems, without identifying such moves as the entire story. This also means that there is no need to identify the severing of the connection of the socio-political and the economic as being the ultimate step in theoretical receptivity to complexity (indeed, as we argue, the
very opposite is true). Second, it allows for an extraction of those elements of Laclau and Mouffe’s work which can be put to use outside the framework of ‘discourse’. This is to say that, to the extent that their work enables an abstracted take on hegemony to grasp the complexity of the social and political, it is of considerable use, but such that it becomes overdetermined by the structural linguistic metaphor they deploy to model this expansive hegemonic relationality, it must be rejected or substantially modified.

Hegemony after Economism

In *Hegemony and Socialist Strategy* (1985), Laclau and Mouffe attempt to answer the following question: given the increasing richness and diversity of social relations in modern society, “does it not follow that the class identity of hegemonic subjects is put into question?” (1985, p. 64). The emergence of new kinds of radical left political movements, focused around race, gender, and sexuality, as well as political movements on the global economic periphery, were challenging the class-centred approach common to the majority of Marxian political theories. Two solutions to the problem of class and hegemony in modern societies present themselves. The first is to reassert a basically ontologically privileged subject position (the proletariat), which must in some sense be represented through a series of hegemonic relations. This would be to argue that behind these new social movements lay the reassuring, ontologically pre-determined presence of the proletariat, albeit in some kind of heavily mediated form. On Laclau and Mouffe’s account, at least, this remained the redoubt of the majority of Marxist positions, a minimal retention of the necessity of economic necessity. Certainly, in the theoretical climate of the late 1970s there had been a number of steps taken to shift away from the vulgar forms of economism and towards more complex understandings of social causality. But even the most sophisticated of these, for example Althusser’s structuralist project, maintained some form of economic ‘determination in the last instance’, a minimal umbilical cord connecting his complex structuralism to the mainstream Marxian tradition (Althusser & Balibar, 1971). It is this kind of minimally economistic tether that Laclau and Mouffe believe must be severed. Their own solution, then, is to fully accept the new richness of social relations, and therefore embrace the necessity of the contingency of the social, and hence replace ideas of representation of class interests in hegemonic alliances with a generalised understanding of hegemony as political articulation (1985, p. 65).
It is the idea of hegemony-as-articulation which forms the cornerstone of Laclau and Mouffe’s theory. While they identify Gramsci’s key innovation as being to shift hegemony from Leninist alliance to articulation in a historic bloc (ibid, p. 76) they locate a crucial problem. There remains a limit to articulation, the fact that the classes which form the centre of the articulations of hegemony must emerge from a non-articulatory practice, i.e. from the quasi-naturalised economic relations of production. Simply put, Laclau and Mouffe argue Gramsci maintains a link between the economic and political such that any successful hegemonic articulation must in some sense work with tendencies emerging from the sphere of production – to ideologically represent leading (workerist or capitalist) tendencies. Any residual economism, as Laclau and Mouffe contend, requires three conditions. First, the economic sphere must be autonomous and driven by its own endogenous logics. Second, the unity of collective agents must be such that they emerge on the basis of tendencies within the economic – positions in the sphere of production translate into political subjectivities and collective agencies. Third, the unity of these collective agents depends on the reality of economic interests – i.e. classes are generated by the understanding of an objective interest generated by the position of individuals of that class within the economic structure (ibid). As Laclau and Mouffe analyse it, these three requirements should mean that the autonomous development of productive force plays the primary role in determining the layout of the political, and over time ought to constitute a simplification of social structure by converting diverse social groups into proletarian wage labourers. Neither of these appears to be so in the present world. The autonomy of the economic, they argue, relies on a fiction – that the economic does not always require political structuration, at least in the minimal form of ensuring the servility of the labouring classes, to convert human effort into abstract, exploitable, wage labour (ibid, pp. 78-9). Moreover, and in this respect Laclau and Mouffe echo Mario Tronti and the Autonomist ‘inversion’ (Tronti, 1964), production processes are also partly the result of labour movement struggles (Laclau and Mouffe, p. 80). From both the standpoint of labour and capital, political conflicts impact the nature of the production process, rendering it far from autonomous.

As we have already outlined in our treatment of Gramscian hegemony and its relationship to the economic, much of what Laclau and Mouffe are arguing against here is a simplification of Gramsci’s views on the matter. While Gramsci, as at least in some
sense a Leninist, holds firm to the Marxist primacy of class, his conception of the economic already allows for the influence of the political domain. Moreover, for Gramsci the relation between the economic and the political is explicitly one of mutual reciprocity, not unilateral determination by the economic of the political, or one where the political is a mere epiphenomenon of the noumenon of the economy. So much of Laclau and Mouffe’s critique here depends on a slightly ‘straw man’ Gramsci. That being said, they clearly want to go further than simply complexifying the relationship between politics and the economic, in effectively seeking to void classes of any necessary character, extending the contingency of the hegemonic articulation from one which builds upon class, to one which has a total autonomy – where political identity is unmoored from material interests (1985, pp. 84–5). Hence identity is ‘unfixed’, there are no more ontologically privileged agents, the new social movements cannot be interpreted as in any sense ‘standing in’ for the ‘authentic’ working class, and a clear conception of social totality is nullified (ibid pp. 86–8). In other words, “behind the concept of ‘hegemony’ lies hidden […] a logic of the social which is incompatible with [the categories of classical Marxism]”(1985, p. 3). Here Laclau and Mouffe plunge headlong into post-Marxism, which while elaborated in relation to the Marxist tradition, effectively cuts the linkage at the level of the economic.

This was a radical development from the stances both theorists were taking in the late 1970s. The problem of economism was noted by Chantal Mouffe in 1979, when she observed that perhaps the most significant issue facing post-Althusserian Marxist political theory was one of demonstrating that the ideological superstructures have a relative autonomy while still being in some causal relationship to a similarly autonomous economic domain (Mouffe, 1979). It is interesting to note that Mouffe (accurately) argues here against solutions that would dissolve the link between the socio-political and the economic, given that they would effectively abandon any coherent historical materialism. At this juncture, she held that it was within Gramsci’s work that a better solution to the conundrum of the relation between the political and economic spheres might be found(1979, p. 200), as did Laclau around the same period (Laclau, 1977; Mouffe, 1979, p. 200).

In many senses, the questions they set out in this period were the correct ones. An alternative conception of the economy-politics relation might indeed be produced on the
ground laid bare by Gramsci’s work: economy and politics as quasi-autonomous, mutually imbricated, reciprocally interrelated domains, operating under localised logics, but where the developments and imperatives arising from those logics have effects on the other domain. It is to such an understanding of the economy-politics relation that we have developed our own interpretation of Gramsci. Laclau and Mouffe do at one point allude to a set-up which is somewhat similar to this (1990, p. 115). On this account, the economy and the socio-political act upon one another without either being the final determinant cause. It is, however, hard to square this with the overall polemical thrust of *Hegemony and Socialist Strategy* and its establishment of ‘discourse’ as the field of the social. At the very least, this continues to demonstrate that their position is one of the political taking precedence over the economic, and one where the economic cannot create material to be ‘worked on’ by the political (in particular classes). To do so would, on their view, reinstall determinism and essentialism. We therefore retain something of a suspicion regarding Laclau and Mouffe’s attempts to surmount economism, given that they do so only at the cost of obviating most of the conceptual apparatus which renders the claims of a left politics intelligible: material interests, some form of universality (which need not be a priori or function as a ground), and the tight imbrication of the political and the economic. Nevertheless, they do make substantial leaps forwards in generalising hegemony and hence rendering its logic applicable beyond the confines of the integral states of Gramsci’s period.

**Articulation, or the Abstraction of Hegemony**

Articulation as political construction of the social is defined at length by Laclau and Mouffe twice, first in response to Marxism, (1985) then later in more abstract terms (Laclau, 1990), seemingly responding more to a broader un-grounding of post-Enlightenment universalism. ‘Articulation’ has two meanings in the English language, both of which are cleverly invoked in this re-imagining of hegemony. On the one hand, articulation means to speak of something, or to enunciate, a semantic-linguistic practice. On the other, it indicates a flexible kind of join between two elements as in an articulated limb. The first meaning carries with it the marks of discourse theory, the latter a post-structuralism in the sense of the flexibility and openness to transformation of relations between elements. Articulation is defined in *Hegemony and Socialist Strategy* as follows: “we will call articulation any practice establishing a relation among
Articulation itself, as the term suggests, is more than just a position in an essentially static structure. It is a process, centred on re-engineering the links between “terms (ideas/ concepts/images/signs) […] in highly unpredictable sequences”(Gilbert, 2008, p. 155). The meaning of elements can only ever be partially fixed, and it is articulation which works to construct nodes in networks of linkages so as to partially establish a set of collective meanings. As such every social practice is to some extent a process of articulation, and incompleteness is the necessary corollary of articulation. Were meanings to be finally locked in, the process of articulation would itself cease. Political subjects are here subject positions, that is to say, positions within the differential structure of a network of articulations. Articulation is a process which therefore transforms the identity of the entities that conduct it, as well as the fields of discursivity they work upon. Moreover, political practice constructs, rather than represents interests (Laclau & Mouffe, 1985, pp. 144–5). Therefore politics both works upon the social, and upon its own conditions of operation (i.e. it generates or transforms political subjects).

Hegemony as practice relates to the generation of ‘chains of equivalence’ between different contending political and social groups, struggles, and demands and ultimately contention for the meaning of ‘empty signifiers’ (Laclau, 1996, 2005). The creation of chains of equivalence means articulating diverse political processes and groups by reference to the force which they collectively oppose or are in an antagonistic relationship with. One might imagine a variety of different social movements and political parties opposed to neoliberalism, which might include everything from indigenous peoples in the periphery threatened by corporate incursions, through to feminist movements opposing misogynistic hiring practices to mainstream social democratic political parties. Each has a point of commonality, expressed in their antagonistic relation to their antagonist (Laclau, 1996, pp. 40–2). This has two effects – as further groups and entities are added to the chain of equivalence, the social movements are altered, in the sense of increasingly identifying themselves as collectively instantiating “communitarian spirit” (ibid, p. 42). The second, related, effect is that over time this may become what Laclau calls “the absent communitarian fullness” (ibid, p. 43), or to stand in for the impossible closure of the social. This is
concretised in the ability of networks of groups and forces to command the meaning of empty signifiers: terms such as ‘unity’ ‘order’, or ‘liberation’, but also potentially objects like flags or other politically ‘charged’ relics and symbols, significant places like central squares associated with the nation or liberatory process, or historical processes, events or people. Akin to Gramsci’s presentation, where hegemony meant the ability of a group to present itself as standing in or representing the nation or territory’s interests as a whole, here hegemony means the “presentation of the particularity of a group as the incarnation of that empty signifier which refers to the communitarian order as an absence” (ibid, p. 44). The identification of a given group or set of groups with an empty signifier standing in for the absent wholeness of the social is always highly precarious, with successfully installed empty signifiers often become detached from their original chains and becoming the objects of contention amongst different competing social groups.

**The Discursive Field**

The structure which emerges from a system of articulations Laclau and Mouffe term as ‘discourse’, which has a differential structure. This is akin to Saussure’s structural linguistics – where the meaning of any term can only be located by its location in a network of other words, in its difference from those words, rather than in a securely bound relationship to an objective referent (Saussure, 1983). Laclau and Mouffe’s ultimately open-ended, never finished structures also invoke Derrida’s différance and its deferral of the final settling of meaning (Derrida, 1982), along with Lacan’s lack as desire, and the incompleteness of the signifier ultimately standing for the very constitution of the subject (Lacan, 1977). Discourse here should not be taken to mean simply a linguistic or communicative field, however. As Laclau and Mouffe define it, discourse is a system with both linguistic and non-linguistic components, where the term ‘discourse’ is itself deployed “to emphasize the fact that every social configuration is meaningful” (Laclau & Mouffe, 1990, p. 100). Every object or element, which can include physical things, relations between things, processes and actions, and ideas and concepts, is constituted as an element within the discursive structure insofar as it is meaningful. The discursive field is a field of differential relations between semantically resonant objects – though meaning here is not unified in any individual human being’s mind or consciousness (1985, p. 109).
While this appears somewhat confusing in its subversion of the usual definition of discourse, Laclau and Mouffe do make plain that discourse is ultimately any field of differentially related components:

“The objective world is structured in relational sequences which do not necessarily have a finalistic sense and which, in most cases, do not actually require any meaning at all: it is sufficient that certain regularities establish differential positions for us to be able to speak of a discursive formation” (1985, p. 109).

This can be squared with the alternative definition as system of meaning by reference to structural linguistics: for Saussure (and indeed for Derrida) meaning is simply a property of placement within a differential (i.e. negative) structure of relations (Saussure, 1983). Such that elements (which can be any thing or process or relation) are differentially structured, or potentially so, they are within discourse. We will return to the issue of what precisely Laclau and Mouffe mean by discourse, its implications for their position within the realism/materialism/idealism triad, and hence on the adequacy of their structural model, later in this chapter.

The articulation of elements in such structures is never totalised, in the sense of being a substantive and exhaustive unity, and as such is riven with gaps and the potential for alternative configuration of relations amongst elements (ibid, p. 106). The social, on this account, is never complete in its process of constitution, and hence the possibility of change is always present. Such that things have meaning or identity depends not on an essence, on an intrinsic property belonging to them, but rather on their relations with other things. Hence all identity is fluid, to the extent that these relations are liable to change or transformation. This is radicalised further when Laclau begins to think in terms of the productiveness of ‘dislocation’ (1990, pp. 28–51). Dislocation in the simplest sense indicates the incompletion of the social. This incompleteness constitutes the ground for the emergence of subjects, a plurality of power centres within the social, and the possibility of change and hence of political freedom. It also means, somewhat provocatively, that the dislocating effects of capitalism on social systems, its ability to break up previously established networks of meaning, serve as the ground for liberatory projects (Laclau, 1990, p. 45). With dislocation comes the idea that it is the very
incompleteness of a given hegemonic articulation that gives it its power. This is a relational space in search of an impossible closure, i.e. the final fixing of meanings or differential positions of elements (Laclau & Mouffe, 1985, p. 113).

Towards Radical Democracy

Because of the incompleteness of any order of articulations, (due to competing articulations and non-articulated elements) the social is not transparent to itself. In spite of this, it desires to know or represent itself to itself as full, whole, and substantial. It does this through the dissimulatory effects of empty signifiers. These attempts to posit the systemic truth of the always-unfinished system remain ideological, i.e. fundamentally political. This means that no matter how universal the appearance of a chain of equivalence and the master empty signifiers they relate to, this universalism is merely a particularism masquerading as such – paradigmatically so in the case of class. This leaves Laclau and Mouffe open to charges of cynical Machiavellianism in promoting a neutral technics of ideological manipulation (Boucher, 2008, pp. 111–112; 231), incapable of universality and hence, in the moment of hegemony, intrinsically bound up with falsity. Such that hegemony is achieved, it is achieved through the positing of equivalence between an empty signifier, falsely construed as standing in for the community as a whole, and a network of groups, processes, and practices which are really trafficking in particularisms. Every chain of equivalence lacks any epistemological authority to represent the reality of the system, and hence to render the community self-transparent.

On such a basis Laclau and Mouffe effectively contend that communism (conceived as self-transparent community) is impossible, given their fundamental social ontology. What replaces communism as utopian horizon of the radical left imaginary is radical democracy. The open-ended, unfixed, and agonistic nature of the political construction of the social, rather than being treated as a problem to be solved is instead valorised. Akin to the electoral democracies we are familiar with in Europe and North America, this is a process without end, definitive closure, or completion. Outside of any particular determinate demands that have become associated with radical democracy, it must be associated with the identification of sovereign emptiness, (the fact that the social has no position from which it might be sutured or rendered whole) and hence permanent contestation is required to attempt to determine which of the multitude of competing
ideas and ideologies should determine the future path of a given community (Mouffe, 2000).

What is radical about democracy is the fact that it is a political form which admits to the empty, processual nature of itself, and indeed institutionalises it (Gilbert, 2008, p. 157). As a normative project, radical democracy seeks to deepen and extend liberal-democratic ideology, radicalising it from within with the aim of “struggling against inequalities and challenging relations of subordination” (Laclau & Mouffe, 1985, p. 153). Therefore we might conclude that radical democracy has a number of dimensions. First, it recognises the radicality of democracy as institutionalisation of the incompleteness of the social. Second, it strategically identifies ‘democracy’ as the most significant empty signifier available, both in terms of its power over the hegemonic discursive field, and in terms of its availability for conversion to a radical left articulation. Finally, it has a normative dimension – to struggle against inequality and subordination. While the first point is an interesting observation, and the second debatable but potentially useful, it is difficult to see how the third is sustainable from within their own theoretical discourse. Given the ungroundedness of the social, and the equivalence of ideology with the political which constitutes the social, it is hard to locate a ground – even a partial one – that could back up such a claim, beyond, of course, a contingent set of articulations and chains of equivalence.

Laclau and Mouffe’s post-Marxism effectively radicalises Gramsci’s account of hegemony, rendering it as a generic theory of the political construction of the social. While this appears essential for generating an understanding of hegemony which is not anchored to a particular conjunctural set-up, the question which ought to concern us is as follows: how adequately have Laclau and Mouffe been able to abstract the theory of hegemony? How far does this gesture of abstraction remain true to the complexities of the processes they are attempting to analyse?

**One Step Forward, Two Steps Back?**

Many critiques and rejoinders have been launched at Laclau and Mouffe for their post-Marxist heresy. Terry Eagleton, for example, argues that severing the link to economic
determination constitutes an abandonment of materialism, rendering the political effectively tautological in its autonomy (Eagleton, 1991). For Peter Osborne, their theory of identity via articulation “only operates on one level” and denies objects determinate existence, hence voiding the productive tension at the core of the problematic of ideology between the real and the socially constructed (Osborne, 1991). Norman Geras contends that the denial of the extra-discursive is equivalent to relativism, and the affirmation of discourse in its stead tantamount to absolute idealism (Geras, 1988). For Ralph Miliband such an approach is incapable of analysing political conjunctures effectively and can only think political subjectivity as a form of voluntarism (Miliband, 1985). These critiques all have a degree of traction. In particular, Osborne and Miliband, from very different stances, begin to approximate what is problematic about the post-Marxian turn. Perhaps the most incisive critique to date, however, is that of Geoff Boucher, whose book length treatment of the troubling aspects of Laclau and Mouffe’s theory concludes that post-Marxian discourse theories are “post-Althusserian theories of ideology, inflated beyond their capacity into theories of social structuration” (Boucher, 2008, p. 235). Even critical proponents of Laclau and Mouffe’s position agree that at times they suggest that “the logic of language is simply identical to or co-terminus with the logic of social relations” (Gilbert, 2008, p. 152).

The question is whether the modelisation of social relations via the metaphor of differential, language-like structures, is sustainable. To get to grips with this, and the particular way in which Laclau and Mouffe configure their idea of discourse, in turn requires us to elucidate exactly how they position themselves in relation to realism, materialism, and idealism.

Some clarity is brought to this issue in Laclau and Mouffe’s response to Geras’ critique (Laclau & Mouffe, 1990). They set out a distinction between existence and being – where the ‘existence’ of an object is its real, objective, intransitive side, and its ‘being’ is its discursive, subjective, transitive side (ibid, p. 105). Here we have a two-fold schema: objects appear as both real and (potentially) discursive. To defend themselves from charges of idealism, Laclau and Mouffe set out their understanding of the distinctions between the terms realism, idealism, and materialism. Realism, in a minimal sense, as they accurately set out, is simply the claim that there are some entities which exist outside of any human relation to them (ibid, p. 106), and hence Laclau and Mouffe are minimally realist in outlook. The demarcation between idealism and
materialism is defined as being “the affirmation or negation of the ultimate irreducibility of the real to the concept” (ibid, p. 107). To be a materialist, on this account, is to hold that there is something which will always be refractory to thought in any real object. As such, Laclau and Mouffe claim, many of the theoretical discourses previously assumed to be materialist are in fact idealist, given that even a thinker such as Marx holds that the real processes of history have a form which might be grasped conceptually (ibid, pp. 107-8). Against such definitions, Laclau and Mouffe attempt to position their own discourse as the last word in materialism, since reality is irreducible to conceptuality, theories which recognise this will be those that give maximal autonomy to the social in determining the (fragile) significance of things (ibid). While materialism is a term which through overuse appears to have lost much of its determinate meaning, this is to push it to the very limits of its coherence.

The argument appears to rest on something of a confusion as to the proper relationship between the conceptual (the domain of thinking) and reality, which might be expected given that the “rejection of the thought/reality dichotomy” is one which Laclau and Mouffe explicitly endorse (1985, p. 110). There is a difference, an important one, between the claim that reality is the motion of the concept (as in Hegel, say) – the claim that reality is rational – and the claim that we can know how reality works (i.e. produce concepts which to some extent are able to accurately track features of reality as it is in-itself). The latter does not reduce reality to the conceptual, so much as engineer concepts to meet particular features, processes, and properties possessed by reality outside of us. To deny that, for example, the hard sciences, however imperfectly, are able at least at times to grasp certain facets of reality outside of us (Laclau & Mouffe, 1990, pp. 102–3) would appear rather obtuse.26

This is not to argue, as Laclau and Mouffe would have us believe, for scientific realism as a claim of “truth outside all context” (ibid, p. 105). Instead it is to contend that, within context, truths (however partial and non-absolute) can be derived from interactions between humans and their environments. The fact that, for example, the technology of our everyday world is only possible within the horizon of the truth of basic scientific knowledge about quantum electrodynamics, physical mechanics and

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26 This also places Laclau and Mouffe firmly in the post-Kantian tradition critically identified by Quentin Meillassoux as ‘correlationist’. “Correlationism consists in disqualifying the claim that it is possible to consider the realms of subjectivity and objectivity independent of one another” (Meillassoux, 2008, p. 5).
organic chemistry is indicative, at a minimal level at least, of the possibility of partial knowledge of reality outside discourse. Natural facts are indeed, as Laclau and Mouffe argue, also discursive facts – they appear and are adjudicated within the discourses (journal articles, conferences, experimental practice) of science. But discursive arbitration alone would appear an unsatisfying answer to the question of how it is that technology is able to operate in such a sophisticated fashion. If “nothing follows” from the existence of an object, i.e. its non-discursive characteristics (ibid, p. 111) how is it that humans have become so apparently adept at manipulating matter?

The relevance of Laclau and Mouffe’s positioning of themselves in these debates is significant as it enables us to assess the adequacy of their linguistic modelisation of social reality. While science is clearly not of major interest to Laclau and Mouffe, and is of almost no direct relevance to their theorisation of hegemony, their treatment of the topic begins to reveal the limits of their social ontology. Much more important is the relationship between the economic and the socio-political. In response to Geras, it is claimed that the relationship between economic and socio-political systems is simply one of mutual relative autonomy, without determining ‘last instance’ (Laclau & Mouffe, 1990, p. 115). While such a claim is laudable, (and surely distinct to that presented in *Hegemony and Socialist Strategy*) a closer examination reveals that rather than two relatively autonomous domains, operating under their own logics, the economic is “structured as a political space”, (ibid) and indeed it appears as if this conception is one in which political construction wins out over any endogenous economic processes. After all, such that economic processes are meaningful, (or potentially so) they are within discourse, and liable to political construction. Given such an established social ontology, it is difficult to see how Laclau and Mouffe could give any autonomy to the economic, or explain how endogenous economic processes impact the discursive field.

Two options present themselves. Either the economic is within discourse, in which case they must be floating the claim that capitalism operates ‘like a language’ (which would certainly require further argumentation). Or, alternately, the economic is properly independent, (though causally imbricated) but they can say nothing of its independent dynamics, which would again appear to be a significant gap in their theory, and moreover cut against the idea that ‘nothing follows’ from the mere existence of an object, and cut against the notion that classes are not pre-given (one of the driving claims of *Hegemony and Socialist Strategy*). In the terms which Laclau and Mouffe
have established, the economic is either no different to the social, or it is properly outside discourse and hence has no relationship to it.

While it is true that the economic depends upon politics (for example, on a series of laws relating to private property, ideological articulations to prevent mass revolt and so on) this does not mean that the economic does not have autonomous properties. If we think of the financial crisis of 2007-8, and the economic and fiscal crises it has created in its wake, it is hard to conceive of this entirely in terms of discursive articulations, even if we take the discursive field to be equivalent to social relationality as such. The emergent effects of the economic, even if requiring the political moment at stages to ensure its consistency, would appear to be autonomous from language-like differential structures. Do credit default swaps and high frequency trading systems operate through a system of negatively defined differences? Perhaps we could examine them in such terms, but this would be to strain the limits of the explanatory purchase of the discursive model considerably. Without a ‘last instance’ of determination, the endogenous dynamics of economic processes insist upon the discursive field. This includes class, which while a matter of political contestation and construction is also a matter of the intrinsic nature of capitalism. Such that capitalism exists, so it is that there will be those who labour to reproduce themselves, and those who profit from that labour through the extraction of surplus value. Today, while working class identity and class-based politics may arguably be at a low ebb, we should not mistake that for the erasure of the positions of the wage labourer and the capitalist (Balibar, 1991). Indeed, should a system of capitalism come into existence which did not give rise to this basic pattern, in a very real sense it would cease to be capitalism. The meaning of these positions can be given very different articulations. The nature of the positions themselves may shift given changes in the economic system (e.g. from Fordism to post-Fordism). These positions may also not form an inherent antagonism without political mediation (e.g. through the dissemination of theories of exploitation, or the construction of worker organisations). These positions, however, are not themselves arbitrary under capitalism. This observation does not mean that classes need to be ontologically prioritised within a left politics, or that their claims override those of the new social movements. Rather

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27 For an approachable discussion of derivatives markets see LiPuma and Lee (2004), and for an analysis of the dynamics of high frequency trading see Durbin (2010) and Perez (2011). For an alternative view which argues for the importance of language in financialisation, albeit not necessarily in differential-equivalential terms see Marazzi (2008).
simply that non-articulated classes exist in a certain seemingly necessary relation to the basic processes of capitalism. We also observe here the apparent utility of gender and race discrimination for labour market segmentation under most historical forms of capitalism (Reich, Gordon, & Edwards, 1973).

The problems of thinking the reality of scientific knowledge, and more importantly, of the relatively endogenous emergent dynamic effects of economic processes, demonstrate the limitations of employing a singular metaphor to model all of social reality. But what of social reality itself? Perhaps most damagingly, it is not even clear when dealing with purely socio-political phenomena that discourse is an adequate framework when modelled as differential-equivalential structure. It is unclear, for example, how causality is conceived in this schema, what the causal relationship is between real and discursive universes, (most likely there is none) or even how change occurs within the discursive one. While Laclau and Mouffe’s description of articulation describes the end results of processes of change, it is uncertain what resources agents and other elements bring to bare to enable them to change their relations of equivalence and difference. As Boucher argues: “[a] complex and shifting network of relational constraints is irreducible to merely ‘equivalence and difference’” and as such, Laclau and Mouffe’s field of discourse ends up being “indifferent to the constraints of social grammar and institutional syntax, material inequality and substantive differences, use-value and social norms.” (Boucher, 2008, p. 98). Not all social relations are ones which can be best thought of as negatively or equivalential charged. While it is probably possible to re-describe a given set of social relations in discursive terms, unless the logic of discourse tracks the relational dynamics accurately, this will not be able to tell us anything interesting about such relations. The further from agonistic ideological contentions we take discourse theory, the less it is able to explain how and why social processes work.

**Restricted or Generalised Logics?**

In reducing social relationality to equivalent or differential connections, Laclau and Mouffe effectively replicate, in a very different register, the mistake of Hegelian Marxism, which similarly sought to model all of social reality on a singular logic (the dialectic of real contradictions). Laclau accurately argues against this error of trying to apply a dialectical logical set of relations to model the dynamics of material reality
(1990, pp. 6–9), but why is it better to replace such an erroneous model of reality with the linguistic logic of difference and equivalence? By reducing everything to the same field – discourse – Laclau and Mouffe effectively lose sight of the complexities of the particular, the specific way localised regions are organised, their endogenous dynamics, peculiar behaviours, and configurative affordances. The stance of the ontologist who proclaims ‘everything is x’, where ‘x’ stands for any univocal substrate is one of doing radical violence to the complexities of the real (whatever one takes reality to be). At best, it can tell only a (very) partial story about what things are and how they operate. While it might be objected here that Laclau and Mouffe do seek to make clear that they institute a two dimensional view of the world, (between ‘existence’ in-itself and ‘being’ within discourse) given the accompanying claim that intransitive reality leaves no trace on the social, this is effectively a flat social ontology. Delevelling reality, or putting everything in terms of a singular metaphorics or model, is as illegitimate and spuriously reductive as a biologist proposing that the categories of evolution can explain all social phenomena. By generalising a local logic, by flattening ‘levels’ or strata of reality down into a singular model, the complexity entailed in multiple, non-linear layers of emergence and causal interplay is effectively obviated.

At its strongest, Laclau and Mouffe’s model of hegemonic articulation is extremely adept at describing how processes of ideological transformation and contestation operate, through creating chains of equivalence and fighting over the resonance of empty signifiers which stand in for an absent communality. But hegemony means more than just ideology, or contestation through the medium of ideology. It is ‘material’ in a sense beyond merely helping to establish forms of common sense which guide the actions and behaviour of individuals and groups – it has a structural dimension. In the form of the historic bloc, the most important form of achieved hegemony, it constitutes a harmonisation of different socio-political and economic domains and functions. Joseph argues that

28 For example, difference-in-itself for Deleuze, desiring production for Deleuze and Guattari, différance for Derrida, networks of actants for Latour, discourse for Laclau and Mouffe etc, (Deleuze, 1968; Deleuze & Guattari, 1972; Derrida, 1982; Laclau & Mouffe, 1985; Latour, 2005).

29 Ray Brassier delivers a definitive argument against the merits of such flattening ontologies with respect to Bruno Latour, and to a large extent his arguments are also applicable when applied to Laclau and Mouffe (Brassier, 2011).
without a relation between hegemony and other social structures, there is no possibility of it playing any kind of transformatory role. To properly conceive of hegemony it is necessary to locate it within structural relations.” (2002, p. 120).

Indeed, as Gramsci set out in the section of The Prison Notebooks devoted to ‘Americanism and Fordism’ (1971, pp. 279–318), hegemony relates social tendencies, cultural configurations, and political processes, to the dynamics and properties of the economy. Given Laclau and Mouffé’s stance on the economy, the concept of historic bloc loses its particular meaning. This can be seen in the glaring absence of serious analysis of the effects of neoliberalism in their work, beyond mentions of its (apparently beneficent) dislocatory effects. Crucially, what analysis there is of economic transformations is unmoored from the discursive foundations of their own theory. To be intelligible as a term beyond simply a synonym for ideology, hegemony must modify processes and entities which are non-discursive, either in the sense of being social but not structured differentially-equivalentially, or in the sense of being extra-discursive, i.e. also including the economic and the technical infrastructure. Hegemonic projects, as we have come to understand from our analysis of Gramsci, does indeed mean re-engineering world views or ‘common sense’, but only so as to cement together a heterogeneous assemblage of different strata of socio-political and economic systems. On this level, then, Laclau and Mouffé’s attempt to abstract the logic of hegemony into a more generalised sense of articulation fails to capture the full richness of the concept and practice of hegemony.

One way to preserve something from Laclau and Mouffé’s ultimately abortive attempts to abstract the logic of hegemony-as-articulation is to consider a different relational logic as being more appropriate. At the level of thinking about how ideological contestation works in late capitalist democracies, their ideas of empty signifiers and equivalential chains will often describe one level of what occurs quite adequately. But hegemony, as we have argued, constitutes a practice which is more material than this, and which is able to conjoin ideological processes with objective ones, to bring into temporary harmony the resonances of fields of meaning and identity with the brute objective universe. The strongest readings of Laclau and Mouffe are those which either effectively argue that their theory is adequate to describe ideology, but not much more
or that serve to interpret their thought in a more material and expansive Deleuzo-Guattarian inflected approach (Gilbert, 2008, 2013a; Grossberg, 1992).

Two potentially compatible stances are therefore available, one which locates Laclau and Mouffe as theorists only of a particular strata of hegemonic struggle, and another which considers hegemony as a properly causal process of re-engineering material systems. This latter approach can combine the best elements of abstracted hegemony through the idea of articulation, without necessarily continuing to think it in terms of a linguistic logic. Such an approach will be elaborated in the next chapter, where we will propose that one appropriate framework in which to rethink an abstracted, generalised form of hegemony is complexity theory. The Laclauian-Mouffian project attempts to outline hegemony as the articulation of systematicity as such (i.e. in the impossibility of systemic closure and its dissimulation via hegemonically effective empty signifiers at the centre of webs of equivalence and difference). To do so, however, requires for them a flattening of local logics into a univocal horizon of the social: discourse (as differential-equivalential language-like logic of relationality). Complexity, as we have identified it, offers very different resources to think the non-closure of complexly articulated systems of dynamic, un-fixed components, open to contingency and with an immanent conception of power, without recourse to a misleadingly universalised structural logic.

What is crucial is to generate an understanding of hegemony as a process which works between different interrelated strata, each of which can be described under their own quasi-autonomous logics (e.g. the economic, the social, the political-ideological, the infrastructural etc). A generalised theory of hegemony must therefore operate as a flexible container capable of communicating with, rather than simply overriding, localised logics.

**iii Hegemony and its Critics**

Thus far we have been attempting to understand the meaning and operations of hegemony. We have developed an interpretation of Gramsci’s hegemony, drawing on the dialectically enriched philological work of Thomas and the realist approach of Joseph (Joseph, 2002; Thomas, 2009, 2012), noting a number of points of convergence such an interpretation shares with the ideas we have explored in complexity theory. We
have also assessed the post-Marxist attempt to think the consistency of hegemony in an abstracted, generalised mode, in the process setting out some methodological considerations to guide our own approach to generalising and abstracting hegemony. But we have also taken for granted the idea that hegemony in some form remains a vital component of analysing and hence intervening in politics in the second decade of the Twenty-First Century. This is certainly not a universally held view.

The time of the genesis of the post-Marxist take on hegemony was also one of the increasing critique of the Gramscian conception, particularly in an Italian context where Gramsci’s thought had become associated with the post-war Italian Communist Party (PCI). More recently writers in the discipline of cultural studies who have also sought to contend the usefulness of hegemony, drawing on arguments from Autonomism, its Deleuzo-Guattarian roots, and on contemporary anarchist and post-anarchist thought. Rather than deal with each of these accounts in turn, given their proliferation, overlap and tessellation, we will here attempt to summarise the major charges against the utility of hegemony, which fall into the following critical points:

1. Hegemony is essentially a politics of domination, in the sense of it being transcendent, top-down, ‘power over’, rather than being immanent (Lash, 2007);
2. Hegemony means active consent, and hence is within the order of public opinion (Beasley-Murray, 2010);
3. Hegemony works through the symbolic order or is structured like a language, and is therefore an ‘epistemological’ or logical structure, rather than ontological (Lash, 2007);
4. The newest social movements don’t operate according to hegemony (Day, 2005), and instead work through processes of affinity (Karatzogianni & Robinson, 2010);
5. Hegemony is really just a strategic tool of the ‘old social movements’, one perhaps adapted somewhat by the new social movements (Day, 2005);
6. Hegemony is a politics of the nation state, and hence can never challenge the system as it is (Casarino & Negri, 2008; Day, 2005; Thoburn, 2007);
7. Another theorisation effectively subsumes or replaces that of hegemony, e.g. Deleuze’s cybernetic control society (Thoburn, 2007) or the conjunction of
affect theory, Bourdieu’s habitus, and Hardt and Negri’s multitude (Beasley-Murray, 2010).

**False Equations**

Some of these critiques are the result of misinterpretation of the basic positions of Gramsci and/or Laclau and Mouffe. Scott Lash’s interpretation of hegemony as domination, for example, and Beasley-Murray’s claim that hegemony means an active consent fall into this category (Beasley-Murray, 2010; Lash, 2007). Lash claims “hegemony means domination through consent as much as coercion […] domination through ideology or discourse” (Lash, 2007, p. 55). He clarifies that hegemony belongs to a regime of power as ‘power over’, an extensive mode of top-down domination (ibid, pp. 58-61). This is entirely incompatible with Gramsci’s (and indeed, Laclau and Mouffe’s) understanding of hegemony as leadership without sovereign position, reliant on a contingent set of articulations. Rather than being top-down, hegemony relies on localised centres of power. Even in a highly state-centric model, the centralised apparatus of the state is itself useless without a set of hegemonic relationships already established within civil society.

Beasley-Murray’s argument that hegemony equates to active consent is similarly misguided (2010, pp. 1–3). This stance depends on misreading ideology as requiring an active belief, on holding that consent is secured at the level of consciously held opinion. “We live in cynical, post-hegemonic times” he writes, “nobody is very much persuaded by ideologies that once seemed fundamental to securing social order” (2010, p. ix). This apparently forgets that consent, for Gramsci, includes *passive* as well as active consent, (Gramsci, 1971, p. 12), and that ideology, for both Gramsci and Laclau and Mouffe, is a process that at least in large part proceeds outside of active, consciously held beliefs. As Žižek is wont to repeat: ideology works even (and especially) if you *don’t believe in it* (Žižek, 1989). The sculpting of subjects happens as much at the level of the pre-conscious or emotio-affective, as on the level of intentionally held opinions. In other words, hegemony does not rely on individual or collective belief, but on “the strategic capacity to render […] belief or disbelief irrelevant.”(Gilbert, 2013a, p. 16). Moreover, if consent can be passive in nature, cynicism may well be the contemporary pre-condition for hegemonic power, rather than the mark of its non-existence.
Some critiques focus their attacks on hegemony as being structured like a language and therefore being in the order of the epistemological rather than the ontological (Lash, 2007, pp. 57–8). This is not an entirely unfair reading of hegemony as presented by Laclau and Mouffe, given their identification of discourse as a domain which is incapable of communicating with brute objective reality. This species of argument does, however, rely upon simplifying discourse to mean communicative acts or statements, in so doing reducing the broader meaning that Laclau and Mouffe clearly imply, of discourse as a social ontology. We have outlined above why thinking social relationality as being structured like a language is problematic. It is certainly the case that for Gramsci, for instance, hegemony relies upon more than differential-equivalential relations. Moreover, as we have argued, it is possible to extract an account of hegemony which is abstract without relying on a linguistic logic to model social relationships. Either Lash relies on a simplified version of discourse which ignores its social ontological dimensions, or his critique is mounted at the wrong target and hegemony has always been more ontological than he admits.

The Newest Political Movements and State Logic

Another line of argument relates to the behaviour of political movements. For Laclau and Mouffe of course this was one of the chief motivating factors behind their attempt to renovate the concept of hegemony: the emergence of the new social movements centred on gender, race, and sexuality. The embodiments of this putatively problematic new kind of politics are termed the ‘newest social movements’ (Day, 2005), anarchist and autonomist-influenced horizontalist transnational movements associated with alter-globalisation (and latterly Occupy and the Spanish 15M). While it was possible, this argument goes, to modify hegemony to analyse the behaviour of the new social movements, the newest social movements mark the end of the usefulness of the term. In particular, Day points to the fact that they operate on a non-hegemonic logic, centred on non-branded tactics and affinity.

Three counter-arguments may be mounted here. First, it is important to recall that hegemony is a Janus-faced concept in its mature form – designed to analyse both established power and those political processes which try to contend that power. As such, Day effectively ignores the established hegemonic pole, the side of hegemony in
actually existing and fully-established power, in favour of only thinking in depth about the adequacy of hegemony to analyse the dynamics of radical left politics.

Second, we can consider the newest social movements themselves in empirical and normative terms. On the empirical side, it is open to debate whether such movements really do totally refuse the logic of hegemony. While many are certainly rhetorically committed to avoiding representing the interests of others, or of attempting to persuade those who are not already committed to join them (Roth, 2011), in practical terms the more successful of these movements already operate along broadly hegemonic lines. Their practical effectiveness depends on persuading others of the merits of their world view. Occupy Wall Street, for example, relied upon a constant stream of new supporters and activists for its survival, and hence on the ability to seduce, persuade, or otherwise attract new support. On the normative side, there is the question of whether such movements that do refuse a hegemonic approach ought to do so. Given that these movements have thus far failed to install lasting and significant political change (in spite of their relative popularity and the obvious commitment of many of their participants), we might ask if this is due to a failure to understand the continuing importance of hegemonic processes in the constitution of contemporary power (Gilbert, 2008, pp. 203–8). Insofar as the newest social movements refuse hegemony, perhaps they are simply refusing the mechanisms of power itself, a refusal which might be explicable in ethical terms, but one which is difficult to valorise on the level of politics.

Third, we have the question of affinity – described as a consensual, non-manipulative form of contingent alliance (Karatzogianni & Robinson, 2010). Hegemony in both its Gramscian and Laclauian-Mouffian variants supports the idea of contingent alliance of course, but what is really being indicated here is that these movements aspire to a form of relationality which is non-manipulative, that refuses the logic of hegemony on a more fundamental level. The logic of affinity is bound up with an anarchist-tinged approach to social change which refuses politics in favour of some variant of purportedly social revolution or transformation. This is captured in Day’s (Kropotkin inspired) definition of affinity as a “social principle” in opposition to the “political principle” of hegemony (2005, p. 213). The actual mechanisms of social revolution are rarely convincingly outlined, with the perennial problem one of how to generalise a social revolution without recourse to hegemonic articulation. This is especially so given that post-
anarchism generally figures any totalising or systematising process as being inherently hegemonic and hence morally pernicious (Day, 2005, p. 151). To the extent that anarchistic politics has ambitions beyond the intrinsically limited temporary autonomous zone (Bey, 1991), it seems to require a degree of hegemony, which simultaneously it must refute or disavow.

Related to arguments about the newest social movements are claims linking hegemony and the state. Hegemony, so this line of thinking runs, is nothing more than the veritable logic of the state (Day, 2005; Thoburn, 2007). This argument has a degree of truth to it. Gramsci’s hegemony really was developed as a theory of power in the integral state. However, the state is a form which is still in existence, and which still constitutes a key horizon of the political landscape, even under conditions of increasing economic globalisation and the emergence of transnational movements (Joseph, 2002, pp. 198–208). As such, it is important that we have tools at our disposal to understand it. Beyond this, Laclau and Mouffe’s entire project is focused on abstracting and generalising the principles which Gramsci uncovered in the integral state beyond its confines. Therefore critics also seek to critique Laclau and Mouffe for similarly, if less obviously, being constrained within the bounds of the state (Casarino & Negri, 2008; Day, 2005). Some of these critiques have a degree of force, in particular those which focus on their problematic agonistic liberalism and the issues inherent in the ‘politics of the demand’. The ultimate charge here is that Laclau and Mouffe in some sense reify the liberal state as invisible backdrop to the socio-political. That being said, none of these arguments challenge Laclau and Mouffe at the level of the ability to generalise hegemony by abstracting it from Gramsci’s original setting. As such, the path remains open to the development of an alternative generalised account which evades some of the more liberally-inflected results of Laclau and Mouffe’s position.

**Supersession or Simplification?**

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30 Inevitably Laclau and Mouffe’s relationship to liberalism is more complex than most of these arguments make out. The embracing of some of the terms of liberal democracy is explicitly a political-strategic gesture, identifying democracy as the leading empty signifier available in the contemporary political landscape. Moreover, their repeated assertion of the impossibility of universalism works against many of the basic shibboleths of the liberal position. Simultaneously however, Laclau and Mouffe’s theorisation does seem to embed certain aspects of liberalism at the level of social ontology, in particular in the sense that agonistic relationality can never be superseded by a more transparent social form.
The final group of arguments against hegemony claim that it has been theoretically superseded by more sophisticated concepts. These include Deleuze’s control society, affect theory, Bourdieu’s habitus, Hardt and Negri’s multitude, or Agamben’s ‘state of exception’ (Beasley-Murray, 2010; Day, 2005; Lash, 2007; Thoburn, 2007). These arguments presume two things: the incompatibility of these ideas with hegemony, and their inherently superior theoretical constitution.

Accounts which seek to replace hegemony with a more recent theoretical set-up generally rely on a misconstrued or simplified concept of what hegemony is, often in terms of active assent (Day, 2005) or explicit normative proposition (Lash, 2007). More challenging is Thoburn’s use of Agamben’s concept of the ‘state of exception’ as a potential lacuna in hegemony’s purview (2007, pp. 88–9). This is an interesting argument, drawing attention to the decline of consent and the increasing use of exceptional military and police interventions in contemporary societies: detention centres, state-sanctioned military executions, and the paramilitarisation of policing. This ignores, however, the interlacing of coercion and consent that Gramsci thinks is core to understanding hegemony. The very notion of the ‘state of exception’, the exceptional case within a juridical regime of legitimation, can be read perversely within the order of consent – the necessity of covering coercive violence in the sheath of consensuality. While the veils of the ‘war on terror’ were thin indeed, the very fact of their deployment (for instance the use of such concepts as ‘enemy combatant’) demonstrate the need to cover force in the trappings of consent, or as Gramsci puts it “to ensure that force will appear to be based on the consent of the majority, expressed by the so-called organs of public opinion” (Gramsci, 1971, p. 80). If the ‘war on terror’ and the 2003 invasion of Iraq could not have been presented as being consensually agreed upon in mainstream media, they would not have been possible. This does not, of course, necessarily translate to a consciously held belief in the merits of such wars and interventions on the part of the majority of the American or British populations, but rather simply indicating the necessity of presenting such actions as being plausibly consensual. While the state of exception involves the suspension of the law, it does not necessarily involve the suspension of the need to cloak the violence of the state in consensual garb.

Once we have done with these kinds of interpretations, we can more readily identify hegemony in the Gramscian sense as operating in the kinds of registers indicated by
concepts like governmentality, control, and desiring production. Gilbert has convincingly set out that hegemony is in no sense opposed to post-Deleuzean concepts, and indeed might be a necessary supplement to patch holes in the Deleuzo-Guattarian apparatus. On this understanding, an accurate reading of a certain dimension of Gramsci’s work, hegemonic power works “at those points of maximum concentration and consistency from which powerful groups and institutions are able to exercise a kind of ‘gravitational pull’ on others within a certain radius, [working as] attractors” (Gilbert, 2013a, p. 16). The reading of Gramsci we have presented, which points to a number of moments of convergence with ideas from complexity and dynamic systems theory, demonstrates the prescience of Gramsci’s understanding of hegemony in this respect. Some modern conceptual resources used to theorise power can be interpreted as already being contained, in embryonic form at least, within the idea of hegemony.

It is not even necessarily clear that all of these new theories actually give us a better grasp on the politics of our present conjuncture. Johnson remarks on the “marked reduction of social complexity” implied by the putative replacements for hegemony that Lash and Thoburn propose (R. Johnson, 2007, p. 102). These supposedly more sophisticated theories tend to fuse relatively autonomous social, political, and economic domains, flattening the analytical landscape and erasing regional distinctions, proposing rather thin abstractions in a vision which is “not so much post-hegemonic as pre-hegemonic” (ibid). The complexities of a multiply stratified socio-political-economic space become blurred in favour of conceptual metaphors that elide as much as they explain. Without the framework of some variant of hegemony, power becomes excessively diffuse, (everywhere and nowhere) and therefore strategic insights that might guide political action become concomitantly limited.

It is curious that proponents of post-hegemony identify new aspects of contemporary power as signalling the end of hegemony, rather than indicators of a new hegemonic moment. For political theory or cultural studies to accurately analyse the workings of contemporary power, they must be able to think how contingent alliances of predominant groups and forces are able to frame reality in such a way as to contour the social space, and hence sculpt the possibilities for action within a social or political field (Terranova, 2007). Since such hegemonic effects are still readily observable in our present moment, a general explanatory framework of hegemony remains of relevance.
New conceptual ideas might enable us to think an expanded, more sophisticated conception of hegemony, rather than motivating its replacement outright. In this sense, theorists of post-hegemony are correct that we ought to account for such ideas as habit, affect and control, but wrong if they would have us believe that such processes are not already firmly integrated into the operations of (actually existing) hegemonic apparatuses today.

This chapter has developed a basic reading of hegemony, beginning with the work of the most important thinker of the concept, Gramsci. It set out an original approach to his work, guided by recent scholarship, as a sophisticated thinker of the complexities of power in the age of the integral state. It assessed the success of the attempt by Laclau and Mouffe to abstract and generalise this theory into discourse theory, outlining the advantages of such an approach, while also arguing that, in seeking to understand the world through a singular model, it inevitably fails to capture the full complexity of the social. Finally we addressed recent criticisms of hegemony, defending the continuing relevance of the theoretical tradition. We are now in a position to set out what a fully-fledged complexity theory of hegemony might look like, a task to which we turn next.
4. Complex Hegemony

Up until now the two sides of our project, complexity and hegemony, have been kept relatively separate from one another. On the one hand, we have navigated the contours of complexity theory, and its potential applications for thinking social and political phenomena. We located our project as seeking a political complexity theory which is generalised not restrictive, systemic in approach, and differentiated in character, and distinguished it from some of the looser post-structuralist appropriations of complexity. On this basis, we have explored how complexity can elucidate three key problematics within social and political theory: the reality of social structure, the question of political change and stability, and the issue of self-organisation. From these investigations, we developed an account of ‘really complex’ complexity to describe the kind of complex multiply-stratified network-hierarchies which emerge from dynamic processes of self-organisation.

On the other hand, we have advanced a reading of hegemony as a theory and praxis which has been developed to deal with increasing social complexity. We set out an interpretation of Gramsci as a sophisticated thinker of multi-lateral power in the age of the integral state, while observing the convergences of his thought upon certain core ideas from complexity theory. We then tracked the shift from Gramsci to Laclau and Mouffe’s abstracted take on hegemony in the 1980s and 1990s. While making the correct moves in terms of abstracting hegemony theory from its roots in Gramsci’s analysis of the integral state in order to respond to increasingly complex political transformations, the social ontology of discourse they proposed was in some respects a step back from the more multi-layered stance of Gramsci. Finally we set out the continued importance of hegemony against recent manoeuvres to declare it out of date and theoretically bankrupt.

What remains to be elaborated is an explicitly complexity theory-inspired variant of hegemony. But why use complexity theory at all? Three reasons may be given here.
First, the embracing of complexity is, as we have argued, at the core of the historical development of the concept. Each shift in the understanding of what hegemony is occurs as an attempt to analyse and strategise within a more complex social and political situation than was otherwise anticipated. In terms of the practice of hegemony, (hegemony as ‘actually existing phenomenon’) here too we can observe the emergence of increasingly complex practices of governance as a result of the imperatives of increasingly complex social forms. For example, the emergence of what Gramsci identifies as hegemonic leadership within the integral states of the early Twentieth Century, i.e. the rule by relatively small social groups through a mixture of coercion and active or passive consent occurred in order for elites to continue to manage large, multiply stratified democratic-capitalist societies. The immanent drive of hegemony as both concept and practice tends towards increasing complexity to accommodate increasing social complexity.

Second, we have outlined some of the key areas of commonality between theories of hegemony and theories of social complexity: the emphasis on contingency, emergent order, immanence, stratification, and so on. To put to use the resources of contemporary complexity theory to rethink hegemony is not, therefore, an artificial contrivance. As we explored in the introduction, there is an existing underdeveloped theme of references to social complexity, hegemony as emergence, and even complexity theory within much of the literature on hegemony. This extends from Gramsci’s idea of hegemony as an unstable “equilibrium of forces” (1971, pp. 107–8, 132, 172, 182) to Williams and Hall’s repeated focus on the emergence of hegemony (Hall, 1983; Williams, 1977, pp. 121–7), from Laclau and Mouffé’s understanding of the increasing complexity of social systems (1985, pp. 28, 66) to more recent explicit references to the usefulness of complexity theory for understanding hegemony (Gilbert, 2008, pp. 103–4; Jessop, 2007, pp. 225–243). Though these references demonstrate the compatibility of complexity and hegemony, they also leave room for a more fully-developed account, informed by the technical literature on social complexity. It is such an account that this chapter aims to produce.
Finally, there are the flaws in existing accounts of hegemony. While Gramsci is a far more nuanced thinker than some accounts would present, his theory of hegemony is largely limited to the national-popular and the integral state. Simultaneously, though Laclau and Mouffe abstract away from this account, their reliance on a generalised logic modelled on language results in a flattening of complexity; a highly advanced system of analysis for discursive-like phenomena, but less so for more brute material ones. Complexity theory offers us the tools with which such flaws might be fixed, and hence also the means with which to develop existing theories. In sum: complex hegemony is a logical step in terms of the genealogy of the concept of hegemony, a compatible approach in terms of the content of existing theories, and is one path to remedying the flaws of those accounts.

This chapter first sets out a general theory of complex hegemony. We will begin by developing insights from Gramsci along lines suggested by complexity theory, and draw particular attention to the key complexity ideas we outlined earlier: emergence and social structure, metastability and political transformation, and the politics of self-organisation. Second, we turn to outlining how this complex hegemony operates in particular modes and domains. This section sets out how complex hegemony aids analysis across different local logics - the discursive, the state, the economic, and the infrastructural. Finally, we refocus on the subjective, agential, and praxical dimension of hegemony, and attempt to answer the question of how it is that hegemonic agents operate within such a re-formulated understanding of hegemony.

i. Complexity & Hegemony To ‘put the pieces together’ of the two sides of our project so far, we need to outline the ways in which these two theoretical traditions can be fruitfully combined in a way which is not merely arbitrary and, simultaneously, which gains in explanatory purchase over existing theories. Hence in this section we will read elements of Gramscian hegemony theory through the lens of ideas from complexity theory and vice versa, developing a generalised and abstracted theory of hegemony using the resources of complexity theory. The central question this part aims to answer, from a theoretical standpoint, is how hegemony-as-emergent property can be engineered, and from a more political point of view, how is it that intensely complex,

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31 As in claims that hegemony is straightforwardly equivalent to ‘consent’ (P. Anderson, 1976; Bobbio, 1979).
large-scaled societies can seemingly still be ruled by relatively small groups of elites? To do so we will begin by attempting to marry up key hegemony and complexity concepts, before deriving some general principles, using simple socio-political examples as illustrations.

There are several interrelated ways in which complexity can add to the account of hegemony, moving from the simpler forms of complex hegemony to more complex ones:

1. Hegemony as an **emergent** property: emerging from the intersections of agency and structural determinations, possessing its own dynamics.
2. Hegemony as a vector of **guided self-organisation**: as structuring principle of the social system as a whole, emergent from the interactions of the system’s parts, but with downward causatory impacts, capable of generating the self-organisation of those parts;
3. Hegemony considered from the standpoint of **phase space** and dynamical systems theory: where achieved hegemony consists of a point of *metastable equilibrium* or an *attractor*, within a phase space, and where hegemonic projects consist of work to either navigate within the existing phase space regime, or to transform it.
4. Hegemonic power as a form of **generative entrenchment** – at the maximum limit of abstraction and generality.

Each of these views on the complexity of hegemony is not an alternative to the others, but rather a different way we can use the optic of complexity to view hegemony theory afresh, with each of the four lenses offering increasingly abstract formulations of how hegemony might operate.

**Hegemony as Emergence**

Perhaps the most basic way of thinking complex hegemony is through the sine qua non of complexity theory: **emergence**. Considered in this fashion, hegemonic power is the dynamic result of the interactions of multiple parts within a socio-political system over time, more than simply the sum of its individual parts, and possessing an autonomy of its own. In thinking hegemony as the emergent result of dynamic interacting processes,
we are giving technical definition to a strain of thought which has animated hegemony theory from Gramsci onwards (e.g. Gilbert, 2008, pp. 103–4; Gramsci, 1971, pp. 60–1, 107–8; Grossberg, 2010; Hall, 1983; Joseph, 2002; Laclau & Mouffe, 1985; Williams, 1977, pp. 121–7). As distinguished in our treatment of complexity, emergence here is of the weak rather than strong kind. All emergent properties and structures can ultimately be traced back to lower causal layers, and there is no absolute irreducibility of emergent phenomena. As weakly emergent, hegemony can always ultimately be tracked back to the actions of individual and collective human beings, along with non-human entities (though this may in practice be a laborious and unwieldy task). Yet as weakly emergent, hegemony is a macro-scaled pattern in social phenomena which has a relative autonomy from the elements which gave rise to it (Bedau, 1997). What is the nature of this relative autonomy?

One way in which the autonomy of hegemony can be made sense of is in developing Jonathan Joseph’s argument that it arises out of the intersections of agency and structure, possibly the most highly specified of accounts of the emergence of hegemony within the existing literature. Joseph explicitly contends that Gramsci gives us the germ of the idea of “hegemony as emergence […] as a conscious process of trying to conserve or transform social structures or relations, within very specific limitations” (Joseph, 2002, p. 39). Here Joseph calls attention to hegemony as a political phenomenon that exists between purely voluntaristic politics on the one hand, and absolute structural determinations on the other. At a macro level, (say the scale of a society-as-a-whole) hegemony emerges as a result of the interactions of different heterogeneous component parts coming together in a particular configuration, which include the intentional political actions of human beings, as well as a variety of non-human factors. Hegemony, on this account, is emergent in the sense of being relatively autonomous from the level of individual entities within a society. Human action may work to transform it, but given the complex nature of social systems, such action will never be capable of determining absolutely what hegemony is.

While Joseph is astute in using the term emergence in his reading of Gramsci, it is generally deployed in a fairly loose fashion. In keeping with many of the other references to emergence in the hegemony theory literature, it remains ungrounded in debates in either the philosophy of science of complexity or emergentist sociology. In
Chapter 2 we examined the question of the reality of social structure through the concept of emergence, and in particular through its treatment in recent critical realist sociology (Elder-Vass, 2010; Sawyer, 2005). We argued that a relational account of emergence can underpin a realist theory of social structures, where the properties of social systems can be defined as emergent if they would not be possessed by any of the system’s individual parts on their own. This is entirely in sync with Gramsci’s approach to power in *The Prison Notebooks*, as a kind of complex order which emerges out of the interactions of heterogeneous social forces and practices (1971, pp. 107–8; 132). It clarifies the fact that while the leading social group may have a number of different methods by which it can lead (e.g. state apparatuses, hegemony within certain elements of civil society, and so on), the nature of leadership in complex societies means the resultant order is not simply the immediate result of the wishes of an elite. Within each of the ruling social group’s domains of influence, it must seek to work with existing tendencies, to re-compose them into new configurations, so as to give rise to an overall hegemony that serves their purposes.

We can illustrate this notion of emergent hegemony using a favoured example of Gramsci’s, the education system. Let us consider the role of emergence in the hegemony of neoclassical perspectives within academic economics. Before the 1980s, economics was a relatively pluralist discipline, with neoclassical perspectives battling with Keynesians and Marxists (Henry, 1990). The ability of right-leaning neoclassical economists to control what content went into undergraduate economic textbooks was a small step in establishing today’s global neoliberal hegemony. The causal ability to conduct such moves themselves depended on broader transformations, on the economic crisis afflicting the embedded liberalism of Western states in the mid 1970s (Ruggie, 1982), on the accompanying discrediting of Keynesian measures to remedy such problems, on the network of neoliberal think tanks which had been created over the preceding years throughout the world, on the charisma of particular leaders in political parties in key states (Reagan and Thatcher) and a myriad of other forces at work during this time (see Harvey, 2005; Mirowski, 2013; Mirowski & Plehwe, 2009). These form the environment in which the emergence of neoclassical dominance in the sphere of economics textbooks occurred, the conditions which enabled particular acts of authorial intent, editorial judgment and publishing dissemination to occur.
Yet the embedding of the highly quantitative, non-critical, and apparently ‘neutral’ economics of the neoclassicals in textbooks used by all undergraduate economists important emergent effects of its own. It meant entire generations of trusted technicians throughout the world were socialised to consider economics from the standpoint of a particular worldview, and to ignore entirely certain phenomena, such as exploitation or financial instability. This was a crucial part of ensuring the ensuing global neoliberal hegemony operated effectively. This points towards some of the benefits of thinking hegemony as an emergent. We can see the way in which relatively small perturbations in one system (the apparently banal and technical sphere of the publishing of textbooks) can create emergent effects which are drastically disproportionate in character. With decades of mainstream intellectuals educated with neoclassical economic ideas as their basic frame of reference (Mirowski, 2013, pp. 18–22), operating in various spheres (governments, NGOs, global governance institutions, universities), when neoliberalism fell into apparent disarray in the wake of the 2007-8 financial crisis, there were few economic ideas to hand for the left to put to use. Moreover, while no hegemony is inviolable, it also points to the relative stability of some sources of hegemony over time. Transforming well established textbooks may take decades, given that they operate as an effective part of the ideational infrastructure, and their emergent effects may last for generations at a time. This is an example of path-dependency, where minor perturbations under conditions of non-linear feedback relationships allow relatively contingent facts about the initial system to take on exaggerated causal power over time (Miguel et al., 2012). Indeed, as outlined in Chapter 1, non-linear feedback relationships are the core mechanism behind emergence. This may help explain a basic means by which hegemony is able to reinforce itself over time, by exploiting sites of maximum positive feedback, where the minimum of effort generates the maximum effect.

The status of emergent hegemony can be clarified further via Keith Sawyer’s understanding of the emergent reality of social structure. Through the idea of multiple realisability in wild disjunction,32 we can understand how very different systems can give rise to power relationships that we can identify as being ‘hegemonic’ in character (Sawyer, 2005). For Sawyer, the fact that the same emergent properties can be realised by quite different systems in different configurations, means that we cannot simply

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32 Sawyer lists a series of properties for systems which are likely to display wild disjunction: non-aggregativity, non-decomposability, non-localisation, and highly complex rules of interaction. Social systems generally meet all of these requirements, (Sawyer, 2005, pp. 96–7).
'read off' emergent properties from system component types; in the jargon of emergence, this means we can have token identity without type identity (Sawyer, 2005, pp. 67–77). Hegemony can be realised in many different kinds of systems, being fundamentally a relational mode of power, and hence can be described as being relatively substrate independent. Considering hegemony as an emergent capable of multiple realisability and hence substrate independence enables some advances on Gramsci’s own position. Principally here we have the shift from a conception of hegemony as essentially state-centric, with particular functional sub-components being distinguished (civil society, the economy, the state apparatus and so on), towards an abstracted and generalised vision of hegemony. Such an abstracted hegemony is capable of embodying a much broader array of hegemonic structures and processes.

Hegemony as emergent property is the result of the interactions of diverse human and non-human component parts. It is weakly emergent in the sense of being causally traceable back to the actions of those parts, while maintaining a relative autonomy from them. It operates by self-reinforcing feedback, locking in path dependency and generating disproportionate emergent outputs. It is operative across multiple domains and can be realised by many different kinds of substrate systems.

**Hegemony as Self-Organisation**

Understanding hegemony as an emergent property still remains at too schematic a level to add much to the understanding of hegemony itself, rather than all emergent social phenomena of which hegemony is but one type. To move towards thinking the specific characteristics of hegemony, we need to consider how hegemony-as-emergent is capable of a particular kind of self-organising effects. This is the power of hegemony, not merely a result of the interplay of forces, but itself a force within the world. Here we move from considering hegemony as the consequence of various interacting processes, towards considering the specific causal powers of hegemony within the register of complexity. In other words, what is it that hegemony enables?

On a structural level, while hegemony necessarily emerges out of lower-level interactions, compositions, and articulations, it is in turn capable of acting back onto the systems from which it has arisen. In this sense, we can think of the power of hegemony as being one of *downward causation*. This is where the emergent properties of systems
include the ability of those properties to transform the substratum system. In a sense, self-organisation of all kinds depends on some mode of downward causation. As discussed by Elder-Vass, there are two kinds of compositional relationships within social systems: diachronic compositional ones (wholes made of parts) and synchronic causal ones (wholes capable of acting back on their parts in time) (Elder-Vass, 2010, pp. 58–60). Some wholes possess new causal powers when put into particular configurations of relations. From this perspective, certain compositions of social assemblages create a specific type of self-organising effect: hegemony.

For Elder-Vass, primary here is the role of norm-circles in regulating roles and hence behaviour within groups. Think of a newspaper. Here a collection of individuals is grouped together into a particular configuration: the staff of a newspaper. The hegemony of certain ‘common sense’ ideas which regulate what is possible and not possible to write within the publication is not generally imposed explicitly, but rather emerges as a result of organisational norms established through the interactions of the individual staff members over time, within a given commercial, social, and political environment. Yet such norms (perhaps the norm of not criticising commercial partners) exert a powerful force on the organisation in turn, both at the level of behaviour and the composition of the group. Put simply, if you are minded to critique advertisers aggressively, it is highly likely most mainstream newspapers will either modify your behaviour over time, or you will be fired, in the classic mixture of consent and coercion characteristic of hegemonic power. This is precisely the kind of mechanism theorised by Edwards and Cromwell in their work on the restrictive, corporate-friendly viewpoints on offer within the British media, including even apparently left-leaning ‘liberal’ publications (2005, 2009). In this fashion, emergent hegemonic forces (collective norms) are able to transform the behaviour of the groups from which they emerge, operating as homeostatic processes over time. We might think here of Archer’s morphostatic and morphogenetic processes, or DeLanda’s idea of territorialisation (Archer, 1995; DeLanda, 2011). Hegemony in this form is the logic of guiding emergent self-organisation, working with existing social tendencies to bring about intended dynamics, as Gramsci points towards in his idea of the ‘spontaneous attraction’ of diffuse groups towards an emerging hegemonic force (1971, pp. 60–1) or in the notion of ideologies as organising human masses (1971, p. 377).
One way guided self-organisation can be understood is through Simondon’s critique of hylomorphism, the rejection of the idea that inert matter can simply be imprinted with an ideal form (Combes, 2013; Simondon, 1958, pp. 300–1). In political terms, this would translate to understanding power as a top-down mode of domination (Protevi, 2001). As we have argued in Chapter 3, hegemony is a mixture of coercive and (minimally passive) consensual actions with the overall objective of leading diverse and difficult to dominate social systems (such as modern electoral democracies). We can read the consensual side of hegemonic operations as working within the order of manipulating self-organising properties already latent within the assemblages they seek to re-organise. This is necessarily so given that under conditions of social complexity more linear modes of power will be unable to exert leadership on large social bodies, given their multiple stratifications, diverse sub-systems, and pre-existing self-organising dynamics, which mitigate against rule by decree or dominance alone. Hegemonic leadership is here clarified as a form of experimental craft, rather than the occupation of some transcendental or juridical position of authority (Detienne & Vernant, 1978; Singleton, 2012). This places a further emphasis on the reading of Gramsci we develop in Chapter 3, where power has no special location, but rather exists at multiple relative loci of concentration throughout the social, where even state power requires the achievement of hegemony within civil society.

Hegemony as guided anti-hylomorphic self-organising process opens up a space to consider a different kind of logic of articulation to that proposed by Laclau and Mouffe, the practice of transforming relations between elements within a social system so their identity becomes modified in the process (Laclau & Mouffe, 1985, p. 105). Rather than reading the articulation as having a language-like differential structure (with the objective of forming chains of equivalence) instead we can have a more abstracted, more generalised account of reconfiguring relations of all kinds so as to re-engineer the pre-existing self-organising properties of the systems of which they are a part. Reconfiguration of the relations between elements gives rise to new emergent causal powers, which in turn act back on the system to manipulate or otherwise alter the existing regime of self-organisation. As well as being more broadly applicable than merely language-like formations, this also emphasises the intrinsic generativity of systems in themselves, outside of hegemonic work to transform them. Think of the hegemony of certain classes within the sphere of production, for example, in the
transition from Fordism to post-Fordism. Here small changes in the relations within the industrial sphere (alterations to rules surrounding union membership, transformation of supply chains, introductions of new production technologies and management techniques) all served to disrupt an existing hegemonic set up, the embedded liberalism of strong unions within industrial workplaces in Western countries in the years 1945-1979 (Jessop, 1992; Murray, 1989). In the realisation of neoliberalism, some unions had to be directly confronted and crushed (Mason, 2008), but many more workplaces were re-organised through the re-orienting of basic self-organising mechanisms. The alteration of the mechanisms of self-organisation meant that Thatcher and Reagan had no need to defeat every union in every workplace in the United States and UK (Reid, 2005, pp. 393–410). To rule hegemonically, on this understanding, means to use coercion where necessary (direct forceful intervention, in an entirely hylomorphic fashion) but for reasons of complexity to use guided self-organisation everywhere else.

A concept of hegemony as guided self-organisation develops our critique of anarchist and Austrian-economic perspectives on self-organisation as ideology. For both traditions, the phenomena of self-organisation is understood as a process which mitigates against, or provides a clean alternative to, forms of planning, manipulation, or hierarchical domination (Bookchin, 1982; Gray, 1998; Hayek, 1964; Kropotkin, 1972). Yet this ignores the fact that even Hayek’s preferred self-organising system (the market, communicating through the abstract feedback medium of price signals) empirically seems to require intense intervention to operate effectively (Gray, 1998, p. 146). Placing hegemony within these debates, we can identify it as operating in between the twin poles of absolutely immanent self-organisation (hegemony entails some degree of intervention or manipulation) and absolute hylomorphic rule (hegemony depends on manipulating pre-existing tendencies). Ideological stances on self-organisation of the kind propagated by many variants of anarchist and Austrian-economic thought also tend ignore that networks are generative of complex hierarchies, rather than dissolving them, as established by the preferential attachment thesis of Barabási and Albert (1999).
Emergent self-organisation also therefore underpins an idea of social structure as complexly articulated network-hierarchy, or as we have put it in chapter 2, ‘really complex’ complexity (see fig. g.). Here we attempted to move beyond the typological clichés that have accumulated around ‘pure’ networks and hierarchies, and towards an understanding of complex social and political structures as being intricate networks of multiply stratified emergent hierarchies. This complexified model is inclusive of many different kinds of political actor, and because it is not universally stratified, it also enables us to theorise political entities which do not fit conventionally into any of these categories (e.g. think tank networks, international governance organisations, transnational financial entities).

Such a conception of the organisational structure of the social can give us considerable nuance to think hegemony transversally, operative between otherwise incommensurable domains, forms, and spaces. Each of these self-organising layers or levels can possess level specific causal powers, and hence its own local logic of organisation (say, of the aesthetic, the economic, the party political, the media, the technological and so on). Indeed, as Elder-Vass argues, what makes each of these layers, zones, or spheres distinguishable is the unique emergent causal powers they possess (Elder-Vass, 2010, pp. 69–9). Local logics consist of particular rules, tendencies, or causal mechanisms which operate within that sphere, which might be considered as particularly topologies of feedback circuits. Even within the political sphere, the particular organisational tendencies and causal mechanisms operating in the party political domain are very different from those at work in social movements. Similarly, the self-organising tendencies of businesses or workplaces are distinct from those within technology (though with some obvious and intriguing overlaps in places). Therefore to hegemonise
within these different spheres would require attending to the level-specific self-organising mechanisms in order to manipulate them effectively. We will turn to exploring some of these local logics later in this chapter. Yet simultaneously, layer-specific emergent logics can be situated within a broader complexity ontology of emergence, self-organisation, feedback, and non-linearity. Diverse domains can be incorporated into a global explanatory framework without eliding the differences and distinctions operative at each level, as in Laclau & Mouffe’s attempt to figure all hegemony under a discursive differential-equivalence framework (1985, 1990).

Hegemony as guided self-organisation emerges out of particular configurations of elements within a system, operating as a form of downward causation. Hegemonic praxis consists of guiding processes of self-organisation already occurring within social systems, exploiting and manipulating particular tendencies to create new kinds of dynamics within the system as a whole. This abstracted understanding of hegemony allows a broad range of different kinds of actors to be theorised, and enables level-specific mechanisms of self-organisation to be contextualised within a more global scheme of social systems as complexly woven webs of emergent network-hierarchies.

**Hegemony as Navigation & Transformation**

The picture of hegemony afforded by emergence, downward causation, and guided self-organisation has developed and clarified some key themes and ideas from the theory of hegemony. Yet it leaves some of the most fundamental forms of hegemony unexplained, particularly in terms of its more long-lasting modes, such as the historic bloc. This is because issues of self-organisation have to be considered against the backdrop of the space upon which they are conducted. From a certain angle, achieved hegemony is a matter of having constructed an uneven playing field, rigging the rules of the game before it can be played. This extends from the framing of political issues in mass media so as to shift ‘common sense’, to the ability of certain production and distribution systems to permanently alter the balance of power between political forces. This returns us to thinking about the implications of Stuart Hall’s vision of hegemony as being the result of “different forces com[ing] together, conjuncturally, to create the new terrain, on which a different politics must form up.” (1991, p. 131). How does complex hegemony create such a ‘new terrain’?
Most fundamentally, we can understand this by reference to dynamical systems theory, and its repertoire of phase spaces, metastability, attractors, and control parameters. From this perspective, an achieved hegemony is a deformation within a socio-political phase space. Phase space, as discussed in Chapter 2, is an abstract n-dimensional multi-parameter space of possibilities. Causality, from the standpoint of phase space, is governed by attractors, emergent properties of dynamic systems with downward causatory effects (Byrne, 1998, pp. 173–4). Attractors are points or other kinds of deformations of the possibility space towards which the dynamics of systems will tend towards. Phase spaces may be deformed by one or more attractors, and attractors themselves can be dynamic, transforming their shapes, disappearing, or multiplying. In a very abstracted sense, hegemonic set-ups can be considered as attractors. In post-Deleuzean terms, phase space is real but not actual: it is virtual (DeLanda, 2002, p. 30).

One way to think this is as a rephrasing of what we have already argued for: hegemony as emergent guided self-organisation. Within any complex system, one or more attractors will be in operation, emergent properties of the system itself. Attractors, from this point of view, are the overarching governing dynamic of the system, the pathway and destination of processes of self-organisation.

Yet the introduction of ideas from dynamical systems theory has some distinct benefits. Their very abstraction enable us to consider hegemonic politics in terms of dynamics and potentiality, in particular situating hegemonic transformations in the context of metastable equilibria. Metastability describes systems capable of coming to relative points of stability, but where there always remains the potential for future change to other alternate points of stability (Simondon, 1958, p. 301). Consider a phase space whose axes are formed of the different parameters governing the system (for social systems this may be a very large number), with attractors located at various points within this space, representing local regions of relative stability. A phase space with multiple attractors within it, and hence multiple points of possible relative stability, can be considered metastable. When considering large-scaled social systems, we can regard the task of hegemonic projects as guiding the system as a whole, through intervening in key parameters so as to shift the system towards a new point of metastability within the overall social possibility space.
Some social, political, economic, technological, cultural, and environmental set-ups might be relatively unstable, governed by chaotic dynamics, whereas others will be relatively stable in form. For example, the embedded liberalism of the 1945-79 period in much of the economically developed western nations persisted for more than thirty years, a particular relatively stable ensemble of social norms, political practices, organisational and managerial techniques, economic production and distribution systems, ideological forms, religious practices, scientific and technological paradigms, and so on, commonly understood as the nexus of Fordism-Social Democracy-Keynesianism (Ruggie, 1982). It is important to note that this relative stability was not static - the system of embedded liberalism transformed over time. Metastability in systems as complex as social ones is almost always mobile, yet retaining a certain consistency over time. In this sense, even achieved hegemony retains an aspect of leadership, governing the directionality of the system as a whole (Gilbert, 2013a).

Within this relatively stable, yet mobile equilibrium, the assemblage of embedded liberalism was governed by a localised attractor which meant that the landscape of possibility was not evenly formed. This in turn meant that certain behaviours, actions, processes, and structures were easier than others – for example, on the level of economic ideologies, Keynesianism was considered to be the common sense set of tools to manage industrial economies (King, 2002). It was not that there was no space for other economic positions (say, the Austrian school), so much as the landscape of possibility, the space upon which action was conducted, did not favour them (Padgett & Paterson, 1991, pp. 21–35). Considering hegemony as the construction of an uneven space of possibility is one way in which dynamical systems theory can add to our understanding of guided self-organisation. An uneven fitness landscape (see fig. h.) renders certain behaviours more likely to be perpetuated, while rendering others more difficult, requiring greater effort, energy, and resources.
To give another example, it is not that it is *impossible* to generate self-organising dynamics which go against the general tendencies of today’s neoliberal hegemony, and the existence and emergence of movements such as Spain’s 15M or Occupy Wall Street over recent years attest to this possibility (Beas, 2011; Taylor & Gessen, 2011). However, the overarching dynamics make the relative costs of doing so much greater than developing political or economic forces that are in line with the governing hegemonic articulation. In this sense, the conditions for self-organisation within entire social systems can be established, and hegemony in its loosest sense enabled.

An assemblage like Western post-War embedded liberalism, governed by a relatively stable (though mobile) attractor, can be thought of as a more abstract form of the kind of hegemony which Gramsci describes as the historic bloc, or relatively long-lasting society-wide hegemonic forms (1971, p. 137; 366). Gramsci understands that a historic bloc will emerge at a point of maximal harmony, resonance, and coherence between distinct functional sub-components of the social system (including civil society, the political apparatuses and the economy). The resilience and relative permanence of such forms are generated by the reciprocal causal interrelationships between the different functional elements. Within the historic bloc of embedded liberalism, for example, social norms were interlocked with managerial practices, a Fordist mode of production
with Keynesian economic management, and mass-participation party political organisational practices, each of which worked to reinforce the other.

As established in chapter 2, however, even the most stable of social systems require reinforcement – i.e. the conditions for the continued existence of the attractor must be maintained. While within the local position of the hegemonic attractor, the system will be likely to be pulled back into its ambit, if certain key parameters are pushed too far, it is possible to fall within the pull of an alternative attractor, or to enter a period of sustained instability. Let us return to our example of post-war embedded liberalism. One key parameter maintaining the system within the reach of its attractor was the price of energy. While a series of pressures had built up within the hegemonic articulation over time, (such as the abandonment of many of the more ambitious elements of socialist reformism, the rising prosperity creating increasing labour market diversity, the emergence of new demands on the left in the form of the new social movements, new technologies and work practices) it was the sudden rises in oil prices following the 1973 OPEC oil embargo which began to seriously threaten the system as a whole (Padgett & Paterson, 1991, p. 92; Yergin, 1991). When set against the earlier shift in another key parameter, the abandonment of the international Bretton Woods system of monetary regulation in 1971, this led to increasing economic instability and stagflation (Eichengreen, 2007), leading to the collapse of the historic bloc.

In this example, energy prices were operating as what is known as a control parameter – a crucial variable whose minor variance generates disproportionate effects. Working at such points of concentration of power is a key technique of hegemonic politics, seeking to deploy minimum effort for maximum potential gain. One effective tactic here will be tracing and manipulating those control parameters which do not appear to be directly ‘political’ in character, and yet which have wide-scale political implications and impacts. Alternatively, ensuring that key control parameters are out of the reach of popular democratic contention is another popular tactic. For example, in the transition towards neoliberalism in the Western nation states of the 1980s and 1990s, a variety of key political-economic parameters were shifted out of the sphere of democratic control and into the private sector, from the privatisation and contracting out of key public services to the shifting of interest rates in the UK to at least nominal control by the Bank of England in 1997 (Crouch, 2004, Chapter 2). Operating on key control parameters at a
point of instability will work to tip the system into phase transition through a sequence of run-away feedback loops, towards a new moment of relative stability.

Within a given phase space regime, other attractors may be available, giving us a way to conceptualise political possibility. Alternative hegemonic set-ups, with different configurations of political, economic, social, aesthetic, technological, and economic parameters are possible. Part of the work of hegemonic projects is to attempt to locate ones that better serve the interests of the leading group in question. For example, in the collapse of embedded liberalism in the late 1970s, it must be emphasised that it was not necessarily inevitable that neoliberalism would become the new global hegemonic attractor. Other potential hegemonic configurations were likely possible, and it was perhaps only because the neoliberals were better prepared in advance of the coming crisis that they were able to hegemonise so effectively (Mirowski, 2013; Mirowski & Plehwe, 2009). In navigating to a new point of metastable equilibrium, experimentation is necessary across a wide range of different parameters operating in different distinct spheres, in order to discover a new relatively stable set-up. What, then, determines the layout of alternative attractors within a global phase space?

In the previous section, we outlined the ways in which self-organisation in social systems gives rise to a macro structure of complexly articulated nested or network-hierarchies. One effect of such a structure is that we can consider certain systems within these nested structures as asymmetrically dependent on others. Put more simply, some systems set the conditions for emergence for others. As David S. Byrne has argued, this requires us to think the social as both a system in itself, and as generating an abstract phase space operating to constrain and enable particular dynamics for those systems that subsist within it (1998, pp. 25–6). At the very broadest global levels, we might consider here the planetary ecosystem, and the dominant global socio-economic system within it, capitalism. Each of these sets out key dynamics and limitations on what is possible, acting as phase spaces for all actions conducted within them. As we discussed in Chapter 2, one way to conceive of these nested, asymmetrically-interrelated systems is spatiality – where different spatial levels influence the phase space dynamics more localised systems operate under. This would be to analyse the dynamics of one spatially smaller system by reference to those imposed by a spatially larger system of which it is a part. For example, we might consider the local possibilities within the political
systems of cities in the UK as being dependent on the national political conjuncture (Byrne, 1998, Chapter 8). While spatiality is crucially important here, we ought to be careful not to conceive of the relationship between systems and their phase spaces as being organised in accordance to a linear scalar hierarchy, (where we move inwards from the planetary, through the regional, into national, city, and local levels).

While such formal hierarchies clearly have an important role to play in determining the relative relationships between levels, our understanding of complex systems as non-linear emergent network-hierarchies means that ‘off the shelf’ hierarchical schemas will need to be viewed with a degree of critical scrutiny. In practice, hierarchies are likely to be more complex, knotty, and multi-lateral. Some agents and systems can cross these linear barriers (for example, global financial regulatory bodies, transnational social movements, and networks of think tanks). Also important here are recent debates in theoretical geography surrounding the notion of absolute and relational scale (Harvey, 2006; Marston, Jones III, & Woodward, 2005; Massey, 2005). For Harvey, space can be complexified along three axes, the absolute, the relative and the relational (Harvey, 2006, p. 71). By contrast Marston et al situate the issue of scale and spatiality relative to issues of hierarchies versus networks, arguing for the abandonment of absolute and in even relative scale in favour of a ‘flat’ ontology of self-organising systems. While we largely embrace this latter option, we would hasten to add that while there is only one ontological universe (the world of extensive matter) self-organisation is itself generative of hierarchy, albeit not absolute ones. These hierarchies are crucially important because of the ability of systems to act as conditions of possibility for other systems. Moreover, such actual hierarchies do tend towards ‘locking in’ at certain degrees of physical size and/or degrees of nestedness, based upon certain key control parameters determining phase spaces for certain types or sizes of entity, even if this does not always line up with the absolute scales of the global, the regional, the national, and the local.

Finally, for any given system we can discern two alternative approaches to hegemonic change, each corresponding to a degree of radicality of transformation. The first of these consists of work within an existing phase space regime, the task of navigating towards a new relatively stable attractor within existing possibilities. The second, more radical form of grand-scaled hegemonic activity consists of work to re-engineer the phase space regime itself, a transformation of the space of possibilities, as much as a navigation
within it. The ability to reconfigure a given phase space is dependent, in turn, upon the ability to access a more general and universal possibility space, and to navigate within that. In Fig. i. we have phase space 1, with a sequence of tendencies marking the effects of attractors within it. To move between these relative points of attraction would be the navigatory move. However, phase space 1 is itself systemically dependent on the phase space of the global system, which in itself has its own ensemble of attractors. Navigation within this more universal space of possibilities to phase space 2, will imply from the standpoint of phase space 1 a fundamental remodelling of its topography.

Fig. i. Phase spaces in relation to global phase space. Phase spaces 1 and 2 are both possible local phase spaces dependent upon a position within a more global one.

Hence the distinction between navigation on the one hand and transformation on the other is really a distinction between navigation within a given phase space and navigation at a higher order of universality. In the global phase space of capitalist accumulation, for example, one navigatory manoeuvre was the shift from the hegemony of post-WWII embedded liberalism to that of neoliberalism in the 1980s. From the standpoint of the global phase space of capitalism, both were possibilities within it, given certain configurations of key parameters. By point of contrast, while both capitalism and communism would depend equally in turn on the set of enablements and constraints imposed by the phase space of the global ecological system (for example, on certain limits and potentials established by the availability and distribution of energy resources), from the limited standpoint within capitalism, the construction of the means
for communism would effectively be a radical re-engineering of its own regime of
dynamics, conducted by recourse to navigation within a more global, higher order space
of possibilities.

In sum: Achieved hegemony is a particular local attractor within a socio-political phase
space, configuring an uneven landscape upon which action is conducted. Hegemony in
this form is always dynamic, always requiring reinforcement to maintain the conditions
for its emergence, and is metastable: a mobile point of relative stability with alternative
points of stability also available. Within any given socio-political phase space, control
parameters are those dimensions most important in determining the actual location of
the system relative to any governing attractors. The layout of attractors within the phase
space for any system is determined in part by the more macro-scaled systems from
which that system is emergent from or of which it is a component part. For any given
system, hegemonic praxis can therefore operate at either the level of navigation, shifting
within that system’s phase space towards other possible metastable points, or work to
transform the phase space itself, by accessing and navigating within the phase space of a
more universal system.

**The Autocatalysis of Power: Hegemony as Generative Entrenchment**

Thus far we have outlined hegemony as an emergent property, as guided self-
organisation, and as navigation or transformation of possibility spaces to locate
metastable system configurations. Putting each of these elements together, we are now
in a position to define hegemony, at the greatest degree of abstraction, as a kind of
*autocatalysis* of power. Autocatalysis in chemistry refers to any reaction where the
presence of a given chemical within a reaction works to accelerate its own reproduction:
it catalyses itself (Steinfeld, Francisco, & Hase, 1999, p. 151). Throughout the
foregoing discussion of complex hegemony we have referred to the role of feedback as
a basic mechanism generating disproportionality in emergence, and lying behind the
phenomenon of certain key control parameters in determining locations within phase
spaces. We have yet to describe one of the most important feedback mechanisms for
hegemony, *generative entrenchment*. Generative entrenchment in turn enables us to
elucidate two further qualities of complex hegemony: its mixture of enablement and
constraint, and its quasi-intentionality and openness to the contingency of the social.
Considering hegemony as the establishment or manipulation of conditions for self-emergence, (leading or guiding inherently self-organising processes) implies an intrinsically double-faced conception: it inhibits some processes, while enhancing others. In accelerating the self-organising ability of certain processes, structures, and agents, hegemony acts at least partially to generate such entities. In other words, hegemonically manipulated systems act as locally metastable bases or platforms for other phenomena to take shape upon.33 In acting as a platform, a given system and its phase space do not determine in an absolute sense the particular behaviours conducted upon it, but rather remain open to contingency – to the unknown and unpredictable.

Fig. j. Generative entrenchment as autocatalysis of power. E1, E2, & E3 are emergent systems, generated by the base system.

At its furthest limit, a positive feedback loop is possible between openness to contingency on the one hand, (to the unknown panoply of different systems, structures, processes, and behaviours that might take shape within a given phase space) and the embedding of power on the other. What captures this relationship between openness and power is the idea of generative entrenchment.

33 We use the term ‘platform’ in a relatively loose sense here. For a full treatment of the term in the context of business studies of information technology see Gawer (2009). For a conceptual analysis of the platform as a contemporary dispositif of power see Williams (2015).
The term originates in the work of William C. Wimsatt, a recent philosophical thinker of complexity. Wimsatt attempts to understand the inner dynamics of adaptive design, or in other words how the arbitrary and the contingent can become necessary over time. Wimsatt defines generative entrenchment as a “feature of a structure […] that has many other things depending on it because it has played a role in generating them” (Wimsatt, 2007, pp. 133–4). In other words, a system is relatively generatively entrenched if it is acting as the basis for other systems, where their dependence on it confers in turn a degree of essentiality (see fig. j.). The more generative the system, the more entrenched it will likely become.

Consider for example the hegemony within the British media landscape on issues of immigration, omnipresent since the early 2000s. The framing and presentation of immigrants to the UK as a danger to the national economy has enhanced the organisation and development of racist or otherwise mistrustful views within society at large, while inhibiting (though not eliminating) those who disagree with such positions. Specific causal mechanisms of enhancement here might include everything from the way in which public debates are framed favouring certain views over others (Balch & Balabanova, 2014), to the relative availability of money and other resources for NGOs, think tanks, and other civil society organisations in this area, through to directly coercive measures such as changing laws and regulations related to immigration and asylum (Wintour, 2015). The increasingly fertile ground within the country for the promulgation of racist or anti-immigrant viewpoints, organisations, and actions leads to their relative proliferation (Nagarajan, 2013). This in turn serves to shore up the media which played a role in generating them, giving them a ready-made constituency for which they increasingly come to speak. The two sides become mutually re-enforcing over time: the more people holding racist views or are otherwise paranoid about immigration’s putative threat to their lifestyles and livelihoods, the more likely they will be to buy or otherwise interact with media offering reinforcement of those views.

34 Though the majority of British people since the 1960s have been recorded in social attitude surveys as desiring a reduction in immigration, the issue has grown significantly in importance in the years since 2000, remaining consistently in the top three most important issues picked by survey sample groups since 2003, (Binder, 2014).
This is not the same as arguing crudely that media focus on immigrants ‘created’ in any kind of linear fashion an upswing in concern over immigration, and nor does it involve the ‘duping’ of entirely passive media audiences, as Hall famously argued against (2012). Instead, in keeping with our anti-hylomorphic understanding of hegemony, it is a case of guiding pre-existing tendencies and dynamics by making certain forms of self-organisation more likely than others. This is open to contingency in the sense that, for example, few within the media pushing an anti-immigrant agenda would have been able to predict the rise to prominence of the UK Independence Party (Evans & Mellon, 2015; Ford & Goodwin, 2014). Yet their increasing importance both depends upon the re-engineered environment crafted by the media and simultaneously serves to entrench it further.

The autocatalytic nature of hegemony depends on its ability to both constrain and enable, where the capacity to enable is directly correlated to its capacity to constrain, and vice versa. This is because the more elements that are generated by a given system, the more generatively entrenched it is likely to become. In this fashion, what were once fluctuating structures can become relatively unchanging over time, which in turn allows chance contingencies to become necessary. In other words, the more entrenched a system is, the greater the effort required to transform or eliminate it. Wimsatt sums this up as follows:

‘Generativity is an extremely efficient way of building complex adaptive structures, while at the same time locking in their generators. Since these are two sides of the same coin, their association is a deep fact of nature.’ (Wimsatt, 2007, p. 137).

The more generative a structure, the more dependence will be fostered, and hence relative stability ensured. The converse is also true, as the more stable a structure is the more likely it will be that a variety of other entities, processes, and elements will base themselves upon it. Such processes entail positive feedback loops, for as long as the platform retains its position of relative generative entrenchment.

Complex hegemony, as we have argued, emerges out of the interactions of diverse component parts (individual and collective, human and non-human). It gives rise to
emergent properties that have downwards causatory impacts back onto the systems from which they emerge. Principle amongst these is the ability to guide the way the system self-organises. On the largest scales, complex hegemony involves navigating complex network-hierarchies towards new points of relative metastability. Finally, complex hegemony ensures its own continued existence through mechanisms of generative entrenchment. By generating behaviours, processes, systems, and structures through guided self-organisation, hegemonically manipulated systems are able to take on indispensable roles, leading to increasing risk and cost associated with altering the underlying system. Having explored the various ramifications of a generalised, abstract theory of hegemony using the resources of contemporary complexity theory, we are now in a position to shift our attention to how specific local logics of organisation can be integrated within it.

ii. Local Logics

We have argued that the framework of complex hegemony, as set out in the first part of this chapter, can integrate local logics of organisation within it. This is dependent upon three claims. First, hegemony in complex social systems depends upon the interactions between different layers or domains. Second, complex hegemony gives us some basic principles which can function as an explanatory framework, particularly as it pertains to how complexly articulated domains interact over time. Hegemony as emergence, as guided self-organisation, as navigation within possibility spaces, and as generative entrenchment, are four dimensions of this general framework. Third, individual domains within this overarching scaffold will have their own localised logics of organisation and dynamics, displaying specific causal mechanisms.

The reasons why we must demarcate level specific logics of organisation are two-fold. It is a necessity if we are to avoid the very problem we encountered with Laclau and Mouffe’s reformulation of hegemony theory in the 1980s: a flattening of the real complexities of different systems into a singular organisational logic. In that case, economic, scientific, and technological phenomena were difficult to cleanly theorise through a differential-equivalential logic sourced from Saussurian linguistics. In addition, it is also essential if we are to hold true to our objective, established in Chapter 1, of elaborating a political complexity theory which was differentiated in character, and that therefore left distinct space for the specific dynamics of certain levels or domains.
within complex systems. For example, the human use of symbolic communication methods and the ability to collectively reason mean that human behaviour will be more reflexive in nature than more ‘simple’ self-organising systems. Yet reflexivity of this kind does not so much void complexity as add to its fundamental dynamic features: non-linear feedback and the emergence of dynamic moments of relative order from multifarious interacting inputs.

What this section develops is a series of non-exhaustive perspectives on the local organisational logics at work within key subsystems, domains, or functions, of human societies. It begins by outlining two different forces at play within the field of ideological hegemony – reason and affect. We then examine the role of the economic, and its relationship to the political, and the state, developing an argument for relative autonomy in a mutually co-constituting relationship we have already sketched out in chapter 3. Finally, this section examines the organising principles of technology, and the interaction of technical organisation with ideological and economic spheres.

**Ideological Hegemony: Rationality & Its Limits**

In assessing the adequacy of Laclau and Mouffe’s differential-equivalential discourse theory of hegemonic articulation, we located its major flaw in being unable to track the dynamics and causal mechanisms of more ‘structural’, economic, technological, thermodynamic, or otherwise non-ideological dimensions of hegemonic struggle. We might, therefore, consider that within the realm of ideological contention itself, their language-like modelisation remains more-or less sufficient to describing the way ideological hegemony operates. It is true that Laclau & Mouffe’s articulatory discourse captures much of discursive-ideological practice, but we need to place such a modelisation within a broader, more realist social complexity ontology of self-organising material systems. How is it that ideological articulations are able to modify the behaviour of actual collectives of human beings? To answer this, we must attend to the pathways of social *semiosis*, or meaning making, the mechanisms by which the articulations of ideology (the differential-equivalential network of associations) are able to gain traction on human behaviour, and hence transform the ways in which social systems self-organise. We are here indebted to Bob Jessop’s notion of semiosis, which he situates via Niklas Luhmann’s understanding of meaning making as the necessary reduction of operational complexity in order for action to occur (Jessop, 2007, pp. 234–
Within complex systems (such as social and political ones) the only way to avoid paralysis is to select certain types of information over others. The ability to modulate or re-engineer pathways of semiosis would therefore appear to be a crucial way that hegemony operates. Two important means for semiosis are reasoning and affect.35

One temptation here might be to assume that the re-engineering of affect, sensation, and feeling is a key tool of hegemony, while reason and rationality are not.36 This would be to suggest that the engineering of passive consent through the manipulation of inherent self-organising tendencies within human social and political systems proceeds through the pre-conscious, the non-rational, and the habitual, rather than the deliberative, intentional, or the considered. Yet both are entailed in processes of ideological hegemonisation. One reason for this is that hegemonic projects imply a strategy of some kind, and hence to be guided, if only partially, by a form of rationality. We will explore the politics of complex hegemony, and the particular forms of agency it implies, in section 3 of this chapter. Another key reason is that at the level of an achieved hegemony within a given human socio-political system, the ability of actors to reason about their environments is curtailed or limited in a number of ways. In this fashion, bounded forms of rationality enable hegemonic politics to shape the ways in which self-organising dynamics operate.

35 It might be objected here that Laclau and Mouffe are perhaps not really guilty of ignoring either rationality or affectivity. Indeed, as regards rationality, throughout their work Laclau and Mouffe have consistently derided, degraded, and argued against the significance of rationalism, rationality within politics, and the role of reasoning in shaping human social systems (e.g. Laclau, 2005, pp. 168–9; Laclau & Mouffe, 1985, p. 3; 34; 38; 58;). While in many places their critiques of classic philosophical and political rationalism are accurate, they tend to forego the analysis of more sophisticated variants of rationalistic philosophy (e.g. Brandom, 1994; Heikes, 2010; Laden, 2012; Sellars, 1963). In terms of affect, the position is admittedly more complex, with a variety of references to ideas of affectivity particularly in their later work (Laclau, 2004, p. 303, 2005, pp. 41; 54–5; 71; 101–111; Mouffe, 2000, pp. 95–6). In particular, as Gilbert has pointed towards, it appears as if Laclau and Mouffe’s discourse does include the affective, (Gilbert, 2011). That said, it remains decidedly unclear that the differential-equivalential social ontology of discourse is sufficiently locally differentiated to give us a detailed modelisation of affectivity, rather than merely being compatible with some other account, particularly as regards Laclau’s seeming equivalence between affect and Freudo-Lacanian cathexis (Laclau, 2005, p. 111).

36 While we have separated these two dimensions, in practice they will be heavily imbricated together in any actual decision making process. Conceptions of ‘pure’ reason, unguided by affective or somatic processes, are abstractions without purchase on the way humans actually think and act in practice. For an account of emotio-affective framing of rationality from a neurophilosophical perspective, see Damasio (1994). For the classic rationalist argument as to the potentially positive mutually re-enforcing relationship between reason and affect, see Spinoza (1950). For a detailed contemporary account of the social embodiment of rationality see Laden (2012). For a recent situating of the politics of rationality and affect, see Protevi (2009).
Hegemony, as established by Gramsci’s own account, proceeds sometimes through direct persuasion, (as in explicit alliances) sometimes through coercion, (as in dealing with outright enemies) but sometimes also through actions which lie somewhere between these two poles, which we have characterised as the securing of passive consent. While some processes of establishing or contesting ideological hegemony proceed through explicitly rational practices (i.e. attempting to persuade others of the validity of your own position, by giving chains of rational justifications), many work to curtail, or otherwise re-engineer collective and individual rationality. Rational processes of deliberation, decision-making, and consideration tend to proceed within frameworks: they must exclude certain possibilities in order to come to any conclusions at all. This is the vision of bounded rationality proposed by Herbert Simon, where rather than being smoothly calculating, utility maximising entities, human beings tend towards being limited and fallible agents liable towards satisficing, rather than maximising, the outcomes they deliberate (H. A. Simon, 1957). Satisficing indicates an approach to decision making which takes into account the costs of cognitive and other resources in assessing every option or permutation of options, and which therefore may deploy heuristics, or ‘quick and dirty’ decision making principles (Wimsatt, 2007, p. 19) to get around the inherent complexity of most decision making moments. Two closely related mechanisms for ideological hegemony suggested by such approaches would be, firstly that particular ideological articulations impose bounds upon rational decision making, and secondly, that they also supply specific heuristics. Bounded rationality means that even carefully deliberative individual or collective agents will necessarily have their deliberations and actions framed within bounds set up at least partially by the ideological context in which they exist. In addition, the cognitive tools at the disposal of agents will consist at least in part of heuristics, which in turn make certain courses of action more likely than others.

This might be considered to be a variant on the idea of the political-strategic ‘Overton window’, the ambit of ideas, alternatives, and options which are considered to be ‘realistic’ in discussion by mainstream politicians, media, and the public, (Russell, 2006). What cannot be discussed will be very difficult to enact. This window of

37 It also recalls Goffman’s frame analysis, where individual and collective experience is mediated via frameworks, formed through media and other communications institutions to set out the terms, internal articulation, and limits, through which issues and controversies are to be understood (Freedman, 2013, p. 418; Goffman, 1977).
acceptable options emerges from an interplay of other forces at work within a society, from control of particular concentrations of media power, to command of the executive branch of the state apparatus, to the balance of power between labour and capital, amongst many other factors. The Overton window emerges from the interplay of these factors, but comes to take on a causal power of its own in being able to help shape the way self organisation in a variety of different societal system operates. This is in keeping with Gramsci’s fundamental notion of ideologies as working to ‘‘organise’ human masses, and create the terrain on which men move” (1971, p. 377) and with Hall’s understanding of the hegemonic group as that which “strives and […] succeeds in framing all competing definitions of reality within their range, bringing all alternatives within their horizon of thought” (Hall, 1977, p. 333). From this standpoint, common sense is a species of bounded rationality. Agents, collective and individual alike, possess complex symbolically mediated reasoning abilities, enabling the deliberation of strategic courses of action. Yet these occur within a space which is itself sculpted by ideological hegemony. In keeping with our understanding of complexity, this does not mean that ideas, strategies, and options which lie outside of common sense will be impossible to enunciate, or to effectuate, but rather that the relative costs of doing so will be higher than for other actions.

One form this framing takes is ideological heuristics. A heuristic is an informal algorithm or ‘rule of thumb’ that replaces detailed rational thought or collective deliberation, operating as ‘black boxes’ which produce quick results. Common sense is often expressed in heuristics that replace deliberative reasoning with shortcuts of this kind. A recent example is the core neoliberal idea that ‘markets are more efficient resource allocators than states or bureaucracies’. While ultimately sourced from the theories of Austrian economists Hayek and von Mises, (Hayek, 1962; von Mises, 1981) this idea has been reduced down to a simple sound bite that can be regurgitated as an entirely un-reasoned response to any suggestion of socialist ownership provisions, state planning, or the reduction of privatisation and programmes of contracting out, thereby constituting a key facet of what Fisher has termed ‘capitalist realism’ (Fisher, 2009). Heuristics don’t need to convince everyone within a given society of their ultimate veracity, and rely at least in part on the cognitive costs of reasoning – in simple terms, many people will be liable towards passive acceptance of these heuristic tropes because they lack the time, energy, and other resources to expend on questioning them.
Ideological hegemony considered from the standpoint of theories of rationality creates boundaries for rational thought, and supplies heuristics that work to reinforce a given ideological position.

**Ideological Hegemony: Modulating the Structures of Feeling**

The other dimension of ideological hegemony relates to the affective, rather than the rational. Outside of rational persuasion, bounded rationality, and ideological heuristics, ideological hegemony proceeds through a largely non-conceptual non-representational register. A classic trope of cultural theory has been to discern and analyse what Raymond Williams described as the ‘structure of feeling’ within a given social system (Williams, 1960, 1977). A structure of feeling is a “cultural hypothesis” (Williams, 1977, p. 132), potentially discernable through mapping its actualised cultural products. Literature, film, fashion, and music, all give us signs of transformations or features of the structures of feeling. ‘Feeling’ here indicates something looser, more pervasive, and less conceptual or semantic than ‘ideology’, a kind of affective register of lived experience. In addition, structures of feeling are not simply arbitrary, but rather internally ordered, and are not merely personal, but social in character (and hence are ‘structural’). Structures of feeling point towards the fact that “the feelings that belong to us, that animate us as individuals, at the same time, exceed us, extend far beyond the individual, diachronically and synchronically” (B. Best, 2012, p. 194).

This is not ideology in the sense of a system of semantically articulated ideas and propositions, but in the sense of the experiential texture of specific moments and locations, or what Richard Hoggart refers to as “‘what it feels to be alive’ at a certain time and place” (quoted in Grossberg, 2010, p. 310). It is material, in that it directly relates to factors like physical geography, nationalist or regionalist identity, technical and productive regimes, and many other dimensions of the conditions of human existence. As Joseph argues, against a purely ‘culturalist’ interpretation of Williams, it is necessary that “structure[s] of feeling [are] linked to the objective conditions which give rise to those experiences” (Joseph, 2002, p. 72).

For Williams, structures of feeling occupy a position of un-articulated pre-emergence (Dickins, 2011), which in itself form the ground for, but is irreducible to, actualised cultural and political products. A social realist novel, for example, might emerge out of
a given working class social milieu and actualise certain dimensions of that milieu’s structure of feeling, but that structure of feeling could also be given other actualisations. In this sense, we can identify Williams as reaching for an idea which corresponds closely with what we have set out as phase space, in an affective-cultural register. A structure of feeling is not quite a hegemony, but is rather one of the registers any successful hegemony would seek to mobilise and actualise along certain trajectories, one of the grounds from which potential new ‘common senses’ might arise. A structure of feeling is therefore non-semantically articulated, emerges out of a conjuncture of material phenomena, giving rise to an affective phase space which can be actualised into cultural or political forms in numerous different fashions.

While cultural products give us some tools by which to discern the underlying structures of feeling within a given social system, they are also reflexively involved in its (re)production. Culture operates as both a diagnostic tool and as a series of feedback loops, feeding back into dynamic structures of feeling certain tendencies, and hence re-enforcing them over time. In an oft given example of reality television under neoliberal capitalism, for example, key elements of the neoliberal structure of feeling – competition, a dubious sense of individuated ‘authenticity’, therapeutic notions of personal development – are presented and normalised, and hence fed back into the social system (TV viewers in Western nations) from which this structure of feeling arose. In so doing, cultural products of this kind serve to re-enforce certain underlying features of the contemporary structure of neoliberal feeling, selecting those over other possibilities (B. Best, 2012; Gilbert, 2011; McCarthy, 2007). This re-enforcement does not proceed through explicitly didactic formulations – there may be no explicit articulation of neoliberal norms in cultural products such as television programmes, music, cinema, computer games, fashion and architecture. Rather looser affective dimensions of the neoliberal structure of feeling are emphasised, and eventually normalised, without ever being explicitly proposed.

A certain ‘spirit of the times’ can therefore take shape, (in other words a directionality to a structure of feeling) without the requirement for this to be intentionally strategised as such. Take for example the preponderance of business-focused television programming in the UK in the 2000s (programmes such as Undercover Boss, Dragons Den, and The Apprentice). While being absolutely resonant with the ideological
demands of post-millennial financialised capitalism, this form of programming neither explicitly articulates itself as such, nor does it require intentional strategisation for its promulgation – in no sense does the existence of Undercover Boss, for example, need there to be a commissioning editor scheming to dupe the masses into sympathising with the interests of capitalist owners and executives. Though culture has a relative autonomy from socio-economic dynamics more generally conceived, its means of production are inevitably also not entirely unrelated to them. Put simply, art, culture, and entertainment must be produced within present economic, political, and social conditions. Best, for example, notes the emergence of the first wave of reality television programming in the United States as being broadly a response to the economics of the television industry requiring a reduction in production costs, combined with specific imperatives associated with writers strikes in the early 1990s (B. Best, 2012, pp. 194–6). These material conditions of production combine with broader political-ideological currents to generate the conditions within which particular television programming choices are made. While at times there may be direct political intervention from governments – witness recent attempts by the UK Conservative Party to discipline the BBC (Martinson & Plunkett, 2012) – coercive measures are not generally necessary for cultural products to be shaped by broader hegemonic currents.

Beyond the cultural, affect is involved in almost all processes of political contention. To link our approach to affect with our argument around bounded rationality, one of the chief ways this proceeds is through affect’s imposition of contexts within which collective and individual reasoning and decision making takes place (Bardone, 2011, pp. 29–31). As John Protevi has put this “politically shaped and triggered affective cognition is the sense-making of bodies politic” (Protevi, 2009, p. xiv). The affective tonality of structures of feeling are manifold, and diverse processes of political hegemony will work to shape certain forms of affective colouration in order to transform the conditions for both intentional and non-intentional processes of self-organisation. For example, affective displeasure and alienation in the post-industrial UK (characterised by mixtures of rage and melancholy) might be turned to a variety of hegemonic projects. On the one hand, such affects can be harnessed towards a radical left critique of structural unemployment in neoliberal societies. Alternatively, it might be brought into line with racist or xenophobic anti-immigrant politics. The shaping of affects into political processes can be achieved through a variety of methods: through
governmental policies, through media attention and framing, political activism and organisation, legal and administrative frameworks, and economic activities.

Theorising complex hegemony’s affective register through Williams’ idea of structures of feeling points us towards the fact that ideological hegemony can never simply be imposed from above, no matter how cunning the methods. Instead, it must work upon pre-existing affective structures, mobilising some dimensions, while restricting others. In so doing, even ostensibly apolitical cultural forms can operate as part of the crucial circuitries guiding self-organisation, and hence hegemony.

**Economic Hegemony**

Having established some of the local causal mechanisms through which ideological hegemony’s rational and affective dimensions operate, (in addition to those of Laclauian-Mouffian discourse) we are now in a position to address the role of the economic and the state within processes of hegemonisation. As we have discussed in our treatment of Laclau and Mouffe in Chapter 3, the relationship between the political sphere and the economic has been something of a vexed one in the history of hegemonic theory. Particularly in its more Althusserian inflections, the notion of a determination in the last instance by relations of production remained a difficulty for those seeking to re-interpret Gramsci in the 1970s and 80s, leading ultimately to Laclau and Mouffe’s cutting of the economic ties in the 1980s (Laclau, 1977; Laclau & Mouffe, 1985; Mouffe, 1979). We have attempted, as an alternative, to outline a less drastic solution to this ‘Althusserian knot’. We will explore the ramifications of this in terms of the role of class, the relationship between the political and the economic, the expansive role of economic hegemony in an era of globalization, and the particular dynamics of financial markets.

In terms of the question of social class, this is to argue that Laclau and Mouffe were correct, to the extent that prior Marxist formulations of class politics tended towards ignoring or at least being rather inattentive to the complexities of the social beyond the

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38 We do not intend by any means to supply a fully articulated theory of economic organisation in this section, given the extreme complexity and scale of this field of enquiry. Given our theoretical concerns within this work, our preference would be for a variant of Marxian political economy filtered through complexity and post-Keynesian economics. For indicative recent work in the field of complexity economics, see Arthur (2014), Koppl et al (2012), and Gallegati and Kirman (2012). An account of possible socialist economics from the standpoint of computational complexity can be found in Cottrell & Cockshott (1993).
Simultaneously, however, it is also to claim that there are limits to contingency and social polyvalency: things can be otherwise than they are, but not absolutely so. In other words, re-engineering of socio-political systems is possible, but that re-engineering must set to work on the tendencies, affordances, and limitations which are already in play. The phenomenon of class might be better re-interpreted as a set of pre-political tendencies, which govern a phase space on which politics is operative. Positions within an economic structure, (e.g. whether wage labourer or owner of capital) will generate immanent tendencies which need not be signifying or differential-equivalential in nature; nor do they need to be politically expressed in the form of collective or individual identity, agency, or knowledge. In addition, as noted now by numerous scholars, tendencies arising from economic relations will tend to intersect and combine with other relatively autonomous ones, such as race, gender, sexuality, religion, and so forth (Crenshaw, 1988; Walby, 2007). Here class becomes one amongst a series of other self-organising dynamics governing social identity and hence the potential for politicisation. Class dynamics are distinct, in the sense that they arise most explicitly from tendencies within production, distribution, and the ownership of capital.  

In considering the changed role of class, we must remember the important role that the restructuring of production, distribution, and consumption systems had. The shift in Western nations from Fordism to post-Fordism, with a concomitant change of working environments and practices, transformed the conditions of emergence for working class political identities (Murray, 1989; Sennett, 2006). This was not so much the elimination of the working class in the Marxian sense (wage labour remains the predominant mode of securing the means of social reproduction for the vast majority throughout the West) as the alteration of the mechanisms of self-organisation that enabled certain kinds of political organisations (from revolutionary communist parties, to reformist socialist parties, to labour unions) to attract its support, and to channel (virtual) material interests.

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39 Gender and racial discrimination are at least partially also rooted in economic differentiation. This is the contention of Fields and Fields in their excellent recent work, Racecraft, (2012) identifying the roots of the emergence of the powerful social fiction of race in the economic imperatives of exploitation, (in an American context, in the need to justify slave labour). This is not to say, of course, that today race operates in an identical fashion to class, given that the social construction has evolved to take on its own dynamics and (massively contradictory and irrational) logics.
into (actual) political practice (Reid, 2005; Steiner, 2009). This re-organisation was partially for political reasons: the need of emerging neoliberal elites to eliminate the grounds for working class power. But it also had endogenous economic dimensions, emerging out of the increasingly globalised nature of capitalism (making low level industrial and extractive industries less economical in developed nations) along with technological change (the development of information and communications technology infrastructures).

As Laclau and Mouffe argue, (1985, pp. 78–80) the economic is in some senses reliant upon the political for its security. For example, the ability to have a functioning market economy depends in part on the enforceability of property laws, on the (at least passive) consent of populations to wage labour as a social relation, and on the effective management of basic economic phenomena like exchange rates, interest rates, and inflation. Yet the political sphere in turn is also dependent on economic phenomena – from the most basic level of the need to feed, clothe, and house at least a sizeable proportion of the population to secure even passive consent, to the way in which long-lasting forms of political hegemony appear to need to harmonise and achieve structural coupling with economic relations, as in the historic bloc (Jessop, 2007, p. 244). As argued in chapter 3, we need to consider economic and political hegemony as being mutually imbricated and co-constituting. Our understanding of complex systems as non-universally stratified allows us to think such relationships without either installing a universal pre-conceived hierarchical schema (e.g. classical base-superstructure Marxism) or flattening the local logics and causal mechanisms into a singular system (as in Laclau and Mouffe’s articulatory hegemony). Instead, the economic functions of a social system will have their own dynamics and specific tendencies, which will sometimes depend upon an emergent set of phenomena from other systems (e.g. the social, the political, the technological and so on) whilst also operating as a phase space for other systems in turn.

Economic hegemony is an important component of achieving broader hegemonic power (Gramsci, 1971, pp. 279–232). Yet while for Gramsci economic hegemony largely indicated a mutually re-enforcing coupling between leading social groups and the agents

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40 As an empirical guide to the effects of these transformations, the total proportion of the working age population belonging to unions declined in 17 of 21 OECD countries between 1980 and 2000, falling once more in 19 of 21 between 2000 and 2007 (OECD, 2014).
of the leading productive paradigms within the economy (Texier, 1979, p. 58), economic hegemony today has a number of additional dimensions. Because of the increasingly globalised nature of contemporary capitalism, the forces of economic hegemony today extend far beyond any individual nation. As Jessop contends, a number of the characteristic capabilities of Keynesian era states “have become less relevant to the new spatio-temporal matrices associated with globalization” (Jessop, 2007, p. 196). Three important examples here are the increasingly global power of transnational corporations, the role of global financial-economic governance institutions such as the World Bank, the World Trade Organization, and the International Monetary Fund, and the spread of global financial markets (Derber, 2002; Panitch & Gindin, 2013). Transnational corporations, global governance institutions, and financial markets each extend beyond the boundaries of any given nation state, while simultaneously relying on certain key networks of powerful nation states (such as the US and the EU) for their conditions of existence (Jessop, 2007, Chapters 8–9).

Consider, for example, the complex power dynamics of global finance, perhaps the most significant political-economic development of neoliberalism at a systemic level. The liberalisation, acceleration and increasing abstraction of global systems of finance has been one of the hallmarks of neoliberal hegemony throughout the world, a process termed ‘financialisation’ (Lapavitsas, 2013). Financialisation entails both the increasing power of financial institutions (such as banks), as well as the increasingly financialised nature of non-financial entities. This process has had political effects, in terms of enfranchising certain groups (such as the leading employees of major investment banks and those who work with them, such as corporate accountants and lawyers) over others, and serving as a disciplinary and control system through debt – at both household and

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41 Though we should note that while much of Gramsci’s analysis is concerned with the integral state, he does not believe that such states are simply self-enclosed vacuum sealed power entities, holding that “history is always ‘world history’ and […] particular histories exist only within the frame of world history” (Gramsci, 1985, p. 181, see also Jessop, 2001, pp. 104-5).

42 There is a complex debate as to the true extent of economic and political globalisation in practice. The limits of globalisation can be considered as follows: globalization is historically not new; truly transnational companies are still relatively rare not common; capital mobility is less than some proponents claim; the world economy is more supra-national regionalized than properly global; key powers, such as the G8 nations with China and India, still have the power to coordinate and sculpt global economic governance (Hirst, et al 2009, pp. 1–24). Hence we follow Jessop (2007, Chapter 8) in holding to a position that globalisation is a real process, but one which is yet to reach conclusion. Because of this, key nation states retain immense power to regulate and engage in ‘metagovernance’, as can be demonstrated by a range of phenomena (from states ultimate bailing out banks and insurance companies in the 2008 crisis, to the use of state power to enforce global level trade negotiations such as the General Agreement on Tariffs and Trade or the Trans-Pacific Partnership).
national levels (Dienst, 2011; Graeber, 2011). In particular, the ability of fiscal debt to operate as a transnational disciplinary mechanism has been a significant result of the 2008 financial crisis, as structural adjustment measures have been implemented across Portugal, Ireland, Italy, Greece, and Spain (Roos, 2013).

Financial phenomena possess internal relatively autonomous dynamics such that they cannot be read as being purely political in character. Particular causal mechanisms will operate within certain specific financial markets, governing the ways in which the self-organisation of those markets operates – from particular modes of communication and information (ICT networks, Bloomberg terminals) to the corporate structure of key market players, from specific financial product structuring techniques, to market technologies such as high frequency and autonomous algorithmic trading systems (Durbin, 2010; LiPuma & Lee, 2004; Roubini, 2011). Take for example the emergence of the 2008 financial crisis. While its ultimate causes are much disputed, (Harvey, 2011; Kindleberger & Aliber, 2011; Konings & Sommers, 2010; Lapavitsas, 2013, Chapter 9) the near term mechanism which pushed the global financial system towards crisis was a feedback circuit established between mortgage providers in the United States creating subprime mortgage loans, selling on these loans to banks which were able to use innovations in structured finance to create mortgage-backed securities and collateralised debt obligations, which were themselves sold on (with unrealistic risk profiles) to insurers and pension funds (McLean & Nocera, 2011). The existence of financial crises of the kind which eventually ensued is indicative of the fact that finance has a considerable degree of autonomy from the political, at least to the extent of generating massively significant unintended consequences.

Yet in spite of the fact that much of the behaviour of finance can be explained due to endogenous dynamics, financial entities also depend, at least in some senses, upon the power of states. Indeed, this was amply demonstrated by the unprecedentedly vast interventions of most developed nations in the wake of the 2008 crisis, with the United States contributing nearly $1 trillion in bailout funds to financial institutions during the 2008-9 period (Kindleberger & Aliber, 2011). Moreover, as Lapavitsas argues, the spread of financialisation was only itself possible due to the deregulation of finance, the relative weakness of organised labour, as well as the relative dominance of neoliberal
ideology (2013, pp. 169–72), all of which depended at least in part on interventions by nation states. It is to the role of the state to which we turn next.

State Hegemony

Much of our discussion of Gramsci in chapter 3 centred on the role of the state, and on understanding precisely the meaning of his notion of the integral state as the functional unity of civil and political society. This was crucial in order to establish the political state as one important locus of power but by no means an exclusive one within hegemonic theory, where even power within the political state depends to some extent upon hegemonies already established within civil society. But what of the particular role of the institutional, bureaucratic and political state itself? State theory is an incredibly broad field, stretching from Max Weber’s definition of the state as the community that successfully “claims the monopoly of the legitimate use of physical force within a given territory” (1948, p. 78), to formal accounts of sovereignty and its exceptions within the nation state (Schmitt, 1985), and classical Marxian accounts of the state as guarantor of capitalist accumulation (Marx & Engels, 1848).

Two of the most sophisticated attempts to think the state through hegemonic theory have been Nicos Poulantzas’ and Bob Jessop’s state theories. As argued in the later work of Poulantzas, the representative bourgeois democratic state serves as a relatively flexible apparatus from which to administer, re-enforce, and integrate a broader societal hegemonic power (Poulantzas, 1978). The state, from this perspective, is identified not as a unitary entity in its own right, but rather a system of social relations in the Marxian sense. In other words this is “a relationship of forces, or more precisely the material condensation of such a relationship among classes and class fractions” (Poulantzas, 1978, p. 128). In this sense, there is no transcendental ‘state’ (historically invariant and a priori) even though the appearance of the present day nation state may imply as such. Instead, particular state forms (such as specific juridical, institutional, and organisational configurations) arise as the result of past political articulations and struggles, involving state, ideological, and economic phenomena. Hence for state theorists such as Jessop, even within capitalism, state apparatuses can be configured in a number of different forms – from Keynesian welfare national state to Schumpeterian competition state (Jessop, 2002). Moreover:
“[The state’s] different apparatuses, sections, and levels serve as power centres for different fractions or fractional alliances in the [ruling] power bloc and/or as centres of resistance for different elements among the popular masses.” (Jessop, 2007, p. 123).

State institutions are therefore not unitary things, but internally riven with conflicts, lines of tension or contradiction, and competing interests and strategies, even when largely under the control of a particular hegemonic set of actors. Such a viewpoint accords well with our understanding of social ontology through the resources of complexity theory. It also suggests, as does Poulantzas, that even within the state apparatus, hegemony is necessary to maintain influence over the various sub-components of the state (Jessop, 1985, pp. 66–7). Particular institutional organisations within the state apparatus will have their own peculiar organisational tendencies, as well as their own ability to organise and influence other related organisations within the state structure. These particular powers and tendencies are not universal in nature, and will depend on the particular institutional arrangements of a given state (i.e. on the relative prominence and potency of individual organisational component institutions, and on the set of relationships between them).

That said, some elements of state structures are likely to be more amenable to electoral influence, (parliaments, presidencies) whereas others less so (bureaucracies, most judiciaries). Individual state organisations will also tend towards operating on particular time-scales (some being amenable to more rapid change than others), and spatial scales (being more global or local in remit). Hegemonies achieved within some institutional sub-components of the state will therefore be more long-lasting than others, for example, within bureaucracies, militaries, and administrative functions, sometimes termed the ‘deep state’ (Scott, 2014). Within neoliberal states, key institutional functions may be contracted out or privatised entirely, effectively removing important parts of the state ensemble from even indirect democratic purview (Crouch, 2004).

State apparatuses are internally differentiated networks of sub-components, each with their own particular modes of organisation, spatio-temporal scales, and powers of

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43 Indeed, Jessop himself has developed his state theory with recourse to a number of sources relevant to social complexity, such as critical realism and Luhmannian systems theory, whilst explicitly situating his work in relation to the problematic of social complexity (Jessop, 2007, pp. 225–243).
intervention, giving rise to the state as a whole as a principle battleground for hegemonic politics. From such a standpoint, states cannot be merely neutral terrains upon which different forces in society contend, but instead operate under a ‘strategic selectivity’, a systemic bias which is more amenable to certain forms of politics than others (Jessop, 1990, p. 260). This is because particular state institutional set-ups will be accessible to certain political organisations but not others, (for example, to political parties, corporate lobbyists and perhaps unions, but far less so to social movements) and because particular state set-ups possess specific powers of intervention, which offer better resources for action to some political programmes than others. This in turn poses limitations on the potential success of more radical political programmes and strategies (Jessop, 2007, pp. 42–3). However, once hegemonic power has been obtained within key nodes within the organisational structure of a state apparatus, the ability to transform the operations of those organisations may become possible – for example, in using executive power to transform the regulations governing key administrative or judicial functions, or conversely, the ability of power within the judiciary to resist executive authority (Powers et al, 2002).

However, within capitalist states, there remain generalised limitations to how far such refinements or transformations could ordinarily proceed. While more sophisticated state theories of the kind promulgated by Poulantzas and Jessop have moved beyond the classical Marxist conception of the state as simply the “committee for managing the common affairs of the whole bourgeoisie” (Marx & Engels, 1848, p. 36), they acknowledge the fact that states can only exist within broader socio-economic dynamics. The nature of this determination is not absolute, and state institutions cannot be conceived as merely puppets of underlying economic tendencies and necessities. Instead, economic phenomena act as a possibility space within which the state must exist – principally today, this means that states must act at least partially always to secure the functioning of capitalist accumulation. On a structural level too, state institutional ensembles have developed historically in tandem with capitalism, generating an intricate network of multi-layered mutual dependencies. For this reason, Poulantzas points towards the fact that actually existing capitalist state-institutional structures are able to impose a form of hegemonic power which exists no matter the personnel which occupy them, this being the core of the famous debate between Poulantzas and Ralph Miliband, (Miliband, 1970, 1973; Poulantzas, 1976). This recalls
our argument in chapter 3 on the power of structural hegemony, the ability of past hegemonic projects to create new, relatively long-lasting forms which persist even after the initial political and social forces fall away.

States possess relatively autonomous causal powers, especially in terms of being able to intervene and regulate the self-organising dynamics of a wide variety other systems. Within the Gramscian schema, the most apparent of these is in terms of coercive measures: laws backed by the physical threat of police forces, and if necessary, the military (Gramsci, 1971, p. 59). There are a vast array of other powers of organisation that do not rely on explicit force for their effects, however, including regulation of markets, the ability to supply financial resources towards particular projects, the ability to re-orient and re-engineer elements of state bureaucracies and transform the regulations that govern elections, and so on. In each of these, states are able to guide the self-organising properties of other systems, be they markets, social systems, or elements of the state itself. By guiding these systems along certain paths, states take a leading role in determining the overriding directionality of national and transnational hegemonies.

**Sociotechnical Hegemony**

One final local logic to examine is the role of technology and infrastructure as a battleground for hegemony. This might initially appear something of a detour, given the general absence of discussion of technology and infrastructure within the extant literature on hegemony (and of the concept of hegemony in literature on the politics of technology). Yet throughout our discussion of the state, of economic and financial phenomena, and of the affective and rationalistic dimensions of ideological hegemony, we have identified instances of techno-infrastructure influence on the operations of hegemonic politics (from particular media formats to distribution and production infrastructures). We have also continually returned to the idea that successful hegemonic projects tend to seek ways to embed themselves (and their sense of navigatory leadership) within more relatively long-lasting and stable forms, all the better to surmount the inherently more unstable and dynamic processes of politics (whether parliamentary-electoral or social movement based). It is within the built

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44 Though see Zaida and Gibbs (2009, pp. 1–3) and Terranova (2007) for some discussion of the potentially political-hegemonic role of technology, and Fagen (2002) for a consideration of hegemony as an approach to contestation within the field of technology.
infrastructures of the world, from city plans to roads, from ICT networks to food supply chains, that hegemony can be most firmly ensconced. This is because it is difficult to transform infrastructures which become treated as platforms for entire ecosystems of other phenomena, given their inherent tendency towards generative entrenchment over time (Wimsatt, 2007, pp. 136–8). In effect, it is our technical infrastructures which constitute the basic game space (or at the least, the wiring of the space) upon which politics is played today, which while appearing neutral, may have distinct causal implications in terms of the ability of different actors, agencies, and processes, to self-organise and propagate hegemonic projects.

One recent approach to such issues is the infrastructural (or infra-political) turn in geography and political theory, which analyses the hidden power dynamics exerted by built *infrastructures* on global politics (Bratton, 2014, 2015; Easterling, 2014). Keller Easterling (2014) argues that infrastructures constitute a new kind of spatiality of power in tension with that of the traditional Westphalian nation state. As Easterling sets out, infrastructure operates as a kind of “spatial software […] like an operating system, [which] makes certain things possible and other things impossible” (Easterling, 2014, p. 2). In other words, infrastructures from large-scale engineered objects like rail networks and communication cables, to mobile telephony systems, engineering and product design standards, and free production zones, all contour and modulate the behaviour of those entities operating within them (Easterling, 2014, pp. 4–5). Technical infrastructures may not always appear directly ‘political’ in character, but in the sense that they shape possibility spaces traversed by more purely political actors, their effects need to be attended to.

Some technologies might be ‘disruptive’ in character, working to take apart existing hegemonic ensembles. For example, the arrival of the printing press transformed the velocity of new ideas in early modern Europe, and hence presented a substantial challenge to the Catholic church of the time (M. Edwards, 1994). Transformations of control parameters (such as the velocity of information) will lead to advantages for some actors and forces and create disadvantages for others. As important as the technologies deployed in infrastructures are their *topologies*, or in other words how they are routed and distributed through space. The occupation of key nodes within an infrastructural routing system confers considerable power over the flows (financial,
energetic, socio-cultural) passing through it (Easterling, 2014, pp. 41–2). Rewiring infrastructure can in turn transform geopolitics. Disputes and negotiations around the precise layout of oil pipelines, for example, have fuelled much of the inter-state competition in the former Soviet republics (Harris, 2010). Road systems can last hundreds of years if not longer, embedding and generatively entrenching historically contingent geometries of power (Margary, 1973).

Crucially here we can draw a distinction between the expressed intentions for infrastructures (what they are intended or designed to do) and what they actually do (the ways in which they practically serve to transform individual and collective behaviours). Easterling uses the term disposition to describe the tendencies imposed by infrastructural technologies, or rather as an emergent property of the interactions between individual and collective actors and the infrastructures they use (Easterling, 2014, Chapter 2). There is therefore a degree of cunning or dissimulation in infrastructural power – in that, akin to ideology, its real effects are often disavowed. This leads Easterling towards the (accurate) conclusion that many forms of political activism, aiming at confronting power, are often left “shaking [their] fists at an effigy” (Easterling, 2014, p. 111). The hidden modulatory power of infrastructures resist (sometimes accidentally, and sometimes deliberately) traditional forms of counter-power. The actual effects of infrastructures are also therefore not always simply the result of pure human intentionality, however cunning in nature. Large-scale infrastructures have their own particular dynamics, often involving entire ecosystems of other technical systems, component part supply chains, and economic and social relations. Infrastructures therefore tend towards eventually possessing a ‘momentum’ of their own (Hughes, 1989, 1994).

One well developed strand of theory examines the specific organisational dynamics of ICT networks, such as the internet, through concepts such as protocol (Galloway, 2004; Galloway & Thacker, 2004; Terranova, 2004). Protocological thinking centres on the ways in which specific protocols generate emergent order and impose a decentralised control as a result. Particular protocols used to configure the internet, for example, include such standards as TCP/IP, HTTP, and FTP (Galloway & Thacker, 2004, p. 17). Protocol as Galloway puts it, is “a language that regulates flow, directs netspace, codes relationships, and connects life-forms” (2004, p. 74). In other words, protocol operates
as the code of control at the level of ICT systems, enabling technical networks to operate, and governing behaviour within the networks they construct (Galloway & Thacker, 2004, p. 10). Yet while any technical infrastructure will have its specific mechanisms governing its mode of organisation, it is important to understand that, with respect to infrastructural hegemony, it is not merely technical but sociotechnical in character. That is to say, it is always a matter of both the technical properties of the infrastructure in question and the ways social, political, and cultural forms interact with it over time (Bijker, 1994; Deleuze, 1992; Ropohl, 1999).

Take for example the internet. Initially developed as a military technology, it was quickly taken up for use by university researchers, exploded into counter-cultural and commercial use in the 1990s, before mutating into a more generalised technology of the ‘social factory’ in the 2000s (Terranova, 2004, Chapter 2). The basic affordances for action of the technology have found different sociotechnical expressions, serving to both undermine and re-enforce existing power relations at different times and places (Gibson, 1977; Terranova, 2007). Technology makes new things possible, (and might sometimes make other things impossible), but within this range of possibilities any given technology opens up, its precise social and political impact is always uncertain, and depends on the actual social and political forms which can be actualised. It was not obvious in the 1990s that internet technologies would necessarily be ultimately as commercially dominated as they have eventually become (Gawer, 2009). The emergence with web 2.0 of carefully managed social networks was not an inevitable outcome of the technical infrastructure itself, so much as the result of the careful experimental construction of platform-based business models capable of effectively hegemonising the space (Musser & O’Reilly, 2006).

An important source for technological change is the economic field. Within the circuits of capital accumulation, technological refinements confer comparative advantages to enterprises that embrace them (Harvey, 1982, pp. 108–19). By implementing technologies of automation, businesses will be able to reduce costs and increase profits by reducing their need for variable capital, i.e. human labour (Marx, 1971, pp. 690–712). In addition to capitalist technological innovation, however, there is also a dynamic imposed by labour struggles. This was Mario Tronti’s famous ‘Copernican inversion’, arguing that working class struggle provides a motor for the development of
technological and organisational change within capitalism (Tronti, 1964). By making new demands and by organising opposition to existing capitalist production practices, the organised labour is capable of exerting pressure on capitalist enterprises so as to create long-term technological innovation (Cleaver, 1992). As Hardt and Negri put it “the proletariat actually invents the social and productive forms that capital will be forced to adopt in the future” (Hardt & Negri, 2000, p. 268). Taken together, we can identify much of the forward motion of technical development under capitalism in this interplay of inter-capitalist competition and labour-capital contention.

While much of the impetus for technological change arises from the economic field, the management of large-scale investment and coordination depends to a large extent on the role of the state. As the economist Mariana Mazzucato has convincingly argued (2013), in spite of much neoliberal entrepreneurial rhetoric surrounding the inherently innovative powers of contemporary corporations, most major technological leaps in the past hundred years have been funded in whole or part by nation states, often via military apparatuses. This is because unlike corporations or venture capitalists, states have considerable advantages in terms of being able to take on risk in a long term fashion. States have access to finance at preferential rates through bond financing markets; their budgets are usually extremely large; their decisional timeframes can be longer than private organisations dedicated to quarterly financial reports and shareholder pressure (in particular those ‘deep state’ elements that are less amenable to democratic transformation, such as bureaucracies and militaries); states possess the ability to use law and outright force to create regulatory and physical space for infrastructures; states are one of the key actors capable of negotiating at the international level (Mazzucato, 2013). For all these reasons, even if largely disavowed, states are important actors in shaping the evolution of technology, especially in terms of large-scale infrastructures.

Having set out the basic explanatory structure of complex hegemony, and outlined some of the ways it takes shape in particular local logics from ideological bounded rationality, to the manipulation of affect, from the role of economic phenomena, to the state, and technology, we must now consider the type of strategic orientation that such an approach implies.
iii. The Politics of Complex Hegemony: Strategy without a Strategiser

As Jonathan Joseph argues, hegemony necessarily involves two dimensions: the structural and the projective (Joseph, 2002). Throughout this chapter, we have therefore inevitably touched upon the politics of complex hegemony, that is to say, on the ways in which political actors seek to strategise and effectuate hegemonic projects. How has our drawing out of the complex aspects of hegemony transformed its strategic horizon?

Complexity has a necessarily epistemological dimension. Understanding the social world as complex means acknowledging the ways in which it imposes limits on our ability to fully comprehend it. In terms of hegemonic projects, this implies a degree of limitation on the ability of any singular or collective political actor to strategise with absolute certainty. Indeed, theorists as politically diverse as Edgar Morin and Friedrich von Hayek have argued that the complexity of social systems mean that absolute knowledge of most emergent phenomena will be limited (Hayek, 1960, 1964; Morin, 2006, 2008). While we contend that some of the more grandiose claims towards epistemic limitation are overinflated (especially given the role of complexity science in actually unpicking some of the mechanisms which underlay complex phenomena) this does present a challenge to thinking through the strategic components of hegemonic projects. If we can never fully know the results of our actions, how is that hegemonic strategy is possible at all? How is it that massively complex social, economic, political, and technological systems can apparently be controlled, guided, and contended over? This question can be answered in two ways: in terms of how strategy works, and in terms of who is doing the strategising.

Strategy as Mêtis

One answer to the epistemological problematic of complexity comes in terms of thinking about the nature of what strategy really means. Freedman’s magisterial study of strategy defines it in broad terms as being the task of:

“maintaining a balance between ends, ways, and means; […] identifying objectives; and […] the resources and methods available for meeting such objectives” (Freedman, 2013, p. xi).
Though strategy is often taken to imply the drawing up of strict plans in terms of a desirable final result, recent thinking has shifted away from such a stance (Freedman, 2013, p. xii). Instead, we must imagine actually existing (and successful) strategy as requiring an evolution between a series of states, with room allowed for modification and improvement of the original strategy as it proceeds towards actualisation. The politics of complex hegemony, therefore, is ‘experimental’ in character, in the sense of having to proceed always at least partly without fully knowing the results of its actions. Yet it must clearly be distinguished from being simply arbitrary or entirely random in character. This is why hegemonic strategy is sometimes spoken of in terms of as operating partly through “spontaneous attraction” (Gramsci, 1971, pp. 60–1), or being a matter of “quasi-intentionality” (Gilbert, 2013a, pp. 22–3), or as being always partly independent of human intentionality (Joseph, 2002). What is being groped towards here is the nature of hegemony as a partially intentional (driven by human strategy and practice), yet also a partially autonomous process (possessing its own dynamics).

Such an understanding is already implicit in the basic characteristics of Gramscian hegemony. Hegemony and the strategy of hegemonic projects only evolve in complex societies which are too large in scale and differentiated in composition to rule through pure domination, authority, or cultural-religious tradition alone. Hence it is necessary to deploy an ensemble of tactics to ‘lead’, where leadership is a matter of guiding self-organising processes already at work within social systems. As hegemonic projects operate on key nexuses of power within the social, they seek to manipulate important parameters governing the ways in which social systems organise themselves. The epistemic limits of such practices are clear – the emergence of new forms of (self-)order cannot be entirely predicted. Moreover, at the macro-scale of navigation, it is likely to be impossible to fully predict the layout of attractors within a social possibility space, at least in a formalised mathematical format (c.f. Koppl et al, 2014).

How can this mixture of strategy and autonomous process within hegemonic projects be conceptualised? One way is to consider it as a mode of cunning intelligence, or what the ancient Greeks termed métis (Detienne & Vernant, 1978). Mètis, in distinction to poesis or techne, is a “skill with materials guided by a kind of cunning intelligence” (Singleton, 2012, p. 106). This is a mode of artifice through devious and well-timed action, which brings into play the dynamic tendencies of the materials it works on in an
improvisatory anti-hylomorphic fashion. Métis, as Detienne & Vernant describe it, tends to be of application in situations which are “transient, shifting, disconcerting and ambiguous […] which do not lend themselves to precise measurement, exact calculation or rigorous logic.” (Detienne & Vernant, 1978, pp. 3–4). In other words, métis tends to be applied in situations of real complexity, where it might be impossible to fully map a system before intervening in it. As such, the actual process of action is to a large extent an improvisation based upon the specific contingencies hidden within the grain of the particular systems being worked upon. Métic practice entails a complicity with the material, a cunning guidance of the contingent (and unknowable in advance) latencies discoverable only in the course of action, a process of discovery more than one of merely implementing a pre-conceived plan of action.

Hegemonic strategy, considered from this perspective, is a matter of experiment and craft, working to exploit dynamics in the systems it works with while correcting itself and adapting over time as the results of a given strategy play out. If we think of the actual strategy of the early neoliberals, we find that rather than setting out a complete plan, they engaged in experiments, sometimes figurative ideological ones, (within the network of think tanks they devised and established) but also literally in the case of Pinochet’s Chile, (Fisher, 2009) and the financial crisis-stricken New York in 1975 (Harvey, 2005, pp. 39–63). At the macro-level too, we find a broad set of navigational concepts (such as the need to restore capitalist profitability, the belief in markets as more efficient resource allocators, and liberal ideas of human freedom in terms of negative ‘freedoms from’) which can be flexibly implemented with different strategies being deployed in different national or regional scenarios.

**Distributed and Emergent Strategy**

In this process of self-correcting and flexible métic strategy, we can also locate a second answer to the epistemological problematic: that complex hegemony implies a mode of strategy which is not necessarily tied to a singular strategiser. The image of a political strategiser as either a singular individual or unitary collective organisation capable of processing information and devising plans for tactical action on that basis is challenged by the idea of complex hegemonic leadership. In other words, hegemonic projects might be effectuated across a distributed ecology of political organisations. Here we would not find a singular centralised strategiser, but rather a dispersed (yet relatively localised)
web of broadly aligned organisations, coordinating action through nodes rather than absolutised command hierarchies (Nunes, 2014, p. 30). This is one way in which we can understand the notion of hegemonic projects as ‘strategy without a strategiser’, in the sense of the absence of a unitary singular body to undertake such strategisation.

Strategy can accumulate across an ecology of organisations, rather than being vested in any singular actor. Here coordination would emerge partly from explicitly articulated propositions and plans, but also from non-intentional processes, those which Gramsci referred to as being a matter of “spontaneous attraction” (1971, pp. 60–1). Again, we can consider the work of the neoliberals during the 1970s as emblematic of what this more distributed strategy might look like in practice. The development of the Mont Pèlerin Society as the hub of a distributed network of think tanks, (such as the Adam Smith Institute, the Centre for Policy Studies, and the Institute of Economic Affairs in the UK), policy institutes, and associated journalists, corporate leaders, and other fellow travellers demonstrates the merits of such a distributed and flexible approach (Peck, 2012). Part of the role of ideology in such a distributed strategy is not just to provide ideological contents, such as specific conceptual articulations or policy propositions to induce social change, but also to serve as a kind of affective ‘probe’ working to recruit new acolytes and allies, capable of coordinating action even in the absence of direct communication.

There is also another sense in which we can understand complex hegemony as operating a ‘strategy without a strategiser’, and this in the sense of the emergence of strategy itself. Just as with organisation, strategy too can emerge as partly the result of run-away auto-catalytic processes, developing their own momentum beyond an initial impetus. From this perspective, strategy continually emerges out of the interaction between the agents of a hegemonic project and the social, political, economic, and technological systems within which they set to work. To return to our example of the neoliberals, key elements of their strategy, such as the need to confront and defeat organised labour, were not in place during the early phases of the movement in the 1940s and 50s, when a spectrum of views on the matter existed between Hayek and more corporatist German theorists who argued that productive collaboration with unions was a potentially useful option (Steiner, 2009). The determinedly anti-union stance only evolved in the course of processes of hegemonisation, in particular in relation to the need to secure material

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resources, such as funding streams, from key corporate leaders, whose absolute antithetical stance on union power meant a swing towards Hayek’s views on the issue (Steiner, 2009, pp. 190–2). As Jamie Peck puts it:

“The neoliberal ascendancy […] was not guided by some secret formula or determinant blueprint; its zigzagging course was improvised, and more often than not enabled by crisis.” (Peck, 2012, p. 4).

The particular contents of a given hegemonic strategy (objectives, means, plans of action) will of necessity evolve in time as it progresses, in the process of discovering ‘what works’.

**Hegemonic Strategy ‘from Below’**

One final element of reconsidering hegemonic strategy from a complexity perspective is thinking about the different strategies necessary for capitalist-aligned groups and working class or other subaltern social groups. This is necessary given the Gramscian inheritance, where hegemony was both an analytic tool to trace the mechanisms of constituted power and a strategic guide for those who would wish to contend it.

Our references to the strategic pathway taken by the neoliberal thought collective gives us some indication of the likely strategy of social groups to move from relatively marginal positions to ones of hegemonic dominance. Yet it must be emphasised that their task had the advantage of being aligned with some of the key interests of capitalists, effectively operating as an example of passive revolution, a revolution within, rather than against, capital (Gramsci, 1971, pp. 106–114). The strategic selectivity (Jessop, 1990, p. 260) of the systems of state institutions, media, education, business, and technology (the fact they have been re-engineered along neoliberal lines) will certainly mean a much harder road than that travelled by the early neoliberalists. Faced with an existing historic hegemonic bloc, how might counter-hegemonic strategy be applied to re-engineer the mechanisms of power to destabilise, and ultimately replace neoliberal power? A precise formula or ‘revolutionary recipe’ for this cannot, of course, be given in advance, but we can point to some general contours of complex hegemonic strategy ‘from below’, in terms of means, scale, and organisational form.
Hegemonic strategy, as a form of cunning intelligence, is ultimately a tool of the weak against the strong (Singleton, 2012, p. 140). Indeed, as Detienne and Vernant put it “the only way to triumph over an adversary endowed with mêtis is turn its own weapons against it” (1978, p. 43). In other words, counter-hegemonic projects will need to use the very mechanisms of hegemonic power against existing hegemonic forces. This means working with the existing materials (social, political, cultural, economic, technological) which are to hand, and their particular tendencies, trajectories, and interrelations. This will involve an assortment of horizons of action, from the transformation of the means of ideological hegemony, (and its institutional apparatuses), to the marshalling of state power, and the re-engineering of economic and technological infrastructures. At all junctures, this will involve the basic mechanisms of complex hegemony, as an emergent order arising from the re-engineering of local logics of organisation, to generate system level phase transitions towards new points of relative stability. Counter hegemony cannot be constructed all at once, but rather hegemony within particular specific loci of power can be used as platforms from which further stages of hegemonisation can be prosecuted. No singular location can be considered absolutely sovereign or as a necessarily transcendental position of power, which means that while taking state power in some form is an essential component of hegemonisation ‘from below’, it is not an end point in itself. At each stage, hegemonies can be consolidated within more long-lasting, more infrastructural forms, to exploit mechanisms of generative entrenchment to achieve more greater permanence over time. The ultimate objective, as for any hegemonic project, is to achieve structural coupling across social, cultural, political, economic, and technological spheres, the complex hegemonic variant of Gramsci’s historic bloc (Gramsci, 1971, p. 137).

Much of the specifics of this will depend upon the scale of the task in question, in terms of how radical a hegemonic project is being prosecuted. Hegemonic transformations beyond the order of the capitalist value form, i.e. ones which seek to supplant the reproduction and accumulation of capital with some alternative socio-economic organisational principle, will be vastly more complicated tasks to execute than those which are satisfied to continue some accommodation with capitalism. The generatively entrenched infrastructures of capital, as we have explored in this chapter, contour and shape the ground upon which politics is conducted in ways which are even more invisible and pervasive than ideology. Above all, this poses questions of spatial extent,
given the globalisation of capital, the interdependence of states and the global networks of neoliberal ideological production, that any counter-hegemonic project would be marshalled against (Carroll & Ratner, 2010). Constructing a counter-hegemonic project against global or transnational forces would necessarily ultimately entail a global scalar horizon.

This raises the question of appropriate organisational and institutional form. The mode of organisation taken up by working class or other subaltern social groups contending hegemony will need to take a very different form to those of the neoliberals, typically being the advocacy think tank (Mirowski & Plehwe, 2009). This, in a sense, returns us to the question raised by Gramsci of the nature of the ‘modern prince’, or the proper mode of organisation for hegemony from below. Gramsci (speculatively) specified this new form of party as “an organism, a complex element of society” (Gramsci, 1971, p. 129). This corresponds more closely with our sketch of a relatively distributed organisational form, working to develop an emergent strategy through an ensemble of practices (Nunes, 2014), than it does to the classical Leninist vanguard party. It has been social movements, particularly in their alter-globalisation phase and onwards, which have recently been conceived along such lines (Chesters & Welsh, 2006; Keck & Sikkink, 1998; Nunes, 2005). We might envisage an ecology of global social movements and new institutional forms, such as the social movement-party hybrids developed of late in Venezuela, Spain, and Greece (Ciccariello-Maher, 2013; Iglesias, 2015) as coming to take on such a form. Yet much of the detailed shape of such a global counter-hegemonic movement must remain, at this juncture, a matter of conjecture.

This chapter has brought the two sides of complexity and hegemony together. It has outlined a series of general principles governing the operations of complex hegemony, in terms of hegemony as emergence, as guided self-organisation, as navigation within possibility spaces, and as generative entrenchment. It has explored some key local logics of organisation, from bounded cognition to modulation of structures of feeling, from economic and state hegemony to the role of technology and infrastructure. It has discussed the ways in which complexity transforms how we ought to understand hegemonic projects as a form of strategy which is partially intentional and partially

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45 We have attempted to outline some of the potential forms a renewed counter-hegemonic might take in more detail elsewhere, see Srnicek and Williams (2015).
autonomous, and how we might re-conceive hegemony from below on such a basis. Throughout we have deployed empirical examples of particular *moments* of hegemony in action to help explain the complex reformulation of the concept. Yet as we have argued, the true power of complex hegemony comes only as an emergent property, arising from the interaction of multiple spheres, agents, and structures, in process. In the next chapter we therefore put to work our new conceptual repertoire to help explain the unfolding of a peculiar contemporary phenomenon: the mysterious persistence of neoliberalism.
5. The Persistence of Neoliberalism

What does the survival of neoliberal hegemony in the wake of the 2008 financial crisis tell us about the nature of contemporary power? That neoliberalism has in fact endured and, seemingly, even consolidated and expanded its influence in the period since 2008 has been widely noted. In *The Strange Non-Death of Neoliberalism*, for example, Colin Crouch writes that the answer to the question, ‘what remains of neoliberalism after the crisis?’, is “virtually everything” (2011, p. 179). Similarly, Philip Mirowski has accurately assessed that “nothing substantial has been altered in the infrastructure of the global financial system from its state before the crisis” (2013, p. 8) and that this result of the crisis has “completely wrong-footed people who used to be called ‘socialists’ or ‘progressives’, confounding every expectation that they had.” (2013, p. 15). Damien Cahill concurs, arguing that neoliberalism “appears to be alive and well as states respond to the ongoing crisis with privatisation, austerity programmes and attacks upon the rights of labour.” (2014, p. viii). William Davies concludes that we have seen the emergence of a new ‘contingent neoliberalism’ with more authoritarian features, jettisoning much of its prior justificatory structure (Davies, 2014, pp. 131–3).

In this chapter we put to work our understanding of hegemony to analyse this apparently mysterious contemporary phenomenon, within the context of the UK. Two strands run through this investigation. The first seeks to deploy the conceptual repertoire of complex hegemony to explain the observable fact of continuity of neoliberal rule. The second related strand uses this approach to help balance out the flaws contained in most of the major answers given to date to this question. As this chapter will explain, understanding power through the lens of complex hegemony ought to leave us unsurprised about the survival of neoliberalism.

The first part of this chapter establishes the key coordinates of the debate on what neoliberalism *is*, and why on such a basis it might have been able to weather the recent financial, economic, and fiscal storms in the post-crisis environment. Here we will
examine two leading recent stances on the issue. The first is the Mirowski-Plehwe school, which emphasises neoliberalism as the result of the influence of networks of think tanks associated with the Mont Pèlerin Society and hence attempts to explain the persistence of neoliberalism in terms of the success of that network in reframing the crisis (Mirowski, 2009, 2013; Mirowski & Plehwe, 2009; Plehwe & Walpen, 2006; Plehwe, Walpen, & Neunhoffer, 2006). The second is the ‘embedded neoliberalism’ approach, which has focused on the ways in which neoliberalism is entrenched within social practices and institutions and consequently aims to explain the robustness of neoliberalism post-crisis in terms of its entrenchment (Cahill, 2014; Cerny, 2008; Crouch, 2011; Lazzarato, 2009). This will draw out the key strengths of these positions, the first position emphasising agency, the latter structure, while pointing towards what they miss. Section two will use complex hegemony theory to help bring these positions together and generate a more nuanced reason for the persistence of neoliberalism. In so doing, it identifies a complex and ramified understanding of hegemony as being vital to discerning the dynamics which have kept neoliberalism in place since 2008. Neoliberalism’s durability is related to the way in which hegemonic power itself operates, the manner in which it works to reorganise multiple domains of human endeavour, which serve to mutually re-enforce its presence and replicability over time, including its ability to render inconsequential those forces which would seek to oppose it.

i. Neoliberalism in Question

An initial attempt at defining neoliberalism is necessary before we begin to assess the arguments related to why it has remained in place after the 2008 crisis. This necessitates two preliminary distinctions, important for setting out what neoliberal hegemony might be and hence why it has proven so durable. First, we need to distinguish between neoliberalism and classical liberalism. Second, we need to differentiate neoliberalism in

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46 Though the persistence of neoliberalism appears one of the most significant political facts of our age, and deserving of explanation, few thus far have attempted the task in detail. Mirowski’s *Never Let a Serious Crisis Go to Waste*, Cahill’s *The End of Laissez Faire?* And Crouch’s *The Strange Non-Death of Neoliberalism* are amongst the few book length treatments of the topic to date (Cahill, 2014; Crouch, 2011; Mirowski, 2013).

47 What this chapter will not do is attempt to reconstruct the full early history of neoliberalism. This topic has become a heavily researched one in recent years, with a number of approaches developing, some focusing on the development of neoliberal ideology, (e.g. Dardot & Laval, 2014; Davies, 2014; Peck, 2012) others on the particular networks which helped incubate it (Mirowski, 2009; Mirowski & Plehwe, 2009; Plehwe & Walpen, 2006; Plehwe, Walpen, & Neunhoffer, 2006).
theory and practice, or between ideological neoliberalism and actually existing neoliberalism (Cahill, 2014, pp. vii–xii).

The Slippery Object of Neoliberalism

As established by Foucault, (2008) the key distinction between classical liberalism, (what often gets called ‘laissez faire’ capitalism), and neoliberalism rests on the role of the state and markets, and on the ontological status of the latter. Developed by thinkers such as Adam Smith, classical liberalism viewed markets as a natural and largely beneficent phenomenon, which could be best inculcated by removing state intervention as much as possible (A. Smith, 1937). Neoliberalism, by contrast, realises that markets are not as natural a phenomenon as the classical liberals believed. The intervening history of the rise of collectivist politics (from militant labour to communism and even fascism) meant that a commitment to ‘free markets’ would mean a constant vigilance against those forces which would seek to control them. Foucault articulates this as follows:

“There will not be the market game, which must be left free, and then the domain in which the state begins to intervene, since the market, or rather pure competition, which is the essence of the market, can only appear if it is produced, and if it is produced by an active governmentality […] government must accompany the market economy from start to finish.”(Foucault, 2008, p. 121).

In other words, the liberals’ vision of the good society will not emerge naturally and must be constructed (Gilbert, 2013b, pp. 9–11; Mirowski, 2009, pp. 434–5). This is so independently of whatever explicit ideological products have emerged from leading neoliberal institutions, which often tend towards promoting markets through a range of naturalistic metaphors (Mirowski, 2009, pp. 435–6). What is maintained from classical liberalism is a focus upon a particular kind of freedom, conceived in essentially negative terms as a freedom-from, (Berlin, 1958) and inhering only in the individual human being or corporation (Cahill, 2014, p. 3).48 The ‘secret’ of neoliberalism is that, whatever some of its proponents and even critics might claim, it is the belief in and

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48 Mirowski notes another key distinction between neoliberalism and classical liberalism as being the former’s sloughing off of the latter’s distrust of monopoly corporate power (2013, p. 51).
practice of the necessity of the construction of markets. Hence at a fundamental level, neoliberalism requires not so much the ‘rolling back’ of the state, but rather its repurposing, aiming to “redefine the shape and functions of the state, not to destroy it” (Mirowski, 2009, p. 436).

There is also a distinction which must be drawn between neoliberalism in theory and practice, which is not unrelated to this ‘secret’. Neoliberalism as a theory takes many distinct forms, with the ideologies associated with key Mont Pèlerin Society intellectuals broadly conceivable as being Chicago School, (neoclassical economics, Milton Friedman) Austrian, (Hayek, von Mises) or Ordoliberal (with a stronger constructivist role for the state) in orientation. Given that even within the most centralised of neoliberal ideological institutions there is this degree of heterogeneity, this has led some to argue that the concept of neoliberalism is basically incoherent (Barnett, 2010). We might posit, however, that the substantial institutional links between theorists at the very least gives these distinct positions a degree of sociological commonality (Mirowski & Plehwe, 2009).

Moreover, the lack of total doctrinal consistency of content does not preclude the existence of a somewhat coherent object worthy of distinct study and evaluation (Gilbert, 2013b, p. 8). Indeed, as Plehwe, Walpen and Neunhoffer argue, there is not so much a singular neoliberal ideology, so much as a neoliberal ideological constellation, with different competing component parts such as the Austrian school, the Chicago school, German Ordoliberalism, and American libertarianism (Plehwe et al., 2006, p. 2). Neoliberalism, as Dieter Plehwe puts it is “anything but a succinct, clearly defined political philosophy” (Plehwe, 2009), and is a highly contested discourse, even amongst its proponents. Suffice to say, however, worldviews need not be consistent to be effective. Indeed, our concern here is not to develop a perfect singular or even multiple definition of neoliberal ideology, given that our particular task is thinking through the persistence of neoliberal hegemony. In other words, the ability of a broadly ‘neoliberal’ direction of travel to be implemented across a variety of different social systems and spheres so as to enable the emergence of a broadly neoliberal direction of travel as a whole.
In neoliberal practice, however, we find more consistency. Actually existing neoliberalism, though flexible and capable of being implemented in different contexts and with different precise policy mixes, has a common suite of practices. These consist of the privatisation, marketisation, and contracting out of state services, the deregulation and promotion of the financial sector, the destruction of labour union power and deregulation of labour markets, along with the inculcation of social norms of individualism, competition, and entrepreneurship. (Cahill, 2014, Chapter 2; Cerny, 2008; Gilbert, 2013b, pp. 11–12; Mirowski, 2009). The exact mix and degree of these reforms will vary within different national contexts, but can be widely observed, and (in point of contrast to the western embedded liberalism of the 1945-1979 period) be considered to mark out neoliberal policy in practice. Many of these practical policies are in tension or otherwise contradictory with some of the stated objectives of neoliberal ideology, in particular in its more laissez faire populist variants (Cahill, 2014, pp. 17–27). Neoliberalism in practice may therefore not be quite the same as neoliberalism in theory. This poses the (familiar) question of what, exactly, the relationship is between ideology and reality. We argue below that it is a suitably complex account of hegemony that can properly make sense of this.

These distinctions are important, given that the reason so many commentators were caught unawares by the survival of neoliberalism after 2008 was partly because they presumed that some of the popular variants of neoliberal ideology, such as notions of ‘rolling back the state’ were in fact implemented, and that the failure of banking institutions and financial markets was indicative of the crisis of the ideology as a whole.49 Yet this was to misread neoliberalism on multiple levels, to mistake it effectively for laissez faire classical liberalism, and to mistake it for a system which was purely (or at least predominantly) ideological in nature, rather than being embedded in a variety of practices which would prove more resilient over time.

The basic Marxist account of why neoliberalism came to predominate, of the kind offered by David Harvey, (2005) is that it is a particular strategy adopted by the capitalist class since the late 1970s to perpetuate and pursue their objective class interests, to take more of the surplus profits of capitalist enterprise, to restore

49 See Hobsbawm (2009) for an indicative example. Mirowski also lists a large number of different commentators who similarly fell into this trap, (2013, pp. 30–32).
profitability in the wake of the economic crises of the 1970s, and to crush organised opposition. At the ‘big picture’ level, this is a view that we endorse, yet it leaves a lot of (hegemonic) questions open. For example, why choose neoliberalism over other potential pro-capitalist viewpoints? Moreover, it does not tell us much about why neoliberalism has persisted after the crisis, beyond that it continues to serve the interests of the dominant global capitalist class. This begs further questions as to how it has been preserved: how specific policies and tactics have served to retain or shape a balance of forces that is basically neoliberal in orientation, and how it has managed to weaken opposition to such a project. Two recent types of account which have attempted understand the persistence of neoliberalism in the post-crisis environment are the ideological-network school of Mirowski and Plehwe, which focuses on the material intellectual infrastructure of neoliberalism, and the embedded approach of Cahill and Crouch that seek to critique such positions and examine its embedding in a broader range of social forms. Both of these schools of thought can be identified as essentially agreeing, in broad terms, with the class-based nature of the neoliberal project as a whole, and on the set of interests it helps crystallise and keep in place. Yet they disagree crucially on the ‘how question’, the matter of the means by which neoliberalism has managed to weather the crisis as successfully as it has.

The Neoliberal Thought Collective

The approach to explaining neoliberalism taken by Mirowski and Plehwe has been to elucidate the organisational matrix of neoliberal ideology – to unmask the particular structures of think tanks and advocacy organisations linked to the Mont Pèlerin Society (henceforth MPS) and their role in spreading, re-enforcing, and defending neoliberal ideas and policies. Given the slipperiness of defining neoliberalism as an ideology or as a practice, Mirowski and Plehwe and their fellow academics have taken the stance that neoliberalism needs to be studied through those who self-consciously sought to create and spread it. Mirowski argues that so long as there are “multiple markers of participation and discernment of designated doctrines for the Neoliberal Thought Collective […] then a working characterization of neoliberalism is perfectly possible” (Mirowski, 2013, p. 52). This begins with the MPS itself, and expands outwards through institutional and personal linkages to an ecosystem of think tanks, advocacy groups, foundations, captive academic departments, and other organisations, mapped through network analysis (Plehwe, 2009; Plehwe & Walpen, 2006, pp. 34–9).
The structure of this web of organisations is described as being akin to that of a ‘Russian doll’, with the MPS at the centre, functioning as a closed debating society (Mirowski, 2013, pp. 48–9). Operating around this are special-purpose foundations, such as the Volker Fund, the Bradley Foundation, and the John M. Olin Foundation, which worked to spread neoliberal ideas behind a charitable façade, think tanks, and even institutional systems such as the Atlas Economic Research Foundation which were designed to ‘seed’ new think tanks throughout the world (Mirowski, 2013, p. 44). Decades of careful struggles were necessary to produce this intricate intellectual infrastructure, funding sources, and to position key institutions and individuals into places of influence. Such a structure enabled a transnational approach to political and economic activity, translating between leading intellectual positions and more regional national political contexts.

This intellectual ecology of organisations served as the basis for the neoliberal hegemonic project, operating in a classically Gramscian fashion of exerting intellectual and moral leadership, initially concentrating influence on elites in government, civil society, and business. As Hayek himself put it: “[existing] public opinion on these matters is the work of men like ourselves […] who have created the political climate in which the politicians of our time must move” (quoted in Mirowski, 2013, p. 49). Though in many respects neoliberalism was a project of class restoration (i.e., restoring the balance of power between labour and capital back to being vastly in favour of the latter) doing so did not simply require proselytising for the corporate cause, but upon a fundamental re-education of capitalist (business and political) leadership over time (Mirowski, 2013, p. 48). The hegemony of neoliberalism, from this perspective, is attributed to “well-developed and deeply entrenched networks of neoliberal knowledge production and diffusion, intellectuals and think tanks” (Plehwe & Walpen, 2006, p. 28), and their superiority over competitors. In a classical hegemonic formulation, neoliberal networks seek mainly to manipulate the terms of the debate to protect neoliberal trajectories in general, rather than to defend as sacrosanct any specific individual policy:

“neoliberal hegemony does not find expression in the achievement of a defined end state of ‘neoliberalism’ [but] is better understood as the capacity to
permanently influence political and economic developments along neoliberal lines, both by setting the agenda for what constitutes appropriate and good government, and criticizing any deviations from the neoliberal course as wrong-headed, misguided, or dangerous.” (Plehwe & Walpen, 2006, p. 46).

A crucial aspect of this is what Mirowski terms the ‘double truth’, or “one truth for the masses/participants and another for those at the top.” (Mirowski, 2009, p. 426). This has meant splitting ideological precept from pragmatic ideological production, (or exoteric versus esoteric doctrine) separating out what is believed (and strategically aimed for) from what ‘works’ at the level of populist ideology to help produce that reality. This explains the manner in which key MPS associated institutions, foundations, and think tanks have spread word of ‘rolling back the state’ and ‘freedom’ while neoliberalism has inculcated a suppression of democracy in practice (Mirowski, 2009, p. 444), amongst numerous other ironies and apparent contradictions.

Why, on this account, has neoliberalism proven so resilient? As Mirowski argues, this rests upon three major foundations: within everyday neoliberalism, in the neoliberal capture of the economics profession, and in the ability of the MPS network to respond effectively to the crisis itself. One key success of the neoliberal project has been in installing certain mediated kinds of neoliberal outlooks, conceptions, and practices, within everyday life. Most crucially this comes in the social construction of a flexible entrepreneurial individual (Hochschild, 2012), willing to take on risk both at the level of career choice (Urciuoli, 2008) and investment strategy, and deploying the means of self-help and therapy where needed (Silva, 2013). This accompanies a promotion of sadistic and cruel attitudes to the poor, sometimes through advocacy of specific policies via the MPS network, but at other times through more diffuse hegemonic effects of neoliberal culture (Couldry, 2008; McCarthy, 2007; Mirowski, 2013, p. 133). In this fashion, the response to the crisis on an individual level becomes filtered through a set of hegemonic norms that vitiate against systemic analysis and collective action. This limits the ability of opponents such as social movements, reformist left politicians, and labour unions, from being able to recruit support and articulate an alternative hegemonic position. Combined with this, pre-existing hegemony within the economics profession disabled intellectual and academic critique and the search for more structural analyses of the faults at the heart of the financial crisis. Even purportedly ‘innovative’ meetings such as
those hosted by the Institute for New Economic Thinking were quickly subverted and returned to the co-ordinates established by neoliberalism’s economic wing. Much of this was made possible by the multitude of direct links between leading economists and the financial sector (Mirowski, 2013, pp. 204–214).

Alongside the effects of ongoing neoliberal hegemony in everyday life and academia, the MPS network itself was able to proactively respond to the challenges of the crisis. Springing up from the organisational form of the network, multiple affiliates of the MPS were able to act at once, creating the impression of policy suggestions emerging from multiple directions simultaneously, attending to short, medium, and long-term policy horizons, with disparate, yet ultimately linked suggestions for reforms (Mirowski, 2013, p. 324). Within the short term, this meant denying the ability of anyone to fully understand the crisis, while concurrently seeking to deflect attention from real culprits. In the medium term, MPS associated institutions suggested market-based reforms as the best solutions to the crisis. This meant market-based rescues of the major banks, in programmes which were often designed and led by key finance, insurance, or real estate businesses, and by politicians who had previously worked in major investment banks themselves (Mirowski, 2013, p. 335). Where governments had to take a longer term stake in the shareholding of a failed bank, this meant advocating heavily for the state to commit to selling this stake off in the future (as in the UK). This medium term strategy had two advantages. First it saved the financial sector and left it largely unreformed. Second, it led to the ability to reframe the debate around government debt, opening the way for austerity (Mirowski, 2013, p. 338). The longer term outlook has been provided by a range of advocacy for a new wave of ‘smarter’ financial innovation, framed through the idea that financial complexity is inevitable and only new classes of complex products will be capable of managing such systemic risk (Mirowski, 2013, p. 344).

The advantage of the Mirowski-Plehwe position on neoliberalism is that it concretises what otherwise might appear to be a rather diffuse phenomenon, gives it a central set of actors, and describes the strategies by which neoliberal agents have worked to support its hegemony in the post-crisis environment. Mirowski states that neoliberalism should “not be reduced to the MPS” (2013, p. 49), and his account makes room to include the embedding effects of neoliberal politics in the past (in the areas of culture and
academia, as well as politics), yet the emphasis on neoliberal intellectuals has not been without critics.

**Embedded Neoliberalism**

The other leading alternative account of the persistence of neoliberalism seek to explain it in terms of its embedded form, where “ideas are not the primary force responsible for the rise of the neoliberal policy regime [but rather] they are part of a complex of forces” (Cahill, 2014, p. 126). Neoliberalism’s embedding process, on this account, has occurred in three major areas: in class relations and the economy, in ideology, and in institutions.

As an economic strategy, neoliberalisation has meant a historic restoration of the pre-1945 balance of power between labour and capital (Duménil & Lévy, 2011; Picketty, 2014). This has been grounded in a global reorganisation of production and distribution networks and supply chains, a deregulation and re-regulation of the global labour market, and a broad deregulation of finance and the extension of principles of financialisation to the non-financial sector. Financialisation has enabled wages to be suppressed, giving capital owners and managers a greater slice of the overall surplus, while maintaining consumer demand through a wider availability of credit (Duménil & Lévy, 2011, pp. 151–2). This helps partially explain why investment banks were as willing as they were to take on excessive risk in the period before the 2008 crisis: because they understood that the neoliberalisation of the global economy meant that a kind of ‘privatised Keynesianism’ had been created, which governments would be unwilling to let fail (Crouch, 2011, pp. 113–4). The reshaped pattern of class relations that results from these transformations, with organised labour globally at a point of historic weakness, has served to embed neoliberalism and prevent it being challenged even in the wake of crisis (Cahill, 2014, p. 103). Capitalism as a system has also therefore become dependent on the neoliberal policy regime to maintain its profitability, as the two have gown and developed together, an example of structural coupling. In addition, financialisation has imparted:

“a fundamental rightward shift to the whole political spectrum, as the collective and individual interests of everyone are tied to the financial markets, which in
their own operations act highly unequally, producing extreme concentrations of wealth.” (Crouch, 2011, p. 116).

On the level of capitalism’s systemic logic, then, the persistence of neoliberalism rests partially on the requirements of the system to retain profitability and the resistance to change that might threaten those profits. Individual capitalist firms become synced to neoliberal profit making strategies, further locking in the regime as a whole.

On an institutional level too, we find neoliberalism has worked to embed itself, and hence has the strength to resist attempts to supplant it following the 2008 crisis. International treaties and governance bodies, such as the WTO, World Bank, IMF, and European Union, have all enshrined neoliberal biases and trajectories within their basic regulatory matrixes (Cahill, 2014, p. 107; Cerny, 2008, p. 10). This kind of constitutionalised neoliberalism disciplines governments from shifting out of neoliberal pathway (Kelsey, 2008). Particular forms of discipline might here involve the punitive terms of breaking trade deals or EU regulations, or more structurally imposed ones, such as the formal separation of central banks from government control. This also further weakens the power of labour, by embedding policy choices like inflation targeting regimes (effectively enshrining the choice of monetary stability over full employment).

One key form that this institutionalisation has taken is in the rise of the corporation as model for government and public services (Crouch, 2011, pp. 79–80). This has meant opening up public services to private providers, (whether through privatisation or contracting out), often enforced by transnational organisations like the EU or the World Bank. It has involved governments investing in public infrastructure via public-private partnership schemes, such as the Private Finance Initiative in the UK, creating inflexible, effectively privatised monopolies (Crouch, 2011, p. 87). It has also led to the re-engineering of public bodies which are not privatised into becoming more like firms, or at least, a certain image of the firm, through new public management’s suite of internal markets, competition amongst units, performance targets, and principle versus agent structures (Crouch, 2011, p. 91). All of this operates to bind future governments

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50 This is also one of Marazzi’s arguments for the power of financialised capitalism, see Marazzi (2008).

51 Cahill resists those interpretations of neoliberalism, such as Robert Brenner & David Harvey, who have argued that neoliberalism as economic strategy has led to stagnation (Cahill, 2014, pp. 85–90).
and policy makers within a broadly neoliberal framework, de-politicising large regions of economic and social policy (Gill, 2001). Moreover, it has led to collaboration and learning relationships between public service providers’ staff and firms, management consultants, and other corporate actors, creating a ‘revolving door’ between the corporate and public sector world (Crouch, 2011, pp. 91–2), in turn solidifying a neoliberal-managerial class.

A third area picked out by those seeking to identify neoliberalism’s persistence in its embedded nature is that of ideology. For Cahill, ideologically embedded neoliberalism is mostly located amongst the elite, especially governmental policy makers and corporate leaders (Cahill, 2014, p. 118). Neoliberal ideology, in the sense of emphasising that the state must primarily work to secure market relations, with state run activities modelled after a certain image of corporate management, is unevenly implemented across different nation states, but with a common trajectory (Cahill, 2014, pp. 119–20). Predominantly, neoliberal ideology operates as a pervasive common sense, working as a flexible justificatory framework for actually existing neoliberalism. From this perspective, its greatest success is in consistently transforming the policies of social democratic parties across Europe (Mudge, 2011). Such readings tend to emphasise the emergence of actually existing neoliberalism as mostly a pragmatic affair, fixing the crises of the 1970s through a neoliberal suite of policy measures. Through emphasising the appeal of neoliberal ideology to elites, such perspectives tend to underestimate the broader appeal of neoliberal ideas. Though it is true that, as Cahill argues, there has never been widespread public approval for key neoliberal hallmark policies, such as privatisation of state-owned enterprises, there is a tendency here towards underestimating neoliberalism’s more diffuse cultural-libidinal effects, which have served to recruit at least passive consent, within Western nations.

The Embedded Critique of the Ideological Network School

In assessing the limits of the ideological network approach, as propounded by Mirowski and Plehwe, Cahill tends to reduce this to a question of causation and intentionality. Did neoliberal ideas ‘cause’ neoliberal policies, and did the neoliberal thought collective

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52 Levien and Paret’s analysis of global attitudes surveys between 1991 and 2001 finds that not only have key neoliberal policies never been popular, they have also seen declining support as neoliberalism embedded itself (Levien & Paret, 2012).
intend for actually existing neoliberalism to come to pass or not (Cahill, 2014, pp. 33–6)?

In this respect, Cahill argues that Mirowski misconstrues the role of the ‘double truth’ of the MPS, in that it can equally be interpreted as merely involving the shielding of the public and policy makers from the internal disagreements within the MPS (e.g. between Friedman and Hayek), in favour of a consistent exoteric doctrine in the outputs of the outer shells of the ‘Russian doll’ of the network of think tanks, focused on cutting public spending, and the superiority of market relations (Cahill, 2014, p. 41). Hence it is misleading to suggest, so this argument goes, that the ‘double truth’ is predominantly intentional and strategic, and this leads Mirowski towards conspiratorial thinking. There is also an absence of clear causal linkages between the MPS personnel and organisations and specific policies, tending towards an over-emphasis on ideas as the major cause of political and economic transformations (Cahill, 2014, pp. 44–5; Ganev, 2005). Instead Cahill argues that think tanks tend to provide intellectual legitimacy for political projects while de-legitimising alternative viewpoints, rather than offering ready made blue prints, and did not ultimately “drive the neoliberal policy revolution” (2014, p. 57).

Such a perspective relies on something of a caricature of the Mirowski-Plehwe position, as well as on a very extreme test for causal relationship (effectively direct writing of primary legislation by MPS affiliates). Moreover, there is not, perhaps, ultimately that much significant ground in practice between Cahill’s “neoliberalisation [as] an ongoing process” (2014, p. 28) and Plehwe’s understanding of radical neoliberal networks as influencing the debate so as to “safeguard neoliberal trajectories” (Plehwe & Walpen, 2006, p. 45) rather than individual policies. A proper solution to these seemingly contradictory positions can be located in understanding neoliberal power through an idea of hegemonic leadership, as a distributed, relatively autonomous process that rests not in any singular actor, even important ones like the MPS network.

**ii. The Complex Hegemony of Neoliberalism**

What the accounts of embedded neoliberalism and network approaches ultimately lack is a complex enough understanding of hegemony to properly articulate between agency and structure. In the case of Cahill and Crouch, we find an empirically convincing set of data depicting the victory of neoliberalism, but little to help us really understand how
neoliberal hegemony came about, and moreover, how it might have worked post-crisis to limit and constrain attempts to supplant it. In the case of Mirowski and Plehwe’s work, we find a detailed analysis of one of the central sets of actors in the creation and perpetuation of neoliberalism, with specific detail as to the modus operandi of the MPS since the crisis, yet there are gaps in their explanation of how neoliberal think tank networks were able to influence policy markers, and moreover in how everyday neoliberalism is related to ideological neoliberalism. Putting agency and structure together can help us better explain the mysterious durability of neoliberalism.

In this section, we therefore first address the question of how to reconcile embedded and networked explanations for neoliberalism’s persistence, using complex hegemony. Second, we explore in detail the hegemonic dynamics of austerity, as the major ideological and policy innovation of the post-crisis era within the context of British neoliberalism. Third, we address an under-researched element of responses to the durability question to date: the issue of the debility of alternatives to neoliberalism, against the backdrop of the post-democratisation of UK politics. Fourth, we set out the ways in which neoliberal hegemony has utilised complexity, in discursive and productive terms, to embed itself and further disable its opponents. Finally, we examine some potential faultlines which are emerging to present post-crisis neoliberalism with fresh challenges.

**Neoliberal Hegemony as Complex Leadership**

How can we make better sense of the seeming incompatibility between the ideological production of MPS think tanks and actual neoliberal government policy? For Mirowski, this can only be explained by a conspiratorial ‘double truth’ (Mirowski, 2013, p. 426), for Cahill, by the actually very limited efficacy of the MPS network (Cahill, 2014, p. 57). One alternate way to resolve the apparent incompatibility between network and embedded explanations is through a mediating term: complex hegemonic leadership. Hegemony, as we have defined it, is an emergent phenomenon, the result of the interaction of agents and structures, capable of possessing its own relatively autonomous emergent effects, principally in transforming the way that systems self-organise. In this way, hegemony can be thought of as a kind of leadership, though one without a necessary individual leader or singular locus of sovereignty. Instead, leadership is embodied in the overall directionality of a set of systems as a whole.
Why might there be a distinction between actually existing neoliberalism and neoliberal ideology? One answer, from the complex hegemony perspective, is in the fact that policy makers (politicians, bureaucrats) and neoliberal ideologues (think tanks and other advocacy bodies associated with the MPS) are relatively autonomous from one another. Neoliberal hegemony, as emergent, is not contained in the predominance of either of these sets of actors, but rather emerges from their interaction, over time, with other entities, bodies, and systems. The apparent contradiction can be resolved when we think of the brand of market absolutist neoliberal ideology, and the networks which support it, as helping to re-engineer the conditions of self-organisation for policy makers, the media, public services, political parties, and culture. They do so not by writing primary legislation, for the most part, but by changing the Overton window of possible ‘acceptable’ options (Russell, 2006), by creating ideological heuristics that supplement for rational deliberation (operating as the algorithms of neoliberal common sense), and by investing and manipulating the affective field. This is leadership not in the sense of hylomorphism (the direct rule of imprinting), but rather in the anti-hylomorphic mode of working with material tendencies which are already present. As even Cahill admits, the MPS has been of some importance in creating a malleable framework within which actually existing neoliberalism can take place (2014, p. 120). Yet this is, in fact, a far more important role than he ascribes (which largely seems limited to post hoc justification rather than being generative in nature).

Neoliberalism, like any hegemonic project, has been a kind of re-engineering process, where the engineers themselves are multiple, and never acting with complete information of how the task will proceed before embarking on it. The result is not ideological purity, but rather compromise, yet a compromise with a distinct directionality. Take for example, the continuing public ownership of the National Health Service in the UK. For Cahill, this fact marks out the strictly limited efficacy of market fundamentalist neoliberal ideology (2014, p. 43). Yet given its consistent historical popularity (Katwala, 2013) even the ability to incrementally introduce marketisation, contracting out, and small areas of privatisation of service attests to the remarkable ability of the overall trajectory of neoliberalism to transform social, political, and economic systems even when specific policies remain entirely unpopular with the public at large (Cahill, 2014, p. 131).
On the basis of this complex, relatively distributed, and causally overdetermined (Cerny, 2008, p. 29) picture of neoliberal leadership, we can better understand how it was that neoliberalism was able to emerge as such a predominant force from the early 1980s up to the point of the 2008 financial crisis. Without the need for a conspiratorial account of the activities of neoliberal ideologues, we can recognize the progress of neoliberalism as fitting within a classically hegemonic strategy. From the beginning, neoliberal agents, such as the MPS, and allies in corporations, political parties, and the media, had to set to work on the social, political, and economic systems of the UK on the basis of the tendencies that were already immanent within them, seeking to re-engineer the logics under which they organise themselves. This occurred in a number of stages, not all at once, and across the full spectrum of social, political, economic, and cultural spheres.

The process of neololiberalisation included capturing both the Conservative party and then later the Labour party leadership, (Cahill, 2014, p. 123) transforming neoliberal perspectives from fringe right wing views, into a new common sense for policy makers across the UK. This involved setting about the re-engineering of the make-up of the state apparatus along corporate lines (Crouch, 2011, pp. 79–80), transforming the strategic selectivity (Jessop, 1990, p. 260) of the state apparatus to become ever less amenable to socialist or anti-neoliberal politics over time. Successive neoliberal administrations encouraged a general dynamic of post-democratisation, (Crouch, 2004) insulating key parts of the state from democratic contention, while allowing the broad disenfranchisement of large parts of the electorate from participating in politics at all (Mair, 2013, p. 12). Another key trajectory was to install the hegemony of neoliberal ideas, through the capture of the economics profession and other key areas of academia (Mirowski, 2013, pp. 204–14), and the re-engineering of large tranches of the British media along neoliberal lines (D. Edwards & Cromwell, 2009), reframing the ‘centre ground’ over decades to completely transform the conditions of possibility for the formation of ‘acceptable’ opinion. Developing inchoate hegemonies within political parties, the state, academia and the media, enabled larger-scale economic transformations to occur.
Though neoliberal economic policies have never been able to match the profitability rates of the 1945-75 era (Cahill, 2014, pp. 85–90), the ability of neoliberalism more generally to secure its hegemony depended to a large extent on being able to offer (at least medium term) fixes to the economic crises of the 1970s (Cerny, 2008, pp. 11–13). This has entailed unleashing a new wave of financialisation, prioritising monetary stability over full employment (Arestis & Sawyer, 2004, pp. 204–6; Cerny, 2008, pp. 20–22), crushing the power of organised labour, and reshaping class relations in the process, enabling the emergence of debt as an individual and nation state level disciplinary mechanism, and binding the entire economic structure within financialised mechanisms (Dienst, 2011; Graeber, 2011; Lapavitsas, 2013). It also required the development of a new kind of sociotechnical hegemony, able to put to work the new technologies of ubiquitous communication and computation within an economic system that restored profitability and limited the power of organised labour while supporting relatively stable neoliberal politics (Jessop, 1992; Murray, 1989).

This process has meant not simply imposing neoliberal rule from above, but also developing neoliberalism as a libidinal and cultural project, identifying and manipulating those tendencies, desires, groups, and identities which could potentially be recruited to support it. For example, the ability of neoliberal governments in the UK to capture an anti-authoritarian, libertarian current which first arose in the late 1960s (Arrighi, Hopkins, & Wallerstein, 1989) was an essential part of being able to recruit support (or at least passive acceptance) for policies which otherwise would prove dramatically unpopular. This has therefore involved a phase transition from the Thatcherism of the 1980s, which focused on expressing libertarian desires within the economy, combined with a social conservatism (Hall, 1988), to the Blairism of the late 1990s and early 2000s, which sought to give expression to a more socially libertarian tendency in better legal protections for women, gay people, and ethnic minorities, all within a neoliberal possessive individualist framework (Gilbert, 2013b, p. 19; McRobbie, 2013). This has found expression in an array of neoliberal-inflected cultural products, such as the preponderance of reality television (Best, 2012; Gilbert, 2011), the routine lionisation of business leaders and entrepreneurial thinking in the press (Hochschild, 2012), and the inculcation of individualistic, competitive, and consumerist modes of subjectivation (Couldry, 2008; McCarthy, 2007; Mirowski, 2013, p. 133), amongst many others. The modulation of structures of feeling through cultural and
political means has occurred not so much through deliberate strategisation ‘from above’, but rather largely through more diffuse processes of spontaneous attraction, (Gramsci, 1971, pp. 60–1) a channelling of the emergent ‘spirit of the times’ which in turn helps re-enforce those self-same trajectories. Hence we must understand neoliberal hegemony as not merely the result of despotic pragmatic policy makers, or conspiratorial ideological networks, but as a populist (if ultimately anti-democratic) world view, existing beyond any particular policy instantiation, but creating the conditions within which such policies might be rendered possible.

Where necessary, this process has meant the application of force and outright coercion, as in direct confrontations between the Thatcher and Reagan governments and trade unions in the 1980s (Reid, 2005), and with various protest movements since, as well as a variety of everyday legal coercions. Yet for the most part, the hegemonic projects of neoliberalism within the UK have proceeded in a consensual or quasi-consensual register, incrementally re-engineering a full spectrum of social, political, economic, and cultural systems in a piece-meal fashion to give rise to an emergent neoliberalising trajectory as a result. Each element of this process of hegemonisation was to some degree experimental in nature (Dardot & Laval, 2014, p. 173), testing limits and discovering at least partly only in the course of action exactly what would ‘work’ (Peck, 2012, p. 4). It was assembled out of diverse processes occurring at different levels within British society, and within a broader context of international and global level neoliberalisation (Cerny, 2008, pp. 28–30).

As with any process of large-scaled hegemonisation, this meant locating and occupying discrete loci of power within the social, within the business world, key political parties, the media, the state apparatus, and the field of cultural production, and using those as relatively stable hegemonic bases from which further waves of hegemonisation could be prosecuted. Over time, and emerging out of the interactions of these different spheres and agents, autocatalytic dynamics developed which worked to generatively entrench neoliberal institutions, practices, and norms. At the broadest scale, this has involved navigating within the global social possibility space towards a new point of mobile relative metastability, in turn transforming the phase space of political action within the UK along semi-permanently neoliberal lines. This has ultimately entailed the structural coupling of neoliberal political forms with a restructured, post-Fordist, heavily
financialised economy, configuring a relatively long-lasting, though dynamic, historic bloc as a result. This process of neoliberal hegemonisation, made possible by a complex mode of emergent leadership, has led to the general incapacitation and neutralisation of those forces which would oppose neoliberalism by the time of the 2008 financial crisis. Both structurally embedded and simultaneously with the superior capacity for action, neoliberal forces were simply more well-organised by the time the crisis hit, resulting in them being much better placed than left wing forces to capitalise upon it. It is to the prospective strategies of neoliberalism in the post-crisis environment which we turn to next.

The Austerian Turn
If one policy has characterised the medium-to-long term neoliberal response to the crisis, it has been austerity. Understanding the persistence of neoliberalism therefore obligates us to comprehend austerity, in its ideological, cultural, and economic dimensions, as the major prospective strategic innovation in the post-crisis environment. As Mirowski notes (2013, p. 338), the turn towards austerity was made possible by the decision to pursue market-based, yet state-backed rescues of the global financial system, as encouraged by MPS affiliate organisations and a broad array of other neoliberal institutions, such as the European Central Bank and the G20. The embedded prevalence of neoliberal opinion formers and policy-framers, combined with the systemic importance of the financial system, (and its structural coupling to the neoliberal state) made this policy choice the path of least resistance, even given the scale of the rescue operation which ensued (Duménil & Lévy, 2011; Mason, 2009; McLean & Nocera, 2011; Mirowski, 2013). This was a crucial turning point, one which we can understand through complex systems as a moment where the choices made, conducted against a background of pre-existing neoliberal hegemony, generated vastly disproportionate feedback effects over time. In so doing, financial and economic crisis was quickly converted into a fiscal one. This in turn opened up a space for austerity.

Interestingly, it was European governments, such as those of Germany and the UK, who argued most vociferously for austerity as a response to the fiscal crises that occurred in the wake of bailing out the global banking system, against the advice of the American administration, as the argument took shape in 2010 (Blyth, 2013, pp. 60–2). In so doing, this enabled the culpability for the crisis to be shifted onto the state, and state spending
in particular, while deflecting attention from the real problem, a global financial system that was too large, too complex, and too driven by speculative investment. Austerity has had two component parts, as an ideology and as an economic policy.

As a policy, the hopes for austerity can be best expressed in the words of German finance minister, Wolfgang Schäuble, as “expansionary fiscal consolidation” (Schäuble, 2010). The objective of the policy is identified as increasing business confidence and investment, hence spurring growth, by withdrawing state spending, preventing the ‘crowding out’ of private investment and encouraging confidence through anticipation of future tax cuts (Kinsella, 2012). Austerity was by no means the inevitable policy response to the fiscal crisis. One alternative option is financial repression: restructuring national financial systems to prevent financial entities from selling government bonds, while encouraging small amounts of inflation to reduce debts over time. (Blyth, 2013, p. 241). Other alternatives are increasing corporate and personal taxation and reducing tax havens and tax avoidance strategies (Blyth, 2013, pp. 243–4). While neither of these options is ideal, both benefit from having significant historical evidence for their effectiveness, whereas the record of austerity as an expansionary strategy is extremely weak, only working in practice under incredibly selective conditions that certainly do not apply in today’s European situation. As Mark Blyth bluntly concludes, “Austerity doesn’t work. Period” (2013, p. 229). Part of the policy appeal of austerity, however, arises from sheer material need – the fact that the European banking system is replete with institutions that are ‘too big to bail’, i.e. whose balance sheets are larger than their host nation’s. Yet such a policy will only work if austerity is actually able to reduce government spending and generate economic growth, or at least be growth neutral.

Though austerity does not necessarily work to achieve its stated economic ambitions of expansionary fiscal contraction, it has distinct benefits for the neoliberal agenda as a whole. Austerity is not simply giving policy makers permission to ‘roll back the state’ (especially given the ambiguity of what that really means in a neoliberal context) but rather has enabled the ‘rolling out’ of an entirely new wave of neoliberalisation. In the UK, this has taken the form of massive cuts to social security, increased university fees, further marketisation and privatisation of health services, full privatisation of the Royal Mail and probation services, extension of private-public partnership schemes for roads and railways, and additional labour market deregulation (Cahill, 2014, p. 142). Each of
these policies serves to further embed and strengthen structural modes of neoliberal hegemony, while weakening the ability of organised labour and other oppositional political forces that might contend that hegemony. Combined with this has been a series of economic policies designed to restore the financial-economic organisational matrix of neoliberalism: shoring up the financial sector, and re-inflating the housing bubble, with financialised capital accumulation remaining “well and truly alive” (Cahill, 2014, p. 149). Taken together, this constitutes an acceleration and deepening of the neoliberal agenda, combined with a stabilisation of its historic economic bases within the UK.

As with any hegemonic policy, the imposition of austerity has depended on a mixture of coercion and consent. In mainland Europe, particularly with respect to Portugal, Ireland, Italy, Greece, and Spain, this mixture has seen a strongly coercive component, made possible by their membership of the Euro currency bloc. What is more interesting, however, is the role of austerity in the UK, which, possessing its own currency, was in an objectively less coerced position. The major forms coercive pressure has taken have been (ultimately unrealistic) threats, such as chancellor George Osborne’s repeated comparison of the UK’s finances to those of Greece (Blyth, 2013, p. 72). There have also been external pressures from broader neoliberal forces, such as ratings agencies (Blyth, 2013, p. 86), and the ever-present threat of capital flight (Cahill, 2014, p. 162).

In the main, however, austerity has been rolled out through the ability of the Conservative-Liberal Democrat coalition of 2010-15 to be able to persuade large sections of the UK public of the necessity of the policy. Hence it is important to identify the ideological appeal of the idea itself. Austerity found fertile ground given the pre-existing embedding of neoliberal hegemony in the UK, in its financial-economic systems, political systems of government, law, and bureaucracy, and in culture and subjectivity. Moreover, the well-developed systems of the neoliberal thought collective, within think tanks and advocacy groups, as well as central banks and the economics profession as a whole, meant that, exactly as Mirowski argues (2013, pp. 338–9), there was an agential system in place to inject austerity into policy debates effectively. Yet the shift towards austerity also marked a new phase within neoliberalism, and therefore demanded new ideological modes of support. One of the most important forms this has taken is in the pervasive ideologeme ‘the state’s finances are just like a household’ and that therefore ‘when you have overspent you must cut back’. Though entirely inaccurate
(Lanchester, 2013), this idea has an intuitive appeal, given its reference to something everyone understands – their own household finances (Krugman, 2015) – and is compact enough to easily proliferate (Salmon, 2011). This ideological heuristic spread through statements from key finance ministers and media reporting to begin to constitute a new framing of the crisis as a whole. Helpfully for the austerity agenda in the UK, the fact that it was a Labour administration that was in power when the crisis hit also meant that the Conservative-Liberal Democrat coalition could frame Labour’s general preference towards more public spending as being the root cause of the country’s fiscal problems. This was in spite of the fact that the deficits recorded by Labour pre-2008 were not historically large (Wren-Lewis, 2015), and were in any case generally supported by the Conservatives when they were in opposition (Skidelsky, 2015).

Closely combined with this are discourses related to the ‘undeserving poor’, or ‘workers versus shirkers’ (Garthwaite, 2011; Wiggan, 2012), and increasingly negative portrayals of immigrants (Tyler, 2015). Proliferating across the right-wing media, the significant impact of these kinds of narratives can be measured by social attitudes surveys, which have consistently recorded that, on average, British people over-estimate the total spending on unemployment benefits, the scale of benefit fraud, and the level of immigration to the UK. For example, in 2013 it was found that 29% of British people believe the UK spends more on Job Seeker’s Allowance than pensions (in fact the UK state spends 15 times more on pensions than JSA), it was found that people in the UK on average overestimate fraudulent benefit claims by thirty-four times, and found that they believe on average that the population of immigrants is twice the size it really is (Ipsos MORI, 2013). Discourses on the undeserving poor and immigrants operate as a kind of libidinal outlet, enabling the negative impacts of austerity policies to find a safe emotional outlet in targeting the weakest and most marginalised within society. In this sense we have seen something of a repetition of some of the ideological themes observed by Stuart Hall in the late 1970s (Hall, et al, 1978), with the emergence of authoritarian and racist moral panic helping to support a new assault on the poor and disenfranchised. Simultaneously, they concretise the macro-scaled narrative: we have spent too much, and hence need austerity, because of the profligate lifestyles of benefit claimants and immigrants. In so doing, they work to foster a kind of ‘negative solidarity’, where benefits, employment rights, and other forms of state support
possessed by some are identified as being ‘unfair’ by those who lack them, driving an overall race to the bottom in terms of social protections (Williams, 2010). This works to change the conditions within which labour movements and other left-wing forces are able to self-organise, creating an uneven political field.

Combined with the use of the household economy metaphor to frame macro austerity, and the negative discourses centred on the undeserving poor and immigrants, is a positive project of cultural austerity. Economic and political austerity is mirrored in a series of cultural tropes, which draw on historical memory of past periods of austerity. This has included most famously the re-emergence (and re-imagining and remixing) of a 1940s era sloganeering poster urging Britons to ‘keep calm and carry on’, along with TV shows celebrating ‘scrimping’, shifts in fashion towards thrift-ware, the revival of baking and craft traditions, and advertisements celebrating the imagery of historical austerity (Biressi, 2015). Elements of cultural austerity have also been found within the political discourse of the Conservative Party, drawing on “the morality of ‘austerity’ and ‘thrift’” associated with the 1940s and 50s (Bramall, 2013, p. 3). Each of these has created feedback loops within the prevalent structures of feeling, engendering the affective conditions within which the ideological heuristic of ‘nation state as overdrawn household’ could take hold. In this sense, we can identify austerity as locking into and intensifying libidinal circuits grounded in deep religious-cultural traditions, of guilt and puritan asceticism, as well as cultural nostalgia for past austerity eras (Bramall, 2013, Chapter 1).

Austerity is not, therefore, simply an unpleasant set of policies that must be sweetened to appeal to the public at large, but rather, on this account, a new kind of neoliberal common sense that draws upon deeply felt needs and desires often originating in forms of nostalgic nationalism, re-engineers them, and re-orient them towards the end of shoring up neoliberalism post-2008.

The ideological positioning of austerity in heuristic and narrative terms, within broader cultural-affective effects, generates tendencies towards a generalised semiotic framing of the crisis, its causes, and the need for the state to reduce spending. In this sense we can identify a shift within neoliberalism in the UK, working to re-enforce its basic economic-financial basis, while innovating in policy and ideological terms to navigate

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53 We can identify the distinction between British and German austerities as partly being grounded in the particular historical imaginaries they draw upon for their libidinal support, with the German one being keenly phrased in terms of avoiding 1920s-style inflation (Blyth, 2013, p. 56).
the hegemonic complex towards a new position within the social possibility space. This is, therefore, about much more than simply reducing public spending. Indeed, the austerian turn represents a process through which there is a dramatic rebalancing towards profits, increasing predominance of financial capital, rising precarity for the workforce, growing inequality and social stratification, enlarged contracting out of government services, reductions in welfare and increasingly coercive welfare systems, and mounting cultural competitiveness and callousness (Seymour, 2014, pp. 3–4). This is a new neoliberal fix which, while facing severe issues in terms of the ultimate economic practicability of the austerity agenda, ‘works’ on the level of political engineering, configuring a newly emergent austere neoliberal hegemony as a result.

**Post-Democracy and the Debility of Alternatives**

Austerity could not have been implemented with such relative ease were it not for the relative frailty of those forces that aimed to oppose it, or might have been expected to oppose it. Here we must consider two phenomena – the weakness of the UK Labour Party and labour movement on the one hand, and the inchoate and relatively unsuccessful radical alternatives.

First to the weakness of the Labour Party’s responses to austerity. One way to consider this is as an example of the broader phenomenon of the post-democratisation of British politics (Crouch, 2004). Peter Mair outlines the crisis of electoral politics as follows:

> “The age of party democracy has passed. Although the parties themselves remain, they have become so disconnected from the wider society, and pursue a form of competition that is so lacking in meaning, that they no longer seem capable of sustaining democracy in its present form.” (Mair, 2013, p. 12).

A rising popular indifference to electoral democratic politics has taken hold, with electoral participation falling, and average electoral turnouts across western Europe falling from 81.7 per cent to 77.6 per cent in 1990s, and again falling to 75.8 by the end of the 2000s (Mair, 2013, p. 23). Accompanying this has been an increase in electoral volatility, where those who do vote in elections are less loyal, and with general trends towards decline in party memberships. In turn, this widespread collapse of engagement with political parties is closely connected to their embracing of the very narrow terms offered by neoliberalism. The result of the hegemony of neoliberalism amongst the
major parties of British politics is that questions of economic management are no longer open to significant challenge (Mair, 2013, p. 49).

Take for example the 2015 national elections in the UK. In terms of policies, the only choice between the three parties of government (the Conservative, Labour, and Liberal Democrat parties) was in terms of how austerity would be implemented. Given the historical process by which New Labour embraced neoliberalism during the late 1990s and 2000s under the auspices of Tony Blair and Gordon Brown, even when attempting to track slightly to the left under the leadership of Ed Miliband they were unable to oppose austerity in any serious way (Seymour, 2014, pp. 114–6). The legacy of neoliberalism within the Labour Party meant that a large number of its MPs were basically sympathetic to the broad project of austerity. Beyond committed ideologically neoliberal MPs, there was also a broader mood, established since the early 1990s, of political ‘realism’, in the sense of seeking to accommodate to the views of the British public rather than to aiming to lead or transform them. Moreover, many of the suite of austerity policies and strategies were actually developed under the prior Labour administration, from workfare to the demonisation of benefit claimants (Seymour, 2014, pp. 137–8). Any opposition to the descendents of those policies under austerity would be difficult to maintain, given the role of Labour in first putting many of them into motion. The hegemony of neoliberal viewpoints across the mainstream British media meant that even when the party did attempt to make arguments against some elements of austerity, they were not faced with a particularly friendly environment within which to make them (Ferguson, 2013).

Part of the process of post-democratisation for the Labour Party has been its slow disentangling from its historical roots within the broader labour movement, as well as the removal of the parliamentary party from any grounding in broader social movements or even the influence of the Labour membership (Bowles, 2011). This meant that they had methodically insulated themselves from those voices within the broad left who might have created a constituency to put pressure on the leadership to oppose austerity. Combined with the happenstance that it was a Labour government in power when the financial crisis hit, these factors together meant that the nominally left party was basically functionally incapable of challenging the austerity narrative. Labour’s 2015 manifesto ultimately featured on page one a “budget responsibility lock” which
promised to “cut the deficit every year” (Krugman, 2015). Competing on the Conservative’s ideological ground, burdened with weak leadership, without a clear sense of what they were offering voters, and in a hostile media environment, Labour were roundly defeated in the ensuing election, gifting the Conservative Party a slim majority. Austerity had passed its first major electoral test within the UK.

What of the more radical left in the UK since 2008? Outside of the mainstream left, we can find a broad range of relatively marginal parties, as well as looser social movements which have each attempted to contend with post-crisis austerity in a more serious and committed fashion. Yet for the most part, these groups have been unable to develop a mass base, to hegemonise and develop power, or to achieve significant penetration of their messages within the mass media. Three examples here are UK Uncut, an anti-austerity campaign group largely focused on direct action tactics (Malik, 2011), the wave of student protests and occupations that exploded in the wake of proposed higher education fee increases in 2010 (Solomon & Palmieri, 2011), and the UK branch of the Occupy movement (Press Association, 2011). Each of these groups, in different ways, gave expression to anti-austerity politics with a horizontalist organisational bent. However, only UK Uncut can be said to have had any measurable long-term impact with their work to foreground tax avoidance. That the issue has come much more to the fore in the last five years is a testament to the group’s work, while individual companies, such as Starbucks, have been targeted so heavily by the public as to be obligated to make multimillion pound payments to HMRC (Kwei, 2014). Unfortunately, however, for the most part, these groups have been unable to exert a great degree of influence. Tax avoidance, while less publically acceptable in the UK, is still a routine business strategy for most multinational corporations (Bowers, 2015); university fee increases went ahead as planned and the student occupations were disbanded (Mulholl, 2010); Occupy were crushed in the UK as elsewhere (Siddique, 2012), and the financial system has been rebuilt, and if anything has expanded in scope (Mirowski, 2013, p. 8).

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54 We might also here perhaps consider the UK riots of 2011 as being in some senses an anti-austerity movement, though the lack of an articulated agenda means it is difficult to ascribe a directly anti-austerity character. However, research into their motivations has established that social deprivation, along with the racism of the UK police force, were key factors behind the rapid proliferation of the riots (Lewis & Newburn, 2012).
The strictly limited success of these groups can partially be explained by their inability to deal effectively with the coercive apparatus of the British state, with direct action tactics quickly becoming bogged down in cycles of confrontations with the police (Seymour, 2014, pp. 82–5). It can also be partly elucidated in terms of the success of embedded neoliberalism, which has reshaped the very ground upon which politics occurs across the full spectrum of British society. This has meant that the ability of such movements to recruit participants, to convey messages through mainstream media outlets, and to work to reconfigure existing hegemonies have all been curtailed.

We must also consider the organisational and ideational orientation of groups such as Occupy, UK Uncut, and student protests. For Mirowski, for example, the weakness of these kinds of social movements has largely been due to their holding to the notion that “political action could be sustained and effective in the absence of any sort of theoretical guidance and hierarchical organization of short to longer-term goals” (2013, p. 318), as well as the absence of a positive political vision beyond a return to the agenda of Keynesian embedded liberalism. Cahill agrees that there have been organisational issues, principally in terms of an inability to build a popular enough base. However, he identifies that the absence of ideas for reform or lack of inspiring future visions is less to blame than the inadequacy of strategic consideration of how such visions might be implemented (2014, pp. 149–59).

Elsewhere, my co-author and I have set out a more thoroughgoing critique of the organisational, strategic, and ideational make up of such political movements (Srnicek & Williams, 2015). Identifying social movements such as Occupy and UK Uncut as exemplifying a kind of ‘folk politics’, we have argued that what makes them distinct is an emphasis on temporal, spatial, and conceptual immediacy. In other words, they tend to valorise the short term, the unplanned, the local, and the intimate (Srnicek & Williams, 2015, pp. 10–11). Tendencies such as these leave movements frail and disorganised when faced with global, abstract, and universalising forces, such as neoliberal capitalism. They have also meant that their ability to conduct properly hegemonic politics is either foresworn from the start as illegitimate, an example, perhaps, of the anti-hegemonic normativity of Beasley-Murray’s newest social movements (2010), or are otherwise lacking in the organisational and strategic tools necessary to do so.
Complex Hegemony as Hegemonic Complexity

There is another sense in which we can speak of complex hegemony’s role in the persistence of neoliberalism, in terms of the hegemony of complexity itself. The hegemony of complexity can be observed in two dimensions: the hegemony of discourses of epistemic complexity, and the hegemony of ontological complexity.

One of the hallmarks of neoliberal ideology, from the abstruse theory of Hayek to the popular discourse of *Wired Magazine*, is an emphasis on the irreducible epistemological complexity of markets and other ubiquitous systems of social self-organisation (S. Best & Kellner, 1999; Gaus, 2006; Hayek, 1964; Kelly, 1994). The hegemony of this idea might be seen to function in two ways. Firstly, it acts as a tool of persuasion, enabling the recruitment of allies towards the neoliberal cause. Secondly, it acts to obfuscate reality, and hence plays a role in the perpetuation of that reality. Jodi Dean has put this as follows:

“As hundreds of lobbyists for the finance sector have ceaselessly worked to teach US members of Congress, derivatives can’t be regulated, precisely because no one understands them.” (Dean, 2013, p. 146).

Discourses of epistemological complexity have therefore had important ideological effects in terms of enabling financialisation to continue to be at the centre of neoliberal political economy, especially if, as the neoliberals like to profess, markets “transcend the very possibility of management of systemic risk” (Mirowski, 2013, p. 56). Moreover, as Dean goes on to argue, more generally, “complexity [tends to] dispose of politics because nothing can be done” (2013, p. 146). The hegemony of ideologies of complexity works to disable political forces that might oppose neoliberalism, by delegitimising the ability of anyone to be ultimately responsible for anything. Faced with market failure, neoliberal ideologues will always advise the expansion of market relations since “nothing else can cope with the complexity of evolution” (Mirowski, 2013, p. 326). As we have argued, however, the existence of hegemony itself demonstrates that it is, in fact, possible to govern in the wake of global complexity. As such the discourse of epistemic complexity can be clearly identified as possessing a dissimulatory dimension.
The other side to hegemonic complexity is neoliberalism’s active production of actually complexity in the world. In this sense, the creation of increasingly complex social, political, technical, and above all financial systems is in itself a strategy through which neoliberal hegemony can be secured, replicated, and accelerated. Globalisation, disaggregated supply chains, free movement of capital and labour, deregulated financial systems, and complexity-increasing modes of subjectivity like individualism, all constitute vectors of social complexification, increasing the scale, interconnectivity, and stratification of social, political, and economic systems. Such actually-existing complexification dynamics serve a number of purposes. First, they lend a degree of truth to ideologies of epistemic complexity: the world really is more complex than it used to be, and hence less manageable. Second, complexification makes it harder for other political movements to effectively hegemonise, by shifting key loci of power outside the local or even national horizon traversed by most social movements, by complexifying left politics beyond the class relation, and by shifting governance mechanisms outside conventional electoral politics.

Take for example the Occupy movement. The original imperative for Occupy in New York was to literally ‘occupy Wall Street’, the historical location of much of the American financial system (Taylor & Gessen, 2011). In fact, however, many of the major financial firms had moved their offices uptown and away from Wall Street by 2011, and in any case, the actual occupation of Wall Street itself proved impossible to execute. Moreover, as McKenzie Wark memorably asked “how do you occupy an abstraction?” (Wark, 2011). The placelessness of global finance results in a radical mismatch between direct action tactics focused on taking and retaining physical space and the complex, global, and distributed form of power that constitutes financialised capitalism. In essence, the effects of complexification render the task of constructing a counter-hegemonic force much more challenging.

When practices of complexity production are combined with the ideological discourses of irreducible epistemological complexity this creates a double movement. On the one hand, there is hegemonic complexity production through financialisation, re-engineering of production and distribution systems, and through the creation and the re-enforcement of complexity-increasing modes of subjectivation such as competitive
individualism, all of which reshapes the ground upon which politics is conducted. On the other, we find an incapacitating social semiosis, where ideological heuristics proliferate that misrepresent the social, political, and economic world. In other words, the double movement creates increasing social complexity while disabling the tools necessary to make sense of it. We might think of this in the sense of Jameson’s understanding cognitive mapping, and the inability of contemporary representations to adequately map the abstractions of today’s global capitalism or post-modern social and cultural forms (Jameson, 1988).

The durability of neoliberalism has partly depended on the hegemony of complexity, creating an ontological and epistemological playing field that tilts inexorably towards supporting ongoing processes of neoliberalisation, while encouraging mass passivity and the weakness of those forces that would seek to oppose it. This is not, however, to argue for the elimination of social complexity as an anti-neoliberal strategy or normative goal. While this has become an idea implicit in much of the radical left (Srnicek & Williams, 2015, p. 15), this is not an option which is either desirable or practicable. Instead, this is to argue for the development of new theories and practices of hegemonic politics better able to strategise within an increasingly complex socio-political field. This task is a part of the overriding historical narrative of hegemony, as theory and practice, which has always been called upon, and called upon to evolve, when reality has proven more complex than our previous understandings of it allowed.

A Fragile Hegemony?

The durability of neoliberalism has been established as the result of complex hegemonic processes of leadership, binding together agential and structural sides to re-engineer social, political, and economic systems to support, perpetuate, and accelerate neoliberalisation. Within the context of the UK, we have explored the role of austerity as the key strategy through which neoliberalism has responded to the crisis, with its economic, ideological, and cultural dimensions working together to create the conditions within which the central role of financial capitalism can be restored, and to create the space for a new round of structural transformations. We have established the role played by the disempowerment of the Labour Party under conditions of post-democratisation, and the relative weakness of alternative political formations that might seek to contend with austerian neoliberalism. Finally, we have outlined the ways in
which processes of complexification have also constituted a key political strategy to sediment and expand neoliberal trajectories in the post-crisis environment. Yet despite the persistence of neoliberalism, it is not an inviolable hegemony. Like any hegemonic formation, it must be continually re-made and re-enforced. Moreover, many of the hallmark strategies neoliberals have adopted in response to the crisis are ripe with potential faultlines and tensions.

Consider, for example, the return to financialised growth, and the set of policy decisions to increase the value of the housing market within the UK. While in the short to medium term this has assured the popularity, or at least, passive acceptance of the austerity agenda, the growth that this has provided is insecure. Re-embracing financial-led growth means risking that the same crises will arise again, and in conditions of much greater weakness for the finances of many nation states (Lapavitsas, 2013, pp. 323–5). Meanwhile, with much of the post-crisis global economic growth coming from the BRIC nations, the present slowdown in growth rates across these states (Davies, 2015), and the significant financial problems presently faced by China in particular, may threaten neoliberalism’s hegemony on a global scale (Warner, 2015). Within the UK, growth has only returned with the injection of vast quantities of quantitative easing, and the austerity agenda made acceptable to many through the Bank of England’s maintaining of historically low interest rates. Were interest rates to rise appreciably this might lead to a large number of house repossessions (Bank of England, 2014), radically reduce disposable incomes, and threaten the legitimacy of the austerity agenda. As it is, the decision to re-inflate the value of the UK housing market has already led to increasingly severe social problems of unaffordable housing, social cleansing from major cities, and reduced discretionary spending (Moore, 2015), and again sows the seeds for future crises.

The post-democratisation of British politics and the hollowing out of traditional democratic options is a similarly unstable solution, and may well lead to the strengthening of non-neoliberal political forces over time. ‘Pasokification’ is a recent neologism for the perilous fate that has awaited many European social democratic parties which have implemented the austerity agenda (Doran, 2015). The collapse in support which this term designates has led to far left parties rooted in street protest, such as Syriza and Podemos, emerging as a result (Iglesias, 2015). By contrast, in France and
elsewhere in Europe there has been the rise of far right parties similarly capturing the anti-EU and anti-neoliberal current (Hockenos, 2013; Mayer, 2013). In the UK we have seen a number of potential anti-neoliberal threats developing on the basis of the hollowing out of the Labour party. In Scotland, the Scottish National Party has effectively wiped out one of Labour’s historic heartlands (Douglas, 2015). In England, there has also been the growth of the UK Independence Party as an electoral force, channelling anti-European and anti-immigrant sentiment (Evans & Mellon, 2015). Perhaps most significantly, 2015’s Labour leadership election has seen the emergence of long-time Bennite MP Jeremy Corbyn as the most likely winner (Milne, 2015). This has been an incredibly unlikely result, with highly unpredictable effects for the future of the anti-neoliberal left in the UK. Suffice to say, the hollowing out of mainstream parties, while sedimenting neoliberal hegemony in the medium term, may well lead to its collapse in the long run.

Thinking more broadly, in terms of technology we can observe a variety of forces which, while still inchoate, might well threaten the ability of neoliberalism to hegemonise effectively in the future. Social media, for example, offers the potential for forms of media which are less centrally controlled, and hence for ways for counter-hegemonic projects to articulate themselves outside of traditional media industries. Though the effects of social media have often been overstated, in particular in terms of their ability to influence ‘offline’ political activism (Dean, 2009, pp. 42–8), the ability to route messages, new ideas, and information of all kinds through non-traditional circuits presents new challenges to modes of hegemony which partly depend on media influence for their basis (Shirky, 2011). Cryptocurrencies like bitcoin, and their associated technologies such as the blockchain, also offer the potential for resistance to neoliberal hegemony (Sparkes, 2014). In particular, it has been mooted by libertarian ideologues that cryptocurrencies may enable an economic revolt against capitalist states, whether conceived along right wing (Matonis, 2014) or left wing lines (Rothstein, 2014). Though we might imagine that neoliberal hegemony could perhaps adapt quite well to both distributed media and distributed currency systems, there is also the ever-present potential of the automation of jobs as a future threat. A recent study, for example, estimated that 47% of American jobs are liable to be automated in the next two decades. (Frey & Osborne, 2013). The potential for collapse in consumer demand which may occur on the basis of this new wave of automation may require significant
shifts in the political economy of capitalism, shifts that may well prove to be impossible to effectuate within a neoliberal hegemonic regime (Srnicek & Williams, 2015, Chapter 5).

Even more seriously, and looking further into the future, anthropogenic global warming remains perhaps the most grave threat to the ongoing stability of neoliberalism. Though there was increasing pressure on the governments of leading nations in the 2000s to confront the problem, the 2008 financial crisis deflected attention, and little significant progress has been made since then (Klein, 2014). The considerable economic, social, and geopolitical problems which are likely to be generated by climate change in the coming decades will present real challenges for many of the basic underpinnings of neoliberal rule, and many of the fundamental neoliberal governance systems seem at present to be almost intrinsically unable to respond effectively.55

Financial and economic instability, political polarization, the emergence of new technologies, and environmental crisis: any or all of these threats in some combination may serve to finally displace neoliberal hegemony. Though the neoliberals have many tools at their disposal, and have developed an exceptionally flexible hegemonic apparatus since becoming the leading global hegemonic force in the early 1980s, they face increasingly multifarious hazards in the years to come. While we are likely to see new evolutions of the neoliberal hegemonic complex, as we have in the emergence of austerian neoliberalism since 2010, it remains to be seen how far it will be able to innovate to prevent a broader collapse in its hegemonic bloc.

55 It must be noted here that while neoliberal governments have yet to respond effectively to the real challenges of climate change, neoliberal think tanks and advocacy groups are already busy working to neutralise the threat it poses to their immediate power, with a characteristic full spectrum response of short term disinformation, medium term market-based solutions, and longer term speculative projects such as geoengineering (Mirowski, 2013, pp. 329–34).
Conclusion

i. The Argument for Complex Hegemony

As our world becomes more complex, so too does power. To understand and hence strategise within such a complexifying field we need to furnish our thought with political concepts capable of grasping hold of the complex dynamics of our times. Our central argument has been that the most suitable political concept for critically understanding power today is a mode of hegemony, re-engineered through the conceptual infrastructure of complexity theory. This argument has two sides. The first runs that the concept of hegemony is one which has been habitually attuned to issues of social complexity, and that its historical development can be made legible in terms of a trajectory of greater theoretical abstraction to better match the growing complexity of the social. The intellectual history of the concept of hegemony and the practice of hegemonic politics has been characterised by a process of development wherein conceptual and practical innovation always accompanies the excess of social complexity over conceptual determination. As the world becomes more complex, it is hegemony which has been called upon, from Lenin to Laclau, to fix the gaps in the existing theoretical apparatus. Hence the second side of the argument runs that it is in the resources of complexity theory, and its reflections in recent social and political thought, that we can locate the insights necessary to reformulate existing understandings of hegemony theory.

In pursuit of this objective, we reconstructed an account of complexity grounded in the complexity sciences. This enabled a set of methodological criteria to be established to demarcate the form of socio-political complexity theory we needed to produce: one that was generalised, systemic, and differentiated. In this we sought to distinguish our realist account of socio-political complexity from scientistic reductionism on the one hand, and certain post-structuralist appropriations of complexity theory that tend towards an obfuscatory mysticism on the other. On this basis we investigated three key problematics in social and political theory, necessary to mediate between our general
understanding of complexity and socio-political complexity: the question of emergence and the reality of social structure, the problem of change and stability in the context of phase space and anti-hylomorphism, and the critique of various ideologies of self-organisation, from Austrian school economics to contemporary anarchism.

Next we developed a reading of the concept of hegemony, situated through the work of Gramsci. This established the conceptual history of hegemony as always being developed into more flexible, variegated, and complex forms in sync with seeking to understand political conjunctures which were more complex than anticipated by pre-existing Marxist theory. We constructed an analysis of Gramscian hegemony and its key conceptual underpinnings, pointing towards the numerous places within *The Prison Notebooks* where his thought touches upon key complexity ideas. With this in place, we developed a critique of Laclau and Mouffe’s articulatory discursive revision of hegemony in the 1980s and 1990s, on the basis of its reduced ability to theorise the full complexity of the social. On the basis of our reading of key thinkers of hegemony, we defended the concept from recent attempts to declare it bankrupt, noting that the majority of such critiques either misread the concept entirely, are working from a dubious understanding of new social movements and the state, or proffer only less suitable replacement theories in its stead.

Having put in place our readings of complexity and hegemony respectively, the two sides of the project were brought together to outline a theory of complex hegemony. Four general mechanisms of complex hegemony have been proposed: as an emergent phenomenon, as a mode of guided self-organisation, as navigation within social possibility spaces, and as generative entrenchment. These mechanisms must work upon particular local systems, operating under their own local logics of organisation, from bounded rationality to structures of feeling, from economic dynamics to the state, technology, and infrastructure. The implications of complexity for hegemonic strategy were delineated, as a partially intentional and partially autonomous phenomenon, with counter-hegemonic strategy ‘from below’ reconstructed from this complex perspective.

Finally, we deployed our conception of complex hegemony to analyse the persistence of neoliberalism since the 2008 financial crisis. We critically assessed two leading schools of thought on the matter, the ideology-network approach of Mirowski and Plehwe, and
the embedded neoliberalism stance of Cahill and Crouch, before suggesting that complex hegemony’s was best placed to mediate between overly agential and overly structuralist viewpoints. We then analysed austerity as the major prospective neoliberal strategic innovation since 2008, and the reasons for the debility of alternatives to austerity, deploying key concepts of complex hegemony along the way. The role of hegemonic complexity in retaining neoliberal rule, along with the potential of many of the strategies of post-crisis neoliberalism to undermine itself in the future were also set out.

ii. Complex Hegemony and its ‘Close Relations’
Throughout our argument for complex hegemony we have drawn upon an array of theoretical traditions from which to synthesise our position. We have not, however, discussed some of complex hegemony’s ‘close relations’: those positions which resemble it to some extent, yet which differ from it in important ways. Three significant positions here are Althusserian structuralism, Latourian actor-network theory, and post-Foucauldian governmentality and metagovernance theory. We will address each of these in a decidedly non-comprehensive fashion, noting the key resemblances and points of divergence. Our objective is not so much to elucidate the systematic contents of these positions, but rather to demonstrate the (sometimes subtle) distance between them and our own standpoint, while simultaneously developing three conclusive ideas: the distinction between complexity and dialectics, the critical-political necessity of structural and explanatory stratification, and the interplay of coercion and consent ultimately implicit within our understanding of complex hegemony.

Althusser & Structural Causality
One figure to whom we have frequently alluded is Althusser, particularly in terms of his influence on a number of our key reference points (from Poulantzas to Laclau and Mouffe). Much of the theoretical interest in Gramsci in the 1970s was spurred on by the Althusserian research programme, and its eventual exhaustion in particular his understanding of ideology, (Althusser, 2014). Althusser himself, in developing his account of ideological state apparatuses, references Gramsci in terms of identifying his work as similarly attending to the “specific effectiveness of the superstructures”

56 We can also identify Hindess and Hirst’s infamous move from Althusserian structuralism to discourse theory as mirroring in many respects Laclau and Mouffe’s similar shift in the early 1980s (Hindess & Hirst, 1977).
His account of the relationship between ideological and repressive state apparatuses certainly bears the influence of Gramsci’s hegemony with its characteristic interplay of coercion and consent. Yet Althusser was to critique Gramsci in no uncertain terms for his (absolute) humanism and historicism (Althusser & Balibar, 1971, pp. 119–20), and held that ultimately hegemony theory remained tilted too far towards human practice over the effectiveness of social structure. Althusserian structuralism is in these senses fairly antithetical to the concerns of complex hegemony.

However, there is a more interesting convergence which relates to Althusser’s 1960s account of structure, causality, and totality, an account which approaches (if not quite reaches) many of the concerns of today’s complexity theories of the social. Althusser argues that the social whole is complex, composed of many differentiated parts, and emerges from the interactions of those relatively autonomous parts. These parts are structured due to the uneven hierarchies created by the determination in the final instance by the mode of production (Callinicos, 1976, p. 46). The peculiar causal organisational impact of the whole upon its elements is a result of the relations between causal powers of elements, and hence is “nothing outside its effects” (Althusser & Balibar, 1971, p. 189; Resch, 1992, pp. 42–52). In any particular instance, causes will tend to be overdetermined, in the sense that each effect within the system has a large number of related elements involved in its creation, and the social as a whole is structured ‘in dominance’, with the particular dominant element determined by the economy. (Thomas, 2002, p. 102).

Though Althusser’s structuralism is notably more complex in character than the Hegelian or economistic Marxisms his work is marshalled against, it ultimately remains some distance from complexity theory proper (Coombs, 2014, Chapter 7). The ‘relative autonomy’ Althusser gives to the component parts of his complex social wholes remains at least to some extent hierarchised according to a pre-given schema, with the economy located in a somewhat more mediated yet still determinant fashion (Walby, 2003). Moreover, while Althusser complexifies the Hegelian notion of contradictions driving historical process considerably, (by multiplying them, and by burying their driving force within overdertermining causality) contradiction does still remain within his account of social systems. Indeed, contradiction still remains the major source for radical change and transformation, albeit in a pluralised form (Althusser, 1969, pp. 97–
As a basically *logical* concept being applied to *causal* systems, Althusser’s structural Marxism ultimately hits the limits of what a proto-complexity understanding of the social might look like. The crucial distinction between complexity and dialectics rests upon the difference between logical contradiction and similar but non-identical causal concepts, such as tension, feedback, emergence, and so forth.\(^{57}\)

**Latour & Actor Network Theory**

Shifting our focus, again we can find some resonances with the concerns of complex hegemony in the work of Bruno Latour and actor-network theory (henceforth ANT). ANT conceives of the world as consisting of entities termed actants, which can be real or discursive, human, animal, or technological in nature (Latour, 2005). Each actor exists within a network of relations, of force or alliance. Their relative position of dominance or influence depends on the winning of ‘trials of strength’, where success depends in turn on the ability to recruit more actants to a particular cause (Harman, 2009, pp. 16–25). ANT’s emphasis on examining the material and the semiotic, and the combination of human and non-human entities in webs of networked relations appears superficially close to much of what we have presented of complexity theories of the social. Yet despite a temptation to view ANT as somehow compatible with complexity theory, there are some important and ultimately irreconcilable difference. Latour himself explicitly privileges the form of the network over all notions of complexity, system, or structure (Latour, 1993b, p. 3), and this focus on connectivity over structure, emergence, or systemic power marks the crucial distinction between complex hegemony and ANT.

In line with an emphasis on network relations over complexity, ANT’s underlying ontology is quite distinct from that we have proposed for complex hegemony. Flattening reality into a singular all-purpose metaporphics of actants, relations, translations, trials of strength, and so forth (Latour, 2011), results in a very similar set of problems to those we diagnosed in Laclau and Mouffe’s discourse. Indeed, Latour’s own debts to structural linguistics have been noted, even if he continually denies reducing the world to discourse (Høstaker, 2005). Without distinguishing between the unique ways different *kinds* of thing (from concepts to technologies) might organise themselves, we

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\(^{57}\) Though we do not believe that material dialectics is an adequate way to understand causal processes, dialectics remains an important conceptual repertoire through which processes of logic and reasoning can be comprehended.
are left at best with a methodology (effectively a re-described ethnography) rather than a satisfactory ontology (Brassier, 2011, pp. 52–5; Byrne & Callaghan, 2014, pp. 69–72).

By point of contrast, complex hegemony presents a theory of the social as complexly stratified, as operating according to general framework principles, but with specific local logics of organisation at every level.

There is a political upshot to such a removal of stratification in favour of ontological-metaphorical flatness – in that it evades much of the political impact of particular social, economic, and technological modes of organisation, which is also the organisation of systemic inequality, and systemic power (Noys, 2011b). Much of Latour’s polemic against hierarchy is angled against pre-conceived hierarchical organisation (Latour, 2011), yet as we have argued, it is eminently possible to have emergent, dynamic, hierarchy without it being inscribed in some kind of transcendental ‘container’.

Moreover, while Latour’s account of networks ultimately admits to some micro-scaled hierarchies, it appears incapable of making the leap to understanding those operative at the macro, or even global scale. ANT has, for example, habitually rejected macro-scaled actors such as capitalism (Latour, 1993a, p. 173; Latour & Callon, 1997). This is entirely hostile to the perspective we have presented – which seeks to understand systemic power, in the form of hegemony, as an emergent property, one with real causatory impacts, capable of re-formatting the ground upon which other entities operate. While quantitative network science has much to recommend it, the unfortunate ontological predilections of ANT leave it able merely to re-describe real networks, rather than explain their operations.

**Metagovernance & Governmentality**

Closely linked to critiques of Latourian network theory have been recent criticisms of network governance paradigms. Broadly speaking, metagovernance is an umbrella term covering different theories attempting to reconcile state power in an era of multiplying networks, and the question of how governments are able to govern in conditions of the increasing complexification of modern societies (J. S. Davies, 2011). Metagovernance is the ‘governance of governance’, a notion which resembles, to some extent, our own understanding of hegemony as the guided manipulation of self-organisation. Many variants of metagovernance exist, but one leading version is a development of Foucauldian theories of governmentality (J. S. Davies, 2013). In its more Foucauldian
forms, metagovernance involves integrating networks into an understanding of liberal
governmentality, and understanding network forms as enabling ‘governance at a
distance’ (Bang & Esmark, 2009). While such accounts acknowledge the use of the
threat of violence or force, the coercive dimensions of power are generally de-
emphasised. As such, a recent critique elaborated by Jonathan Davies charges such
positions with effectively swallowing neoliberal rhetoric around decentred networked
forms of governance, and in the process ignoring the continuing role of hierarchies and
coercion in actually securing state hegemony in practice (J. S. Davies, 2011). Two
interrelated questions arise here. First, to what extent is complex hegemony really an
account of metagovernance? Second, and more complex, is as to the role of coercion in
complex hegemony.

To answer these questions involves unpicking the terms of Davies’ critique. Davies
tends towards conflating hierarchies with coercion, and networks with hegemony (J. S.
Davies, 2013, pp. 23–6). As we have argued, hierarchy is always involved in networks
in practice, and the normative claim that networks are intrinsically anti-hierarchical has
little evidence, even being directly contradicted by the basic findings of quantitative
network science (Barabási & Albert, 1999). Part of what we have explored in both our
work on complexity theory and hegemony theory are the myriad ways in which
networked hierarchies emerge out of self-organising processes, and how the structure of
these hierarchies influences self-organisation. Therefore we disagree with the notion
that the hierarchy-network binary maps perfectly onto the coercion-hegemony one.
Moreover, the imbrication of coercion and consent we have established as being central
to Gramsci’s account of hegemony does not place hegemony in opposition to coercion,
but rather folds together coercive and consensual practices, together with an array of
practices that fall somewhere in-between. Coercion is a part of hegemony. We therefore
also disagree with Davies’ distinction between hegemony, threat, and direct coercion (J.
S. Davies, 2013, pp. 25–6), as being fundamentally non-Gramscian in orientation.

On such a basis, our account of complex hegemony does not fall within the ambit of
metagovernance theory, as Davies critiques it, to the extent that it does not seek to
downplay the role of coercion, given that coercion is a vital (though not predominant)
part of hegemonic rule. While complex hegemony is interested in governance ‘at a
distance’, as in metagovernance theory, the meaning of ‘distance’ is in a somewhat
different register, and does not translate to purely consensual or purely networked modes of power. Moreover, while complex hegemony does at times sit within the ambit of the phenomena discussed under metagovernance, (for example the role of governments in re-enforcing hegemonic rule) it also includes counter-hegemonic projects, which clearly operate outside such a scope.

What the examination of this debate leads us towards is a clarification of how the coercion-consent hegemonic dyad operates within complex hegemony. Here we can conceive of a spectrum of practices, spanning from the most consensual forms of rule, through to the most directly coercive. The most consensual forms of political force would imply a relationship between leading social forces and those led of conscious, self-reflective active assent. This might include direct political alliances, or the rational assessment of benefit to alignment with a leading social force. The most coercive forms of power would include modes such as imprisonment, and direct physical violence. Yet the majority of hegemonic politics exists in between these poles, at the point where coercion and consent are embroiled together, in situations where consent is passive, and where coercion is not absolute but relative. This is necessarily the case given that our understanding of hegemony as the creation of uneven possibility spaces for action, which sculpt the conditions under which political activity takes place. An uneven ground means that while counter-hegemonic action is possible, it is more costly, requires more effort, or is otherwise rendered more difficult. This is somewhat coercive, to the extent that it might not be what the majority of actors existing within this space might actively desire, yet minimally consensual to the extent that its perpetuation relies on their passivity for its continued existence. This does not mean that coercion is obviated or downplayed within our account of complex hegemony, so much as placed within a more nuanced conception, one which identifies the most powerful terrain as being that which lies between absolute coercion and absolute consent.

Having highlighted the distinction between dialectics and complexity mechanisms, emphasised the need for explanatory stratification, and clarified the relationship between coercion and consent, we now shift towards considering the broader implications of complex hegemony, and possible pathways for future research.
iii. Complex Hegemony and its Future

Our argument for complex hegemony has a number of analytical and political consequences. To begin with the analytical repercussions, complex hegemony, as a new theory of hegemony, exists as a rejoinder to those recent critics who have argued that hegemony is no longer relevant for understanding the workings of contemporary power. It demonstrates the persistent utility of hegemony as a theoretical tradition, one which, contrary to its critics, is uniquely well placed to be refined, customised, or otherwise upgraded. In this respect, it also confirms the centrality and flexibility of hegemony theory for conjunctural political analysis.

Yet while it re-affirms the tradition of hegemonic theory and analysis, it also transforms it. Complex hegemony develops an often gestured towards thematic, from Gramsci onwards, (of complexity and emergence) which has otherwise remained largely implicit. This explicit development relies upon the formal resources of complexity theory, and introduces a number of innovations to hegemonic analysis, such as theories of emergence, self-organisation, phase space, and generative entrenchment, each of which substantially modify the existing conceptual vocabulary. It thereby suggests an alternative framework to Laclau and Mouffe’s through which the principles of Gramscian hegemony theory can be abstracted and hence generalised. In so doing, it recasts the role of the hegemonic subject and hegemonic strategy through the lens of a more contingent and open-ended vision of praxis. It also works to integrate a number of fields, such as the sociology of technology, which have habitually been absent from understandings of hegemony. In so doing it brings into focus the full spectrum of different systems that are implicated within processes of hegemonic rule or contention, while giving distinct spheres and types of entity their own autonomous, level-specific mechanisms of organisation. In this sense, complex hegemony does not repeat the error of Laclau and Mouffe’s all-encompassing discourse.

As a political theory of complexity, it establishes a new position within the field of complexity social theory, one in opposition to both scientistic quantitative or agent-based theories and post-structuralist accounts which emphasise indeterminacy and the mystical nature of becoming. It critiques the idealised conceptions of hierarchies and networks which have proliferated within social and political theories of complexity, instead proposing hybrid multi-lateral network-hierarchies as being the pre-eminent
structure of complexity, developing ideas from Herbert Simon and Barabási and Albert. It builds upon and extends concepts from the Marxian and Critical Realist currents within social theories of complexity, while implanting them within the analytical matrix of hegemony theory. In so doing, it contributes to a broader shift within the social sciences towards the complex, inter-disciplinary and even post-disciplinary (Byrne & Callaghan, 2014).

In terms of the strategic implications of complex hegemony, it must first be emphasised that it is obviously not strictly necessary for political agents to already possess a working theory of hegemony in order for them to operate effectively. The politics of neoliberalism, for example, has proceeded without apparent explicit mediation through any theory of hegemony, though conforming closely to the hegemonic project format in practice, as we have charted in Chapter 5. Yet for those forces which would seek to oppose, contend, or supplant existing hegemonies, there are strategic and organisational insights which are worthy of attention. Indeed, one of our claims is that complexity does not impose irreducible barriers to comprehending our world, but rather enables us to discern general mechanisms and principles through which we might make sense of it, and hence intervene within it.

Our considerations of strategy at the end of Chapter 4 are instructive here. Complex hegemony implies the need for a form of strategy, but one which is distinguishable from an inflexible ‘master plan’, requiring a mode of action that is suitably pragmatic and which relies on correcting partially autonomous processes, intending to generate ‘run away’ dynamics. What is important is always the question of leadership, which is really a matter of tendency and navigation. Organisationally, this need not be invested in a singular actor or type of actor. Leftist debates about ‘the problem of organisation’ would do well, therefore, to abandon the notion that discovering a singular organisational form will solve the problems of neoliberal hegemony. Instead, a consideration of the emergent dynamics of ecologies of organisations will be more likely to result in effective counter-hegemonic projects.

Counter-hegemonic projects must operate across a full spectrum of social forms for maximum efficacy, rather than believing that any one on its own holds the key to unlock social transformation. Power bases within specific regions of the social should
be captured and held, but always as means towards further ends, as a part of ever-more broad processes of hegemonisation. No individual location within the socio-political can be considered determinant, and hence the project to capture state power at all costs should be avoided, if those costs result in the ultimate ceding of broader hegemonic power (as has proven the case with New Labour’s third way triangulations). All hegemonies are to some extent precarious, even those that appear to be well-embedded, because all hegemonies are dynamic, both in the sense of embodying leadership as emergent social trajectory, and in the sense of depending in turn on a series of systems, (social, economic, cultural, political, technological, and environmental) each of which are given to instability. Yet as we have demonstrated in the case of post-2008 neoliberalism within the UK, a crisis alone will rarely be sufficient to entirely remove an existing hegemony. As such, the development of the means to act at the moment of crisis is an important part of a hegemonic project, a means which may be party political, intellectual, cultural, technological, or some mixture of all of these.

**Future Trajectories**

This thesis has set out the general principles of complex hegemony, knitting together the theoretical traditions of complexity and hegemony to create a new way we can understand the workings of power. Much of this task has been necessarily theoretical in nature, and leaves many important areas still to be elaborated in full. This means there is a need for further investigation into the ways in which complex hegemony operates in specific domains in far more empirical detail than we have been able. For example, particular attention must be given to the interaction between hegemonies within the media and the sociotechnical ecologies they depend upon in turn, or to the interactions of financial hegemony within the economy and the class make-up of ruling elites, amongst many other areas. There is also a need for more research into how different kinds of complex hegemony operate. For example, non-Western forms of hegemonic rule and counter-hegemonic projects will operate under distinct mechanisms of organisation, and hence have unique dynamics, when compared to Western hegemonies. Beyond the general need for further empirical specification, however, there are a number of theoretical trajectories that future research in this field should address: questions of spatiality, abstraction, and the broader politics of complexity.
Scale, (and spatiality more generally), is a key horizon in which complex hegemony operates. In Chapter 4 we addressed this issue in some respects, pointing towards the relative, rather than absolute nature of scale, with scalar hierarchies produced through social and political processes of contention rather than being pre-formatted. Further work here would seek to enrich the insights of complex hegemony theory with ideas from the philosophy of spatiality (Harvey, 2005; Lefebvre, 1991; Massey, 2005), and to seek to build connections with the work of world systems theory (Arrighi, 2009; Braudel & Mayne, 1995; Wallerstein, 2011) amongst other critical political-geographical work. Most important here is to understand how different scales of actor interact and contend with one another and how the spatial dimension of hegemony, in the form of dynamic network-hierarchy, is implicated in the modes of hegemony which emerge as a result. This would also serve to develop complex hegemony’s spatial dimensions along the lines suggested by pre-existing complexity theories of international relations (Bousquet & Curtis, 2011; Cudworth & Hobden, 2011).

Closely linked to this are questions of abstraction. We have partially discussed the politics of abstraction in thinking through the role of complexity production and the ideology of complexity in the re-enforcement of neoliberal hegemony. Yet this issue bares much more extensive elaboration, in particular in terms of the relationship between complex hegemony and ‘real abstraction’. Marxian theories of real abstraction attempt to understand the ways in which abstraction is not merely produced in conceptual thinking, but through human practice, especially those practices mediated by capitalism (Finelli, 2007; Sohn-Rethel, 1977; Toscano, 2008). Though this tradition of thought has some not insignificant problems, particularly in its more speculative excesses (Williams, 2014), its emphasis on the political implications of abstraction is a necessary first step to delineating a broader assessment of the role complexity plays in structuring the political environment. Crucial here would be to establish the relationship between complexity and abstraction, the role of practice and theory in its construction, and the role of cognitive mapping (Jameson, 1988) in potentially surmounting it.

Finally, a broader question of the politics of complexity remains to be answered. This is not just a matter of specifying how social complexity is involved in political processes such as hegemony, but of establishing the normative valence of complexity itself: what does the increasingly complex ensemble of global social relations humans are producing
mean? Is complexity to be embraced or warded off? What dangers and opportunities does social complexity pose? Many significant political problems and social issues are related to this question, from the dangers of anthropogenic global warming to financial instability, from questions of cosmopolitanism and multiculturalism to growing technological complexity. Moreover, there have been increasing political tendencies in the years since the 2008 crisis, from far right secessionists to the soft right of Maurice Glasman’s ‘Blue Labour’ and Philip Blond’s ‘Red Toryism’ and the ultra left discourses of communization theory and neoanarchism, towards valorising the horizon of ‘the local’ as a remedy to the problems of complexity (Blond, 2010; Finlayson, 2011; Noys, 2011a). While these manoeuvres have been rightly critiqued (Sharzer, 2012; Srnicek & Williams, 2015; Toscano, 2011), there remains a space for a fully-developed defence of social complexity, from the standpoint of a left-oriented complex hegemony theory.

Such a defence is closely connected to the prospects of re-invigorating the political left in a time of instability. On the level of strategy, this might include incorporating the ideas of complex hegemony to upgrade the horizon of action, to understand politics as a complex of dynamic processes of contended and manipulated self-organisation. On the level of normative goal, this will mean giving up on the idea of reducing social complexity to ‘bring the world down to human size’, or of restoring humanity to some prelapsarian vision of organic wholeness. Instead this requires the embracing of complexity itself, as the very medium of future human freedom. These two dimensions of a future politics of complexity are related, and must advance in tandem, as mutually re-enforcing. The more we understand the state of complexity, the more we can organise and hence welcome it in turn.

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58 Tainter’s work on the problems which have faced past complex societies remains a crucial reference point in such debates. See Tainter, (1988).
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