Immanent Creativity and Constitutive Power

By Robin Frederick Dunford

Submitted by Robin Frederick Dunford to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Politics

Submitted: 12/2011

Word Count: 90006 (exclusive of footnotes, appendices and bibliography)

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature: …………………………………………………………..

Abstract:

I argue that the resources for political change do not exist as already constituted entities, whether in the form of transcendent values or an already-given consensus. Instead, they must be created; constitutive political action is rooted in creativity, and requires the creation of new movements, new powers, and new values. This creativity, though, does not come from a transcendent outside, as though a bolt from the blue. Instead, political creativity, and the creativity which humans may use to transform politics are themselves rooted in the immanent creativity of the natural and material world. I bring the sciences of Complexity into relation with the philosophies of Spinoza and DeLanda in order to argue that the world is made up of only the one reality of matter-energy, but that this matter-energy is capable of creatively generating novel phenomena. This understanding of the creativity of matter-energy is then used in order to reconceptualise political creativity in materialist terms. Political orders are constituted by a set of capacities or powers in relation, but the field of powers and their possible relations vastly exceeds any one configuration that it enters, and this field of possible relations, and the possible powers that might be formed through these relations, provide boundless resources for constitutive political change.

Table of Contents

Acknowledgements

But most of all I would like to thank Diane, Michael, and Lotte Dunford, without whose constant support, encouragement and education my work would not have been possible.

Note on References and Abbreviations

All references are to page numbers with the following exceptions:

All references to **Descartes** and **Locke** are to book number and then paragraph number.

All references to **Plato** are to his complete works (Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company). The references are to Stefanus pages, and not page number. The following abbreviations are used:

P – Plato, *Parmenides,* in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company 359-398

R – Plato, *Republic*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 971-1224

T – Plato, *Timaeus*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 971-1224

With the exception of references to **Spinoza, B**. (2007) *Treatise Theological-Political*, Cambridge: Cambridge University Press, all references to Spinoza are to his complete works (Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company). Unless otherwise specified, references are to book/chapter number and then paragraph/proposition number. Letters are to Letter number.

Furthermore, the particular works by Spinoza are demonstrated through the following abbreviations:

E - Spinoza, B. (2002) *Ethics*, in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 213-383

L - Spinoza, B. (2002) *Letters*, in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 755-961

PCP - Spinoza, B. (2002) *Principles of Cartesian Philosophy and Metaphysical Thoughts,* in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 108-213

PT - Spinoza, B. (2002) *Political Treatise,* in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 676-755

TTP - Spinoza, B. (2007) *Treatise Theological-Political*, Cambridge: Cambridge University Press

In the *Ethics* (E), all references begin with the book number (in Roman numerals), followed by the following abbreviations:

L – Lemma

C - Corrolary

D - Definition

P – Proposition

Pos - Postulate

PR – Proof

S – Scholium

So, a reference to Ethics, book one, proposition one, proof, would read: (EIP1PR), and a reference to Ethics, book two, definition two would read: (EIID2)

All emphases are original unless otherwise stated.

Preface

Questions of political theory, in particular those concerning social justice, were my initial motivation for studying philosophy and politics. But I soon became disillusioned with much of the Anglo-American political theory that addressed these issues. It seemed clear to me that any attempt to found value on a transcendent outside, be it God or Platonic moral facts, was doomed to failure. But Anglo-American political theorists' continuing concern with moral values as a foundation for political institutions and decisions seemed an insufficient response to what Nietzsche (1974, 125) called the 'death of God', or the death of transcendent values that might justify political orders. Without some transcendent resource, all that could be pointed to were already given shared agreements that could provide resources for a limited public sphere, with all other values left to the individual to privately adopt and follow (as in the Rawls' (1985, 1999) approach) or more substantial values that existed within a certain community (as in the Communitarian approach adopted by Sandel (1998) and Macintyre (2007)). The continuing focus on a normative discussion of values seemed to result either in the unjustified and arbitrary exclusion of a number of viewpoints, with certain values affirmed, without justification, over others, or in a hugely restricted sphere of politics, with only a limited range of issues left up for public dispute. In the case of Rawlsian liberal political theory, this restriction of the sphere of politics to the sphere of consensual agreement left no resources for political dispute once it became apparent that meaningful consensual agreement was incredibly difficult to find. In the case of communitarian political theory, there seemed an arbitrariness about the communal values accepted, and communitarianism seemed only able to sediment a particular order or tradition, with no satisfying account given of why this tradition should be valued over any other competing or emerging set of values or practices.

My disillusionment with the problem of discovering and representing normative values initially led me toward an idea of creativity. I thought, following Nietzsche, that if the

values and agreements that might be required for political change are not already out there, ready to be represented, they instead might be created. This move toward creativity took me in a different direction, initially resulting in a turn toward the philosophies of Henri Bergson and Gilles Deleuze. My hope was that I would be able to develop an understanding of creativity which could be politicized in order to account for the creation of political value without recourse to any kind of transcendent outside. But this more philosophical turn inevitably moved me toward concerns regarding some broader philosophical issues. A particular concern was with the philosophical problem that most animated Bergson. Is the universe a deterministic machine, given for eternity in a set of unflinching, eternal laws, or is the universe fundamentally creative, generating novel and in principle unforeseeable processes and products? It is important not to understate the importance of Bergson and Deleuze to this project. Indeed, some of the themes of this project, namely, immanence, monism, and creativity, are deeply Deleuzean themes, and important concepts, like assemblages and stratification, were introduced by Deleuze in his collaboration with Felix Guattari.[1] I am so keen to emphasize the importance of these thinkers because, though they were important in leading me toward my project, they do not figure very prominently, directly at least, in the final product.[2] The reason that they do not figure prominently in the thesis is because they led me toward other thinkers and fields of enquiry that allowed me to do the theoretical work of developing and politicizing an immanent account of creativity in a way that I found both exciting and fruitful. This different approach to which Bergson and Deleuze led me, but which led me to increasingly move away from Bergson and Deleuze's work, was one found in the sciences of complexity and in the 'new materialist' work that emerged through philosophical, political, and sociological reflection on complexity theory. Both complexity theory and the new materialist work that sprung from it paint a picture of the natural and material world as something which endlessly generates new and unforeseeable emergent phenomena. These emergent phenomena,

---

[1] Though these concepts were introduced by Deleuze and Guattari, the use I make of them later in the thesis follows the work of Manuel DeLanda.

[2] This approach of using Deleuze to explore creative avenues for political theory has been followed by Nathan Widder (2008).

furthermore, are understood to emerge immanently, through self-organisation, and not through the transcendent organisation of a God-like hand directing affairs from outside, nor through the modelling of the natural world on an eternal set of Platonic essences or forms. Complexity theory, then, gave me a different way to state Bergson's fundamental intuition regarding the creative nature of the universe.

But how was this understanding of creativity to come back to be of political significance? A shift toward a different body of literature in political theory and a different mode of political practice and activism in my personal life made it clear to me that my political and broader philosophical concerns were closely related. Experience in activism, which included my participation in protests in Copenhagen during the 2009 cop-15 meeting against the inaction of politicians and corporations on climate change, led me to believe that there was something more fundamentally wrong with normative political theory based predominantly on moral values. This form of political theory increasingly appeared to be radically at odds with how politics, be it an activist politics of resistance, the functioning of a state, or the global dissemination of a neo-liberal markets, works in the real world. Winning a normative argument started to seem relatively insignificant in attempting to generate political change. Nowhere is this more apparent than in the issue of climate change. The normative argument on climate change and climate justice has, despite some remaining scepticism, been broadly successful. There is a consensus amongst politicians, and indeed amongst a large group of people, that climate change is occurring, is occurring thanks to human action (largely human action in the wealthy western world), and is having a hugely negative impact on the lives of people (in particular, the people in poorer countries who have not made much contribution to climate change). There is a consensus, further, that without significant social, political, economic, and indeed personal change, the situation will only worsen. Finally, there is a broad agreement on the idea that we have a political and moral duty to prevent further damage to the climate.

But this normative agreement and commitment has not led to meaningful action on climate change. Rather, such action always seems to be blocked by other concerns. Worries about retaining economic prosperity, which can be driven only through further production and consumption, tend to trump worries about climate change, even where this prosperity is not regarded to be more important from a moral perspective. In this regard, the accumulative nature of capitalism and the necessity for economic growth to enable the continuation of a capitalist system is fundamentally at odds with any political and moral commitment to combating climate change. Furthermore, a number of vested interests who make great money from both pollution (through the selling of polluting fuel, through producing and consuming environmentally damaging goods, through promoting and offering polluting modes of travel etc.) tend to block and resist any attempts to combat climate change, even when individuals involved pay lip service to the problem of climate change or use a concern with the climate as a tool to promote a good brand image. Finally, at the personal level, the ability to do a number of things people like to do or enjoy doing, be it eating meat reared on former rainforest land, regularly flying to go on holiday, or driving a polluting car, tend to overwhelm the acknowledgement of a duty to protect the environment.

The lack of effectiveness of normative argument and normative commitment led me to believe that political theory needs to think not in terms of values and rights, but in terms of *powers*, with political change therefore not requiring a set of values, except insofar as these values have powerful effects, but instead requiring the development of movements with *powers to act.* A combination of my understanding of politics in terms of power, and my belief that resources for politics were not already out there, either as transcendent forms or already existing agreements, and that they therefore needed to be created, moved me toward political theories that think in terms of *constitutive power*. Upon studying theorists of constitutive power, it became apparent that, though they may have offered examples of what they deemed to be creative political acts, they did not offer any account of how this creativity was rooted in the natural and material

world of which humans are formed. Creativity seemed to appear, particularly in the work of Hannah Arendt, as an extraordinary human capacity that bore no relation to the natural and material world in which humans act and from which humans are formed. But it seemed to me that this human creativity was not so much overplaying the creativity of the human estate as underplaying the creativity of non-human nature. The problem, in an account of constitutive power as based on a purely human form of creativity was not the emphasis on creativity, but the emphasis on its distinctly human nature. This emphasis came about, in my view, from an inadequate account of the natural world, an account that has been thrown into question by the sciences of complexity and emergence. It was here that it became important to combine my interest in new materialist understandings of the creativity of the natural and material world with my interest in political theory. By bringing a new materialist account of the natural, material world as productive, creative, and constitutive of numerous novel entities, processes, and orders into relation with the theme of constitutive power, it was possible for me to understand constitutive power as something that is rooted in and part of the natural and material world.

In basing constitutive, creative political power on the wider creativity of the natural world, one aspect that characterised previous accounts of constitutive power is called into question. Inspired by Arendt and by Carl Schmitt, a number of thinkers including Chantel Mouffe and Paul Ricouer have sought to respond to a perceived attack on the specificity of a political sphere undertaken by the Marxist tradition and re-assert the existence of 'the political' as a distinct, and distinctly human, sphere of life. They take issue with a version of Marxism which subordinates political life to economic life, with politics becoming simply a way of playing out a class struggle that exists at a more fundamental level. Ricouer (1965, 248) attempts to identify a "specific type of rationality" and "specific evils" that are distinctly and uniquely political whilst Schmitt (1996) and Mouffe (2005a, 2005b) understand the specificity of politics in terms of friend and enemy relations that are not reducible to relations of class, economic

competitor, or any other relations that are said not to be distinctly political. Arendt, also critical of the alleged Marxist subordination of the political, sought to re-assert the specificity of politics by rigorously separating it from the economic and indeed the biological sphere, as shall be discussed in chapter two. When constitutive power is theorised, as it is in Arendt, as a distinctly human endeavour, separate from biological and indeed economic life and made possible by a distinctly human capacity for creativity, a clear and distinct autonomous human activity of politics is easy to identify.

My work calls into question this radically autonomous sphere of politics. I root the creativity of humans and creative, constitutive power within the natural and material world, and also understand much of the constitution of political orders to take place through the daily reproduction of material life, which takes place in seemingly more biological and economic spheres. But I do not, however, return to the kind of vulgar materialism or vulgar Marxism to which Arendt and Ricouer were responding, nor the kind of liberal economism in the face of which Schmitt sought to re-assert the existence of politics.[3] Rather, the 'new' materialism with which I am working stresses, as I shall go on to indicate, *partial* autonomies that exist at any level of enquiry. There will, then, be some political phenomena that are distinct and autonomous from economic and biological life, but they will not exist as radically distinct phenomena that render politics entirely different in kind from any other sphere of activity, made possible by the radically distinct qualities held by mankind in opposition to the rest of nature. Rather, they will be particular autonomous 'political' capacities and phenomena that act and exist within a rich network of activity involving physical, chemical, biological, psychological, economic, and various other kinds of processes. And these partially autonomous phenomena and capacities are not given or identifiable by any kind of theoretical account of the 'nature' of 'the political'. Rather, they are produced in various ways in different times and places. As a result, if one desired to identify a set of political phenomena that are distinct from economic, biological, and other forms of life (a task

---

[3] I do not in any way want to indicate that Marx was a subscriber to a vulgar form of materialism or indeed to a vulgar Marxism.

not undertaken here, where I focus on what constitutes given orders regardless of whether it is a more economic or more political practice), an empirical investigation that identifies particular capacities or particular things as distinctly political, with their distinct and autonomous set of political capacities, behaviours, virtues, and evils, would be required.[4]

Agnes Heller (1990, 119) claims that "the concept of the political came to the rescue of political philosophy after it had fallen victim to too much science, too much compromise, too much realism". But it seems to me that the concept of the political, and more importantly, the concepts of constitutive power articulated by a number of theorists of 'the political', have fallen victim to too little science, in seeking to understand politics as a primarily discursive or normative activity taking place outside of or indeed above natural and economic practices and processes. In some cases, furthermore, they have fallen victim to too little realism. In Arendt's case, this lack of realism consists in her attempt to abstract and remove from a 'political' sphere any social and economic issues surrounding the distribution of goods and services, a move characteristic of her attempt to separate politics from the daily reproduction of material life. In Michael Hardt and Antonio Negri's case, this lack of realism consists in an attempt to understand a multitude of human resistance as something that can unite in commonality, without being internally differentiated, to fight the capitalist empire in which we live and move toward an absolute democracy with no hierarchies or oppressions. Part of my motivation in undertaking this project is to continue to think in terms of a creative, constitutive power that can break with existing orders and institute new political practices and new modes of political, and indeed social and economic, life. But I wish to inject a dose of science and realism into a field which has lost itself in an illusory sphere of radically distinct human activity or in a commonality to come that ignores the very real differences that exist amongst the actors that make constitutive power possible. Indeed, it is only by bringing constitutive power down from its haven of

---

[4] It should be noted that Ricouer does base his account of a distinctly political form of evil on an empirical example, namely, the Budapest uprising and the various oppressions that led to it.

abstraction from, in Arendt's case, the daily reproduction of material life or, in Hardt and Negri's case, from the real differences and oppositions that exist amongst actors, that the radical potential of constitutive power can be unleashed.

Introduction: Immanent Creativity and Constitutive Power

In the burgeoning sciences of complexity and emergence, a new understanding of the material world is surfacing. The material world is no longer a mechanistic machine operating like clockwork, with a set of eternal laws governing all practices, processes, and entities. Instead, the material world is characterised by a volatile process in which the unforeseeably new emerges with regularity. This new understanding challenges classical science which proposed a clear hierarchy of causal effects and a corresponding hierarchy of intellectual enquiries where the basic and most fundamental material parts, processes, and laws were said to be the only truly effective phenomena. Though it was not yet possible, it was thought that discoveries in the social, political, psychological and economic worlds might be reduced to principles and explanations in the biological sciences, which in turn could be explained by the chemical sciences, until the reduction finally worked all the way down to basic tenets of physics. The laws of physics, which may even in turn be based upon more fundamental mathematical principles, determined all chemical, biological, psychological, social, economic, and political affairs. And these laws of physics, in turn, were given for eternity. Not only could these laws of physics explain the present state, they could also explain the future, and, indeed, retrodict the past.

Newton's famous equations were the model for this understanding of science. Newton's equations could predict the positions of planets and other celestial objects with an extraordinary degree of accuracy. Armed with Newton's laws, all one needs in order to measure where planets will be is a list saying where they are and how fast they are moving at one instant of time. "The rest is a matter of routine calculation" (Cohen and Stewart, 2000, 16). This view was extended from the behaviour of large scale celestial objects to the entire universe through a belief that "nature is exceedingly simple and

conformable to herself. Whatever reasoning holds for greater motions, should hold for lesser ones as well" (Newton, cited in Westfall, 1983, 389). Once this reasoning is extended, as Newton demands it to be, the result is a clockwork universe entirely lacking in spontaneity and creativity. Later, it became clear that humans are fully part of the one material and natural world, produced through evolutionary processes and not simply made in God's image or in conformity to a pre given model or essence that renders them separate from the rest of nature. Combining an understanding of humans as part of nature and the natural world as deterministic gives an understanding of the entirety of human affairs as subject to this set of eternal, unflinching, and deterministic laws. The universe, in its physical, biological, and human dimensions, is simply "wound up with the three laws" before it passively runs "its mechanical course" (Mitchell, 2009, 19). Such a view of nature reached its apotheosis in the figure of Laplace's demon, an imaginary being "capable at any given instant of observing the position and velocity of each mass that forms part of the universe and of inferring its evolution, both toward the past and toward the future." (Prigogine and Stengers, 1984, 75) Laplace's demon could predict the entirety of the future, and discover the entirety of the past, just armed with information of the position and velocity of each mass of the present.

This deterministic and reductionist view of the world has never been beyond contention. Indeed, there have always been concerted efforts to save the world, and the human world in particular, from this automatism. But these efforts, as I shall indicate throughout this thesis, have tended to work by unjustifiably separating the human world from the natural world through a dualism in which humans are understood to be radically distinct from the rest of nature. Whilst the natural world may be one of passivity and determinism, humans are said to act on it in ways that are creative, thus saving the universe from automatism. Descartes separation of a physical realm of determinism from a mental realm of free thought, which could then come to act on the physical world in creative ways, Kant's separation of a noumenal realm of free willing from a phenomenal realm of determinism, and Arendt's understanding of humans and

their unique capacity for a creative form of action which saves a world otherwise subject to automatism provide three cases, the first and last of which shall be discussed later. But recently, a promising challenge to this world view has come from within the sciences itself. As physicists Laughlin and Pines (cited in Buchanan, 2002, 207) indicate, "the central task...[of science] is no longer to write down the ultimate equations but rather to catalogue and understand emergent behaviour." This change is part of a broader transition, they claim, from "reductionism to the study of complex adaptive matter." No longer is it necessary to introduce a split, unjustified since the discovery of the emergence of life from non-life and Darwin's discovery of the evolution of humans from the rest of nature, between a deterministic physical world and a liberated, creative human estate. Instead, indeterminacy, productivity, and potentially even creativity, can be found within the natural world.

The Newtonian vision of a clockwork universe initially came under threat with the rise of Quantum Mechanics and Chaos Theory in the early part of the 20th century. Heisenberg's uncertainty principle demonstrated that it was impossible to measure accurately certain pairs of physical properties of a particle, including position and momentum and energy and time, simultaneously. And Chaos Theory, with the famous image of the butterfly effect, showed that in some material systems a tiny difference in initial conditions could have a huge difference in where the system would end up. Combining these two insights, it becomes clear that for some material phenomena, exact measurement and prediction of the present state, let alone future states, is impossible. This did not affect the celestial movements that Newtonian equations could accurately predict, but when it came to material systems at different scales, such exact prediction was no longer possible. These scientific developments did not, however, offer a fundamental challenge to a deterministic worldview. Rather, they revealed fundamental limitations in the possibilities for accurate measurement and prediction. Laplace's demon was shown to be an entirely fictional prospect not only because of human finitude, but because of more fundamental limitations in the possibility of

accurate measurement and prediction. But these limitations were only in measurement; they did not necessarily indicate a fundamental indeterminacy in the universe, except, perhaps, on the tiny quantum scale.

It is only with the rise of the sciences of Complexity and Emergence that the possibility for an understanding of the universe as creative arises. Complexity revolves heavily around a notion of self-organisation. When material parts enter certain relations, they may self-organize to form new 'emergent wholes'. To put it very simply, a new entity, individual or indeed process is formed through a certain association of parts. But this new individual or thing, rather than being reducible to the parts that form it, has *emergent capacities*; capacities that were not found amongst the parts that formed it.[5] A major area in which complexity has had great success is in attempting to understand the origin of life. Life emerged as a certain complex association of previously non-living parts. But whilst all those parts were subject to a law of entropy, tending to disperse into disorder and lose the energy that forms them, living things have capacities the reverse of this. A living thing is characterised by the maintenance of a certain kind of order and the maintenance of energy. There is absolutely no way that these capacities could be understood, in advance, in terms of the capacities of the parts. Rather, they emerge as something with a degree of autonomy from the parts, and as something that is in principle unforeseeable. This notion of autonomy of the whole from the parts that make it up is twofold. First, in the above sense, that the capacities of the whole are not found in the parts, but second, in the sense that many different configurations of parts lead to the same result in the complex whole that emerges. And here we find the pay-off in understanding the origin of life in terms of complexity. Whilst previous accounts of the emergence of life saw life as something incredibly unlikely, with an almost miraculous association of parts required to form living and evolvable beings, understanding the emergence of life in terms of complexity renders the emergence of

---

[5] As Urry (2005a) points out, "it is not that the sum is greater than the size of the parts – but that there are system effects that are different from their parts". In other words, a complex whole does not contain some kind of strange addition, like a spirit animating it, but rather, they have effects at the level of the whole that cannot be reduced to nor foreseen in the parts.

life something likely, given the sheer range of different possibilities that may have self-organized to form a living thing in certain conditions, making us living beings not an unlikely accident, but instead "at home in the universe", to use Kauffman's (1995) evocative phrase.[6]

This new understanding of the emergence of individuals, things, and processes that are in principle unforeseeable and maintain some autonomy from the parts that form them radically changes both the scientific understanding of nature and an understanding of the hierarchical relation of disciplines. No longer is all explained by basic physical laws. Rather, there are autonomous capacities at each level that can in no way be explained by a more 'fundamental' discipline. And no longer is the universe a passive, clockwork entity. Rather, the universe is productive, constantly generating entities and processes, which in turn can come to affect other things in ways that could not have been previously foreseen. One of the important questions of this thesis, indeed, the question that dominates the more philosophical aspect of this thesis, concerns the contentious issue of whether it is possible go further, and claim that this production of unforeseeable entities is indicative of a creativity or some lack of determinism at the heart of the universe. This, of course, implies a certain understanding of the relation between scientific studies and philosophical reflection. There are a number of ways in which philosophy and science have historically related, with the relation varying across different philosophical endeavours and amongst different philosophical schools or approaches. In a number of instances, science is seen as something largely irrelevant to philosophy, it being a discipline that explains the natural world, with philosophy, or some forms of philosophy, instead focusing on more human questions of meaning and value, questions which science does not obviously speak to. My focus, here, is on the question of whether the world *is* creative regardless of its appearance to humans, and as such focuses less on meaning and value. A very different relation between science and philosophy obtains in the philosophy of science, which often focuses largely on the

---

[6] For more on complexity and the origin of life, see Kauffman (1995) and Capra (2005)

nature of scientific practices, the kind of claims science can make about the world, how these claims can be justified, along with other epistemological questions surrounding the sciences. My work does not take up this task. Science is not studied, here, as a practice, nor in terms of how it justifies certain truth claims and what status these claims have. Rather, science is used more directly for insight into questions regarding the possibility and nature of creativity and the nature of political creativity and constitutive power.

Finally, a number of philosophies have taken place in close collaboration with the sciences not by way of focusing and justifying or calling into question the status of claims of scientific knowledge, but by using the image of the world provided by the science within a more philosophical account of the subject in question. Descartes and Spinoza, as shall be discussed later, were both closely connected to scientists of their time, with Spinoza and Descartes both giving a key role to the emerging Newtonian view of matter in their ontology. In Descartes case, the Newtonian world of causal determination was affirmed in an account of extended substance, but this account was supplemented by a separate thinking substance, capable of creatively intervening in the world. Spinoza, on the other hand, refused these dualistic separations in nature, maintaining that even humans were subject to the same laws as the rest of nature, resulting in an ontology in which there was only one substance, called God or Nature, and identified with a set of fully deterministic Newtonian laws of nature. Arendt also took up a view of the material world found in science, with the natural world seen as something that was subject to a deterministic entropic decay, though Arendt contrasted this to a human action which might intervene to restore what is falling and introduce creativity and meaning into an otherwise deterministic and decaying world. For these thinkers, science did not simply give a full understanding of the world. Rather, it provided a crucial component of their particular world view. My work adopts a similar relationship to the sciences. Indeed, much as Spinoza gave a philosophical expression to the Newtonian science of his time, placing it within a certain ontological structure to

give a philosophical account of the world, I seek to give a philosophical expression to ideas coming out of the sciences of emergence and complexity, by placing this account of the natural, material world into a broadly Spinozist philosophical structure. This leads to the generation of a somewhat contrasting worldview in which there is still only one form of existence, but this form of existence is a creative matter-energy, and not the deterministic God or Nature of Spinoza's world.

I do not want to use this new understanding of the material world solely to address the question of the creativity or determinism of the universe. I also wish to follow some recent theoretical developments in 'new materialist' philosophy, politics, and social science by using this new understanding of matter-energy in order to rethink the concept of constitutive power. This endeavour forces me to raise the question of what this new understanding of materiality means for the human, social, and political studies more generally. It might initially seem that this new scientific understanding of the world vindicates the dream of many social and political thinkers to be free from any scientific world view. After all, in each mode of enquiry there will be autonomous phenomena, not explicable in terms of the parts that form them, and therefore not reducible to a more fundamental field of enquiry. These autonomous capacities, then, must be explained only in terms of that whole, and would correspondingly be explained only in terms of that particular discipline.

But it would be a huge mistake to think that the burgeoning sciences of complexity justify the fantasies of a study of the human, social and political world in isolation from the natural world. The autonomy, after all, is only a partial autonomy. Though emergent wholes have some qualities that are not reducible to the parts that form them, they are nonetheless formed of and dependent upon those parts. Additionally, the parts have a huge role in their continued functioning. But more significantly, the sciences of complexity in no way indulge a dualistic worldview in which certain entities, usually humans, live by a different set of laws to the rest of nature. Indeed, similar principles

that govern the formation of emergent wholes at the basic level of inanimate material parts are also seen to govern the formation of emergent wholes in economic, social, and political affairs. Kauffman (1995, 2008), for instance, sees great prospects in using an understanding of complexity in order to understand numerous phenomena in economics. Rather than indulging in some kind of privilege of the human estate at the expense of the natural world, then, complexity affirms the existence of irreducible capacities in all areas and at all scales, ensuring that the human, social, and political studies still have a great deal to learn from the natural, material world. As Urry (2003, 56) argues, "[t]he complexity sciences seem to provide the best means of transcending such outdated divisions, between nature *and* society, between the physical sciences *and* the social sciences."

Attempts to use this new understanding of the world of matter-energy to understand human, social, political, and indeed philosophical issues are now emerging. Many of the scientists cited throughout this thesis demonstrate great awareness of the broader significance of their scientific work. Kauffman, along with his colleagues during a spell at the Santa Fe Institute, wrote widely on the importance of complexity theory for understanding economics, and indeed for the solving of business problems. Kauffman, along with Goodwin and Prigogine and Stengers also frequently state the philosophical significance of their work, indicating the ways in which discoveries in complexity and emergence might be used to argue for an understanding of the universe as creative, or of the universe as something governed by an arrow of time which runs irreversibly toward the future. Manual DeLanda has perhaps done more than anyone else to bring the sciences of complexity into the human, social, and political studies. DeLanda has argued, using the sciences of complexity, for a non-linear understanding of history, which emphasizes the importance of understandings developed at the biological and geological level for the explanation of certain historical processes and developments. DeLanda has also sought to develop an ontology, an understanding of what exists and what kind of things exist, through a reading of the philosophy of Gilles Deleuze inspired

heavily by scientific developments in the 20th century. Furthermore, DeLanda developed a social ontology or social theory, indicating the ontological status of social phenomena, again by bringing Deleuzeian concepts into play with new developments in science. There has, furthermore, been a recent complexity turn in sociology, with John Urry's (2003, 2005b) work being particularly prominent in this regard. Indeed, complexity is appealing to sociology for at least two reasons. First, it enables, as David Byrne (2005) indicates, a mode of social and historical explanation that is both "sensitive to structure" and "aware of contingency", allowing sociology to move between deterministic structuralist understandings of the social world, which understand social phenomena in terms of powerful structures that govern people's actions and all social processes deterministically, and more phenomenological or ethnographic forms of social explanation which pay insufficient attention to social structures. Second, complexity provides a useful set of tools for an analysis of the more decentralized and in ways self-organizing global markets and culture that characterise the contemporary globalized world.[7] Finally, a series of writers, including Jane Bennett (2010), Diana Coole and Sarah Frost (2010), and William Connolly (2011), have been developing what has been called a 'new materialism', inspired by changes in scientific understandings of matter-energy, which has been used to theoretically or philosophically rethink ontology, politics, and subjectivity, with implications including the responsibility for the behaviour of individuals, of groups, and processes ranging from electricity blackouts through contemporary diet related health problems to the construction of historical artefacts being distributed across a vast array of actors, both human and non-human and living and non-living.[8]

---

[7] A special issue of Theory, Culture, and Society (2005, 22(5)) edited by John Urry provides a good overview of a range of the ways in which complexity has been used in the social sciences.

[8] This account of the uses of complexity is by no means exhaustive. For instance, Ruhl (1996) and Murray (2008) have used complexity in understanding law and legal-social systems, and new materialist understandings have been appropriated by feminist scholars in order to overcome a rigid distinction between sex as natural and gender as cultured (see Hird, 2003).

My work contributes to these developments. I contribute to these developments by offering a particular account of new materialist ontology and by bringing this ontology to bear on a concept with which the 'new materialism' has yet to engage fully: the concept of constitutive power. Constitutive power can be understood only in contrast to constituted power. Constituted power refers to the already given constitutions, institutions, values, agreements, and practices that make up a political order or society. Constitutive power, on the other hand, refers to a more creative set of powers that *produce, reproduce, and transform* any constituted order. To see why a new materialism may provide resources for a useful intervention in discussions of constitutive power, it is worth looking at Hannah Arendt's political theory. Arendt has been hugely influential amongst political theorists who identify problems with normative political philosophy based on both the representation of certain values and the construction of political orders on the basis of these values. Indeed, Arendt is critical of approaches that understand politics in terms of making, or in terms of constructing political orders according to blueprints given by certain moral values, and instead wants to think of politics in terms of creativity. It is creative human action that constitutes, for Arendt, a true politics. But Arendt understands a uniquely human constitutive power as something that forms and reforms political orders through a kind of intervention in otherwise deterministic natural processes. Constitutive human *action* is understood to be radically distinct from the automatism of an order subject to a deterministic decay. Here is found all the tenets of a philosophy and politics that separates humans from the rest of nature. Here is found an assertion of creativity, a saving of the world from automatism, only at the cost of understanding humans as inhabitants of a separate, creative estate, subject to a different set of laws to the rest of nature and the material world. I seek to bring new materialist ontologies to bear on constitutive power in order to develop an understanding of constitutive power that shows how political creativity is possible and how it might take place without proposing a radical separation between the human and the rest of nature. In so doing, I allow for an understanding of constitutive power within a monistic understanding of the universe as something

governed throughout by the same laws, or indeed by the same partial lawlessness. Moreover, I develop a different conception of constitutive power; one that, whilst acknowledging that constitutive power, and human, political, and social practices more generally are emergent phenomena that are not reducible to scientific understandings of the natural world, nonetheless appreciates the relevance and effect of the natural world in human affairs.

My argument is oriented around two apparent tragic choices, one political and one philosophical. The first arises in the field of what I go on to call 'representative political theory'. The choice here is between a political theory with critical, transformative, and potentially even revolutionary potential, but one that asserts the existence of phenomena, be they values, essences or agreements that it cannot adequately account for, or a somewhat a-critical and conservative politics, albeit one that can adequately account for the agreements that it purports to be representing. The philosophical "tragic choice", identified by Prigogine and Stengers (1984, 7), is between a monistic affirmation of a cold, deterministic universe, unfolding according to unflinching and eternal laws of nature on the one hand, and an incoherent dualist or transcendent ontology that attempts, albeit inadequately, to explain how creativity and indeterminacy can be injected into an otherwise deterministic universe. To compound the issue further, one possible escape from the political tragic choice, which locates the resources for political change in an understanding of the constitutive power of a distinctly human form of action or set of human actors, runs the risk of reproducing the philosophical tragic choice by understanding humans as a creative force injecting creativity into an otherwise deterministic and cold material world. This thesis attempts both to understand these tragic choices and the ideas from which they spring, before ultimately escaping them.

My escape from the twofold tragic choice is made possible through the development of an immanent ontology of creativity, capable of understanding the creativity of nature

without the introduction of transcendent terms or incoherent dualisms, including dualisms in which humans transcend the realm of nature to live under a different set of laws, and the development of a materialist conception of constitutive power, capable of explaining the resources through which transformative and revolutionary political change can occur, without purporting to represent non-existent values and agreements. This thesis, then, has both philosophical and political dimensions. At the philosophical level, I argue for a monistic ontology, which claims that all things are formed of the same one reality, matter-energy, which produces all the entities, processes, organisations, and anything else that surround us. And at the political level, I argue that resources for political change are not already out there, awaiting representation, and must instead be created. But this creativity cannot come about by virtue of some creative power that humans hold in contradistinction from the rest of nature; were it to, the political tragic choice would be escaped only at the cost or reproducing the philosophical tragic choice. Instead, I argue for an account of constitutive power as something that is rooted in the creativity of the natural world.

Central to my argument is the insight, inspired by and developed from complexity theory, that matter-energy itself, and not transcendent and creative forces of intervention, is creative. This creativity has previously manifested itself in the production of the kind of deterministic laws discovered by Newton, the production of life from previously dead materiality, and the creation of mental phenomena as a particular complex organisation of unthinking matter. Key to this creativity of nature is the idea of emergence. Sometimes, when various parts come together to form a new whole or a new individual, as parts of inanimate matter came together to form living things, an emergent entity with emergent capacities is produced. In other words, an entity that has capacities that are neither contained in nor deducible from the parts of which it is formed emerges from certain relations of parts. The emergent entity, then, is made of nothing but the material parts that form it, but has capacities that go beyond those of the parts of which it is constituted. Furthermore, the complex, emergent whole

is able to feed back on the various parts that form it, altering their behaviour; in the case of life being created from non-living matter, the emergent living organism is capable of holding these parts together in relation, where previously they would tend to disperse. It is in this process of emergence and feedback that creativity is located. This account of creativity, by understanding creativity as something that remains immanent to matter-energy, enables me to escape the philosophical tragic choice.

I argue, furthermore, that this philosophical account of creativity is essential to escape the political tragic choice. Escaping the tragic political choice requires identifying some creative resources for constitutive political change. But these resources must not be understood as something that invokes something separate from the one reality of matter-energy, like Arendt's creative humans capable of creative action and speech in an otherwise deterministic world. Instead, they must be shown to exist within or as part of the one reality of matter-energy. To this end, I base a distinction between constituted and constitutive power on my new materialist ontology of the creativity that remains immanent to matter-energy. Constituted power, which refers to any given or established set of social and political structures, organisations, constitutions, legal systems, and practices, is understood to be formed from the innumerable power relations between different actors, be they individuals, groups, legal systems, institutions, ideas, or political structures. But this set of powers or capacities in relation is but one small subset of the infinite field of possible capacities in relation. And, as I indicated above, sometimes new relations of parts give rise to new and in principle unforeseeable emergent entities with emergent capacities that were not contained in its parts. I argue that it is this infinite field of possible relations, relations that, when made actual, may give rise to new political powers and capacities, that provides immanent resources for constitutive political change. I argue, then, for a conception of nature as boundlessly creative, and claim that the constitution of novel political orders is rooted in, and not radically separate from, this creativity of matter-energy.

A number of conceptual terms here require definition. The meanings of 'representative political theory' and 'constitutive power' shall become clear shortly, but first, I offer provisional definitions of transcendence, immanence, monism, dualism, and creativity. To transcend is to 'go beyond' in some way. Something will therefore be transcendent if it exists outside and beyond what is present. If something is immanent though, it is contained within what is present. Transcendence, and its alternative, immanence are, as Dan Smith helpfully points out, relative terms. With both terms, "one must ask: immanent to what? Or transcendent to what?" (Smith, 2003, 46). "There are three traditional areas of philosophy in particular", Smith continues, "in which these terms have found a specific use – namely, the fields of subjectivity, ontology, and epistemology" (Smith, 2003, 47). In being transcendent to one of these three, something is not necessarily transcendent to all. For instance, the existence of certain microphysical properties, like quarks or electrons that are too small for the human eye to discern, may be transcendent to subjectivity, in the sense that they don't appear in my subjective experience of the world. However, they are not transcendent to knowledge (epistemologically transcendent), insofar as they are well studied and understood phenomena thanks to the work of the experimental sciences. Nor are they transcendent to being (ontologically transcendent), as they may be sensibly said to exist here, in this realm in which we exist, and have important effects in this world. Alternatively, God would perhaps be the classic case of an ontologically transcendent entity, insofar as God is said to exist as a completely different kind of being in a different realm. Yet, people may claim to have had subjective experiences involving God, rendering God immanent to subjectivity despite being ontologically transcendent.[9] My focus throughout when I talk about immanence and transcendence is on ontological transcendence and ontological immanence. I have no objections, here at least, to other

---

[9] In some traditions, notably, the Heideggerian tradition of philosophy, it is not common to distinguish ontology from subjectivity. Indeed, ontology is understood as the study of 'Being', where 'Being' is understood as a subjective, self-conscious form of existence. My work here is not contributing to this tradition, nor does it take up this account of ontology as subjectivity. Rather, subjective here simply refers to that which is present to the mind of a subject, or that which a subject is aware of, and ontology refers instead to what exists and what kind of things exist.

forms of transcendence, nor does anything I say have any obvious or direct implications for such issues. Dan Smith is helpful in delineating what is meant by ontological transcendence and ontological immanence:

> Put simply, an immanent...ontology would be an ontology in which there is nothing 'beyond' or 'higher than' or 'superior to' Being. By contrast, the fundamental ontological categories of transcendence would include the 'God' of the Christian tradition, the 'Good; in Plato...[both] of which are said to be 'beyond' Being, 'otherwise' than Being, and are thereby used to 'judge' Being, or at least to account for Being (Smith 2003, 48).

Put differently, transcendence involves on the one hand, the positing of something that is separate from or radically different to the form of being in which we are ensconced here, and on the other, transcendence involves "the primacy of the supernatural over the natural", where the supernatural is the form of being that lies outside or beyond the natural world we inhabit here (Montag, 1999, 4). So what I shall reject, in rejecting transcendence, is any ontology which posits a different form of being to the one in which we exist in here in this immanent realm; any form of being that exists higher than this realm here, or simply 'other' or outside this realm here. What I shall call partial transcendence posits a radical split between the natural realm and another realm. In addition to positing this split, full transcendence prioritizes the supernatural over the natural.

Here the links between transcendence, as defined here, and dualism, become clear. Dualist ontology postulates two radically separate forms of being. A philosophy is dualist when it introduces a split in being between two kinds of things that differ radically in kind, or obey different sets of laws. One might distinguish, as Descartes does, between mental and physical phenomena, and treat both as different things, each able to exist

without the other. Alternatively, one might subscribe, as Arendt does, to a dualism in which humans, at least in certain respects, are radically distinct from and obey different laws to the rest of nature. What I go on to affirm instead of dualism and transcendence is an ontology of immanence, which refuses to posit anything outside and/or higher than the form of existence in which we are ensconced. Immanence, then, will be opposed to both partial transcendence (a form of dualism) and full transcendence (a form of dualism with an added priority of one term over another). This does not, however, mean that things transcendent to current knowledge and transcendent to experience are rejected. In refusing to posit any separate form of existence, immanent ontology is aligned with monistic ontology. Monistic ontology, contra dualism, is an ontology in which no radical splits in existence are posited, and in which all things exist instead on the same plane and are subject to the same set of laws. What exactly do I mean here by *radical* splits? I mean "radical in the sense that it cannot be reabsorbed by any deeper" thing "that would reduce the terms" of the distinction "to moments of its own internal movement" (Laclau, 2004, 23). In other words, by radically distinct, I mean things that were always-already distinct, in contrast to a distinction that emerges from the movement or productivity of an initial monism. In this regard, qualitative distinctions, like those between mind and body, can be retained within a monism, but only if they can be shown to have been generated within or from an initial monism, or within the 'internal movement' of the monism. This idea of the generation or *emergence* of qualitative distinctions within a monism will be crucial to the immanent account of creativity that I go on to offer.

Creativity, as it is used here, is intimately linked to Stuart Kauffman's (2008, 142) idea of "partial lawlessness". All around us, and all the time, new people, things, practices, institutions, and so on arise. But they do not necessarily arise creatively. For one of these new productions to be a genuine *creation* they must not have been the guaranteed and in principle foreseeable product of a deterministic causal chain. In this regard, the production of a new thing, person, practice, or idea must have arisen

partially lawlessly if it is to be regarded as a creation, and not as the outcome of a deterministic process. I say partially lawlessly, and not entirely lawlessly, because for something to emerge creatively it does not have to come about by virtue of an absolute miracle or arise entirely out of the blue. It can be related to and partly resultant from a previous set of causal chains, provided that it is not *fully* governed and determined by the set of causes that bring it into being. These causes that may bring something into being in a fully determined manner are not restricted to mechanical causes. If something is determined to come into being by virtue of a final cause, or an image, aim, or intention that is then carried out or produced as it was imagined beforehand, then it once more arises as something that was fully foreseeable in advance. In this sense, if something is given as an image, model, or blueprint before it is produced, then it is not produced creatively, although it remains possible that the model itself may have been produced creatively. Once more, it must be emphasized that only a partial lawlessness, and not a full lawlessness, is required for creativity. Someone can have the intention to make something, or base something that they are making on a pre-given model, yet when it comes to making it, it can arise as something that is different from the model, aim, or intention that is seen as the motivation for its production. Provided that this difference is not down to a different determining factor, like the nature of the material out of which the thing is produced, or a certain inevitable and in principle foreseeable mistake in carrying out the production, then this emergence of something that does not fully resemble what was intended or expected can be partially lawless, and hence creative.[10]

---

[10] A focus on partial lawlessness, as opposed to determinism or pure chance and pure lawlessness, is very much rooted in the sciences of complexity, which as Prigogine (1997, 189) indicates, overcomes the "two alienating images of a deterministic world and an arbitrary world of pure chance".

Outline of Chapters

Every political theory contains, implicitly or explicitly, some account of the resources for political critique and change. These resources might be certain moral facts according to which political institutions and constitutions should be designed, certain agreements or consensuses amongst people, powers or capacities that people or groups have to uphold or change a certain political order, and so on. What unites what I call 'representative political theory', discussed in chapter one, is a view that the resources for political change, or, indeed, the resources for the justification and preservation of the status quo, are already given. The task of the political theorist is correspondingly regarded to consist in the discovery and accurate *representation* of these already given phenomena. But in two distinct guises, representative political theory fails when it comes to accounting for these already given values or agreements. The first form of representative political theory, encapsulated by the work of Plato and Locke, attempts to base political critique, justification, and change on a transcendent outside. In Locke's case, a justification of property, of the limits of governmental power, and indeed the construction of an entire political order are based on a command from a transcendent God that people not take their own lives. Plato bases a strong criticism of the Athenian democracy in which he lives, and a utopian alternative to it based on rule by philosopher kings, on a theory of transcendent forms, which are to be used as the model for the construction of a utopian political order. As a result, political action does not involve creativity, but instead involves the accurate representation of these already given forms, and the construction of political orders on the basis of this already given model. But, as Plato himself demonstrated, once a separate transcendent realm is postulated, it becomes impossible to bring it into relation with the other, empirical realm which we inhabit here. As a result, the transcendent term cannot be used as a resource for any political change or action that takes place here, in our daily, empirical lives. Transcendent political theory therefore fails to account for the already given essences, gods, or values that it purports to represent.

The second form of representative political theory, encapsulated in Rawlsian Anglo-American political theory, locates the resources for political change and justification in an already-given consensus of people around a value of treating people as equals. But the agreement reached around this value is either far too vague or indeterminate to yield meaningful resources for political change, or can be made sufficiently thick to guide political action, but only at the cost of undermining the widespread agreement and consensus that is supposed to underpin it. Rawlsian political theory is therefore faced with the choice of either offering a dogmatic assertion of a consensus that is not in fact there, or sticking to an actually existing consensus at the cost of remaining incapable of generating adequate resources for political change, justification, and action. This twofold failure of representative political theory to account adequately for the already given resources for politics that they purport to be representing indicates a need to introduce *creativity* as a key resource for politics. This move toward creativity manifests itself in a concept of *constitutive power*.

The concept of constitutive power, discussed in chapter two, provides the key to avoiding the first, political tragic choice, insofar as it focuses on a power of creativity and the construction of new political values, structures, institutions, and powers that are not already given and thereby representable, *and* locates this creative potential in social and political actors, not in mysterious transcendent realms of value or already given essences. Constituted power, as an order that is already given as something out there actually existing in the world, might be taken as a unit of analysis for representative thought. It is because of its focus on constituted power that representative political theory, where it has attempted to identify resources for political change, has looked, in Plato's case, to a set of essences or agreements regarding what the perfect political constitution would be, and in Rawls' case, toward an agreement regarding the appropriate principles of social justice for liberal democratic institutions. Constitutive power, on the other hand, refers to the kind of power that produces,

destroys, and reproduces any constituted order. But constitutive power is not exhausted by this act of the production of the constituted orders that we find in existence. Rather, constitutive power always exceeds the constituted orders it produces, and it is this excess that renders it able to transform or change any order that it has previously constituted. The American Constitution and Bill of Rights are now already constituted, and can be analysed and interpreted, be it by analysts or by Supreme Court judges, through representative thought. But they were not always there. Rather, they were created at one point, and before they were created, they could not form the object of a representative thought. Instead, it took a creative act of constitutive power to give rise to this constitutional order and set of rights. Furthermore, the constitutive power that produced the Constitution and Bill of Rights may one day institute new orders, and in so doing destroy the Constitution and Bill of Rights as we knew them. This novel political form that is yet to come also cannot be represented or understood beforehand. Rather, it can only be created through an act of constitutive power.[11] Theorists of constitutive power, then, do not restrict their political analysis to already constituted orders, values, essences, and agreements, but rather, are attentive to a reservoir of creative, productive capacities, capable of generating new and different political values, institutions, and orders. The pool of resources for creating, constructing and perhaps justifying political orders, structures, institutions, and practices is thereby expanded, but it is expanded not through reference to a transcendent outside, but, purportedly at least, through reference to a set of immanent capacities and powers of political actors.

Thinkers of constitutive power, discussed in chapter two, include Carl Schmitt, Hannah Arendt, and Michael Hardt and Antonio Negri. I adopt from these thinkers a notion of

---

[11] As shall become clear later, this somewhat schematic presentation draws the split between constitutive and constituted power in too stark and schematic a way. There are many ways in which constitutive and constituted power slide into one another. For instance, whilst the US constitution and bill of rights is an established, constituted order, it is always subject to interpretations, indeed, interpretations which purport to be *representing* the meaning or spirit of the constitution, by the judges in the supreme court. These purportedly representative interpretations themselves play a role in *constituting* and *reconstituting* the given constituted order. Indeed, one of my criticisms of existing accounts of constitutive power is that they present the difference between constituted and constitutive power in far too dichotomous a way, when in fact they tend to slide into one another despite maintaining some qualitative distinction.

constitutive power as a set of capacities for the introduction of constituted orders that were not given before-hand. I also concur that in not being given before hand as the inevitable outcome of a set of laws that could be understood by a mind with perfect knowledge, or as a kind of blueprint existing either in a realm of forms or as the product of a clearly defined consensual agreement that the actors involved in the act of political constitution share, the new constituted order could not have been grasped before its production through representative thought. But the understandings of constitutive power offered by these thinkers each contain limitations, forcing me to turn toward a different set of conceptual resources in order to modify the concept of constitutive power. Schmitt's understanding of constitutive power is, I argue, too dependent on a unified sovereign, with insufficient attention paid to the multiplicity of quotidian processes that together form a given political order. Schmitt also sees the moment at which constitutive political power institutes a given political order as excessively rare and isolated, ignoring the continuity with which political orders are produced and reproduced. Arendt sees the act of instituting politics as overly miraculous, with the resources for politics exclusively consisting of free humans creating, primarily through their speech, new and unforeseeable political forms in an otherwise fully deterministic world. Arendt's approach runs the risk of re-introducing a radical split, this time between humans and the rest of nature, which takes us back toward the kind of transcendent philosophy that I reject. Indeed, Arendt ends up rendering humans a kind of transcendent kingdom within a kingdom, bearing little resemblance to and following different laws from the world that produced them. In this regard, Arendt seems to have succumbed to the philosophical tragic choice, affirming a kind of creative force capable of intervening in an otherwise deterministic material world only at the cost of introducing a dramatic split between two different kinds of being.

Hardt and Negri come closest to my conception of the resources for politics by speaking of a *plural* and *decentred* multitude engaged in a number of *material* struggles over the production and reproduction of their daily existence. In this sense, they overcome

Schmitt's understanding of constitutive power as being a rare or occasional act performed by a unified sovereign agent, and Arendt's privileging of speech as the key activity involved in constitutive power. Hardt and Negri, however, neglect two questions. First, though they highlight the manner in which transcendent political values, institutions, laws, and sovereign actors can constrain and limit constitutive political forces, they do not discuss why transcendence is problematic at a philosophical level. Second, and more importantly, though they discuss the nature of the creativity of the multitude, a particular configuration of human actors who make up the constitutive force of which Hardt and Negri speak, they do not discuss how creativity is possible in a world formed of material stuff that many thinkers have regarded to behave deterministically. Without rooting the creativity of the human multitude in the creativity of nature itself, Hardt and Negri run the risk of giving powers to the multitude which have no grounding in the material world in which people exist. There is a risk, here, in reproducing a dualist position in which humans live by a different set of rules to the rest of nature.

The second tragic choice, discussed in chapter three, initially seems to exist on an entirely different register, being concerned with a more philosophical issue that is not of any obvious political relevance. But Arendt's attempt to locate constitutive power in a distinctly human account of creativity was problematic in part because it understood humans as radically distinct from a deterministic nature; a move that led Arendt into the second tragic choice. The second tragic choice, then, not only exhibits similar features to the political tragic choice, but is one that must be escaped in order to complete an account of the constitutive power. I shall therefore acquire the resources for overcoming the political tragic choice only by overcoming this more philosophical dichotomy. The second tragic choice concerns the question of whether the universe is a deterministic machine, operating according to cold and eternal natural laws, or whether the universe exhibits, either of its own accord, or through the intervention of some kind

of human or indeed non-human agency, some capacity for creative, undetermined action. A Newtonian and Mechanistic view of the natural world of matter and energy, which remains prevalent in much thought today, tells us that all explanatory arrows point downwards.[12] Even the most sophisticated institutions that we see around us are explained by the people in relation that form them, with humans and their actions, understandings, meanings, and so on, in principle reducible to the biological material which makes them up. This biological material is in turn explained by the particles of which biological material is composed, until explanation finally gets down to the most bare or basic element of physical reality. Only this basic form of reality, which can neither be created nor destroyed, has genuine effects, with all other forms, substances, ideas, and so on arising as mere epiphenomenon, not endowed with any causal properties. It may not be possible, through a lack of the right technologies, to perform such a reduction at the moment. Indeed, it may never be possible for us humans, but it remains something that can, in principle and by a perfect, God's-eye mind, be performed. All, therefore, is given, and nothing genuinely *novel* can ever emerge or be *created.*

From this perspective, it appears that the only way to introduce some sense of creativity and indeterminacy into our world-view involves the postulation of entities that transcend the realm of matter and energy. Christian thought that took the rise of modern science seriously suggested that God, having set up the universe to run according to a series of deterministic laws, could occasionally intervene in the chains of determinism from a position of transcendence through miracles. Descartes postulated a human 'mind' capable of creative thought only by adding a strange notion of 'spirit' to the Newtonian world of 'substance'. Finally, for Arendt, creativity and indeterminacy is only possible through the intervention of the specifically human capacity for free action. As I have already suggested, this kind of radical separation between one realm, this time

---

[12] As Toffler (1984, xiii) puts it, this "paradigm is still the reference point for physics and the core model of science in general. Indeed, so powerful is its continuing influence that much of social science, and especially economics, remains under its spell".

a realm of causal determination, and another realm, of free action in this instance, leads to serious philosophical problems. It becomes impossible to relate one realm to the other, and without an adequate explanation of the relation between the two radically separate and distinct poles, the assertion of a separate creative force remains dogmatic.

The alternative to this dogmatic dualistic assertion of a transcendent creative force intervening in the deterministic world of matter is perhaps encapsulated in Spinoza's immanent and monistic ontology. Spinoza, like Descartes, was wedded to a deterministic, Newtonian view of the natural world. But unlike Descartes and Arendt, Spinoza refused to introduce anything that transcends the one substance that he called God or Nature. Indeed, God or Nature was identified with the set of deterministic laws of which modern science spoke. As a result Spinoza, instead of adding in a separate free and creative realm, à la Descartes, offered a monistic but also fully deterministic ontology. The cost of Spinoza's commitment to immanence and monism, the cost of his refusal to dogmatically introduce a separate substance or form of being capable of creativity, was an unflinching determinism in which there is "nothing contingent" (EIP29). In Spinoza's nature "things could not have been produced...in any other way or in any other order" (EIP33).

What if matter-energy itself were to operate according to less deterministic laws? A conception of materiality in which explanatory arrows point not only downwards but also upwards, with emergent systems, made only of material stuff and not also of 'spirit' or 'mind', capable of having causal effects of their own that are not reducible to the parts of which they are made, has been developing in non-linear sciences, notably those of complexity and emergence. In chapter four, I work this new conception of matter-energy through the philosophy of Spinoza in order to develop an immanent and materialist ontology of creativity. This monistic ontology is one in which the one reality that constitutes being is a productive and creative matter-energy. Through its productivity, matter-energy can *generate* the qualitative splits in being that dualisms

40

were invented in order to explain, including splits between deterministic, closed phenomena and open, creative material systems, and those between non-thinking stuff and thinking beings. Most importantly, the ontology shows how creativity remains *immanent to* matter-energy; affirming the creativity of the universe does not come at the cost of proposing a creative force that is introduced from the outside, nor at the cost of understanding creative and thinking humans as existing as something totally distinct from the nature of which they are formed, with capacities for creativity that they hold exclusively in spite of the world of deterministic materiality that surrounds them. It is the creativity of nature, the creativity of matter-energy itself, which explains the creativity of people, and the creativity that I go on to see as a key resource for politics and political change.

The creativity of matter-energy manifests itself, as shown in chapter five, in the production of all the things we see around us, be they rocks, mountains, basic life forms, me and you, species, collective groups, social and political institutions, countries, planets, or indeed the entire universe itself. These individuals are formed from the one, monistic reality of matter-energy, and are formed of nothing but the parts in relation that make them up. But despite not being made of any extra stuff, and despite not being constructed or put together by an outside force, they are produced in such a way that they have a set of emergent capacities that exist at the level of the whole (the whole rock, the whole person, the whole species, etc) that do not exist in the parts that make them up (the sediment, the organs and tissue etc). All of these individual things exist at the same ontological level and according to the same set of laws; they are all individuals produced by the one matter-energy that have a date of birth, a date of extinction, at least potentially, and a certain set of capacities. They exist, therefore, on an immanent plane, and as part of the one matter-energy that constitutes the universe that surrounds us. But alongside this immanence is a genuine space for creativity: because these individuals that are formed have capacities that are not in the parts that form them, they may emerge as genuine creations that could not possibly have been represented

beforehand, even by a mind that had perfect knowledge of the parts that gave rise to them. Furthermore, because these individuals can relate together, as bits of sediment came into relation to form rocks, and as bits of biological material came into relation to form living beings and species, to form further individuals, there is always scope for more creativity and increasing heterogeneity to be introduced into the universe. This immanent capacity for creativity and for bringing about new individuals or things with new capacities shall be key to the account of constitutive power that I go on to offer.

An immanent ontology of creativity provides me with a resource to escape the tragic philosophical choice between an incoherent dualism and transcendence and an immanent but deterministic monism. And, as I noted earlier, constitutive power furnishes me with a resource to escape the tragic political choice of either only dogmatically pointing to already given resources that can be used for political change, or failing to identify sufficient resources for anything but an a-critical and conservative politics. But in light of the earlier claims that Arendt and perhaps, despite themselves, Hardt and Negri, reintroduce transcendence in the form of a constitutive political force that exists as a kingdom within a kingdom, unrelated to and obeying different laws from the deterministic, constituted material world in which they exist and of which they are formed, does overcoming the tragic political choice come only at the cost of reproducing the tragic philosophical choice? Am I not in danger of simply re-introducing a dualism of constitutive and constituted power in place of the dualism between creative humans, a creative mind, or a creative God and a deterministic nature?

It is here that the philosophical and political dimensions of the thesis must be woven together in order to use the immanent ontology of creativity to develop an immanent account of constitutive power that is capable of understanding constitutive power and its difference from constituted power without re-introducing a dualistic split in existence. I return to politics in chapter six, asking first what the 'currency' of politics is. Previously, I have talked about politics, and indeed the resources for politics, in terms of

values, agreements, institutions, powers, and so forth. In chapter six I address the issue of whether any particular thing is of particular importance in my account of the resources for politics. Chapter six uses a materialist reading of Spinoza in order to assert the importance of power and materiality in understanding politics, whilst also elaborating upon the implications of this understanding of politics for the representative political theory and the Arendtian account of constitutive power outlined in chapters one and two. The key implication, broadly stated, is that politics and political change need to be thought not in terms of normative values or indeed agreements on normative values, nor in Arendt's terms of human speech, but in terms of the building of movements with *power* to act.

Then, in chapter seven, the immanent ontology of creativity developed in chapters four and five is used to develop an immanent and materialist account of constitutive power. As I intimated earlier, the ontology that I develop is immanent, insofar as it maintains that there is only one reality, matter-energy, of which and from which all the things that we see around us are formed. Furthermore, these things exist at the same ontological level; as individual things with a set of distinctive capacities, a date of birth, and at least potentially a date of death. But these individuals, despite being made of nothing other than the parts that form them, have capacities that go beyond the capacities of their constituent parts. Products formed through the relation of numerous existing individual things may introduce yet further capacities into the world. I go on to conceptualise constituted power in terms of the given set of individuals in relation that composes the political status quo at any one particular moment. As I shall show, this given set of relations is extremely complex, with multiple human and non-human actors playing key parts in the formation of any given political system. But this actually given set of relations is but a tiny subset of the field of possible relations. It is this broader field of possible relations which provides immanent resources for politics that may have genuinely transformative power. And even this broader field of possible relations does not fully exhaust constitutive political power. As different relations are formed,

different, previously unforeseeable individuals are composed. And these new individuals further enrich the reservoir of resources that may bring about political (or any other form of) change. The field of possible relations is consequently ever-changing, with new possibilities regularly being added, and some possibilities withering away.[13] And as these new possibilities are being added, new possibilities for constitutive power and for the constitution of novel political orders are continually arising.

My work makes a contribution to knowledge in two areas. First, it contributes to the new dialogue between philosophy and science that has been opened by the development of the sciences of complexity and emergence. This dialogue is already beginning to flourish, with both scientists like Kauffman and Prigogine and philosophers including DeLanda and Stengers showing a keen awareness of the philosophical importance of these new scientific developments. My work offers a distinct take on new materialist ontology by bringing it into relation with Spinoza's philosophy. This allows me to affirm a monistic account of being, with being composed of the one form of existence and all things in the universe being subject to the same laws or the same partial lawlessness without the creativity and rich diversity of the universe being sacrificed. But perhaps more importantly and more distinctively, I utilise this new materialist ontology to generate a distinctive account of constitutive power. Not only do I give creative, constitutive power a rooting in the natural and material world; a rooting that is lacking in a manner which, as I argue here, renders existing accounts of constitutive power unconvincing, but I also arrive at a distinctive account of constitutive power. The account of constitutive power at which I arrive follows Hardt and Negri insofar as it understands constitutive power to be both operating at all times in the daily reproduction of material life and spatially distributed across an array of often unrelated

---

[13] I should note here that describing this field of relations a field of 'possible' relations is slightly problematic. The category of 'possibility' is not quite right to describe the status of these relations, insofar as something being 'possible' is sometimes taken to mean that it is foreseeable, or an image or blueprint that may or may not pass into reality. Later, the field of possible relations shall be renamed a 'virtual' field of relations. The concept of the virtual is a modal concept that replaces possibility with something that, though it exists in some meaningful way, does not exist as an image or blueprint, and is not foreseeable before its actualization. The concept of the virtual shall become clear in later chapters.

practices. My account of constitutive power is therefore a materialist one in two senses of the term. It is materialist in the sense that it roots the creativity characteristic of constitutive power in the natural and material world, and does not see it as something coming about solely through the intervention of human will, speech, and the action that human will and speech motivate. And it is also materialist in the sense that it roots the constitution and reconstitution of orders in the millions of daily practices through which people reproduce the conditions of their material life. My account, though, differs markedly from Hardt and Negri's somewhat overly optimistic account of constitutive power. No longer is constitutive power a purely good and united democratic force, but instead, it is acknowledged to be an uneven and often divided terrain, with many competing actors working to constitute orders in different ways which will be of benefit to some, and disadvantage to others. This distinctive account of constitutive power, which is rooted in the wider creativity of the natural world, is perhaps the key contribution of this thesis.

Chapter 1: Representative Political Theory: Dogmatism or Conservatism

My focus on the nature and political importance of creativity arises from what I identify as a tragic choice in representative political theory. Representative political theory can either only dogmatically point to resources sufficient to generate and justify meaningful political change, or is left with only the resources for a somewhat conservative and a-critical politics. Political theory, in two influential forms, has been a project of *representation*. The values and understandings in terms of which politics is understood are deemed to already be *out there* in some form, and the role of the political theorist has been to locate these pre-existing entities or ideas and adequately *represent* or *interpret* them. First, I discuss a mode of political theory, encapsulated in the work of Plato and Locke, which locates the resources for politics in a transcendent outside. By using Plato's own self-criticism of his theory of transcendent forms, I demonstrate that any transcendent outside cannot be adequately identified, and show that once a separation between two forms of being, one immanent to the realm in which we live and have experiences, and the other somehow above, beyond, or outside that realm, is introduced, it becomes impossible to bring the two realms into relation, meaning that even if a transcendent outside is magically identified, it cannot have any meaning for or effect on the immanent realm here in which politics takes place. I then look at Rawls' attempt to eschew any such transcendence and instead locate the resources for political theory, political change, and political justification, in a consensus of actually existing people in actually existing political communities. I argue that any consensus that can be found tends to be one that is too thin or vague to generate any meaningful resources for political action, and resources sufficiently thick to generate meaningful values, suggestions for institutional structures, and so on can be generated only at the cost of eroding the consensus that is supposed to act as their justification. Meaningful

resources for political change therefore come only at the cost of a dogmatic assertion of an agreement that does not in fact exist.

The Politics of Transcendence

The first mode of political theory discussed here seeks to reveal political value by offering an adequate *representation* of certain facts, values, or ideas, which then act as stable *foundations* or *grounds* for political systems. These facts tend to lie in a realm transcending the rough and muddy ground of actual politics, and, by virtue of their separation from the flux of opinions, remain unchanging and universal.[14] Such a method is encapsulated in Locke and Plato's political theories. Locke (1988, 2:4) begins his understanding of politics, and legitimate political power more specifically, from the state of nature, or the situation which "all men are naturally in," before any form of social and political order has emerged. This state is one of "perfect freedom" and "equality". Locke (1988, 2:5), citing "the judicious Hooker", points to the self-evidence of both the natural equality of men and the value of reciprocity; a self-evidence that relies not on a transcendent term but on the commonality of men. But in going further into the natural state of liberty, a transcendent God is quickly introduced. Locke (1988, 2:6) points out that the liberty of the state of nature, where no political structures can impinge on what a person can do, is "not a state of licence."

> Though man in that state have an uncontrollable liberty to
> dispose of his person or possessions, yet he has not liberty to
> destroy himself, or so much as any creature in his possession,
> but where some nobler use than its bare preservation calls for it.
> The state of Nature has a law of Nature to govern it, which
> obliges every one, and reason, which is that law, teaches all

---

[14] This view was by no means universal, and encountered some significant opposition. Protagoras, for example, famously claimed that men, and not transcendent essences, are the measure of all things, rendering these things variable and changing with changes in opinion, and not universal and timeless. See Plato (1999) *Protagoras.*

mankind who will consult it, that being all equal and independent, no one ought to harm another in his life, healthy, liberty or possessions; for men, being all the workmanship of one omnipotent and infinitely wise Maker; all the servants of one sovereign master, sent into the world by His order and about His business; they are His property, whose workmanship they are made to last during His, not one another's pleasure. (Locke, 1988, 2:6)

Though Locke's argument starts by saying that the law of Nature is evident through reason, which will teach all of mankind the same thing upon consulting it, it becomes clear that this reason is one that involves the invocation of a transcendent God. This transcendent God introduced us to the world for his purposes over and above our own, and as such, we must survive at his pleasure, and not at our own. As a result, "every one as he is is bound to preserve himself, and not to quit his station wilfully". Furthermore, provided that his own preservation is not as stake, each man must "preserve the rest of mankind" and not, unless it is to do justice on an offender, "take away or impair the life, or what tends to the preservation of the life, the liberty, healthy, limb, or goods of another" (Locke, 1988, 2:6).

At the base of Lockean political theory, then, lies a transcendent God offering a fundamental and inviolable moral imperative. Locke then seeks to derive a comprehensive political theory from this foundational imperative. To note just two of the many examples of values or ideas derived from this imperative, one needs to look no further than Locke's establishment of property rights and his ruling out, in all but the most extreme of cases, of slavery. In consuming something, humans make it their property, and prevent others from accessing it. The earth, with all its resources, was, Locke suggests, given by God to mankind in common. Whilst in a state of nature, a pre-political and perhaps even pre-societal state, gaining the "express compact of all the

commoners" before taking any natural resources would be nigh on impossible on account of the lack of organised and co-ordinated conversation and social or political directives (Locke, 1998, 2:25). Were there not a "means to appropriate" goods in the commons, man, in being unable to appropriate necessary resources such as food and drink, would have "starved notwithstanding the plenty God had given him", and thereby would have neglected his fundamental duty of self-preservation (Locke, 1998, 2:26, 2:28). Some justification of private property is therefore essential, for without one, the grounding duty of Lockean political theory, which is given by God, a transcendent and separate being, for all eternity, would be violated.[15] Slavery, understood as the absolute power of one person over another, is immediately ruled out by God's decree, for a person cannot give himself up entirely to another person on the basis that the other person may then demand or take the life of the enslaved man, thus forcing the enslaved man to violate his fundamental duty of self-preservation.

For Plato, we have a cognitively accessible 'real' world of unchanging essences or 'forms', and an empirical world of flux in which we find only degraded copies of this pure world. These transcendent forms include political values, with the most important or significant form being the 'form of the good'. Politics and political philosophy should, for Plato, consist in the philosopher discovering this already-given and eternal essence, and *representing,* in the empirical world, the value found in the transcendent realm of the forms.[16] Moral and political thinking thus involves a *representation* of a *separate* and *transcendent* realm of essences, and moral and political critique consists in showing that certain practices, political systems, or actions fail to correspond with, meet the standards of, or perhaps even flatly violate these eternal and separate forms. Indeed, it

---

[15] There is huge scholarly debate on Locke's theory of property, though much of this surrounds the scope of and motive for his justification of property, with Marxist historians of political thought claiming that Locke justified the beginnings of a capitalist means of production, and other scholars claiming that the imposition of these motives onto Locke's political theory is anachronistic at best. For more, see Hampsher-Monk (2005, 69-117).

[16] See Plato (1999) *Republic*

is only through the intervention of the philosopher king that an inevitable process of decay where inferior political orders follow one another can be prevented (R, book viii). The philosopher king is an agent of political change, and the resources with which he or she prevents this otherwise inevitable decline are the forms, and in particular, the form of the good.

Platonic and Lockean understandings of the resources for politics, though radically different in terms of the political proposals and values they advocate, share a structural similarity. The normative directives according to which politics is to be organized come from an external and transcendent order, which is given in advance for eternity, regardless of whether the conceptions of people correspond to this order (and are thereby correct), or fail to correspond to it (and are thereby incorrect or even immoral). In Plato's case, all that we need is given by the forms. The form of the good, though it may not be known itself, shines a light on the rest of the forms, and it is only the philosopher who can adjust his or her eyes and mind to its bright and shining content. This makes the philosopher the only fit candidate for political rule, and they ought to rule by standing between the realm of the forms and the empirical world of actual politics, looking at one and then the other in order to *reproduce*, in the empirical realm, the order of the forms, and thereby create the absolutely good state.[17] In Locke's case, the kernel of political value is given in God's will, with only a very basic directive offered, but the political theorist, using this basic directive in alliance with God-given reason, is able to derive a set of political rights which the political actor must then uphold. In both cases a transcendent order (be it of God's will or essential forms) provides the normative foundations required for politics, and the work of political theory consists in *discovering* and adequately *representing* this order, with the normative aim of politics being the *re-production* of this ideal in the world of actual politics. The resources for

---

[17] Platonic ontology, which posits an ideal, intelligible realm of forms and an empirical or sensual realm of flux means that, once copied from the ideal realm into the empirical realm of flux, this perfection will inevitably change, and thereby decay, meaning that the empirical instantiation of the ideal perfection will not remain for long, and that perhaps the best we can hope for is an approximation to, rather than a copy of, this world.

politics, the resources which may guide political change, consist in a set of eternal, external, and transcendent values or forms. At no stage is anything *novel* introduced. Indeed, the introduction of novelty would compromise the accurate representation of these ultimate normative principles and ideas, and would thereby do great damage. Such a mode of thinking is therefore solely based on *representation* and *discovery*, and not *production* and *creativity.*

This approach which locates the resources for political change and justification in a transcendent outside has become somewhat unpopular of late. This is for a number of reasons, including increasing scepticism toward metaphysical speculations regarding transcendent entities, the rise of a more scientific worldview based on experience and experiment, a refusal to speculate on entities that exist outside of the bounds of empirical experience, and an increasing focus on cultural and historical differences, casting into question the idea of universal and eternal truths existing in a transcendent realm. But this lack of popularity does not consist in an argument against it. What, then, is wrong with locating the resources of politics in a transcendent outside? To answer this question, I must begin to answer the more general question of what is wrong with transcendent ontology. Focussing further on Plato's philosophy shall allow me to demonstrate what appear to be irresolvable problems with transcendent ontology.

Plato's transcendence consists in his theory of forms. The forms, put very crudely, are a set of non-physical, intelligible entities, which remain eternal and unchanging in a cognitively accessible realm separate from the flux of physical and changing things. The specificities of Plato's theory of forms differ in each dialogue in which they are discussed.[18] Different dialogues suggest different criteria for what kind of things there are forms for; sometimes, forms are intrinsically normative, and exist only for things that are morally good, whilst at other times, forms exist for any general term that has

---

[18] The forms are not discussed at all in a number of Plato's dialogues

multiple, particular instantiations.[19] Fortunately, the different details of particular versions of the theory of forms are not important in highlighting the problematic nature of transcendence as such. In order to establish the problematic nature of transcendence, it is sufficient to establish first that transcendence involves a radical separation between the transcendent entity on the one hand, and the immanent realm which we inhabit here on the other, before showing how this radical split in being causes insurmountable problems when it comes to thinking of the relation between the transcendent and immanent realms.

Plato could not be clearer about the radically separate nature of the forms. For Plato, makers of things, including carpenters, might "look toward the appropriate form in making the beds or tables we use". But "no craftsman makes the form itself". In this

---

[19] In the Parmenides dialogue, Plato (P, 130b) acknowledges the difficulty in identifying what should be endowed with 'form' status. Whilst it is clear that there is a "form, itself by itself, of just, and beautiful, and good", it is not so clear that there is one for "human being, separate from us and all those like us". Indeed, Socrates, who had been largely responsible for articulating the 'middle-period' theory of forms which the Parmenides dialogue interrogates, admits that he has "often found" himself "in doubt whether I should talk about those in the same way as the others or differently", and he admits that it would be strange to speak of a form for hair, mud, dirt "or anything else totally undignified and worthless"; indeed, these are said to instead be "just the things we see", or mere perceptions that do not have a higher status as a separate, transcendent form. What, then, are the criteria against which one decides whether something may have a form? Are the forms intrinsically normative, holding only for good things, or are there forms for things that are bad, like a form for vice, or indeed, forms for things that seem neither good nor bad? Different dialogues offer different answers. Indeed, at times different answers can be found within a single dialogue. In the Republic, For instance, Plato, in the infamous discussion of the three beds (R, 596a-599), suggests that all imitative art should be rejected. The first bed consists in the form of the bed as a pattern in nature or the one bed created by God, and remains perfect and pure for eternity. Second, there exist the numerous actual beds made by carpenters. The carpenter is said to have *copied* the form, but because he has copied it, and copied it using materials that themselves decay and change, this actual bed is rendered "a somewhat dark" and corrupted "affair" (R, 597a). Third comes the painter's painting of a bed. The painter has copied not the form of the bed but the carpenters slightly degraded bed, but his painting is drawn from one perspective, with the result that this copy of a copy "is far removed from the truth, for it touches only a small part of each thing and a part that is itself only an image" (R, 598c). On the basis of this third bed being such a degraded, fallen imitation found two imitative stages away from, or at "third remove" from the real form of the bed, such painting should be banned (R598e). The form, then, seems to be intrinsically good, and things are bad to the extent that they are removed from or unlike them. However, the accounts within the Republic of why one must think forms, and what the criteria for form status are, seem to suggest that forms should not be considered as intrinsically normative or good. Plato says, for instance, that **"**since the beautiful is the opposite of the ugly, they are two…and since they are two, each is one," with "the same account" being "true of the just and the unjust, the good and the bad, *and all of the forms*" (R, 475e). It seems, then, that form-status is given to both negative and positive qualities, and simply being a form, or as like a form as possible, would not immediately mean that something is good.

sense, Plato's forms generate the identity of things in this world, and account for the unity of the various, partially different particulars that make up a general term (the various tables that are all called tables, and the various good acts that are all described as good), but the things in this world, the things that the craftsman makes, do not themselves affect or change the nature of the forms. The form only *informs* copies and models, and cannot be *informed* or created and changed by them. The copies must "participate in" (R, 476c) the form, which we are told constitutes "the being of each" of the instantiations, without actually affecting the form in any way (R, 534b). Why does Plato regard it as impossible and unthinkable that constructers create or affect the form? Allowing the constructors to effect or construct the forms would involve understanding the form as an abstraction from the numerous particular phenomena that exist in this realm. A number of tables would have been produced by carpenters, and these tables would have similarities, which could then be regarded to form some kind of abstract model of a table. Conclusions unacceptable to both Platonism and transcendence occur if we regard the forms as abstractions from the multiple particulars found in this perceptible realm. First, the order of relational priority between forms and copies is reversed. The forms become a mere reflection of things, be they actual, physical objects or linguistic categories and concepts, found in the perceptible realm. We could not speak of the forms as a transcendent realm *outside* or *above* the multiple particulars, but rather as an *abstracted* realm produced *within* the realm in which we find ourselves. Similarly, we could no longer talk of these perceptible things as copies, for they would be the original things that come to create forms, which can only *subsequently* be used as models. The immanent production of the forms is indicative of a loss of separation between forms and perceptible occurrences, a loss of separation which ensures that the forms would themselves come to change alongside changes in actual, perceptible products, meanings and so on. This loss of separation ensures that the abstracted forms do not constitute a transcendent realm, and the subsequent changeability ensures that these forms as abstractions that explain the use of our general terms with many particular applications cannot be Platonic. Transcendence in

general, and Plato's transcendence in particular, depend on the radical separation of the transcendent realm (in Plato's case, the singular form) from the immanent realm (the multiple copies).

For the forms to remain both transcendent and Platonic, calling a table a table must be based on its correspondence with a separate form of the table, which, despite its separation and immunity from affectation by anything that exists in this realm, nonetheless acts on this realm by *generating* the identity or table-ness of the particular tables we find here. The form generates the identity of the copies without being produced or affected by the copies themselves. Here we find the priority of Plato's forms; they inform, but are not informed by, the particulars in the empirical world. So a relation, albeit a one-way one, must exist between the transcendent form and the immanent copies. How does the form relate to the thing in this realm that it generates and explains the identity of? Plato offers two possibilities: one, the relation of *mimesis*, suggests that the particular mimics or copies the form, whilst the other, the relation of *participation,* suggests that the copy somehow takes part in or participates in the existence of the form.

Turning to accounts of mimesis and participation as the means by which the tangible realm gains its existence and identity from the transcendent realm shall reveal a problem endemic to transcendence, a problem that is rooted in and an inescapable consequence of the radical separation necessary for an entity to be transcendent. If the tangible things gain their identity and being by *mimicking* the form, or by virtue of their *likeness* to the form, one consequence seems to be that, if the likeness is as good as it can be, the copy will become "the form itself" (P, 132e). If tangible things gain their existence through mimicry, then "alongside the form another form will always make its appearance, and if that form is like anything, yet another: and if the form proves to be like what partakes of it, a fresh form will never cease emerging" (P, 133a). If the true table is a pattern set in nature, and I design an identical copy, then I will have created

another form, and one who copies my bed, if he does so adequately, will make another form still. If the form is really to be a singular thing that gives identity and existence, then nothing can be truly like it. For the forms to maintain their special, transcendent status, and for it to be impossible to have identity and existence generated from things that aren't the form (i.e. my copy which ends up, by virtue of its resemblance, to be a second form), then "nothing can be like the form, nor can the form be like anything else." (ibid) We can either maintain transcendence by strictly separating the realms such that the tangible cannot properly mimic the form, with the result that the tangible cannot gain its identity or existence from the form, or we can claim that identity is established through mimicry, but in so doing, efface the separation that secures the transcendence of the forms by allowing forms that generate identity and existence to emerge in *this,* non-transcendent realm. The only escape route that presents itself, namely, to theorise the difference in kind between forms and copies to be based on the eternal, unchanging nature of forms, something that the copy can never have, proves illusory. If the form is to remain the only form because my copy will always inevitably change and decay, then it seems that precisely what is important and distinctive about the form, namely, it's stability, cannot be mimicked.

Mimicry either effaces the transcendence of the forms, or becomes incoherent on account of the impossibility of mimicking a realm that differs in kind. What about participation? Plato identifies what he calls the 'greatest difficulty' in conceptualising the participatory relation between forms and particular empirical things. With this 'greatest difficulty', the forms become something entirely otherworldly, unable to ever come into contact with anything we see here. If one posits "that there is for each thing some being, itself by itself", ie. if we posit a transcendent form, one must agree that none of these beings are in us, because this would mean revoking their existence 'itself by itself' (P133b). Consequently, "all of the characters that are what they are in relation to each other have their being in relation to themselves but not in relation to things that belong to us" (P, 133c-d). The forms, since they exist themselves by themselves in a

separate realm, have their existence fully independently of us, and can relate amongst each other, but they can no longer relate to us. But along with the forms subsisting in their own right, the things that belong to us, or things in this realm, "although they have the same names as the forms, are in their turn what they are in relation to themselves but not in relation to the forms" (P 133d). Parmenides, the prime voice behind the paradoxes of the forms in the Parmenides dialogue, offers an example to clarify this argument. "If one of us is somebody's master or somebody's slave, he is surely not a slave of master itself", or a slave of the form of the masterly (P 133d-e). Similarly, a master is not a master of slavery itself, or the form of slavery. Rather, he would be slave to a particular master, or master to particular slaves. "Mastery itself, on the other hand, is what it is of slavery itself", and slavery itself is slave to masterly-ness itself. This indicates that things in us, our powers as master, for instance, "do not have their power in relation to forms", and nor do forms have power in relation to us, since their power is wielded over other forms and not particular things here (ibid). "Forms are what they are *of* themselves and in relation to themselves, and things that belong to us are, in the same way, what they are in relation to themselves" (P 134a). The similar argument works with numerous examples. Knowledge, for instance, is knowledge of truth itself, but knowledge in this realm would be knowledge of something in this world, namely, of a particular thing. Since the forms exist themselves by themselves, and not here, in this realm, where only their products or copies can exist, we cannot come to know the forms themselves, and only the form of knowledge, itself by itself, can come to know the forms. Thus, "none of the forms is known by us, because we don't partake of knowledge itself" (P, 134b). Plato goes further still. If there were to be knowledge greater than ours, it would be the knowledge of the 'Gods', who would exist in the transcendent realm. But since the forms "do not have their power in relation to things in our world", and, as the slave and master example indicated, "things in our world do not have theirs [their power] in relation to forms, but...things in each group have their power in relation to themselves", the God's cannot have knowledge of our world (P, 134d-e). In the same way that masters here have powers over slaves here, and not over slavery itself, Gods

and forms have their powers and knowledge only over the forms. The gods and forms cannot be "our masters", and "nor...do they know human affairs" (P, 133e). [20]

Once the forms or any transcendent realm is strictly separated from the immanent realm that we inhabit, then precisely because they must remain outside, they cannot come to interact in this world. As a result, the account of the transcendent realm as *generative* of what is here must go. We are left with two realms which cannot know or impact one another. As such, the transcendent realm, be it one of a God who offers commands, or a set of eternal essences that contain written in them perfect political orders or certain values that should be adhered to, cannot provide any resources for politics in this world here.[21]

---

[20] After the devastating critique Plato raised against his own theory of forms in the Parmenides, we are fired a warning: "If someone, having an eye on all the difficulties we have just brought up and others of the same sort, won't allow that there are forms for things and won't mark off a form for each one, he won't have anywhere to turn his thought, since he doesn't allow that for each thing there is a character that is always the same. In this way he will destroy the power of dialectic [discourse] entirely" (P, 134b-c). The transcendent realm of the forms, though beset by theoretical difficulties, offered potential as a neat way to explain how the same word could be used in many instances, and how certain things could be identified as the same or as different. Plato seems to be claiming that in losing the forms, the ability to identify the many tables as 'tables', or even the same table, since it is in a constant state of flux, however slight, 'table' at two times is lost. Without being able to identify things using general terms, discourse would become impossible. To eradicate the forms, for Plato, entails the eradication of discourse. This justification for the restoration of transcendence in light of his own criticism is not sustainable in light of the wealth of alternative explanations of the production of general terms. To cite just one of these alternative explanations, Wittgenstein (2001, paragraph 66-7), along with subjecting the notion of universals collected according to a common essence (the essence of a chair, for instance, might be understood as consisting in being a thing that can be sat on that has four legs) to a trenchant criticism suggests that general terms, rather than referring to unities, are gathered together according to a set of "family resemblances" or a "network of similarities, overlapping and criss-crossing." These resemblances would not be understood by a moment of philosophical enlightenment, where the philosopher rises out of the cave to cross the barriers of transcendence and see the light of the forms, but are instead learnt through participation in a social language.

[21] Though the *Parmenides* dialogue raised these deep problems with transcendent ontology, the debate about transcendence did not end with the *Parmenides* dialogue. See appendix A (279-283) for an account of how Plato's post-*Parmenides* dialogues do not resolve the problems raised by *Parmenides*.

The Politics of Consensus: Rawls's Political and not Metaphysical Resources for Politics

Since Rawls' publication of *A Theory of Justice* in 1971 a new methodology claiming to eschew the metaphysical commitments that rendered problematic approaches based on a transcendent outside has become popular amongst Anglo-American political theorists. This methodology, which I shall call a methodology of consensus, proposes that comprehensive political theories can be derived from an agreed set of principles or 'intuitions'. Though this method has been developed and worked out in different ways by a number theorists writing after Rawls, it still finds an exemplary articulation in Rawls' work.[22] Rawls' political theory offers a *pragmatic* or *political*, as opposed to a *metaphysical,* attempt to locate resources for politics without direct recourse to a transcendent standard of the good, or a transcendent God's-eye viewpoint from which we can evaluate differing conceptions of the good life.[23] Rawls begins his political theory with "the fact of reasonable pluralism" (Rawls, 2001, 10). The fact of reasonable pluralism essentially means that, in modern day liberal democracies different people or groups hold differing, yet, in the absence of a transcendent evaluative viewpoint, equally reasonable conceptions of the good life. Across this pluralism, however, can be found an "overlapping consensus", or "a consensus which includes all the opposing philosophical and religious doctrines" (Rawls, 1999, 290) of "widely accepted yet weak" (ibid 111) "considered judgements" that are "implicit within the public culture" of liberal

---

[22] Cohen (2008) develops a similar method based on agreement in intuitions.

[23] Rawls (1985) There is a debate amongst Rawls scholars as to whether Rawls's work has always been as pragmatic as he stated it to be in his 1985 paper. Some theorists claim a split between Rawls' early work in a Theory of Justice and the work that emerged since, with the early work offering a stronger defence of liberal democratic values, basing them on theoretical argument and not on values implicit in particular public cultures. Brian Barry, for instance, argues that, with the exception of a few articles written after the original publication of A Theory of Justice, "everything" that Rawls has written "since [A Theory of Justice] has tended to weaken the theory" insofar as it does not make a "universally valid case in favour of liberal egalitarian principles" (Barry, 1995, xi). Interestingly, Barry is also critical of Rawls' idea that there is an already existing consensus waiting to be discovered through the original position. Barry (ibid, 5) indicates that there is "no such thing as a set of underlying values waiting to be discovered", and to derive conclusions from this 'political culture' in which these values are embedded is "tendentious". Other scholars, including Rawls himself, claim that there is no major split between the early and later work, with the later work simply drawing out aspects that were prevalent in a Theory of Justice. See Maffettone (2010).

democratic societies (Rawls, 1985, 396). In order that these widely accepted yet weak conditions can "impose significant bounds on acceptable principles of justice" (Rawls, 1999, 16), Rawls (1985, 400) argues, one must search for an appropriate "point of view removed from and not distorted by the particular features of the all-encompassing background framework". Such a point of view allows the widely accepted but weak conditions to be viewed in an impartial manner, free from particular self interest. When viewed in this light, such conditions can yield "a significant set of principles" or substantive principles of justice (Rawls, 1998, 18). Rawls (ibid) names this method in which basic agreements become substantial principles of justice "reflective equilibrium." If there are discrepancies between our convictions regarding justice and the substantial principles of justice that this reflective process involves, then either "the account of the initial situation" or our "existing judgements" are to be revised, until eventually a "description of the initial situation that both expresses reasonable conditions and yields principles which match our considered judgments duly pruned and adjusted" is reached. This situation is one of reflective equilibrium; reflective because we are aware of our judgments, the principles they are based upon, and the rational process that has uncovered them, and an equilibrium because a balance between our initial principles and a fair and rational process has been struck.

Key to this method of reflective equilibrium are what Rawls (1999, 17) calls the "original position" and the "veil of ignorance". The original position is the position in which we are to use widely accepted yet weak conditions in order to decide on the principles of justice that underlie a political order, and the veil of ignorance is the device used in the original position through which morally arbitrary "features of the all-encompassing background" are hidden (Rawls, 1985, 400). From this original position, two principles of justice for liberal democratic societies are derived.[24] Of interest here is the methodology used to obtain these principles of justice. Explicit references to God or transcendence are gone. The intuitions that lie at the bottom of Rawlsian political theory instead are

---

[24] See Rawls (1999) p.266

only held in place by the consensus of reasonable people. No reason beyond this agreement, such as God or the forms, are given as their justification. Thus, no transcendent justification or entities are introduced. Such an approach, if successful, would therefore enable one to discover resources for politics and justify a set of political values and institutions without direct recourse to the transcendence that I have rejected. Furthermore, for Rawls, this sphere of agreement exhausts the sphere of political dispute; politics cannot legislate upon or judge our thicker conceptions of the good, and must remain *neutral* between these conceptions of the good.

The success of the consensual approach depends on this inter-subjectively agreed set of rock bottom principles or intuitions existing, *and* existing as something *strong* or *determinate* enough to yield substantive political values or theories. Such agreement seems difficult to find. Even amongst circles in which agreement in basic intuitions is secured, the principles accepted are agreeable precisely because they are so abstract that numerous differing and opposed political and moral theories can be derived from them. This claim can be elaborated through an extended discussion of the work of Rawls, who takes as a starting point for the development of principles of justice the axiomatic intuition that runs throughout the whole of contemporary Anglo-American debates surrounding justice: basic moral equality or 'treatment as equals'.

Rawls elaborates principles of justice by taking, as the resources from which to build a politics, a 'thin conception of the good' or set of basic, axiomatic principles that allegedly constitute an overlapping consensus across diverse thick conceptions of the good or diverse moral world views. These widely accepted yet weak principles are then put through a kind of sorting mechanism or procedural machine whereby they can be shown to become thicker principles that determine certain rules of justice. What thin principles are placed at the start of this procedure, and what are the rules governing the procedure whereby thin intuitions become thick principles of justice? With regard to principles of distributive justice, the relevant intuition is that of the equality of persons,

or the importance for people to be treated as equals. Treatment *as equals* does not, without further argument, entail *equal treatment;* to give Pete, who is very good at football, the same as Paul, who lacks footballing talent, would be to give them equal treatment, but they may not be treated as equals in the sense that Pete had to offer more ability than Paul to get the same amount, and hence was not treated as equal to Paul in terms of his ratio of skill to reward. However, were we to say that Pete was only receiving more rewards because factors far beyond his control ensured that his footballing talents, as opposed to, say, the cleaning or academic talents that Paul has, were extremely highly rewarded, to treat them differently may no longer be to treat them as equals. This is because what is at stake in terms of treatment as equals is that only *morally relevant* features generate differences in the distribution of rewards. Whilst equal treatment just means equal treatment regardless of what one has done, achieved, learnt, and so on, treatment as equals suggests that if something is morally relevant, it should generate differences in reward in proportion to differences in the possession/lack of possession of that morally relevant attribute. For example, if footballing skill is deemed an attribute of relevance to the distribution of social goods (beyond the social good of a place in a football team), then treatment as equals would be secured when rewards gained are, in some sense, proportional to footballing skill, and Pete should be given more than Paul. If footballing ability were deemed morally arbitrary, though, treatment as equals would be achieved when such attributes do not generate differences in the distribution of social goods.

The fundamental but weak intuition at the axiom of the Rawlsian conception of distributive justice generates the first rule for the procedure of turning this axiom into a more determinate principle of justice: that morally arbitrary "features of the all-encompassing background" must be hidden (Rawls, 1985, 400). If we are to ensure treatment as equals, then morally arbitrary factors must not play a role in the elucidation of principles of justice; instead, they must be hidden behind a 'veil of ignorance'. So, what are these arbitrary features that must be hidden? Rawls' account of

justice, as has been shown, must remain free of metaphysical speculation, and must be agreeable to people with differing conceptions of the good life. As a result, people must remain ignorant of their thick conceptions of the good when in the original position deciding on principles of justice. Also "arbitrary" are any "distinctions between persons" based upon unequal outcomes "of natural chance or the contingency of social circumstances", such as a person's "place in society…class position…social status…fortune in the distribution of natural assets…and the like" (Rawls, 1999, 11). These factors are arbitrary, for Rawls, because one's class position or amount of resources does not merely depend on having cultivated a certain skill, but upon supply and demand; I must not only have a certain skill, but it must also be one that allows me to demand a big wage, something that remains arbitrary in deciding upon *my* worth as a person. Furthermore, natural talents, along with the "contingencies of their growth and nurture in early life" are "arbitrary from a moral point of view" because they do not reflect the achievements of the person, but only reflect sheer luck. Finally, even conscientious effort does not entitle one person to more than another, because "the effort a person is willing to make is influenced by his natural abilities and skills and the alternatives open to him"; effort is influenced by factors that were deemed to be arbitrary, and hence remains arbitrary itself (Ibid, 311).

Rawls' claim that skills, effort, and social position are arbitrary from a moral point of view is not uncontroversial, but for now, suppose that there exists sufficient agreement for Rawls' claims, whilst acknowledging that the procedure of reflective equilibrium can work with numerous accounts of what is arbitrary and what is relevant, so if the agreement were to change or if a different set of qualities were regarded as arbitrary, the procedure could be repeated and the principles of justice changed accordingly. Making decisions in the original position requires one further rule or set of features, namely, a number of suppositions regarding the way in which people are to reason in this situation. Once again, the conception of reason is not to be taken from metaphysical speculations on the nature of the human subject or the nature of

rationality as such, but is to be taken from the political culture of society. For Rawls, in the conditions of uncertainty of the original position, where people do not know if they will be talented, employed, and so on, and with their entire future distribution of resources at stake, (self-interested) individuals would prefer a "maximin solution to the problem of social justice". This means that individuals will choose the distribution that has the superior "worst possible outcome" (Rawls, 1999, 132-3). Despite claiming that this method of reasoning is chosen not out of theoretical privilege but by virtue of it being found in liberal societies, Rawls offers no empirical evidence for people favouring maximin. Some empirical tests (Frolich et al 1987) have tested what principles of distributive justice people negotiating in a laboratory 'equivalent' of the original position would choose, indicating that individuals would in fact opt for a maximisation of average income with some floor constraints (a safety net); a solution that does not maximize the minimum, instead only ensuring that no one is left with nothing. However, the experiment only asked the participants about the distribution of wages or payment for the exercise they were taking part in, and not on principles of justice for their society, which they would have to adopt in perpetuity. The experiment, therefore, does not in any way recreate the conditions of Rawls' original position, and cannot be said to undermine his argument. I do not claim to know precisely what principle of reasoning would be adopted, nor do I expect that we would receive only one answer if we were to ask everyone in a liberal democratic society. But for now, it is worth accepting Rawls' claim that people would respond to the sheer extent of the risk and uncertainty by maximizing the minimum, again acknowledging that Rawls' procedure can work if it is later discovered that maximin is not the attitude to risk of people in liberal democratic societies. Once a maximin response to problems of distributive justice in the original position is added to ignorance of social position and aptitudes, people end up affirming that resources should be distributed in a manner that is "to the greatest benefit of the least advantaged" (Rawls, 1999, 266). Inequalities are allowed, but only if they maximize the lot of the worst off, with all other inequalities unjustified and in need of being eradicated through redistributive measures.

It is important to note that this principle would be affirmed by *anyone* when put in the original position. Given that people do not know where in the social ladder they will end up, they do not have any special bargaining position that will let them eke out more from the negotiations, nor any interest in ensuring that some do better than others. Nor, having abandoned any thick conception of the good, will people have any normative reasons to affirm certain principles over others. Finally, all people will reason in the same way, seeking to maximize our minimum outcome. All people, Rawls (2001, 87) points out, are "symmetrically situated" such that "the same principles are always chosen", regardless of who is asked or what mood they are in (Rawls, 1999, 120). The basic principle of treatment as equals, when added to a set of rules regarding practices of reasoning, gives a determinate principle of distributive justice with clear and significant policy implications.

But before the solutions to problems of distributive justice can be accepted, it must be accepted that people were fairly situated and treated as equals in the bargaining process. To accept that they were treated as equals, all 'reasonable' people must agree that their dispensity toward effort, their skills, and their social position are arbitrary from a moral point of view. This claim is highly controversial. Some may want to claim that Rawls goes too far in his denial of our responsibility for our effort, attributes, or social position, and say that whilst justice would involve ensuring that everyone has a fair opportunity, what we make of that opportunity is to some extent up to us, and that people should be rewarded accordingly, and allowed to take their successes into any bargaining situation regarding the principles of justice. This dispute retains an agreement at some level, with the account of what is and isn't arbitrary the same on both sides, but the dispute surrounding the (extremely complicated) factual issue of when we are responsible for the advantages we have. Others, who share a conviction in the principle of treatment as equals, may not even agree with the account of what is and isn't arbitrary. For instance, Bonnie might claim that her skills are hers, regardless of

whether she obtained them by chance or by effort, and the social positions that she achieves through these skills were obtained legitimately; she did not enter her position thanks to being privileged by a certain authority who ensured she got her job or resources over others who were better skilled, but instead achieved it fairly, and she is thereby entitled to her job and the rewards that flow from it. In such a case, treatment as an equal would consist in giving each person an equal opportunity to express and use the qualities they possess and the resources they gain from them in whatever way they see fit, and to force someone to pay the rewards they gain in taxes so that another person who did not or even could not develop skills in high-reward areas can be advantaged would be to privilege the person receiving the tax revenue over the person gaining the resources, and hence to fail to treat people as equals. [25] Furthermore, given that treatment as equals involves equal entitlement to one's skills, dispositions, and the rewards that flow from them, these skills are far from morally arbitrary, and hence must be included in any bargaining in an original position.

The thicker conceptions of justice that would obtain from these differing conceptions of treatment as equals, as well as the policy implications that each interpretation entails, would radically differ. If one were to regard as morally relevant a person's social position, income, assets, and anything they have legitimately obtained from the skills and dispositions that belong to them, and not hide these factors in the original position, certain people would have a great deal of bargaining power, and would have no interest in maximizing the minimum outcome, with their priority instead that of ensuring that what they legitimately obtained remains theirs. More fundamentally, the rewards, goods, and privileges that were legitimately their own would not even be public goods up for discussion in the bargaining over justice. Since they obtained them legitimately and are entitled to them, it would not make sense to dispute their allocation, and would be a fundamental violation of justice to do so. Indeed, the very bargaining process itself could only occur once justice's primary role in ensuring that each maintains the goods

---

[25] A roughly similar argument is put forward by Nozick (1975)

that they legitimately acquire had been successfully achieved. The policy priority that would result from this alternative conception of treatment of equals would be the protection of people and their legitimately owned goods, with the principle of allocation for whatever few public goods remain down to the uncertain outcome of a bargain between *asymmetrically* situated people. [26]

I do not intend to argue for the any of the positions outlined above. Rather, I merely wish to show the diversity of accounts of what treatment as equals consists in, and which factors are arbitrary and which relevant in differentiating the rewards people receive. Indeed, not only are the views highlighted above possible 'interpretations' of treatment as equals, but they also seem to both be very prevalent in liberal democratic societies. We thus have a case for saying that both Rawls' position in which treatment as equals involves ignoring social position, aptitudes, and work-rate as morally arbitrary, and a position that states that the skills I possess and the positions and rewards I obtain are morally relevant are conceptions of treatment as equals implicit within liberal democratic societies, or even within liberal political philosophy. What grounds, then, does Rawls have for taking his interpretation of treatment as equals over any other? It seems that he can no longer call on an overlapping consensus, or even a consensus of liberal academics, for the widely accepted yet weak principle of treatment as equals could not determine what treatment as equals consisted in, and hence could not offer a determinate enough principle for the procedure of reflective equilibrium to get off the ground. Rather, Rawls is forced to claim that "we want to define the original position so that we get the desired solution", indicating that his conception of treatment as equals is picked over any other conception of treatment as equals found in liberal academia or public culture for the reason that it gets the desired solution (Rawls, 1999, 141). Once this move is made, the final principle of justice itself, namely that inequalities must be to the greatest benefit of the least advantage, is doing significant argumentative work.

---

[26] I have offered only a small selection of possible (and, indeed, popular) interpretations of the intuition of moral equality. Utilitarian moral systems, which radically differ both from Rawlsian liberalism and the entitlement view sketched above, can also be seen to be grounded on a notion of basic moral equality. See Singer (2011, 16-48)and Kymlicka (2002, 10-53)

Once this principle is made to do the work of the intuition that could, when added to certain conditions and a conception of rationality, offer significant bounds to the demands of justice, the very agreement or acceptability of the principle is lost. One is forced either to start with principles that are widely accepted, but are *too* weak to provide a substantial conception of justice, or with principles that, though they can provide a thick and determinate conception of justice, are not widely accepted. Rawls, then, is faced with the choice of dogmatically asserting a set of resources for politics, in the form of an illusory consensus, that do not actually exist, or of adequately identifying resources for politics, this time in the form of an agreement surrounding a vague principle of treatment as equals open to wide interpretation, but only at the cost of having a weak and inadequate set of resources to generate political change or justify any political order.

In two distinct guises, representative political theory has failed to furnish adequate resources for politics. Political theory based on transcendent essences or transcendent Gods were said to have only dogmatically been able to assert the existence of the transcendent object of representation, and even having asserted its existence, there was no way that the transcendent term could relate to the world of politics here in order to provide resources for political action. In the case of a methodology of consensus, a consensus adequate enough to furnish meaningful resources for politics proved to be illusory. The tragic choice of dogmatism or conservatism, then, seems to haunt two very distinct forms of representative political theory. To escape this choice, I now turn to the idea of *creativity* and *constitutive power*.

Chapter 2: Conceptions of Constitutive Power

'Representative' approaches to political theory based on transcendent values or already given consensuses by no means exhaust the field of political theory. Indeed, the concept of constitutive power provides a very different approach; an approach that also criticises mainstream political theory for its focus on already given or *constituted* powers and values at the expense of the creative movements that *constitute* them. Here, I focus on three different approaches to understanding constitutive power offered, in turn, by Schmitt, Arendt, and Hardt and Negri. Schmitt's understanding of constitutive power revolves around a notion of decision, a political choice made by a sovereign agency in the face of an exceptional situation where no particular rules, transcendent moral principles, or consensus around value already exists in order to be implemented. The theme of "the groundlessness of action and judgement - the absence of any...transcendent yardsticks that might tell us how to judge", as Dana Villa (1996, 116) demonstrates, "runs throughout Arendt's work".[27] Finally, Hardt and Negri place great emphasis on creative and productive acts of resistance, resistances which contribute to the creation of new political practices and forms of life. This focus on a constitutive power of decision, action, or resistance which does not depend on any pre-existing value, transcendent essence, or consensus provides a promising avenue through which the limitations of representative political theory might be overcome. But though I sympathise strongly with the project of theorising constitutive power, I find the particular accounts offered by these thinkers problematic. This chapter shall explore the contours of the difference between constituted and constitutive power. A number of criticisms and limitations of the concept of constitutive power as found in Schmitt, Arendt, and Hardt and Negri will be highlighted, but it should be noted that these

---

[27] Interestingly, Villa (1996, 116-7) is critical of Rawls and the Anglo-American political theory based on consensus that I criticised in chapter one. His criticism, which bears similarities to mine despite coming from a more Arendtian perspective, claims that Rawlsian political theory has refused the challenge of instituting new beginnings, instead thinking that it can merely take up concepts, ideas, and values from liberal political theory, including that of Locke, whilst eradicating the transcendence that gave these values and concepts their backbone of justification.

criticisms are not final. Rather, the criticisms can be completed only as I develop a different understanding of constitutive power throughout the remainder of the work.

A concern with the difference between *ordinary, constituted* power and *extraordinary, constituent* power runs through the work of Schmitt, Arendt, and Hardt and Negri, amongst others. Constituted power, which corresponds to the regime of ordinary, established politics, "defines the fixed order of the constitution and the stability of its social structure." Constituted power, in other words, refers to an already given set of political structures, practices, stable and non-creative processes, values, and so on. "History", therefore, "is closed by constituted power or, rather, the history it determines is restricted to a continual repetition of the same divisions and hierarchies." (Hardt, 2009, vii-viii) Constituted power does not leave a space for creativity or the emergence of the new; it merely follows repetitive, already established political processes. Constituted power refers to normal politics, or politics as usual. Constitutive power, on the other hand, refers to the more extraordinary "moment of *institution"* of the more ordered, constituted politics (Marchart, 2007, 8). So whilst constituted politics corresponds to an already given constitution and set of practices, constitutive power refers to the moment at which that political form was *created* and *instituted*. "Constitutive power names...forces of social transformation" (Hardt, 2009, vii). This split between already constituted politics and constitutive power has at least two elements. First, there is a structural element, insofar as most thinkers invoke a certain set of capacities or forces that make constitutive, instituting power possible. Second, there is a temporal element, with thinkers of constitutive power speaking of the difference between the day-to-day, ordinary and historically-closed functioning of an already constituted power, and a more extraordinary and dramatic 'political moment' in which a constituted order gives way for the institution or creation of a new constituted form of politics.

Schmitt's Constitutive Sovereign Decision

The language of constituted and constitutive power can be used in order to restate the criticisms of the politics of an already given consensus discussed in the last chapter. Such approaches place their focus solely within the already-given, historically closed, order and in so doing, do not focus on the kind of forces of transformation that may enable the creation of new modes of politics and new political powers, institutions, and values. Indeed, as today's Rawlsian liberal political theory was shown to focus not on the creative forces that instituted the political order, values, and powers that are utilised in any attempt to find consensus, Schmitt criticised the liberalism of his day for failing to acknowledge constitutive power. Hans Kelsen, a liberal legal theorist derided by Schmitt, attempted to develop a 'pure' theory of law, in which law was a complete, self-contained system that did not depend on any human decision. Kelsen's law was free from "any traces and influences of social power", and free from "the intrusion of irrational and metaphysical elements and subjective, moral values." Instead, Kelsen maintained that "only law…could create law"; the validity of one legal norm must be seen to come from another legal norm, which in turn is validated by another legal norm, and so on all the way down (Kalyvas, 2009, 102). Similarly, for a new law to be valid it must be derived from another law, or a higher-order law. In such a system, there is no room for subjective interpretation, particular moral judgements, or contingencies of power and influence. The law, as a fully constituted, self-referential system, can just be left to its own functioning, and any person enforcing the law would enforce it in precisely the same way, regardless of whom it was being enforced upon. Law "regulates its own creation and application" (Kelsen, 1967, 71).

It is easy to understand how one law could validate another law, or how one could create a law in accordance with another, higher-order law. But what happens upon reaching the top of the pyramid, where validation of the highest order laws is required? At this point, Kelsen argues, it is the constitution of the legal jurisdiction that provides

the "positive legal norm (or set of norms) that regulates the creation of the other norms of the legal order" (Kelsen, 1992, 63-4). The constitution acts as the highest-order norm from which the remainder of the legal system can be validated and derived impartially. Even if it were possible, and it would be highly contentious to claim that it is, to derive the whole of the law neutrally and scientifically from a supreme constitutional document, the question of the validity of the constitution is raised. Here, Kelsen (1945, 111) can point only to a "hypothetical foundation"; a foundation that the legal scholar must just assume to exist, without it actually existing as a transcendent moral or legal principle, nor a human-made norm. A "higher hypothetical…norm" is thus "the ultimate, objective source of legal validity". Why is such a hypothetical norm valid? Kelsen cannot offer any reason, beyond stating that it is necessary to imagine such a norm if the impartial legal system is to work. "With the supposition of a basic norm Kelsen could account for the validity of all the derivative norms", yet "he was still confronted with the vexing issues of the origins of the validity of the basic norm itself" (Kalyvas, 2009, 104). In a manner similar to the way in which Rawls could account for the derivation of principles of justice from the original position but could not justify the values incorporated into the original position itself, Kelsen was able to articulate a coherent and valid constituted legal system, but could in no way account for its *constitution* or *institution*. And if the validity or founding of the basic norm cannot be established, then the rest of the law that follows from it cannot be deemed valid or founded. It is here that Schmittian notions of the constitutive power of a *decision* enter.

> Jurists of positive law, i.e. of constituted and enacted law, have been accustomed in all times to consider only the given order and the processes that obtain within it. They have in view only the sphere of what has been established firmly, what has been constituted…They are content to reject as 'unjuridical the question of what process established this order (Schmitt, 2003, 82).

Schmitt claims that any political or legal order requires *decision* in order to be constituted. "Like every other order, the legal order rests on a decision, and not a norm" (Schmitt, 2005, 10). Laws may beget further laws, principles may beget further principles, and so on, but at the bottom there must be a decision that institutes these laws, and in instituting them, rules out and chooses not to institute other options. A constituted legal system requires an *act of constitution*. Constituted power is a product of constitutive power. And this constitutive power, as that which instantiates the constituted power and replaces a previous constituted legal system or constitution, does not have the given constitution as its guide or principle of validity. "It is unthinkable that a *new* constitution…succumbs to an antecedent constitution, becoming dependent on it" (Schmitt, 1989, 88). It therefore requires not a mere technical process of derivation, but an *act of decision*. And this decision is "a decision in the true sense of the word" precisely because it "cannot be…made to conform to a preformed law". The constituted legal order depends on a constitutive or instituting *decision* (Schmitt, 2005, 6). Law alone, then, "cannot itself form a completely rational and lawful system" (Hirst, 1999, 13). As a result, "it is not possible to pass directly from a pure normative order to the actuality of social life", and "an act of will, a decision, grounded only in itself" must "impose" a "certain order" (Zizek, 1999, 18).

Earlier, it was suggested that this political difference between constituted and constitutive power has structural and temporal dimensions. In Schmitt, the 'structural' aspect of the difference, namely, what capacities enable constitutive moments to take place, takes the form of a "*sovereign*…who decides on the exception" (Schmitt, 1989, 5). It is the sovereign who decides upon the times when the constituted legal order should be dissolved in order to deal with an emergency, and decide upon what the new, emergency decrees are to be. But Schmitt quickly emphasizes that he is making a more general point than one concerning emergency situations which require emergency law. "The exception", Schmitt writes, "is to be understood to refer to a general concept in

the theory of the state, and not merely to a construct applied to any emergency decree or state of siege" (ibid). The sovereign, for Schmitt, can be any body, be it a single person or an assembly (provided that it is acting as one, with a unified voice and clear decision) who has invested in it the power to decide in any exceptional case, be this case an exceptional time in which a new constitution is needed for a rapidly changing social and political order, or an exceptional time where war requires the abolition of certain laws and the removal of freedoms in order to deal with the emergency situation. Regarding the temporal aspect of Schmitt's notion of constitutive power, it is clear that the decision takes place as a dramatic intervention, one which, when met by a sudden emergency, dissolves the legal order in one swift move, before immediately replacing it with something new. The sovereign decision, Schmitt argues, "emanates from nothingness". The decision "signifies the radical beginning of a new regime that cannot be reduced or traced back to any anterior procedure, set of rights, legal structure, or fundamental laws." And once this decision is made, the sovereign "withdraws from the political realm", leaving the constituted order it has established to follow its inexorable logic until the next emergency arises, and a sovereign decision is made anew (Kalyvas, 2009, 90).

The ontology developed here will question both the notion that constitutive power can emanate from a single centre or unified sovereign, and the idea that this decision takes place all at once. Perhaps because he focused so heavily on juristic processes and a legal constitution as the key facet of a power that is constituted by a constitutive sovereign, Schmitt ignores the quotidian practices and processes, be they legal, political, social, economic, or otherwise, that give rise to a given decision and given social and political order. The notion of constitutive power developed in chapter seven shall be decentered, both spatially and temporally. The sovereign decision will be seen to emanate from numerous, often seemingly unrelated points, and through numerous distant processes and practices. Some, like the decision by a sovereign body to dissolve one legal order and institute it with something new, may be particularly important factors in this

decentered process, that have a particularly large influence on the constitution of a new political order, but even these particularly important factors will themselves be decentered and emerge, not from nothingness, but from multiple processes including acts of resistance to a given order, social and economic changes that require different kinds of political governance, and so on. Similarly, the temporal dimension of constitutive power will be decentered, with constitutive power not suddenly emerging at one moment, but being the emergent effect of multiple processes over different frames of time. I shall retain the distinction between a more dramatic, extraordinary moment of institution and an instituted order, but the difference between the two shall be understood more as a matter of degree. Constitutive, instituting power will be working all the time, and a constituted order shall never be fully stable, but there will, nonetheless, be critical thresholds at which the smaller changes reach tipping points and more sudden, rapid changes occur.[28]

---

[28] A number of thinkers, including, notably, Chantal Mouffe, have attempted a leftist appropriation of Schmitt's decisionistic political theory. Mouffe, along with Laclau and others who Oliver Marchart (2007) identifies as the Heideggerian left have pointed to the absence of a ground or a horizon of undecidability which frames all politics. This absence of a ground or undecidability is referred to as 'the political', and is contrasted with politics, which refers to any particular attempt to stabilise politics through the imposition of a temporary ground. "By the political I mean the dimension of antagonism which I take to be constitutive of human societies, while by politics I mean the set of practices and institutions through which an order is created, organizing human coexistence in the context of conflictuality provided by the political" (Mouffe, 2005b, 9). The dimension of antagonism here is based upon a fundamental undecidability or lack of any final solution to politics. This lack of a final solution ensures that there will always be conflict. But conflict will always require some kind of decision for any political order to be formed and stabilised, ensuring that a Schmittian decision is needed to establish any particular political state of affairs. What makes this leftist appropriation of Schmitt different from Schmitt's original position is an attempt to locate this decision in a more democratic form of political struggle. For Mouffe, the acknowledgement of this dimension of undecidability is crucial for political theory, indeed, Mouffe (2005a, 6) goes so far as to suggest that failure to identify this dimension of undecidability and instead talk of an end of politics and a new consensus around the correct form of political organisation is directly responsible for the radicalisation of extremist groups. But the acknowledgement of this undecidability is only the first step toward finding an appropriate and democratic way to organise undecidability. Key to this organisation of undecidability is the replacement of a kind of *antagonistic* politics, where an enemy is deemed an evil group that must be destroyed, with an *agonistic* politics, where people can discuss and dispute their differences whilst still recognizing "the legitimacy" of the other side, and recognising their right to hold the view that they do. This broader democratic space where the legitimacy of others is acknowledged in dispute forms a "common bond...between parties in conflict"; a common bond surrounding the maintanence of a public space (Mouffe, 2005b, 20). Other thinkers of the post-Heideggerian left are united in the emphasis they place on this lack or undecidability in understanding politics. I have not discussed this post-Heideggerian and post-Schmittian political theory for two main reasons. First, whilst a temporary attempt at stabilization that is referred to as 'politics' maps on to the

Arendt: Plural Politics

Arendt is, in some ways, an ideal antidote to some of the excesses of Schmitt's understanding of constitutive power. Where Schmitt claimed that a constitutive decision came from a homogeneous, unified centre, and, indeed, where the modes of representative political theory discussed in chapter one also claimed that decision came from a coherent and unified homogenous entity, be it a set of transcendent values or a unified, if basic, consensus that we all adhere to, Arendt emphasizes the *plural* and *differential* nature of politics. Politics, Arendt claims, takes place between *men;* it can occur only when "men disclose themselves as subjects, as distinct and unique persons" (Arendt, 1998, 179). [29] It is when plural humans engage in "speech and action" that politics occurs (Ibid, 176). Indeed, the kind of representative political theory that was discussed in chapter one is, for Arendt, not really a *political* theory at all. Instead, it "substitute[s] making for acting", it substitutes a mechanical, technical act of copying a pre-given order or set of values for the free discussion amongst a plurality of different humans that is constitutive of politics (Ibid, 225).

Arendt's claim that a representative 'politics' based on making is not really a politics at all rests on her distinction between three distinct realms of human endeavour: labour, work, and action. A brief discussion of this distinction shall reveal what, for Arendt,

---

concept of constituted power, the concept of 'the political' as a horizon of undecidability does not map on to the concept of constitutive power, except insofar as it says that there is an undecidability that makes every constituted order contingent and potentially changeable. Second, I do not in any way want to understand the contingency of political orders in terms of a fundamental lack of any fixed and final solution to political questions. Instead, I understand the contingency of a constituted order and the prospects for constitutive change in terms of the sheer productivity of existence. It is not a lack that makes constitutive power possible. Instead, as shall be clear in chapter seven, the field of constitutive power *exceeds* any constitutive order, and as a result, the field of constitutive power is capable of producing new and different orders. For more on the post-Heideggerian left understanding of 'the political', see Marchart (2007). Nathan Widder (2000) offers an excellent criticism of the politics and in particular the philosophy of this position and its basis on a fundamental lack. Widder also uses a concept of the virtual to point to a productivity, and not a lack, that lies at the heart of being; a move not dissimilar from the one that I make in my conception of constitutive power developed in chapter seven.

[29] By men, here, Arendt means humans. The emphasis is on the plural aspect of the term 'men', and not on the gendered, male aspect.

constitutive power is, and how it is differentiated from a constituted order. Canovan (1998, ix) offers a very distinct formulation of Arendt's tripartite split of human activity, or the '*vita activa*'. Labour "corresponds to the biological life of man as an animal; work… corresponds to the artificial world of objects that human beings build upon the earth; and action…corresponds to our plurality as distinct individuals." Labour is simply the repeated set of biological processes and activities that keep living things alive day in day out. In this regard, "labour is what human's share with animals" (Passavant, 2004, 6). Work involves the production of the objects with which we surround ourselves; the house that we live in, the computer we type on, and the bicycle on which we ride to our jobs are all the product of work. Action is something different, something that can occur only between a plurality of humans. Action is "the only activity that goes on directly between men without the intermediary of things or matter." It "corresponds to the human condition of plurality, to the fact that men, not Man, live on the earth and inhabit the world." Arendt goes on to claim that "while all aspects of the human condition are somehow related to politics, this plurality is specifically "*the* condition….of all political life" (Arendt, 1998, 7). Without this plurality, political discussion would be needless. All that would be required would be a utilitarian endeavour to keep as many of our identical interests satisfied. But our plurality makes man a political animal, a being that discusses the good life, how to organise politically, and so on.

The structure of Arendt's notion of constitutive power, then, depends on the distinct nature of humans as plural and capable of action. This action, furthermore, is something utterly free and creative. It does not, as suggested above, enact a prior blueprint or model. As Arendt puts it, "action, to be free, must be free from motive on one side, from its intended goal as a predictable effect on the other." In this regard the capacity for political action consists in "the freedom to call something into being which did not exist before, which was not given, not even as an object of cognition or imagination, and

which therefore, strictly speaking, could not be known" (Arendt, 1993, 151).[30] The sense in which the representative political theory discussed in the first chapter substitutes making for acting should now be very clear. The Platonic philosopher king, for Arendt, is involved not in political action, but in fabricating a particular order from a pre-existing, pre-imagined blueprint; the kind of endeavour that Arendt calls 'work'.

Central to Arendt's (1998, 177-8) understanding of action, which forms the basis of her understanding of constitutive power, is the notion of beginnings. To act is to begin, and "it is in the nature of beginning that something *new* is started which *cannot be expected* from whatever may have happened before." Action involves the *constitution* of something new. When it comes to stating what might be created, Arendt deliberately leaves the question open. Beginnings, being a part of action which is made possible only by the plurality of humans, and which can occur only through the interaction of different people, cannot be foreseen. Instead, they emerge from the interaction of the diverse elements involved. "Action, as distinguished from fabrication, is never possible in isolation" (Ibid, 188). It is not only philosophically impossible to tell what may happen through action, precisely because it is of the nature of action to begin something new, something that breaks with the past. It would also be politically dubious for an individual to determine the effects of action in advance. It is not up to the individual theorist or indeed the individual actor to say what should or will come about through a new beginning. It is up to the plural group to decide, and to attempt to determine their own future through their speech and action.[31] The answers to what may emerge through action

> are given every day, and they are matters of practical politics,
> subject to the agreement of many; they can never lie in

---

[30] Arendt (1993, 151), here, is talking about freedom, claiming that (political) freedom is the freedom to create something new. It is clear, though, that Arendt also has in mind action. Indeed, in the same passage she claims that "to *be* free and to act are the same".
[31] I say 'attempt to determine' because, for Arendt, the outcome of action is radically uncertain, and people are often unable to see themselves that they have enacted a beginning.

theoretical considerations or the opinion of one person, as though we dealt here with problems for which only one solution is possible (Arendt, 1998, 5).

A plurality of 'men' capable of transformative action and speech accounts for the structure of Arendt's conception of constitutive power. What about the temporal dimension? Arendt, here, diverts to some extent from Schmitt, in that she does not restrict constitutive political action only to times of mass upheaval and dramatic change. "Political institutions, no matter how well or how badly designed, depend for continued existence upon acting men; their conservation is achieved by the same means that brought them into being" (Arendt, 1993, 154). A constituted order, if it is to remain in existence, must continually be reconstituted. Whilst one act of constitutive power might form a particular constituted order, that constituted order will not remain in existence unless it is continually remade through new actions. Arendt seeks, furthermore, to create, within a constituted order, a space for this continual constitutive action in the form of "a multitude of participatory public spaces" (Kalyvas, 2009, 228). These spaces exist alongside or within an already constituted power, and can make continuous changes. But despite allowing a kind of constitutive political action to take place continuously, constitutive moments, even if they are small constitutive moments taking place within and working to restore, rather than radically change, a given constituted order, "always appears in the guise of a miracle", (Arendt, 1998, 177) and are "not affected or caused by *anything* preceding" them (Arendt, 1978, 210 my emphasis). Action, then, involves a creation *"ex nihilo"* taking place in an "abyss of nothingness" or "abyss of freedom" opened up by the suspension of a previous causal chain, before the free action itself creates a new set of causal determinations (Arendt, 1978, 208).

The miraculous nature of action is rooted in Arendt's sharp division between a deterministic constituted order, which decays according to an inexorable deterministic

logic, and free, creative, and constitutive human action which interrupts and salvages this inevitable decay. It is worth quoting Arendt at length here

> No doubt human life, placed on the earth, is surrounded by automatic processes – by the natural processes of the earth, which, in turn, are surrounded by cosmic processes, and we ourselves are driven by similar forces insofar as we too are a part of organic nature. Our political life, moreover, despite its being the realm of action, also takes place in the midst of processes which we call historical and which tend to become as automatic as natural or cosmic processes although they were started by men. The truth is that automatism is inherent in all processes, no matter what their origin may be – which is why no single act, and no single event, can ever, once and for all, deliver and save a man, or a nation, or mankind. It is in the nature of the automatic processes to which man is subject, but within and against which he can assert himself through action, that they can only spell ruin to human life (Arendt, 1993, 168).

A ruinous, deterministic, and automatic process of decay is contrasted with human action which can intervene, and indeed must continually intervene, to create what is new. This distinction does not simply map on to a distinction between man or culture and nature. Indeed, the 'artificial' world created by humans itself falls into a causal determinism and decay after an initial creative and free action founds it. Arendt speaks of a history which tells us of many social orders that have petrified and been left to ruin, resulting either in their continued decay or their salvation through the intervention of creative action. But Arendt makes clear that a distinction between nature and human artifice or culture remains here. Natural 'events' or 'miracles' which break with entropic

decay, decline, and dissolution are extremely rare, with Arendt only naming three: the coming into being of the earth; the development of organic life, and the evolution of mankind out of the animal species. In human affairs, on the contrary, these kinds of events are the norm. "History, in contradistinction to nature, is full of events; here the miracle of accident and infinite improbability occurs so frequently that it seems strange to speak of miracles at all" (Arendt, 1978, 202). Arendt goes on to say that "the reason for this frequency is merely that historical processes are created and constantly interrupted by human initiative". This significant difference between nature and artifice is something I shall go on to reject, claiming that natural creativity, like the creativity of humans, is continuous, and not restricted to rare and seemingly inexplicable and "statistically overwhelming [im]probabilities" (ibid). Indeed, in regarding these events of natural creativity as inexplicable statistical improbabilities, as exceptions, rather than the sign of a kind of creativity and activity inherent in nature, Arendt does appear to render the creative human and deterministic nature radically different in kind. Whilst humans are by their nature creative and capable of constitutive action, nature is subject to a determinism that on the whole leads to an inexorable decay, barring a statistically miraculous accident that produces something new. It is this radical split which leads Arendt (1993, 169) to suggest that constitutive action is experienced as "a supreme gift which only man, of all earthly creatures, seems to have received".

Additionally, Arendt makes a clear and explicit distinction between freedom and necessity. Any constituted order, be it an order previously created through human action or a natural order or set of processes, is subject to the "autonomism" of deterministic process, with this process always being a "ruinous" one resulting in a kind of decay or petrification (Arendt, 1993, 168). Here we find a realm of total necessity and determinism. In contrast is the constitutive realm of human action, "which animates and inspires all human activities and is the hidden source of production of all great and beautiful things" (Arendt, 1993, 169). Here we find a realm of freedom, a realm of radical new beginnings which breaks the process of decay and petrification, introducing

novelty, change, and beauty. This interruption, furthermore, is miraculous, insofar as it comes from the outside as a radical intervention, something which was simply impossible and unthinkable according to the logic of the constituted order. This action is a "truly human activity" which "seeks to transcend the endless, repetitive cycles of nature", and indeed, the repetitive cycle of social life (Passavant, 2004, 5). The result of this radical split between freedom and necessity, where the change introduced through free human action is utterly miraculous, is a concept of action which, Parekh argues,

> is so abstract that it *does not connect with the world.* For her,
> action represents man's capacity to transcend nature and
> necessity. Indeed, for her, action is not only supernatural but a
> supernatural activity. In action man performs 'miracles', 'creates
> the 'extraordinary' and the 'unpredictable', and 'reveals' himself.
> Action appears from 'nowhere' and cannot be causally explained
> (Parekh, 1979, 87, my emphasis).[32]

Constitutive action is so divorced from the constituted order of deterministic decay that it is completely abstract and inexplicable. It cannot be grounded in or rooted in the world in which it supposedly intervenes. The worry, here, is that Arendt is reintroducing the kind of split into being that I rejected in Plato, and go on to reject again when I come to the second tragic choice, between a monistic but deterministic ontology and an account of creativity which locates creativity in a transcendent outside, radically separate from the rest of nature. Arendt appears to fall precisely into this second tragic choice. No account of how creativity can spring from the world is offered. Indeed, cases

---

[32] Breen (2012) is also critical of Arendt's radical, dualistic split between a human realm of freedom and a realm of necessity, with his criticism coming from the perspective of politics rather than my more philosophical objection. Breen (2012, 10. See also 213-247) speaks of Arendt's "pernicious tendency towards dualistic accounts of socio-political reality. Spurning contemporary celebrations of civil society, I argue that dualistic theories lead to substantial areas of life being arbitrarily excluded from critical reflection and to the privileging of politically peripheral over politically pre-eminent realms. By contrast, a truly critical politics takes the monistic view that all spheres of human activity are imbued with ethical life and must therefore be open to change." As shall be clear shortly, I share this more political rejection of Arendt's radical split between the realm of action and the remainder of human affairs.

where Arendt acknowledges that the natural world appears to have behaved creatively are regarded as inexplicable statistical improbabilities, cases not of the creativity of nature, but cases instead of the deterministic order going wrong and accidentally producing and creating something. Humans, with their capacity for free and creative action seem to exhibit, to use Spinoza's (EIII Preface) phrase, a "kingdom within a kingdom", being subject to different laws from those to which the rest of nature is subject.

As shall become clear throughout this work, I stand with Arendt on the plural nature of politics. Indeed, part of my rationale for studying the ontological creativity that makes possible political creativity, and not attempting to create a series of new political powers and values, stems from my conviction that new political powers, practices, and values can and ought only to be articulated collectively, and be grounded in real life political struggles. The determination of political practices, procedures, activities, and values is a task for collectivities to work through together, and not one for the individual theorist to undertake alone. I also share, as has become clear already, a notion that constitutive politics does and must involve new beginnings, and cannot simply be reduced to an act of making based on a pre-given transcendent value or an already given agreement. But where I break from Arendt is with her radical split between the determinism of the constituted order and the freedom of constitutive power, and the related split between creative humans and an otherwise deterministic nature and constituted culture. As shall become clear in later chapters, I reject any dualistic distinction between humans, capable of creative action through their speech and public disclosure and the rest of the world which is utterly static, devoid of any capacity for action, and "delivered up to the ruin of time unless human beings are *determined to intervene, to alter, to create what is new"* (Arendt, 1993, 192). Instead, the creative capacities of men will be seen as emerging only through the creative capacities of the material world, of which humans are fully a part. Indeed, examples of the creativity of nature very similar to those that Arendt regards as uncharacteristic statistical

improbabilities, in this case, the production of more deterministic laws of nature, the production of life from non-life, and the production of thinking from non-thinking materiality, shall be regarded as particularly impressive examples of the ongoing and continuous creativity that characterises the natural world of matter-energy. Humans, instead of inhabiting a kingdom within a kingdom, will remain immanent to and subject to the same laws as the world of matter-energy that creates them.

My rejection of the erosion of the radical split between creative, constitutive action and already established or constituted orders, furthermore, brings with it an erosion of the utterly miraculous nature of constitutive interventions. Rather than being utterly lawless and unrelated to an otherwise deterministic process in which they intervene, constitutive changes are instead rooted in and related to previous causal chains. This is not to erode the creativity or novelty of constitutive interventions. Rather, it is to replace Arendt's utter lawlessness of constitutive action, an utter lawlessness that renders action an abstract and seemingly inexplicable phenomena, with a *partial lawlessness* in which constitutive events are grounded in and related to prior causal chains, but break partially with them. Previous events and actions will contribute to a transformative political moment, but the political forms that they constitute will be novel in the sense that they are not *entirely* reducible to the causes that generate them, and exhibit emergent features that arise *partially,* and not *entirely,* lawlessly.[33]

---

[33] The difference between Arendt's radical and entirely lawless new beginnings and my notion of partial lawlessness shall become very clear in chapter seven, where I show how numerous practices may emerge together to generate a transformative political moment, but it can already be fleshed out a bit by way of an example. Arendt (1990) claims that the American Revolution was unprecedented, and as a result constituted a radical new departure not based at all on what had gone before. But as Passavant (2004b) points out, the revolutionaries in America were constantly seeking precedents for their action, and used pre-existing British law as a tool, if only a rhetorical one, in their battle for independence. "The Americans made their declaration through a creative appropriation of British legal discourse, which allowed the Americans to claim that their rights were being violated." (Passavant, 2004b, 116) On this reading, the American Revolution was only partially unprecedented, and occurred as a partially lawless event. Pre existing laws, ideas, and so on featured heavily in the revolution, but it nonetheless broke with them creatively in order to constitute a new society and new political order.

With Arendt's privileging of the distinctly human power of creative action comes a further problem with her account of constitutive power. Arendt restricts constitutive power, and any understanding of political action more generally, to the act of public speech. In contemporary times, much of what we (mistakenly, in Arendt's eyes) call politics concerns the distribution of resources, the running of and provision of access to certain services including health services, transport, and care services, the negotiation of better wages or working conditions, and so on. This contemporary concern with the predominantly material interests of people is a product of what Arendt calls the rise of the social. The rise of the social has, in Arendt's eyes, clouded us to a set of more distinctly political activities. For Arendt, this distinctly political sphere is not one where people merely stand up for certain material interests; something that they could easily do by appointing representatives, be they union leaders, politicians, or business group representatives to speak for them. Rather, it is a *participative* sphere of debate and deliberation; something which requires our involvement in a political life, and cannot be passed off to someone else to do for us. Villa's analysis of Arendt is particularly instructive here

> The general mode of human activity that (potentially) breaks free of the life process is *speech,* speech with others. Genuine political action is nothing other than a certain kind of talk, a variety of conversation or argument about public matters (Villa, 1996, 31).

The life process, here, refers to the daily reproduction of material life that we engage in when we 'work' and 'labour'. These activities, for Arendt, are not political. They are something that can take place in a more private sphere where we run and live our life, and they correspond to our mere material interests that can, as indicated above, be fought for on our behalf by others. But for Arendt politics and political action is

something different. It is something we can and must undertake by ourselves, and something that revolves around our deliberating and discussing in public.[34]

There is no doubt something very important in Arendt's analysis of what constitutes distinctively political activity. There are concerns that in an age of representative government and the rise of biopolitics, where politics becomes largely about the administration, protection, and preservation of the life process, this rich, fulfilling, and indeed empowering form of direct and deliberative political action, where people discuss not just the technical administration of the life process, but also the nature of the public and political good life itself, may be lost. Arendt's delineation of a space for participatory and deliberative modes of political action is therefore hugely important in light of the rise of the social. But problems arise when Arendt gives further content to this idea of political speech and political action. The problem, here, concerns Arendt's desire to "limit the content of political talk to specifically *political* matters" (Villa, 1996, 36). For Arendt, talk does not qualify as political if it concerns the interests of material life, or issues pertaining to activities of life and labour. Talk is not political if it is concerned with, for instance, increasing access to health care and methods of economic regulation; something that may seem strange to contemporary ears given the major political concerns in Europe and the United States in the second decade of the 21st Century.[35] This dramatic restriction of what is to count as truly or distinctly political has led many scholars, including Bernstein (1977 and 1986), Pitkin (1981), and Breen (2012), to question Arendt's strict demarcation of a political sphere. Whilst they are full of praise for Arendt's concern with deliberative and participative political practices, they sense that Arendt's radical demarcation of the political sphere may make it unsuitable

---

[34] Arendt (1998, 26) does acknowledge that political action and speech are not the same thing, but she nonetheless maintains that "most political action...is indeed transacted in words". Kateb notes this overwhelming concern with speech as the key element of politics in saying that "scattered throughout her [Arendt's] work is the idea that politics is action and that action is speech in public about public affairs." (Kateb, 2000,132).
[35] As I write, the Euro-zone is going through an economic crisis which has, in Italy and Greece, seen leaders replaced by technocrats aiming to avert economic catastrophe, and the issue that has dominated politics in the USA during the Obama reign has concerned a bill seeking to offer universal access to health care.

for modern political life and political questions, given the dominance of social concerns in contemporary political life. As Pitkin (1981, 336) puts it, Arendt's strict demarcation of a political sphere results in a "curious emptiness of content" in political life; an emptiness which leads Pitkin to ask: "what is it that they [citizens] talk about in the endless palaver of the *agora*?"[36]

Villa offers a partial defence of Arendt. Villa does acknowledge that Arendt restricts the content of political talk to distinctly political matters, but he also claims that Arendt has a response to the charge of the emptiness of content. The content of Arendtian politics can be highlighted through Kateb's (1983, 15) useful analogy of a game. Arendt's idea that that "political action is talk about politics" seems somewhat circular, but this circularity is very similar to the circularity of a game. "A game", Kateb continues, "is not 'about' anything outside itself, it is its own sufficient world...the content of any game is itself". Villa (1996, 37) uses Kateb's game analogy to argue that Arendt's understanding of politics "is one in which the spirit animating the 'play' (the sharing of words and deeds) comes before all else – before personal concerns, group interests, and even moral claims". And if these social elements are "allowed to dominate the game", they serve only to "detract from the play and from the performance of action. A good game happens only when the players submit themselves to its spirit and do not allow subjective or external motives to dictate the play". Villa continues his defence by saying that, whilst for Arendt, social concerns are not what is political in political action, they can nonetheless be the *object of* political talk and action. What is important about political talk is preserving the spirit of the game. In political terms, this means preserving the very public space, and the constitution of freedoms that allows for the public disclosure, deliberation, and speech that is constitutive of political action. As Villa (1996, 37) points out, Arendt's examples, which include the speeches of Athenian democracy, the revolutionary councils, and the founding of the American constitution, are telling,

---

[36] Breen (2012, 216) makes a similar point, claiming that "action as a concrete activity becomes obscure". Breen continues: "Arendt's account is flawed in erecting an artificial disjuncture between elements which only *together* render action comprehensible" Breen (2012, 217) also challenges Knauer's (1980, 725) attempt to defend Arendt from this line of criticism.

for "all revolve around the creation and the preservation of a public sphere". For Arendt, on Villa's (1996, 38) reading, political speech and action can have as its object issues pertaining to the social question, provided that it acts *at the same time* as a defence of the public sphere of disclosure and political speech "from internal or external erosion". The broader content, beyond a defence of the public sphere, is historically and culturally variable; "the content of political action is neither given nor fixed, but generated in the course of performance". And it is the performance itself that is the important political act, for the performance upholds, affirms, and continues the public sphere of political action (Villa, 1996, 39).

Villa (1996, 39-40) is successful in showing that the demarcation of a distinct political sphere "is somewhat more flexible than... Bernstein, or Pitkin believe".[37] But I would argue that it is nonetheless too stark a demarcation. It remains the case, for Arendt, that action that we are involved in in life and labour is non-political. The only way it can even figure in the political sphere is as the object of public deliberation and discussion, and even then the continuance of a tradition or space of political deliberation is more important than the object of deliberation. This kind of deliberation requires a number of pre-requisites. First of all, it requires, as the Greeks knew well, and as Arendt was fully aware herself, that the means of sustenance are already secured. This rules all those who have to struggle and spend their time securing the reproduction of their material life out of any kind of political action. Secondly, it requires a certain set of skills of deliberation, something that, on a global scale, rules political action out for, at the very least, the 15% of the adult population who are illiterate.

Arendt (1990, 278-279) is satisfied with political action being something that is at least partially elitist. She indicates that the members of political society would be "a self selected elite" comprised of people with "a taste for public freedom". But it is not clear

---

[37] Kateb (2000, 144), though he does not wish to defend Arendt's privileging of a purely political form of speech over any social concern, does nonetheless acknowledge that "politics done in the right spirit and for its own sake is immensely valuable for non-political reasons".

that this elite is simply self selected, at least not without significant re-organisation in the world of Labour and Work. The difficult and time consuming nature of the reproduction of daily material life for a number of people, and the lack of access to opportunities to develop skills required for this civic action, may rule out a number of people who desire to be involved in political deliberation. Whilst Arendt (1990, 280) wants to see these obstacles removed, any suggestion for their removal is already to propose, for the sake of politics, significant changes in the social sphere.[38] These changes would no doubt be very difficult to win, as they would require a radical redistribution of the burdens of social reproduction. And if this exclusively 'political' politics is made to give way for an account of political action which is far more inclusive, there are a number of ways in which the sphere of politics can immediately become more inclusive, as I shall go on to demonstrate.

More generally, whilst Arendt does at times show awareness of the importance of the social question, and acknowledges the importance of questions of social justice, access to social goods, and so on, in "viewing constitutionally guaranteed political rights as more fundamental than the abstract goal of social justice" and seeing "equality of citizenship, rather than greater equality of condition" as "her primary concern", she nonetheless overplays the primacy of the importance of politics over the social question (Villa, 1996, 40).[39] One senses, when reading Arendt, a longing to go back to a time when there was a clear space for politics separate from the social question, and when the social question had not become so all-encompassing in what passes for political action. But the rise of the social question itself might in part be attributed to the extension of certain political rights and a greater inclusion of relatively worse off people in the political process. Politics can no longer be about a more lofty form of disclosure in public space once people who have very real concerns of feeding themselves, getting

---

[38] For more on Arendt's idea of self-selected elites, and her claim that spaces for active participation must be dramatically increased in order for the elite to be self-selecting, and not selected by circumstance, see Breen, 2012, 210-212

[39] Villa here is stating Arendt's position regarding the priority of political over social matters, and is not offering a criticism of that position.

healthcare, and staying alive have, through direct action, civil disobedience, and deliberative political speech, successfully fought for some kind of inclusion in the political process by being given voting rights. This is not to say that with increasing voting rights comes sufficient political involvement, nor that the interests of the least off are adequately represented, as they clearly are not, but it does require an orientation of politics towards these concerns, and requires that they are given more attention and concern than they otherwise would have been. [40]

Instead of valorizing and longing for the return of a separate sphere of politics; a sphere that was always predicated upon a number of exclusions and always inevitably elitist, perhaps a more productive move would instead be to affirm and accept the rise of the social as not only something inevitable and irreversible, but also something that has brought with it a number of positive changes, and seek to find ways to *politicize* the sphere of the social. In other words, what is important is not demarcating a sphere of politics as something that only some can engage in, and something that is increasingly difficult to produce in light of the rise of the social, but instead finding ways that social concerns may be made political, and may come to constitute a form of or accommodate a space for more direct and deliberative political action. As Parekh points out, this possibility for a politicization of social concerns has always existed within the sphere of the social, or within Arendt's activities of work and labour.

---

[40] In *On Revolution,* Arendt discusses both the French and American revolutions, claiming that the French revolution was a revolution dominated by social questions, notably those of poverty alleviation, and that the American Revolution was a truly political revolution, concerned with forming a constitution and a space for deliberative political action. Arendt argues that the French revolution resulted in terror precisely because of the dominance, within the revolutionary movement, of the social question, whilst the American Revolution was more successful because of its political motivations. As I have argued, and continue to argue later in the thesis, I see no reason to see the social in non-political terms, and would therefore say that both revolutions were constitutive political actions. It is also worth pointing out that the American revolution created a society where there are many problems in what Arendt would regard as the social sphere; slavery remained for a long time, and it is now one of the most unequal societies in the world, with that inequality bringing a vast array of problems (See Wilkinson and Pickett, 2010, for an account of the problems produced by inequalities). Indeed, one might turn Arendt's argument on its head and blame some of the social ills found in America on a lack of concern with the social question in the American Revolution. Perhaps for a revolution to, first of all, happen, and second of all, be successful, it requires both social elements, elements like poverty alleviation and such like that motivate many people to resist and rebel, but also what Arendt regards as distinctly political elements.

Arendt's neat separation of the realms of necessity and freedom prevents her from noticing that the realm of necessity allows for considerable freedom, in the sense that men can collectively organize and plan production, devise ways of eliminating or minimizing the detailed division of labour, make working conditions attractive and pleasant, and provide for industrial democracy and collective self-determination (Parekh, 1979, 87).

To give one example, the trade union movement, rather than being seen as a form of social critique and social action, might be seen as an avenue for a kind of political action and disclosure; a kind of political action and disclosure that is available to a broad sweep of people and can be achieved as part of or through the daily reproduction of material life. This form of political action may in part involve deliberation and discussion about the values, aims, and strategies of the union, but may also take place through more direct action, through strikes and disobedience at work, amongst other things. Indeed, in the final chapter I shall discuss how changing the way in which daily material life is reproduced has been, and in the future may again be, a vital way in which constitutive political change can take place. Becoming political, then, does not require that we leave a private world where we reproduce our material life behind in order to enter a public political sphere of deliberation; a move only open to few. Instead, it might involve practices like forming and involving ourselves in unions, in workers co-operatives, in practicing, advocating and organising different patterns of production and consumption, and so on. This form of political change not only provides huge potential for generating constitutive political changes, but it is also open to a vastly larger group of people than

Arendt's narrowly confined notion of political action through public speech and disclosure.[41]

Hardt and Negri: Constituted Empire and the Constitutive Multitude

Focus on the political significance of the daily reproduction of material life, and of the way in which constitutive political action may take place through the daily endeavour of social and economic reproduction brings me on to Hardt and Negri's account of constitutive power. Hardt and Negri overcome a number of the problems associated with the conceptions of constitutive power offered by Schmitt and Arendt. Unlike Schmitt, Hardt and Negri understand the act of the constitution of a given order to take place day to day, through a number of hegemonic practices and indeed a multiplicity of acts of rebellion and reconstitution. They also understand this act of constitution to be performed not through the will of a singular sovereign, but rather through multiple acts and practices in multiple places. Unlike Arendt, furthermore, Hardt and Negri see the constitution of an order as involving a number of material practices, with orders produced biopolitically in the reproduction of daily material life. In this regard, Hardt and Negri do not isolate one form of human endeavour as the only true political activity, with constitutive power being rooted in the life and labour of humans, as well as in their more discursive political activities. For these reasons, Hardt and Negri come closest to the materialist and decentred understanding of constitutive power developed later in this work.

---

[41] Jacques Ranciere (2001, thesis 7), who locates the difference between constituted power and constitutive power in a difference between 'police', the maintenance of a given "organisation of powers…distribution of places and roles, and…systems for legitimizing this distribution," and politics, the exceptional "deviation[s] from this normal order of things" also understands constitutive power, and indeed politics in general, in overly idealist, discursive terms, with speech regarded as the "political activity par excellence" (Panagia, 2001, Paragraph 4). For Ranciere, the constituted organisation of power is a "partition of the sensible" determining "what is visible and what is not, of what can be heard from the inaudible", (Ranciere, 2001, thesis 7) with constitutive political change occurring when some of the "part of those who have no-part" force themselves to be *heard* (Ranciere, 2001, thesis 5). Furthermore, Ranciere follows Schmitt in regarding constitutive political moments as episodic and exceptionally rare. "Politics doesn't always happen – it actually happens very little or rarely." (Ranciere, 1999, 17) Wolin (1996, 31), in claiming that "the political is episodic, rare", also overly restricts the political moment to rare, sudden events.

For Hardt and Negri, 'Empire', consists of an *uncreative* and already constituted political system, while 'the Multitude' represents a *creative* set of constitutive political powers, capable of breaking through the determinacy of Empire in order to introduce new political forms. Empire, Hardt and Negri (2000, xi) claim, constitutes a "new logic and structure of rule – in short, a new form of sovereignty". Empire differs substantially from previous forms of rule in the sense that it operates, not from a transcendent centre which promulgates orders and rules, but through "modulating networks of command," networks of command that remain immanent to the social, political, and economic practices in which people are engaged. Contrary to traditional forms of power, network-power has no centre, and is flexible and fluid in a way that makes it difficult to locate. It is unclear, for instance, whether elements of the globalized capitalist order are governed by states, multinational corporations, pressure groups, or a number of other actors. Furthermore, even if a given power responsible for a set of policies and laws is identified, we may not have reached a centre or location of power. The World Bank and International Monetary Fund (IMF) may be responsible for certain policies of fiscal re-adjustment, but these organisations may have introduced these policies on the basis of a set of "self-validating" discourses which make a globalized, free-market capitalism seem inevitable and natural (Ibid, 34). These meanings may be perpetuated by institutions such as the World Bank and the IMF, and supported by numerous institutions, states, and so on, but they are "produced" and upheld "from one moment to the next, at every point" in universities, text-books, the media, and even day to day conversations and interactions (Foucault, 1998, 93). And their dominance in universities, the media, and so on may itself spring in part from the sheer financial power invested in these ideas by those who benefit from them. The power and inclination of the World Bank and IMF to introduce these policies thus comes, at least in part, from a network of powers and understandings distributed throughout the entire social field, and this distribution is not a flat, democratic one, but one that is possible because of the uneven financial backing ideas may have.

As well as being a networked power, Empire is also a *"biopolitical"* power; a power that manifests itself in the "production and reproduction of life itself" (Hardt and Negri, 2000, 29, 24). In the emperial constituted order the life of both the individual and the population becomes an object of power, and power seeks to foster and enhance life.[42] An important aspect of this fostering of life consists in the *production of subjectivity.* Behaviours and meanings picked up through biopolitical powers become "interiorized within the subjects themselves"; our very subjectivity is constituted through emperial power (Ibid, 23). Hardt and Negri connect the rise of this diffuse and mobile biopolitical form of power to the emergence of "immaterial labour" as a dominant tendency or hegemonic form in labour.[43] Production is now increasingly "filled by intellectual, immaterial, and communicative labour power"; along with producing products, people produce meanings (Ibid, 29). The material product of a black t-shirt with a white tick makes up only a small part of the production of value; much of the work and value of such a t-shirt consists instead in the production of the meaning and value of the 'brand' 'Nike'. Hence, "industrial and financial powers…produce not only commodities but also subjectivities…they produce needs, social relations, bodies, and minds" (Ibid, 32). It is this biopolitical production of ideas, meanings, affects, and thereby subjectivity, furthermore, that produces the meanings that make the fiscal re-adjustment policies of the World Bank and IMF seem necessary, appropriate, and inevitable.[44]

---

[42] One just needs to think of the moral messages and normalizing judgements found in the mass media through soap operas, fashion programs, advertising campaigns, as well as the recent proliferation of self-help books and therapy, to see the way in which life, and the way in which individuals and groups live their life, becomes an object and power. For more, see Foucault (1998)

[43] A hegemonic form of labour is not necessarily the form of labour in which the highest *quantity* of people are employed. Rather, it is that form of labour that tends to dominate the social field, and have its methods and constitutive features spread across other labour forms. Thus, whilst material production still, quantitatively speaking, dominates production, it tends increasingly to take on features of immaterial labour. Paulo Virno (2003, 61) explains the notion of a hegemonic form of labour well through the notion of the "industry of the means of production". The industry of the means of production is that form of production that produces things to be used in other fields of production. On such an understanding, immaterial labour "produces…communicative procedures, which are then destined to function also as means of production in the more traditional sectors of our contemporary economy".

[44] Though Hardt and Negri's analysis is a materialist one, they do acknowledge that with this change in the mode of production, "the economic and the cultural are inseparable" (Hardt, 2004, 171). With immaterial labour, what is produced is, in part, culture, cultural values, and ideas. But their analysis remains a

The constituted politics of Empire depends upon a form of power that is both *decentred* and *material*. The constituted order is decentred insofar as it extends its web of power indefinitely (even as far as the depths of meaning, subjectivity, and being) through fluctuating networks of meanings, ideas, subjectivities, institutions, and so on. And it is material on the grounds that it is a form of power rooted in the day to day practices of people, in the practices through which they reproduce the material conditions of their existence. It is rooted in and continually reproduced by the form of labour that people are involved in, and the power that sustains the constituted order operates all the time around people as they go about their life. The constituted power is governed, furthermore, by the material distribution of resources, with some able to afford things like aggressive advertising campaigns in order to ensure that their products become desirable, and others unable, and some able to help produce dominant discourses through their ownership of large sections of the media, and others only able to distribute knowledge and their discourses amongst smaller groups. Through their understanding of the materiality of the constituted order, Hardt and Negri make clear that Emperial power consists in a set of often quotidian material practices which constantly reproduces the conditions of its own power. The decentered notion of the constituted order, and the emphasis on the day to day material practices, at the expense of the dramatic and irregular decision, lead away from Schmitt's notion of the constitution of politics being an extremely rare event. Instead of being the hypostasized expression of very occasional moments of sovereign decision, Hardt and Negri (2009, 4) understand constituted power in terms of "the daily functioning of constitutional, legal process and the constant pressure of profit and property."[45]

---

materialist one insofar as it acknowledges that the importance of culture and ideas is rooted in and based upon the daily reproduction of material life.

[45] Hardt and Negri (2009, 4) are explicitly critical of approaches that place "an excessive focus on the concept of sovereignty", or the moment of sovereign decision, at the expense of the quotidian material practices that constitue a given order. They claim that "the bright flashes of a series of extreme events and cases blind many to the quotidian and enduring structures of power." Hardt also mentions explicit differences between his work with Negri and the work of Schmitt in Hardt (2004, 167).

The productivity of Empire, Hardt and Negri (2000, 13) argue, always comes from the "immanent, constructive, and creative forces" of the multitude of people (Ibid, 76). Meanings are produced by people, and brands are made by people. In fact, Empire, on its own, is *entirely uncreative.* Even Empire's very formation was "born not of its own will"; rather, Empire was *"called"* into being or *constituted by* a series of struggles. The effectivity of empire is "not due to its own force but to the fact that it is driven by the rebound from…resistance" (Ibid, 34). Hence, Empire, on its own "produces nothing" (ibid, 361). As a result of this utter lack of production, Empire presents itself "as an order that effectively suspends history and…fixes the existing state of affairs for eternity"; left to its own, Empire will obey an entirely deterministic logic and operate according to fixed and foreseeable cycles (Ibid, xvi). The uncreative nature of empire indicates that there must be a deeper, *constitutive* level of reality responsible for producing Empire. Empire was called into being through resistances and struggles. Empire is thus

> constructed according to the rhythm of the acts of resistance
> that constitute the being of the multitude…the effectiveness of
> Empire…must finally be traced back to the virtual *constitutive*
> action of the multitude (Ibid, 360-1, my emphasis).

It is the Multitude that resisted, thus calling Empire into being, and it is the multitude that *creates* the meanings and engages in the practices that constitute Empire. Indeed, the multitude, Hardt (2004, 173) claims, "is in fact the foundation of all social creativity". Empire, then, is not a level of reality above and beyond the people, processes, and practices that make it up. It remains *immanent to* the constitutive power of the multitude that forms it, even if, as Hardt and Negri argue, it exists as a perversion, rather than a realization, of the desires of the multitude.

The multitude comprises a *"multiplicity"* of actors (Hardt and Negri, 2004, xii). A multiplicity, rather than signifying a unified one or a group of many so diverse that they do not affect one another or produce coordinated effects is a *singular* plane or series, yet consists of many different elements. The multitude, as a multiplicity, is thus some form of *plural unity*, or a series of differences subsisting in one plane. The multitude is "both" one *and* many (Ibid, 138). It will be useful here to compare the multitude (a multiplicity) with "other social subjects such as the people" (a version of the *one*) and an inchoate mob (a version of the many) (Ibid, xii). "The people", on Hobbes' classic account, is "one, having *one will,* and to whom one action may be attributed" (Hobbes, 1983, chapter xi section vii). Schmitt's sovereign power, which makes instituting political decisions, would be a classic case of a people (or, in the case of a Monarch, a person) with one will, to whom the one action of decision can be attributed. In a mob, on the other hand, differences between people are maintained, but rather than having a common voice or stance, a mob is characterized by chaos. A mob is thus *many* without being one, whilst a 'people' is a *one*, or a pure, undifferentiated identity.

The mob and the people are both unsatisfactory as arrangements of constitutive political powers. In a people, important differences are viciously crushed into a unity; something unacceptable at the political level in light of the identity politics prevalent in struggles over the last fifty years. A mob, on the other hand, offers no political potential on the basis of its lack of commonality. But thinking in terms of multiplicity, and thereby of the multitude rather than the mob or the people, offers a way out of this hopeless dichotomy. The multitude, as a plural unity, does not crush differences into identity, but also achieves some form of immanent, emergent order. How can the multitude be a *singular*, *united* social formation without eroding the multiple and plural singularities within it? The multitude can be one as well as multiple, singular as well as plural, thanks to a *"becoming-common"* (Ibid, 222). In order to understand how a common can be constructed without eroding plurality, an example of *how* the common is formed in

actuality is required. The way in which singularities become common can take many forms. Hardt and Negri distinguish between the "*ontological*" multitude and the "*historical*" multitude (Ibid 221, my emphasis). The ontological multitude is the creative force in human being in its *entirety*. It is from this force that a series of dominations, such as Empire, are created and, through resistance, re-created or moulded into different forms. The historical multitude refers to the multitude at a given moment. The ontological multitude will form or become-common in different ways depending on whether it is resisting a feudal order, a state-capitalist order, or the order of Empire, yet it will still maintain those ontological characteristics of resistance and production. As an example here, I shall use the 'not-yet' multitude that is, according to Hardt and Negri (2000, 61), currently forming "within…and against" Empire. The formation or production of the common in Empire is linked to immaterial labour. The increasingly immaterial nature of production in Empire means that labour increasingly requires communication, co-operation, and civility. This means, first of all, that the multiple *different* areas of labour, including, for Hardt and Negri, the biopolitical labour of the unemployed, who despite their lack of a job play a role in the production and reproduction of social meaning, develop common themes; factory workers, entrepreneur's, and executives all labour in different ways, but across these differences, a *common* theme of communication emerges. "The multiplicity of specific…forms of labour" thus "remain different", yet still tend "to accumulate an ever greater number of common elements" (Hardt and Negri, 2004, 108). This communicative cooperation, furthermore, engenders a series of shared meanings and understandings, which in turn provide a further base for discussion, leading to a spiral of increasing commonality. For Hardt and Negri, the commonality yet plurality of the multitude was embodied in the Seattle protests of 1999. In Seattle, groups that were thought to be opposed, for instance, "trade unionists and environmentalists, church groups and anarchists" protested together, without a "unifying structure that subordinates or sets aside their differences", but instead through an *emergent common*; a common voice, raised against free trade capitalist globalization and in favour of greater democracy emerged

from the differences without thereby subordinating the differences to a central structure (Ibid, 217). Recall that, earlier, I suggested that Schmitt's constitutive sovereign power was too centralised; the decision that instituted a political order came from a single, unified point, be it an individual person or the kind of unified, undifferentiated group that Hardt and Negri place under the term 'a people'. Hardt and Negri avoid this centralised notion of the multitude, instead diffusing constitutive power amongst a network of different points, with different groups and people acting together to constitute and reconstitute social and political orders. My conception of constitutive power shall, too, be spread across a diffuse network of people, groups, institutions, and so on, with different powers and capacities working in different times and at different places to constitute any given political order.

The constitutive Multitude, like constituted Empire, is *decentred* and *materially grounded*. Once again, these features will enable Hardt and Negri to escape features found to be problematic in Arendt, and Schmitt. In Arendt, constitutive power involved the *speech* and *discourse* of the people. Arendt sought to place constitutive power within councils, and saw the people coming together in their disclosure and communication, and instituting new orders on the back of their discussion as the apotheosis of constitutive power. Hardt and Negri clearly go beyond the narrow confines of speech and discourse in their discussion of constitutive power. Hardt and Negri make it very clear that the mode of resistance through which the constitutive power of the multitude exerts itself is grounded in and springs from the material reality of their daily life. The notion of communication that they see acting as a kind of hub for the becoming-common of the multitude today is so important, for Hardt and Negri, because what the multitude is resisting is a communicative capitalism which revolves around the production of knowledges, ideas, brand reputations, and desires.[46] It is because capitalism is taking this immaterial form, where ideas are given a value, that

---

[46] Jodi Dean (2004) has developed this analysis of modern day capitalism as based on the production and dissemination of ideas, values, knowledges, and so on in her analyses of communicative capitalism.

resistance today can take the form of counterfeiting, free to access sources, and piracy. Furthermore, when the continuous nature of the production and reproduction of the constituted empire is added to this materiality of struggle, it becomes clear that Hardt and Negri escape the understanding the notion of the event of constitution as something that occurs, as it did in Arendt, as a miracle, or, as in Schmitt, as something that is "isolated to rare and cataclysmic thunderbolts that arrive from the outside and have no roots in the immanent political terrain". Instead, these events of constitution can be seen "as electrical charges that accumulate in the atmosphere until the moment when their tension is so extreme that they crash down on earth in a lightning bolt"; constitutive moments of dramatic change are something that occur when an ongoing struggle in which the multitude are involved reaches a tipping point, or where the "permanent revolution" that the multitude are engaged in reaches a critical point, and a large, systematic change results (Hardt, 2009, x), viii).[47]

Though Hardt and Negri overcome a number of the difficulties found in other conceptions of constitutive power, a number of questions remain. Hardt and Negri share with me an understanding that constitutive must be understood in terms of creativity. They also share my understanding of this creativity as something immanent, not as some kind of bolt from the blue coming from outside the material realm in which we find ourselves.

Hardt and Negri, though, fail to address a key issue. Whilst Hardt and Negri discuss political movements and processes that they believe to be creative, like the creative, collective process in which immaterial value is produced through immaterial labour, they do not address the issue of how creativity is possible at a more ontological level. As the introduction indicated, the existence of creativity within the universe is highly

---

[47] In chapter seven, I offer a more detailed account of how these permanent political changes can eventually reach a tipping point, and generate the kind of dramatic and significant changes that characterize 'political moments'.

contentious, and where it is introduced, it tends to be introduced as something transcendent to the material world of happenings. Descartes and Arendt both separated a creative realm of human willing from a deterministic material realm. Unless an account of how creativity can be understood as something immanent to the material world here is offered, there is a danger that creativity could remain a capacity that the multitude, formed of human beings, have as if by magic in a world that is otherwise deterministic. In other words, if Hardt and Negri's account of the creativity of the multitude cannot be supplemented with an account of the creativity of the material world to which humans belong, then they might be seen to share with Arendt a view that humans inhabit a kingdom within a kingdom, and exist in a position of transcendence from the otherwise uncreative and cyclical, if not dull, dead, and static, material world. It must be emphasized here that Hardt and Negri do not want to make this move of understanding humans as a kingdom within a kingdom. They do not want to separate humans from the rest of nature. Indeed, they are quite explicit in stating that "there are no fixed and necessary boundaries between the human and the animal, the human and the machine" (Hardt and Negri, 2000, 215). But if humans are conceived as capable of creative, political action, which, for any account of constitutive power to have any meaning, they must be, and if there are to be no fixed, necessary, or essentialist boundaries between the human and the animal, or the human and material stuff, machines, or anything else, as there are in Arendt and Descartes, then material things, machines, and the rest of nature must too be understood as exhibiting creativity. This creativity, as I have indicated, simply cannot be presumed. It goes against an understanding of materiality, discussed in the introduction and discussed further in the following chapter, as something passive, predictable in principle, and deterministic. To affirm both the creativity of the human multitude and the lack of fixed, necessary distinctions between humans and the rest of nature, an account of the creativity of nature must be offered.

My interest, in the remainder of this thesis, is not solely to address this question in order to give Hardt and Negri's political theory a further, philosophical grounding. Rather, the ontology that I develop shall generate important differences between mine and Hardt and Negri's account of constitutive and constituted power. Rather than being something that merely limits and constrains the creative power of the multitude, constituted forms of power will be understood to be the creative expression of a material field of creativity, populated by humans, non-human animals, and inanimate things. This creative expression, rather than becoming a negative force, and thereby producing a Manichean distinction between the good Multitude and bad Empire, or a constituted power associated with hierarchy, division, and oppression and a constitutive power that "is coextensive with democracy", will be something that can be either good or bad, or, better, something that is good for some, and bad for others (Passavant, 2004, 15). This reconceptualization of constitutive power shall be developed in three stages. First, I highlight the second tragic choice, that between a monistic expression of a cold and deterministic world and an affirmation of creativity that comes at the cost of the introduction of incoherent dualisms and forms of transcendence. Second, I overcome this tragic choice through the development of an understanding of creativity as immanent to the natural, material world. Finally, I use this immanent and creative ontology to reconceptualise constitutive power and its difference from constituted power.

Chapter 3: Immanent Determinism or Transcendent Creativity

[Being] is immovable in the bonds of mighty chains, without beginning and without end; since coming into being and passing away have been driven afar, and true belief has cast them away. It is the same, and it rests in the self-same place, abiding in itself. And thus it remaineth constant in its place; for hard necessity keeps it in the bonds of the limit that holds it fast on every side… And there is not, and never shall be, any time other, than that which is present, since fate has chained it so as to be whole and immovable. Wherefore all these things are but the names which mortals have given, believing them, to be true, coming into being and passing away, being and not being, change of place and alteration of bright colour (Parmenides, 8).

By cosmic rule, as day yields night, so winter summer, war peace, plenty famine. All things change (Heraclitus, fragment 36). "The river where you set your foot just now is gone – those waters giving way to this, now this" (Heraclitus, 2003, Fragment 41).

When atoms move straight down through the void by their own weight, they deflect a bit in space at a quite uncertain time and in uncertain places, just enough that you could say that their motion has changed. But if they were not in the habit of swerving, they would all fall straight down through the depths of the void, like drops of rain, and no collision would occur, nor

would any blow be produced among the atoms. In that case,
nature would never have produced anything (Lucretius, in
Gerson (1994) 66).

The question of whether nature or being is already given for eternity, with nothing novel ever emerging, or whether it is creative, morphing in novel ways that could not, even in principle, have been foreseen, is as old as philosophy itself. Parmenides (8) famously claimed that being is something entirely unchanging, already given for eternity. Existence "remaineth constant in its place, for hard necessity keeps it in the bonds of limit that hold it fast on every side". Nothing new will emerge; "there is not, and never shall be, any time other, than that which is." Change, coming into existence, and passing away are reduced to "but the names which mortals have given, believing them to be true". Change and the emergence of the new is a mere illusion. At the opposite end of the spectrum lies Heraclitus. For Heraclitus, nature is always changing. Contrary to Parmenides' image of a still, unchanging nature, Heraclitus envisions a nature in which "all things change" as a "cosmic rule"; a world in which you can never step in the same river twice. The river, like the rest of nature, is constantly changing, such that each time you set foot in it, a different, changed, and ever-changing you sets a different, changed, and ever-changing foot in a different, changed and ever-changing river. Between Parmenides and Heraclitus, and their extremes of pure stasis and pure, creative becoming, lies Plato. Plato posits a set of pure and unchanging forms, and a changing (or decaying) empirical realm in which all but the enlightened philosophers are ensconced. In the immanent realm is found change and flux, albeit a change understood more in terms of cyclical decay than becoming, whilst in the transcendent realm lie unchanging forms which bring about an order, meaning, and value that are not found in the forever changing sensible realm. For Epicurus and Lucretius, the usually uncreative and unchanging fall of atoms into a void is interspersed by the clinamen; an event in which the atoms swerve, and thereby come into a productive relation that created nature as we know it. For Lucretius and Epicurus creativity and stasis both remain

immanent to matter. Matter is usually deterministic, but in rare, chance moments in which the atoms swerve and collide matter becomes productive and creative. Lucretius and Epicurus posit a mix of necessity and contingency, determinism and creativity, change and stasis, only this time, these qualitatively distinct features are located within the one realm. Creativity and determinism co-exist within an immanent monism of matter-energy.

Dead Matter

This Lucretiun view of matter as the source of both determinism and creativity is one to which I shall return. But it is a view that seemed unsustainable with the rise of modern science. Indeed, with the emergence of Newtonian physics, the question of creativity and determinism changed, leading to the second tragic choice that I promised to articulate in this thesis. Newtonian mechanics brought with it a view of matter as passive, inert, and utterly devoid of creativity. Mario Bunge sums up this new view of matter beautifully:

> Scientists…shared the belief that 'brute matter' is a *homogeneous, unorganized and quiescent stuff entirely lacking spontaneity* – the matter, in short, dreamt by immaterialist philosophers… they jumped to the Aristotelian conclusion that matter is nothing but the *barren receptacle of forms* – a belief still held in esteem by those quantum theorists who hold that it is the experimenter who produces all atomic-scale phenomena[48] (Bunge, 2009, 175).

---

[48]As Bunge indicates, it is not quite correct to say that Newtonian science brought with it this passive view of matter. Indeed, it was a view of matter found within Aristotelian philosophy, and numerous other philosophical schools. Newtonian science did, though, confirm this view of matter as the *only thinkable* conception of matter. It ensured that this view of matter was seen as an indisputable fact, rather than a theoretical, philosophical position.

Newton's famous equations could predict the positions of the planets and celestial objects with an extraordinary degree of accuracy. Armed with Newton's laws, all one needs in order to measure where planets will be is a list saying where they are and how fast they are moving at one instant of time. "The rest is a matter of routine calculation" (Cohen and Stewart, 2000, 16). Furthermore, one could not only use this method to predict the future, but also to "retrodict the past" (Toffler, 1984, xiii). This view was extended from the behaviour of large scale celestial objects to the entire universe through a belief that "nature is exceedingly simple and conformable to herself. Whatever reasoning holds for greater motions, should hold for lesser ones as well" (Newton, cited in Westfall, 1983, 389). Once this reasoning is extended, as Newton demands, the result is a clockwork universe entirely lacking in spontaneity, productivity, and creativity. The universe is simply "wound up with the three laws" before it passively runs "its mechanical course" (Mitchell, 2009, 19). This view of nature reached its apotheosis in the figure of Laplace's demon, an imaginary being "capable at any given instant of observing the position and velocity of each mass that forms part of the universe and of inferring its evolution, both toward the past and toward the future" (Prigogine and Stengers, 1984, 75). Laplace's demon could predict the entirety of the future and discover the entirety of the past armed just with information of the position and velocity of each mass of the present. The past and future are fully given in the present moment, with nothing new or creative able to emerge.[49] "After Newton's dynamics", therefore, "it seemed that Parmenides was right, because Newton's theory is a deterministic theory and time is reversible…nothing new can appear" (Prigogine, 2003, 9).[50]

---

[49] Delanda (2004, 172) suggests that a key aspect of this scientific worldview is a particular view of causality, where causality exemplifies "*uniqueness";* the same cause leads to the same effect, *"necessity";* the effect necessarily, without qualification, follows from the cause, *"uni-directionality";* causation only works from cause to effect, and the effect does not feed back on the cause, and *" proportionality";* the effect is proportional to the cause, insofar as a small cause generates a small effect, and a large cause generates a large effect. I shall show, over the course of this thesis, that a new scientific image of matter casts into question all four of these aspects of causality.

[50] Einstein is just one high-profile subscriber to this deterministic view of the universe: "the general laws on which the structure of theoretical physics is based claim to be valid for any natural phenomenon whatsoever. With them, it ought to be possible to arrive at the description, that is to say, the theory, of

Transcendent Creativity

With this view of matter ensconced in thought and at the heart of scientific practices, the only way in which creativity could be conceptualized was as something transcendent, separate from a nature which operates deterministically. Philosophy, in the face of the conception of matter developed in modern science, faced a dilemma: either think in terms of immanence, but at the cost of determinism, or allow for creativity, but only at the cost of transcendence and dualism. Creativity could only be thought of as something introduced from outside the mechanistic material realm of eternally determined cause and effect relations. In Christian thought that took the birth of science seriously, for instance, God was imagined as a watchmaker, who initially wound the watch or world up to operate according to a series of unchanging rules, only to then occasionally intervene through miracles, which would creatively disrupt these laws of nature to secure a certain end.

This problem of theorising creativity as something that can be injected into a deterministic universe only by a separate form of existence is repeated in Descartes. Descartes accepted, and indeed contributed toward developing, the Newtonian, deterministic view of matter. But he added to this view of matter a separate realm of mind or thought. Descartes secures this separation of a realm of thought from matter using his thought experiment of an evil demon. Descartes (1985 1:12) supposes that "some malignant demon, who is at once exceedingly potent and deceitful, has employed all his artifice to deceive" him. Descartes must, in light of this deception, doubt everything that can possibly be doubted. He must "suppose that the sky, the air, the earth, colours, figures, sounds, and all external things, are nothing better than the illusions of dreams", and imagine that the demon is deceiving him as to his sense and

---

every natural process, including life, by means of pure deduction., if that process of deduction were not far beyond the capacity of the human intellect" (Einstein, 1954, 225-226).

knowledge of his "hands, eyes, flesh, blood", and, indeed, anything that is brought to him by "any of the senses". Notice that in doubting his body, and all material brought to him by the senses, the whole world of matter or extended stuff has fallen out of the picture. Nothing remains that must be regarded as extension. Yet one thing remains. Descartes is still doubting. He is, therefore, still thinking. The most famous conclusion of this thought experiment is that the fact of thinking, and therefore my existence, is established as an indubitable foundation for knowledge. But what it also shows is that thought can be conceived without extension. Descartes, in establishing that he was thinking whilst all extension was out of the picture, claims to have proved that thinking does not depend on extension, and that thought is therefore conceptually independent of or separate from extension.[51] And this realm of thought that is separate from extension is a free realm, not governed by the causal determinism that the material world is subject to. It is in separate realm of willing that creativity can be exhibited. Not only that, the separate realms of thought and extension can, according to Descartes, interact with one another. The impact of another body on my own causes the mental feeling of pain, and my thoughts are currently causing my fingers to tap certain keys on the keyboard. "Despite there being no *conceptual* connections between mental things and physical things, there can", Descartes claims, "be *causal* connections between them" (Della Rocca, 2008, 40). This allows for the possibility of the separate realm of mind freely and creatively intervening in the determinism of nature, thereby introducing novelty into the world and perhaps breaking with otherwise eternal and unflinching causal chains. Descartes, then, leaves a space for creativity, but does so only at the cost of rendering it something separate from a deterministic material world. Though Descartes' mind is only partially transcendent, with mind not conceived as something that has a priority over the material realm, with both realms able to affect and impact one another, the problem of separation that occurred when Plato split the transcendent

---

[51] Later, I look at a contemporary neuroscientific account of the relation between materiality or body and thought or mind. This account renders Descartes' notion of the independence of thought from matter problematic, to say the least.

realm of the forms from the immanent realm of appearances re-appears.[52] With thought and extension conceived as conceptually independent, there appears to be no way to explain the seeming relation between the two. Descartes, in a moment of desperation that has become the laughing stock of philosophy, suggested that the pineal gland did the magical work of translating mental phenomena into bodily effects, and bodily phenomena into mental effects. The pineal gland, which is "a small structure, located at the midline and base of the brain", is in fact "rather poorly connected and endowed for the momentous job Descartes required of it." More significantly, it is unclear that anything, in principle, could do the work of connecting mind and body. "For mind and body to do the job Descartes required of them, mind and body needed to make *contact*." Yet the radical conceptual separation Descartes drew between mind and body both emptied extension of any mental properties, and emptied "the mind of any physical qualities", rendering "contact impossible" (Damasio, 2003, 188).

Finally, recall the discussion of Arendt in the previous chapter. Arendt was well aware of the difficult choice that thought faced between determinism and creativity or the possibility for what she calls free action. Indeed, she goes as far as to claim that of a numerous and wide range of philosophers studied in *the Life of Mind* (1978), "only Duns Scotus...was ready to pay the price of contingency for the gift of freedom – the mental endowment we have for beginning something new, of which we know that it could just as well not be" (Arendt, 1978, 196). Furthermore, she even mentions what she perceives to be an opening in science developed at the start of the 20th Century, where scientists including Heisenberg, Planck, Bohr made discoveries that indicated that nature was more volatile, contingent, and driven by chance as much as by predictable and calm laws of nature, although she points out that this opening was immediately

---

[52] Though Descartes does not conceive the mind as fully transcendent at an ontological level, with both mind and body able to affect one another, he does conceive of it as fully transcendent at epistemological,,moral and political levels. The mind is regarded to be capable of explaining the body, and indeed of keeping it in check and forcing it to behave certain ways, suppressing some passions and allowing others in order to foster good moral and political behaviour. This kind of privilege of mind over body has been endemic in western thought both before and after Descartes. For more, see McNay, (1991, 126)

closed off by the next generation of scientists, who.[53] It is clear which side Arendt wants to take in a dispute between necessity and freedom. She is very critical of the way in which "professional thinkers, be they philosophers or scientists, have not been 'pleased with freedom' and its ineluctable randonmness". She bemoans the fact that "they have been unwilling to pay the price of contingency for the questionable gift of spontaneity, of being able to do what could also be left undone" (Arendt, 1978, 198).

But instead of trying to locate a kind of creativity and spontaneity in nature, Arendt instead turns to the field of action, in particular, to political action engaged in only by humans.[54] It is "to history" that "men of action who wanted to change things" turned "for help" in understanding how creative action was possible, and this history is not a history of the creativity of nature, but a distinctly human history of creation from "the abyss of freedom". This move betrays the more general sense in which Arendt, as indicated in chapter two, is able to theorise creativity only by rendering humans a separate kingdom within a kingdom, holding creative powers in contrast to an otherwise deterministic nature. Indeed, Arendt makes clear that this abyss of freedom and capacity for creative beginnings "applies only to the realm of action, the many-on-one of human beings" (Arendt, 1978, 207). Whilst Arendt does not wish to follow Locke,

---

[53] Whilst Arendt is right to say that science of this era, including the discovery of Heisenberg's uncertainty principle, led to a more volatile and contingent understanding of the universe, it is not clear that there was any move to introduce creativity. Heisenberg's uncertainty principle refers only to limits in the accuracy with which phenomena at the quantum level can be measured, showing that position and momentum cannot be accurately measured at the same time. Here only a permanent and unavoidable epistemological indeterminacy in the accuracy of human measurements and understanding of nature, and not the kind of ontological creativity that Arendt is so keen to emphasize, is affirmed.

[54] This move is part of Arendt's dislocation of the question of freedom from philosophical questions of the will to political questions of action. Arendt wants to restore a notion of freedom which concerns not individuals making choices that they could otherwise not have made, but plural groups engaging in action that might not have been. This move is no doubt an important one, and Arendt is right to point out that there are different questions of freedom, one relating to individuals and their more private choices, and the other relating to collective political action (See Villa, 1996, 117-119, see also 119-143 for an account of the Heideggerian roots of this different conception of freedom). But this does not mean that the possibility of collective creative action does not need grounding in the nature of which people and collective groups are formed, on which they act, and in which they live. I therefore once again take up Arendt's concern with the plural nature of political action and feel she has made an important contribution in distinguishing between freedom of the will and a political, collective kind of liberty as a freedom to begin something new, but again reject her exclusive focus on and radical separation of humans as opposed to the rest of nature.

amongst others, in understanding this creativity by analogy with the creation ex nihilo performed by a creator God, she does not offer any account of how this creativity and this abyss of freedom is possible in a world of determinism, instead turning once more to human examples from Roman antiquity.[55] With no account of how humans can have achieved this power in despite of the deterministic materiality of which they are formed, and with a commitment instead to the idea that these creative beginnings take "place exclusively in the realm of human affairs", the power of beginning or creating remains magical (Ibid). Arendt, then, could only theorise creativity by rendering humans a separate kingdom within a kingdom, holding creative powers in contrast to an otherwise deterministic nature. And Hardt and Negri, though they do not have the same humanist tendencies as Arendt, do not offer any account of the creativity of nature, focussing only on the creative acts of resistance engaged in by the human multitude. In failing to demonstrate the rootedness of the creativity of the multitude in the natural and material world that gives rise to and provides a setting for humans, Hardt and Negri are in danger of reproducing this kind of dualistic account of creativity.

There appears to be a major tension between two of the key concepts in this thesis, namely, immanence and creativity. With a view of matter as a passive entity, governed by unflinching and fully deterministic laws, creativity could only be introduced as something either transcendent to or separate from, and hence not something that is immanent to, materiality. The alternative, which shall now be fleshed out using Spinoza, is to retain immanence, but only at the cost of a thorough-going determinism.

---

[55] See Arendt (1978, 208-212) Arendt in fact argues that the tales from Roman antiquity, whilst useful, do not do all the work necessary, insofar as they understand the creative act as a creative interruption which *re-founds* an order, rather than one that enacts a radical new beginning. Arendt wants to go further and affirm radical new beginnings. Here we see one instance of what Dana Villa (1996, 8) describes as Arendt's "antitraditional" view of action. Arendt, a thinker who regularly goes back to examples and ideas from ancient Greece and ancient Rome, is not going back simply to valorize and to learn from these times, but also to criticize them and move beyond them in a manner different from the way the western tradition has criticized and moved beyond them (see Villa, 1996). My criticism, namely that this creativity is introduced as something transcendent insofar as it gives humans powers that are radically other to those of an otherwise deterministic world, holds whether the powers are used for radical new beginnings or for creative acts of re-establishing foundations.

Immanent Determinism: Spinoza

Spinoza's philosophy is characterised by a refusal to introduce any of the splits in being that characterize transcendent ontology.[56] This refusal is encapsulated in his famous formulation 'God, or Nature' (EIV Preface). For Spinoza, God is not a transcendent creator, standing outside his creation, evincing transcendent commands and occasionally intervening through providence and miracles. As Spinoza puts it in the *Treatise Theological-Political, (*TTP, 1:32) "the power of nature is nothing other than the power of God itself".[57] Spinoza's God, then, is simply nature; God becomes equivalent with everything that is seen here, from the laws of nature that are described by the natural sciences, to individual people and their ideas, right down to the last speck of dust. In this regard, God or Nature becomes the one substance of which all things in reality are composed. People like you and I, objects like the computer I work on, natural entities like mountains, oceans, and rocks, and all other things in the universe are understood to be *modes* formed of the one substance, or a way of being that *one* substance. Key to immanent ontology is this substance monism or notion of the univocity of Being. Being is not said in different ways of God and a Nature that God created and may later intervene in. Nor is being said in a different way of me and a

---

[56] Della Rocca (2008, 7) suggests that Spinoza's philosophy is characterised by "the naturalistic rejection of certain bifurcations in reality", and, further, suggests that Spinoza's 'naturalism' consists in his "view that there are no illegitimate bifurcations in reality" (ibid, 6). It is, in part, this refusal to introduce dramatic splits in being that led Deleuze to claim that Spinoza is the only thinker of immanence in the history of philosophy.

[57] Spinoza's correspondence with Blyenbergh is indicative of the radical extent to which Spinoza flattens God into Nature itself. Blyenbergh (L18), concerned that Spinoza's identification of God with all of nature has the implication that God "seems to bring about what we call evil", raises the example of Adam eating the forbidden fruit. Spinoza (L19) begins by questioning the notion of evil itself, saying that he "cannot concede that sin and evil are anything positive". Spinoza regards evil not to come from transcendent commands and a transcendent moral law, but sees 'bad' (the word he prefers to the word evil, with its transcendent, moralistic overtones), to come not from anything considered in itself, but only from the relation between a thing and a body that it affects. Eating the apple, then, was not an 'evil' act forbidden by transcendent command, but was rather bad because it would act as a poison on Adam, and kill him. "The command given to Adam", therefore, "consisted solely in this, that God revealed to Adam that eating of that tree brought about his death, in the same way that he also reveals to us through our natural understanding that poison is deadly" (ibid). In this example, Spinoza gives a vivid image of his refusal to see God as anything separate from the workings of nature, and his refusal to introduce any transcendent moral codes into his philosophy.

mountain. Rather, God and Nature, as the one substance, are one and the same thing, and me and a mountain both exist as modifications of that one substance, obeying the same set of rules. I am not, in contrast to the mountain, made up not only of the one substance of nature or of elements found in the natural, material world but made also out of a separate, magical capacity of Cartesian thought or Arendtian creative action. Instead, the mountain and I both exist as different modifications or ways of being of the one substance.[58]

I do not, here, wish to fill out this ontological structure of a substance monism with the content given to it by Spinoza.[59] Rather, I shall develop a different monism of matter-

---

[58] Numerous debates surround the exact nature of the dependence of modes on substance. At least three possibilities for the nature of the dependence can be envisaged. First, modes could be said to inhere in substance, in the sense that they are *made of* the substance of which they are a mode. Second, modes could be said to be *conceptually dependent* on the substance, in the sense that they cannot be conceived without that substance, or if it is impossible to conceive of the mode unless "the concept of the thing of which it is a mode is implied in its own concept" (Descartes, 1985, 301). For instance, if extension was regarded as a substance, then something would be conceptually dependent on it if it were a way of being extended (a mode of extension) that could not be conceived without conceiving of extension. Finally, modes could be *causally dependent* on substance, with substance regarded to have been the cause of the modification that exists, without that mode fully or solely existing in that substance. Scholarly debate surrounds precisely which form of, or which combination of forms of, dependence Spinoza affirms. Curley (1988), for instance, suggests that the modes cannot be understood to inhere fully in substance (in the sense that they are formed of it and exist in that substance), as this would undermine the apparent independence of the modification. It is clear that tables, people, and mountains have some form of independent existence, and Curley worries that indicating that modes are made of substance may eradicate this independence. Della Rocca (2008, 60-67), on the contrary, argues that Spinoza's modes are dependent on substance both by virtue of their inherence in substance *and* by virtue of a causal dependence, with both these being forms of a single idea of conceptual dependence. Because I take the form rather than the content of Spinoza's immanent ontology, I do not need to resolve this interpretative issue. Rather, the reason for my indication that modes are modifications of the one reality of matter-energy in the sense of being 'made up of' that one reality lies in the content I later give to my immanent ontology of creativity, which understands 'modes' or particular things or individuals to be modifications of the one reality insofar as they are made of that thing. Furthermore, my account, though it suggests that modifications inhere in the one reality insofar as they are composed of it, indicates that the mode has causal capacities that go beyond that of the substance that compose it, complicating an account of causal dependence. The mode will still be causally dependent on matter-energy insofar as without that one reality that forms it it would not exist at all, but modes will potentially have further causal capacities not reducible to that one substance. Furthermore, the modes will not be fully conceptually dependent on matter-energy. For instance, I shall claim that amongst the productions of the creative matter-energy that forms the one reality of my ontology are mental phenomena, which can be shown to emerge from, without being reducible to, a certain complexity of material stuff. In having their own causal capacities, these emergent phenomena are not fully conceptually dependent on matter-energy, and their analysis does not always require an analysis of the material stuff that makes them up.

[59] Because I take only the form of Spinoza's ontology, and do not follow it in its content and detail, I do not use his argument for substance monism, preferring to highlight the impossibility of explaining the

energy, which shall later be shown to form(sometimes creatively) all the things that we see in the universe around us. But lingering on Spinoza's philosophy a little longer shall enable me not only to begin to address a potential worry surrounding the idea of a substance monism, but shall also allow me to set up the immanent, monistic ontology of creativity that I go on to develop in the following chapter. There is a worry, in refusing to introduce transcendent or dualistic splits in existence, that qualitative distinctions which seem patently evident in the world that surrounds us may be lost. Though Descartes radical split between mind and body came into serious difficulty in explaining the interaction between the two, there is no doubt something fundamentally appealing in the idea that the two are, in some way, qualitatively distinct. There is, furthermore, a worry with regard to the claim that being is said in the same way of a person and a mountain. Does conceiving a person and a mountain as different modifications of the one substance not efface the obvious and very real differences that exist between the two? Fortunately, Spinoza offers a way of both understanding the difference between thought and extension, and a way of understanding the huge differences between different modifications of substance.

The first difference, that of the qualitative difference between thought and extension, is dealt with in Spinoza's differentiation of substance into an infinity of qualitatively distinct attributes, and the second, that of the evident difference between the innumerable entities of which the universe consists, is dealt with in Spinoza's account of the difference between modes. I must emphasize again that I take only the form of Spinoza's monism, with one form of reality itself containing the numerous differentiations in qualities like thought and extension and the innumerable differences between the different entities that exist as things composed of the one reality.[60] I do

---

relation between distinct substances before showing how qualitatively distinct forms of being, like living and non-living existence and thinking and non-thinking things can be explained within a substance monism. But to avoid using Spinoza's philosophy without giving it due attention, Spinoza's argument for substance monism is discussed in appendix B (283-290).

[60] I use the word reality, and not substance, to describe the one monistic for of being in my immanent ontology of creativity. This is to avoid the connotations that the term substance has historically had with a notion of self-identity. I do not want to understand the one matter-energy as a self-identical substance.

not take up the content Spinoza gives to this ontology. As such, a detailed account of Spinoza's account of the attributes is not necessary. But the broad outline of his account shall prove very useful in setting up the ontology that I go on to develop. [61]

For Spinoza, the one substance is composed of "infinite attributes", but only two of these are known to humans: thought and extension. (EIP11) Spinoza therefore takes up the Cartesian split between mind and body, but instead of rendering them different substances, considers them to be *qualitatively distinct* attributes of the one substance. Spinoza raises a number of arguments for the existence of one substance split into numerous attributes, but the justification for this claim that I wish to make concerns the results of rendering thought and extension as different qualities inhering in the one substance. Recall that Descartes found it impossible to bring the radically distinct qualities of thought and extension into relation by virtue of their total independence from one another. Spinoza, in maintaining the qualitative distinction but nonetheless locating them within the one substance, finds a way to explain *away* their seeming relation. Because thought and extension are qualitatively distinct attributes, each of which can be conceived without the other, they still cannot come into relation. Indeed, Spinoza is quite explicit in stating that "when things have nothing in common, one cannot be the cause of the other" (EIP3). But where regarding thought and extension to be separate substances resulted in the loss of the ability to explain the perceived connections between the two, resulting in the desperate claim that the pineal gland performs the magical work of bringing things which are radically different into relation, Spinoza finds a way to explain the perceived connection. Phenomena like my body being hit or any thought I may have are modifications of substance. Now, add this to the fact that there is only one substance, which contains, or is expressed under, qualitatively

---

Instead, it is something which is changing constantly and creatively, and is therefore something that does not have a stable identity.

[61] The precise differentiation of the attributes, and whether it is an intellectual distinction created by a finite human mind, or a real distinction, and indeed the question of how, if it is a real distinction, it does not correspond to a difference in substance, are significant issues in Spinoza scholarship. See appendix C (290-294) for more on these debates.

distinct attributes. The unity of substance means that what is happening under these qualitatively distinct attributes is in fact *the same* modification, but expressed in different ways. "Thinking substance and extended substance are", therefore, "one and the same substance, comprehended now under this attribute, now under that" (EIIP7S). Because the qualitatively distinct attributes are expressing the same modification of substance, "the order and connection of ideas is the same as the order and connection of [extended] things" (EIIP7). There is only one substance, and only that one substance can be affected or modified. Each modification, though, is expressed in all of the attributes. So the modification that involves my body being hit is expressed both as a physical contact between my body and something else, which may involve, say, bruising or skin being pierced, and as an idea of my body being hit, which involves a feeling of pain. And since there is only one substance, there is only one order of happenings; we find, in thought, extension, and all other attributes there may be, "one and the same order, or one and the same connection of causes – that is, the same things following one another" (EIIP7S).

A popular term for Spinoza's notion of the correlation between mind and body is 'parallelism'.[62] Spinoza postulates two parallel causal chains, which do not in any way impact on one another, but despite the lack of impact and the lack of priority of one chain over another, the chains correspond to each other in each and every modification, and each modification occurs in precisely the same order. "For every body in nature there exists an idea of that body...for everything which could ordinarily be called a human body, there exists an idea of that body, and such an idea is what is ordinarily called a human mind" (Hampshire, 1976, 68). Further, each happening in my human body corresponds to, without causing or being caused by, each happening in the human mind. The impact of one body on another causes a stinging sensation and later a bruise,

---

[62] Though this word is popular, Spinoza does not use it himself. However, it seems an appropriate term to describe his understanding of mind as the idea of body, and his account of the mind and body as two attributes of the one substance that cannot affect one another, but nonetheless follow the same causal chains. See footnote 63 for further justification of reading Spinoza's account of mind-body relations as a form of parallelism.

whilst my mind thinks of a body hitting what I regard as my body, and this thought causes a mental feeling of pain or thought that reads 'ouch, that hurts', which later causes a sense of enduring damage for as long as the bruise lasts. And, to repeat, at no stage is the modification occurring on one chain of events causing the modification on the other causal chain. If one follows Descartes, and attributes thought and extension to different substances, the correlation between the two becomes an astonishing and utterly unbelievable coincidence. The temptation then becomes to construct a magical device that can connect the two conceptually different substances and allow causal interactions between the two, but such an account remains as mystical as the idea that the two just happen to coincide, time and time again. But flattening out this Cartesian dualism to a monism, with thought and extension regarded as qualitatively distinct attributes of the one substance, allows the correlation to be explained. One can simply say that the correlation is down to the fact that only one modification is actually taking place, and it is merely being expressed under qualitatively distinct attributes. A strong sense of the qualitative distinction between different things is therefore retained in an immanent monistic ontology.

In the following chapter, I shall go one better, and instead of explaining *away* the perceived relation between mind and body, I shall give the relation between the two a concrete explanation, whilst maintaining some notion, albeit a weaker one, of their qualitative distinction. Notice that in Spinoza's ontology substance is always-already contains infinite attributes. In my immanent ontology, matter-energy, the reality that replaces Spinoza's substance as the monistic form of being, will not already contain different qualities, but different qualities instead will *emerge dynamically*, with mental phenomena, which remain qualitatively distinct, emerging when physical or bodily entities of a certain complexity are produced. And it will be this move toward a more dynamic immanent ontology that allows me to introduce creativity in contrast to Spinoza's determinism, which I shall elaborate upon shortly. But before this point can be reached, the further worry about immanent and monistic ontology, namely, concerns

about losing the evident differentiations between radically different modes like people, specks of dust, and mountains, must be addressed.

Spinoza makes it clear that he does not wish to define modes or individual people, things, and so on according to some pre-given set of criteria or a prior essence. As Gatens and Lloyd (1999, 100) point out, Spinoza's philosophy "eschews any analysis which seeks to determine the proper function or form of an individual by proceeding from an analysis of species, to genus, to individual". Furthermore, Spinoza rejects any account of individual modes which renders some as radically different in kind from others. Unsurprisingly, Spinoza (EIIP13L1) rejects any account of a difference between bodies in terms of a difference of substance. "Bodies are distinguished from one another in respect of motion and rest, quickness and slowness, and not in respect of substance". Any Cartesian approach which understands humans, unlike the rest of nature, to be composed of a substance of mind in addition to their substance of body is ruled out. But Spinoza also goes further, and rejects any kind of analysis which understands humans to be different in kind from the rest of nature, be it by virtue of being made up of a different substance or being subject to a different set (or a different lack) of laws.

> Most of those who have written about the emotions and human conduct seem to be dealing not with natural phenomena that follow the common laws of Nature but with phenomena outside Nature. They appear to go as far as to conceive man in Nature as a kingdom within a kingdom. They believe that he disturbs rather than follows Nature's order, and has absolute power over his actions, and is determined by no other source than himself (E3 Preface).

Instead, for Spinoza, any account of the modes must understand them on their own terms, and not in terms of some prior definition, and these terms in which they are understood must be the same for all modes, with all the modes composed of the only one substance of nature, and not of additional, magical things like mind and free action. How, then, can Spinoza account for the rich differences which we observe every day between the different things which make up the world, without defining them in terms of different prior given essences or forms, and without understanding some things to be subject to different rules than others?

There are two elements to the differentiation between modes in Spinoza that I wish to focus on here, and which shall be developed further in later chapters. First, Spinoza suggests that each mode or each thing that exists is characterised by a certain organisation of the parts that form it. It is this internal organisation to which Spinoza is referring when he speaks of bodies being distinguished in terms of motion and rest. For Spinoza, all modes or bodies are composite. Each body is a composite of numerous smaller bodies, which are, in turn, composite. Indeed, Spinoza refuses to postulate some kind of ultimate, non-composite stuff of which bodies are formed. Rather, bodies are composite *all the way down*. "The human body is composed of very many individual parts of different natures, *each of which is extremely complex*" (EIIP14Pos2, my emphasis). These individuals can combine to form larger scale and more powerful individuals. "If two individuals of completely the same nature are combined, they compose an *individual* twice as powerful as each one singly" (EIVP18S, my emphasis). Indeed, larger scale bodies are formed as composite individuals formed from numerous other already composite individuals. A given society, for instance, is a composite of numerous humans, who in turn are a composite of numerous cells, organs, and so on, and each of these, in turn, are composites formed of numerous smaller, yet still composite, things. So various organs, cells, genes and so on are individual modes that, in a particular organisation or relation form an individual animal or an individual human, who in turn is a part of numerous further relations, which in turn to create new, larger-

scale individuals like couples and societies. Indeed, individuals far larger than societies are composed of these manifold individuals.

> There is no relation that does not itself combine with some other to form, in a third relation, a further individual at a higher level. And this *ad infinitum,* so that the universe as a whole is a single existing individual, defined by the total proportion of movement and rest, comprising all relations combined *ad infinitum,* the collection of all collections under all relations (Deleuze, 2005, 236).

This collection of all collections is what Spinoza calls "the face of the whole universe" (L64). All things, then, exist in the same way, as modifications of the one substance. Specks of dust, mountains, humans, societies, and the face of the universe have the same ontological status; none of them have some kind of different or special form of existence, nor are they composed of some other form of being, with its distinctive (and seemingly magical) set of powers. I shall, later, use contemporary developments in the sciences of complexity to develop further this notion of composite individuals, all existing on the same ontological plane, but for now, I must turn to Spinoza's account of how these particular individuals have their different characteristics despite being composed of the one substance.

What sustains a particular body in existence, and indeed, part of what gives it its distinctive characteristics, is that "its parts communicate their motions to one another in a certain fixed proportion" (EIVP39Pr). Each body can change many of its constituent parts, as, indeed, the cells of a body die and are replaced over time, but in order to remain the same body with recognisably similar characteristics the relations of motion and rest between the parts that characterise the body must remain within certain limits. A particular body will "die when its parts are so disposed as to maintain a different

proportion of motion and rest to one another" (EIVP39S2). Already, then, one way in which particular things are differentiated becomes clear: they are differentiated by virtue of their different *internal organisation* of the parts that form them. Later, I shall demonstrate just how dramatic the differences generated by different organisations of parts shall be, with living things, as opposed to dead things, emerging thanks to a certain organisation of material stuff, and thinking and feeling again emerging from a certain complex organisation of material parts. In both these cases, a radically different set of capacities, abilities, and characteristics are generated through a different, and increasingly complex, organisation or set of relations between parts that are made of only the one substance, and not of different, magical capacities.

Along with being characterised by the particular relation amongst composite parts that forms them, individual modes are characterised by their *capacities*, or their *power to act* and *power to be affected*. Once again, Spinoza does not define these capacities in terms of some pre-given essence. Spinoza "will not claim to know, ahead of observation and experimentation, what the capacities of this or that being, or the powers which it may come to possess" are (Gatens and Lloyd, 1999, 101). Rather, it is only through experiencing affects and affections that a body can discover precisely what powers it has, what it can do, and what can be done to it. The two ways of defining modes, namely, definition based on the organisation of composite parts, and definition based on powers, turn out to be linked. The more complex a body, the greater the range of composite parts of which it is formed, the more it can affect and be affected by other bodies.[63] Recall, also, Spinoza's parallelism. For each affect or affection a body

---

[63] In EIIP13, Spinoza states that "the object of the idea constituting the human mind is the body – i.e., a definite mode of extension actually existing, and nothing else." At this stage, it is unclear whether the object of the idea constituting a human mind is that *particular* human body or simply any extended thing. In EIIP13PR (my emphasis), however, Spinoza talks about "*the* body" being the object of "*the* mind." Mentioning *the* body as opposed to mentioning extended stuff more generally seems to imply the mind-body parallelism that I am attributing to Spinoza. It is the corollary of proposition thirteen that suggests that Spinoza, instead of making a general claim about the objects of thought being physical things, advocates a mind-body parallelism In this corollary (my emphasis), Spinoza says that "it follows that man consists of mind and body, and *the human body exists according as we sense it.*" If thought were simply about extended stuff, there is no reason that my body should exist as I sense it, but if a particular mind is

undergoes, it will have a corresponding idea under the attribute of mind. As a result, the "various capacities of the human body to affect and be affected are rigorously correlated with the capacities of the human mind to know" (Curley, 1988, 77). It is here that the two accounts of the differentiation of the modes, combined with Spinoza's parallelism, explain the radically different nature of different modes, including mountains, humans, and specks of dust. Each of these modes is composed of very different complexities of parts. A speck of dust, for instance, will be made of a very small number of very basic composite parts. As such, it will be capable of very few actions, and of undergoing a very limited number of affectations. Correspondingly, it will be capable of very few thoughts (although Spinoza's parallelism entails that it must have some thoughts and that *all* extended things "though in different degrees, are nevertheless animate" (EIIP13S)).[64] A mountain, on the other hand, is made of a larger

the idea of that same body, or the idea of that same modification of substance expressed under the attribute of thought, then my body would exist exactly as I sense it. Stuart Hampshire (1976, 65), is reluctant to accept a parallelist reading of Spinoza, claiming that Spinoza's position "has been consistently misinterpreted because of a too simple equation of his thought and extension with the mental and physical as this distinction is ordinarily understood." Hampshire prefers a reading in which Spinoza is making the broader claim that "there can be no ideas which are not ideas of extended things, or extended things of which there is no idea" (ibid). But even Hampshire is forced to acknowledge that proposition thirteen is arguing for the union of the *human* mind and body as parallel attributes of the one substance, with mental states corresponding to physical states by virtue of their coexistence in substance. Hampshire suggests that Spinoza "makes the union of mind and body which constitutes a person only *a special case* of the general principle of the coincidence of ideas and heir *ideata"* (ibid, 67-68). Suggesting that Spinoza's parallelism of the human mind and body is a special case, and when talking about the non-human world, Spinoza means to imply only that objects of ideas are physical things, is problematic on the basis of Spinoza's explicit statement that his claims apply "to men no more than to other individuals, which are all animate, albeit in different degrees" (EIIP13S), not to mention Spinoza's refusal to treat mankind as though they inhabit a "kingdom within a kingdom" (EIII Preface).

[64] There is some dispute as to whether Spinoza advocates a pan-psychic position where all things are thinking, with the capacity to think differing only in degree. Hampshire (1976, 67, my emphasis), for instance, argues that "Spinoza is not saying that all things have minds, in the popular sense in which human beings are said to have minds; it follows only that for every extended thing there is an idea of that thing, and in the *special case* of a human body, the idea is a human mind." I have already argued, in footnote 62, that this reading, where humans are treated as a special case, is not sustainable in light of Spinoza's refusal to treat humans as a different or special case compared to the rest of nature. However, it might still be suggested that Spinoza does not take animate to mean thinking, but instead only to imply capability of motion. Once more, this reading seems to fail. Spinoza uses the Latin word *animata,* a word meaning ensouled, where when later talking about motion, he uses the word *moventur,* a less loaded word simply meaning movement. This indicates that he implies far more than that all things move when he says that all things are animate. But as Curley (1988, 73) notes, *animata* "can also mean wind, air, or breath." "Since breathing is one of the characteristic manifestations of life," Curley (ibid) continues, "it is understandable that one classical meaning of *anima* should be: the principle of life." Spinoza clearly does

number of things, and as such, is more powerful and can be affected in more ways. And the human body is "of a higher degree of complexity than other bodies, incorporating a greater number of subordinate unities", rendering it "capable of acting and being acted upon in many ways at once", and ensuring that it has a far greater power of thought (Gatens and Lloyd, 1999, 18). There is, then, a way of explaining the significant observable differences between different modes without basing an account of modes, be they humans, mountains, specks of dust, or political associations, on either different substances or transcendent essences. But on Spinoza's account, these differences can be only differences of degree, with different degrees of bodily complexity giving rise to different degrees of powers of action and affection and their corresponding difference in degree of mental capacities or range of thoughts. The observable differences, though, are often differences of kind. Unlike specks of dust and mountains, humans and other animals are both living and thinking. The cost of Spinoza's immanence, then, is the loss of these differences of kind between different modes. A challenge for the immanent ontology that I go on to develop shall be to establish how differences of kind can be understood without the need for invoking different substances or transcendent essences.

---

think of all things as living; he defines living as the force or striving (*conatus*) through which things persevere in their being, "and that force is certainly something he would ascribe to all things" (ibid). Curley (ibid) goes on to say that "to the extent that all things are, in that sense, alive, they all have a soul. But this does not, of course, mean that the 'souls' of very simple bodies engage in anything like a human mental life." Of course, Curley is right to say that various things do not engage in anything like human mental life; all things are animate, after all, in very different degrees. But this does not mean that they do not engage in any kind of mental life. Indeed, immediately after saying that all things are animate in different degrees, Spinoza (EIIP13S), says that *ideas* differ in terms of their qualities. Understanding the difference of the human mind and human mental life, Spinoza indicates, requires understanding the nature of the human body and its superior degree of complexity. Spinoza seems to indicate, then, that humans have a more complex mental life by virtue of their greater degree of physical complexity, but as other things have some small degree of physical complexity, they have ideas and can think, but only to a small degree. It would seem, then, that in saying that all things are animate, albeit to different degrees, Spinoza is indicating that all things have a mental life, albeit not necessarily a very complicated one. See Della Rocca (2008, 108-118) for more on Spinoza's pan-psychism, and its inevitability given Spinoza's conception of mind as the idea of the body and Spinoza's enduring commitment to the principle of sufficient reason.

There is another further cost of Spinoza's immanent ontology, and this cost shall return us to the tragic choice between transcendent creativity and immanent determinism. Spinoza's immanent ontology is thoroughly deterministic. Spinoza, like Descartes, was well versed in and respectful of the modern, Newtonian science that was being developed by his contemporaries. But unlike Descartes, Christian thought, and, later, Arendt, Spinoza also refused to introduce any separate form of being that followed a different set of rules. Spinoza refused to identify a transcendent God who set up the world according to laws which he may later interrupt through miracles, instead seeing God and the Nature described by the rules of deterministic Newtonian science as one and the same thing. And Spinoza refused to understand mankind as forming a kingdom within a kingdom, capable of a kind of free thought or free action that was separate from and operated according to a different set of laws to the extended stuff described by Newton. That left Spinoza with a "nature" in which "there is nothing contingent" (EIP29), and a world where "things could not have been produced by God in any other way or in any other order than they have been produced" (EIP33). Spinoza's Nature acts according to a set of rules that fully determine all things. No space is left for any creativity in the universe. All that happens has been set in motion from the start, and cannot creatively change in any way. Perhaps the best manifestation of this lack of creativity comes in a claim made in Spinoza's *Political Treatise*:

> I am fully convinced that experience has revealed every conceivable form of commonwealth where men may live in harmony, and also the means whereby a people may be governed or restrained within fixed bounds. So I do not believe that our researches in this field can lead us to anything not at variance with experience and practice that has not already been discovered and tried. For human nature is such that men cannot live without some common code of law...so it is hardly conceivable that opportunity or chance has not already

suggested and that men engaged in public affairs concerned for

their own security have not already discovered (PT, 1:3).

All options for politics have been revealed. All political solutions are given, with no scope left for creating new forms of political life. All one can do is choose between a limited, already given range of options.

In rejecting transcendent entities, and in rejecting dualism by refusing to postulate a separate substance of which things may be composed or a different set of laws according to which a different kingdom within a kingdom may operate, Spinoza also rejects the postulation of any creativity within nature.[65] The terms of the tragic choice are now laid out. With the rise and dominance of the deterministic understanding of the natural, material world laid out by modern, Newtonian science, it seems that creativity can be introduced only at the cost of transcendence, leaving immanence as inevitably deterministic.

---

[65] Spinoza does have an understanding of *imagination,* which goes some way towards explaining how humans might be capable of creative thought, but this creativity only takes place in an epistemological gap which prevents us from fully understanding the causes that nonetheless determine our action and thinking. For more on Spinoza's concept of the imagination, see Gatens and Lloyd (1999).

Chapter 4: Emergence and Creativity

Do we really have to make this tragic choice? Must we choose between a science that leads to alienation and an anti-scientific metaphysical view of nature? We think such a choice is no longer necessary, since the changes that science is undergoing today lead to a radically new situation (Prigogine and Stengers, 1984, 7).

In a very real sense, reality is a *single matter-energy* undergoing phase transitions of various kinds, with each new layer of accumulated stuff simply enriching the reservoir of nonlinear dynamics and nonlinear combinatorics available for the generation of novel structures and processes. Rocks and winds, germs and words, are all different manifestations of this dynamical material reality, or, in other words, they all represent the different ways in which this single matter-energy *expresses itself* (DeLanda, 2005, 21).

The tragic choice between transcendent creativity or an immanent determinism arose because of the dominance of a deterministic and static understanding of the material world. A reductive, Newtonian view of matter indicated that matter was static and uncreative, governed by eternal and unflinching natural laws, which indicated that all states of the natural world, future and past, could be read off from an understanding of the state of materiality at any one given moment. With this view of materiality ensconced in thought and practice, creativity could only be introduced through a separate, transcendent force, be that force a God capable of intervention in the material world through miracles, a separate substance of mind that could act freely on matter, or

a distinctly human capacity of free action, which could change the otherwise deterministic world. But what if matter-energy were itself productive? Some recent scientific developments have indicated that such movement may be at the heart of matter-energy.[66] In this chapter, I use these recent developments in science in order to inject creativity into the ontological framework provided by Spinoza in the previous chapter. First, I discuss the activity of the new understanding of matter-energy now emerging in the sciences, before showing how this one reality of matter-energy can introduce the kind of qualitative distinctions, like those between thinking and extended stuff and living and inert modes, that Spinoza's philosophy was said to only explain unconvincingly. I then address the issue of the *creativity* of this new understanding of matter, arguing that whilst creativity cannot be emphatically affirmed of this new idea of materiality, a permanent space is left for creativity. I then defend this space for creativity against possible objections based on simulations and on the principle of sufficient reason, before finally discussing the differentiation of creative and uncreative forms of materiality.

Numerous developments in science indicate that "matter is no longer the passive substance described in the mechanistic world view, but is associated with *spontaneous activity*" (Prigogine and Stengers, 1984, 9). Examples can show *metric* or *extensive* properties, which exhibit the discrete and predictable characteristic of homogeneous multiplicities, to be a "product of the progressive differentiation" of non-metric or *intensive* properties, which exhibit the *continuity* and *enmeshment* of heterogeneous multiplicities. Quantum field theories offer one description of this process. At the "extremely high temperatures" that were "probably prevailing at the birth of the universe" the four basic forces of physics (gravitational, electromagnetic, and strong and weak nuclear forces) "lose their individuality and blend into one, highly symmetric,

---

[66] Ideas of emergence and the sciences of complexity are not new; indeed, it is now "standard to trace the birth of emergence back to John Stuart Mill (Kim, 1999, 3). However, it was only with the "nearly total collapse of positivistic reductionism and the ideal of unified science which was well underway by the early '70s" (ibid, 4) that emergentism came to the fore, and became "commonplace in a thriving interdisciplinary nexus of scientific activity" (Bedau, 1997, 375).

force." In relativity theory, it is gravity that "gives space its metric properties". Since gravity "emerges as a distinct force at a specific critical point of an intensive property (temperature)", the example shows metric, extensive, and homogeneous properties emerging from continuous and intensive properties, and all this occurring within matter-energy alone, long before the introduction of any mind that acts on matter, or human action that injects creativity into the universe (DeLanda, 2004, 25-6).

Living and Inert Materiality

In the last chapter, I suggested that Spinoza could only differentiate between the different modes or individual things formed from the one reality by focusing on differences of degree. Differences in the degree of complexity of organisation yielded a different degree of powers of action and affection, which in turn led to differences of degree in mental capacities. I claimed that this difference of degree, which renders all things animate and thinking, albeit to different degrees, did not match the sense of *qualitative* distinction between living and inert entities, or between thinking and unthinking things. Armed with this new, active concept of matter-energy, I can develop these qualitative differences within the one reality of matter-energy. Life emerged as something qualitatively distinct when a certain complex organisation of matter-energy emerged through self-organisation. Recent work looking to explain the origin of life on the basis of laws of self-organisation has suggested that once a "certain threshold" of diversity is reached, "a self-sustaining network of reactions" is highly likely to emerge. Indeed, without this self-organisation of a self-sustaining network, life would only be explicable through the a process in which "small molecules...assemble spontaneously into structures of ever-increasing complexity", something which "runs counter to all conventional experience with simple chemical systems", and has "vanishingly small" odds of occurring, unless "an extraordinary triggering event, such as a seeding of the earth with macromolecules by meteorites", occurred (Capra, 2005, 41).

Whilst it has not been established that life in fact *did* emerge "complex and whole…thanks to the simple profound transformation of dead molecules into an organisation by which each molecule's formation is catalyzed by some other molecule in the organisation", "careful theoretical work strongly supports the possibility", and "developments in molecular biology…make it possible to imagine actually creating these self-reproducing molecular systems" (Kauffman, 1995, 47-8).[67] Life, then, emerges when a certain complex organisation of otherwise non-living material parts comes into being. This emergence of life is not dictated by an outside force. Rather, it is the self-organisation of parts that brings about the existence of a complex living thing. Contra Spinoza, not all things are animate. Rather, it takes a particular organisation of parts for that qualitatively distinct existence as a living thing to be assured. A certain degree in quantity of complexity generates a *qualitative* difference between living and non-living things. Life, then, with its qualitative distinction from non-life, emerges immanently, from the one reality of matter-energy, and without a god-like driving force. Furthermore, because what emerges as life is *self-reproducing*, these complex systems have a capacity to *evolve*, and are thus capable of increasing in complexity and evolving into an increasing number of heterogeneous living beings.[68] Living beings, furthermore, have capacities to affect the world in which they are placed, further increasing the scope of events, actions, and happenings that may occur next. Indeed, as these life-forms emerge and continue to evolve, the heterogeneous nature of being seems to increase, with far more opportunities for species and the world to affect and be affected by one another emerging. This spiral of increasing possibilities leads Kauffman to propose a fourth law of thermodynamics which states that "biospheres persistently increase the diversity of what can happen next" (Kauffman, 2000, 4). As the DeLanda quote with which this chapter started indicates, all reality is composed of the one reality

---

[67] I focus on the philosophical significance of self-organisation rather than scientific detail. For detail and experimental evidence, see Kauffman (1995, 47-93) and Capra (2005, 41-43)

[68] The interweaving of self-organisation and selection is not yet fully understood. Here, it suffices to show that self-organisation can account for the emergence of life-forms, and suggest that what self-organized must have been evolvable on the basis that evolution has, in fact, occurred. Such a story seems plausible, since evolution itself cannot explain the emergence of evolvable entities. See Kauffman (1995, 185-9).

of matter-energy, but this matter-energy is a thoroughly productive form of existence, continually giving rise to new products and new phenomena.

The Emergence of Mind

As well as questioning Spinoza's account of the differentiation of modes in terms of quantity alone, and not also quality, I also suggested that the immanent ontology of creativity that I would go on to offer would go one better than explaining away the perceived relation between mind and body by showing that mind and body can interact. I claimed, further, that I would do this without giving magical powers to an equivalent of Descartes' Pineal gland. This achievement is made possible by moving from Spinoza's account of the attributes as something already given as distinct to an *emergentic* account of the relation between mind and body. This substitution can be performed through a study of a contemporary neuroscientific account of mind-body relations. The neuroscientific account of mind-body relations in question is provided by Antonio Damasio in a book entitled *Looking for Spinoza*. Damasio notices that contemporary neuroscientific accounts of the brain and of the relation between mind and body can be encapsulated by Spinoza's notion that the mind is the idea of the body. Damasio's account will end up introducing one significant structural difference, which will move his account of mind-body relations away from parallelism and toward an account in which the mind emerges *causally* from bodily occurrences.[69]

Before this move is made, I must briefly recall Spinoza's notion of the mind as the idea of the body. As chapter three demonstrated, Spinoza sees thought and extension as

---

[69] Damasio is not the only theorist to offer a materialist reading of Spinoza's account of mind body relations, though he is the only writer to do so by relating Spinoza to contemporary science. Edwin Curley (1988, 70-78) points out that Spinoza always places emphasis on the body, rather than the mind, when discussing mind-body relations, with mind said to be the idea of the body, but body never said to be the manifestation of mind. As Curley (1988, 78) puts it, "to understand the mind, we must understand the body, without which the mind could not function or even exist. In spite of all the parallelistic talk, the order of understanding never proceeds from mind to body". Montag (1999) also offers a materialist reading of Spinoza, where body is given priority over mind.

qualitatively distinct attributes or expressions of the one substance. Every modification in extension is also expressed, in a parallel manner, as a modification in thought. The mind is the idea of the body, therefore, in the sense that mental occurrences are different expressions of the *same* substantial modification; the feeling of pain is the mental expression of the modification of substance that, in extension, occurs as the impact of one body upon another. Damasio claims that in regarding the human mind as the idea of the human body, "Spinoza might have intuited the principles behind the natural mechanisms responsible for the parallel manifestations of mind and body." However, he immediately goes on to profess his conviction "that mental processes are *grounded in* the brain's mappings *of that body*" (Damasio, 2004, 12, my emphases). Notice that where Spinoza regards the parallel manifestations of mind and body to be a product of their mutual grounding in substance of which they are attributional expressions, Damasio sees the parallelism as coming about by virtue of the brain directly mapping, and hence interacting with, the body.

Damasio's analysis, which will soon be articulated through a case study, involves separating out *emotions* and *feelings*. "Emotions play out in the theatre of the body", and are manifested as "actions or movements...visible to others as they occur in the face, in the voice, in specific behaviours", or phenomena that, though "not visible to the naked eye", "can be made visible with current scientific probes such as hormonal assays and electrophysiological wave patterns." "Feelings", on the other hand, "play out in the theatre of the mind", and are "always hidden, like all mental images necessarily are". Feelings are the mental reflection of physical suffering, which are not directly expressed by the body, though they may, presumably, be expressed in words, poems, and so forth (2004, 28). [70] Damasio goes on to explain that "emotions *precede* feelings" (2004, 29, my emphasis). Indeed, whilst emotions are experienced by all living beings, and are crucial

---

[70] The difference between emotions and feelings and their split between body and mind, is not quite as hard and fast as it might appear here. The "emotions-proper", for instance, include "joy and sorrow, fear to pride and shame and sympathy", which all seem to involve mental phenomena, as well as being expressed in bodily terms (Damasio, 2004, 33). As Damasio (2004, 42) puts it, "the borders between categories are loose and porous".

to the homeostatic regulation of even the simplest organisims, feelings only emerge when we reach "the treetops of life regulation" (2004, 37), tops only reached by the more complex organisms. Contra Spinoza, then, not all things are thinking and animate, and this can be the case only if a causal story, where bodily phenomena of a certain complexity are required to do the causal work of generating mental feelings, replaces Spinoza's parallelism. More significantly, the fact that emotions precede feelings directly implies a priority of body over mind. They are not parallel attributes of the same substance. Rather, modifications in thought *causally generate* mental phenomena. Once again, a qualitative difference, this time between mental and physical phenomena, *emerges* once a certain degree of physical complexity is reached. Spinoza's account of substance as always-already composed of qualitative distinct attributes gives way to an account in which an initial monism of matter-energy *creatively generates* qualitative distinctions, and creatively generates mental, as well as physical, phenomena.

A case study that Damasio describes wonderfully encapsulates this priority of bodily emotion over feeling.[71] The case came about accidentally, when attempting to relieve a 65 year old woman of symptoms of Parkinson's disease. One treatment method "involves implanting tiny electrodes in the brain stem of Parkinson's patients so the passage of a low-intensity, high frequency electrical current can change the way in which some of the nuclei operate." This treatment requires the "precise placement of the array of electrode contacts" (Damasio, 2004, 65). The woman treated "had no symptoms of depression before or after the onset of the disease", and "had not even experienced mood changes", which are a common side effect of a Parkinson's medication that she had been treated with before. The treatment initially went as expected, but something surprising "happened when the electric current passed through one of the four contact sides on the patient's left side" (Damasio, 2004, 66-67).

---

[71] Damasio offers an evolutionary account of why emotions come first and feelings after, and of the evolutionary significance of feelings. See Damasio (2004, 30-54).

The patient stopped her ongoing conversation quite abruptly, cast her eyes down to her right side, then leaned slightly to the right and her emotional expression become one of sadness. After a few seconds she suddenly began to cry. Tears flowed and her entire demeanour was one of profound misery. Soon she was sobbing. As this display continued she began talking about how deeply sad she felt, how she had no energies left to go in living in this manner, how hopeless and exhausted she was (Damasio, 2004, 67-68).

Things that the patient said included: "I'm falling down in my head, I no longer wish to live, to see anything, hear anything, feel anything...everything is useless...I feel worthless", and so on. The physician in charge, realising that "this unusual event was due to the current", "aborted the procedures." After roughly 90 seconds, "the current was interrupted", and "the patient's behaviour returned to normal" (Damasio, 2004, 68).

The sobbing stopped as abruptly as it had begun. The sadness vanished from the patient's face. The verbal reports of sadness also terminated. Very rapidly, she smiled, appeared relaxed, and for the next five minutes was quite playful, even jocular. What was that all about? She asked. She had felt awful but did not know why. What had provoked her uncontrollable despair? She was as puzzled as the observers were (Damasio, 2004, 68).

The answer was, in fact, "clear enough." The current "had not passed into the general motor control structures as intended, but had flowed instead into one of the brain step nuclei that control particular types of action". These actions "produce the emotion sadness"; what they produce includes "movements of the facial musculature;

132

movements of the mouth, pharynx, larynx and diaphragm, which are necessary for crying and sobbing, and the varied actions that result in the production and elimination of tears." In this case study, "it appeared as if a switch had been turned on inside the brain" by the current (Damasio, 2004, 68). The effects of this switch manifested all of the "thoughts capable of causing sadness", as though there were a stimulus that generated the emotion of sadness, despite such a source (an 'emotionally competent object'), being absent. But what is absolutely crucial here is that "emotion related thoughts only came *after* the emotion began". The mental feelings and thoughts did not occur simultaneously with, or parallel to, the bodily phenomena generating the bodily emotion. Rather, they "followed" or came after, suggesting that they were *caused* by the bodily changes that correspond to the emotion 'sadness'. The case study, indeed, reveals the "dependence" of mental feeling on bodily emotion (Damasio, 2004, 70). Spinoza's notion that the mind is the idea of the body seems true, when taken out of the context of his philosophy, but the context that he gives it; that of the mind being the idea of the body because the mind is a parallel, and thereby simultaneous, mental expression of a modification of substance that is also simultaneously expressed under the attribute of extension, is mistaken. Rather, the mind is the idea of the body because bodily changes *produce* or *generate* the mental phenomena in question. Of course, one case study is by no means sufficient scientific evidence to prove the thesis that the mind is, in a causal, generative sense, the idea of the body. But, as Damasio documents (2004, in particular 71-80), there is a raft of supporting evidence, including studies on the phenomena of out of the blue, uncontrollable laughter.

Here is not the place to document the rafts of scientific evidence. Instead, I want to develop an interesting twist in the tale of the mind being the (causally generated) idea of the body. Damasio's 'emergentic' account of mind has already changed the way in which qualitative differentiations can be made within Spinoza's monism. The account of mental, feeling phenomena emerging from or being generated by physical phenomena suggests that the one reality, which I have called 'matter-energy', rather than always-

already being split into qualitatively distinct attributes, generates qualitative distinctions in existence. And because such splits are generated from the monism, there is no problem explaining the relation between the qualitatively distinct phenomena. Mental feelings are simply the causal product and idea of bodily happenings. But the generation of qualitatively distinct feelings from the one, material reality is not the end of the story. Rather, the feelings seem to exhibit capacities of their own, capacities which can react back on the physical reality from which they are generated. Bodily emotions and mental thoughts are "linked...in a rich two-way network. Certain thoughts evoke certain emotions and vice versa" (Damasio, 2004, 70). How might we explain this two way network, or two-directional causal relation? We might begin by acknowledging that it is the physical substrate of mental phenomena, namely, the brain, that gives us the *capacity* to produce emotions and feelings. Numerous studies have shown that if you remove certain brain parts, the ability to feel certain emotions, and to feel the corresponding feelings, disappears.[72] But what will put these physical mechanisms into place is not fully determined. "The package of reactions that constitutes crying and sobbing is ready and active at birth", but "what we cry *for,* across a lifetime, changes with our experience" (Damasio, 2004, 34-35). In some cases, the use of these capacities will be determined. Certain bodily phenomena simply will cause the reactions that constitute crying, like putting a current through certain parts of the brain, as the above case study showed. Indeed, as a study conducted by Paul Elkman (1992, 34-38) shows, moving muscles of the face in a certain sequence, such that participants end up expressing happiness, sadness, or fear without being aware that they are doing so, can cause them to "feel the feeling appropriate to the emotion displayed" (Damasio, 2004, 71). But at times they do not seem to be so determined. Damasio suggests that "some social emotional reactions are elicited in human social situations without the stimulus for the reaction being immediately apparent to the reactor and to observers", and amongst a number of examples, mentions "the strange antics of human behaviour in sport" (Damasio, 2004, 48). This example is worth developing. Football matches can

---

[72] See Damasio (2004) p. 150-179.

generate huge emotional responses. But certain games typically generate more of an emotional reaction, at both the bodily level of emotional reactions, and the mental level of feelings, than others. Local derbies, cup finals, and games between teams who are both competing for a similar prize stand out as examples. What is it that makes such matches more visceral than others? Surely it must be the *understanding,* or *thought* that they are extra-significant. It is because, for whatever cultural and sociological reasons, these matches are understood to be particularly important, that people have a more intense visceral, bodily reaction to them. Mental understandings and feelings here influence bodily phenomena. Further examples abound. One just needs to think of cognitive behavioural therapy, counselling, anger management, and so on, to see examples of where people changing their thought patterns and understandings can impact on their physical displays of emotions. Indeed, it is the ability to moderate feelings both through changing physical, bodily things, and through altering what social and cultural phenomena kick the physical capacities we have into action, that encourages Damasio to claim that scientific understanding can provide "the means to plan intelligent actions that can assuage suffering" (Damasio, 2004, 286).

The construction of a mental realm of feeling from physical emotions "is a good example...of how nature's juxtapositions generate complexity, of how putting together the right parts produces more than their mere sum" (Damasio, 2004, 147). The process of the generation of mental feeling from bodily emotions cannot simply be understood by understanding the parts that come into relation in order to form feelings. Furthermore, the feelings that are formed, or, more generally, the entire mental realm that is formed, can come to act back on the bodily materials of which they are formed. With emergence added to Spinoza's monism, reality is composed of one reality, matter-energy, but this one reality is dynamic, and differentiates creatively to form qualitatively distinct kinds of being. Furthermore, much as qualitatively distinct life can act back on the matter from which it was formed, emergentic Spinozism's qualitatively distinct mind

can act back on the body or material reality from which it was formed. This dual process of generation and feedback provides a potential avenue for creativity in nature.[73]

The Creativity of Matter-Energy

In the next chapter, I shall demonstrate the sheer extent of the productivity of the one reality of matter-energy, claiming that all the things that surround us, be they rock formations, people and their ideas, or societies, can be regarded as the products of a productive monism of matter-energy. But for now, an important issue remains. Matter-energy, the one reality that sits at the most fundamental level of my ontology of creativity, is clearly a dynamic form of existence, capable of introducing qualitatively distinct attributes into being. But I am yet to argue that this dynamism is itself not given in advance, as a kind of deterministic process, with the one reality generating qualitatively distinct phenomena as a matter of necessity. How is the creativity of this process to be assured? It will be in the aforementioned double movement, of the generation of qualitatively distinct attributes and modes and the feedback of these attributes and modes upon the stuff of which they are composed that I shall find a space for creativity. First, the whole that is produced by parts to which it cannot be reduced may be a genuinely novel product, rather than something fully determined by the parts that produce it. And second, the possibility that products may be able to act back on the material from which they are produced may exhibit a space for creativity. We may, with

---

[73] John Smith and Chris Jenks (2005, 141-142) raise similar claims regarding the 'materiality of information', or the material embeddedness of more mental and informational phenomena, but from a more sociological perspective. They claim that "much contemporary sociology makes tacit use of the remnants of a humanistic concept of the human subject and its agency", and use complexity theory to call into question this humanist notion of subjectivity, arguing that "knowledge, representation, information, cognitions of any kind, are material consequences". Like me, they also emphasize that this is not a reductionist move, insofar as it does not reduce thought to a material consequence. Rather, thought is an emergent consequence which has some capacities of its own that are irreducible to the material causes that brought it into existence. Smith and Jenks' account of the materiality of information "does not imply a return to any kind of base/superstructure model, whether representational, correspondential, or economic". Rather, they claim that "cognition is self-organizing or auto-referential; *and* that this occurs within a material and informational ecology".

the emergent capacities that are produced, be able to act creatively upon the material that makes us.

Matter-energy is not exclusively creative. Rather, it is capable of both deterministic behaviour, typified by the stable ticking of a pendulum, and potentially creative activity, as exemplified, for instance, by the evolution of life and of societies. Earlier, I said that the spontaneous formation of species with a capacity to evolve provides an example of the astonishing productivity of matter and of the manner in which matter-energy generates astonishing heterogeneity. But simultaneously, the production of evolvable species also creates a *new determinacy*, or a *new law*, in the form of laws of evolution. "The emergence of systems such as the genetic code and meiosis [key factors in the evolvability of species] seems rather like the emergence of new laws" (Kauffman, 2000, 125). Evolution is governed, for instance, by a principle of the survival of the fittest. If a species is not fit, it will not survive. But even these laws remain mobile in some way. Precisely what is required to survive will be ever-changing, depending on the nature of and changes within the surrounding eco-system. As a consequence, Kauffman argues, it is "not…possible to finitely prestate all the context-dependent causal consequences of parts of creatures that might turn out to be useful in some weird environment and hence be selected" (Kauffman, 2000, 131). Who would have thought, for instance, that the Panda appearing to be 'cute' from the perspective of humans would turn out to be a key feature in the survival of a creature that, without human intervention, would have gone extinct long ago?[74] Within the one example of the emergence of evolvable creatures is found the qualitatively distinct nature of the one matter-energy. The one matter-energy is capable of continually introducing both productivity and determinism, both heterogeneity and homogeneity.

---

[74] Of course, were it not for previous human intervention which destroyed the natural habitat of panda's, panda's may not have been endangered and may have not required later human intervention to save them.

Matter-energy is productive and can introduce things that appear to be unforeseeable, but is it really creative? At the very least, I can demonstrate just how radical the *unforseeability* of future states is. In complex, self-organized systems, causation works in two ways. This has already been demonstrated in the account of the mind emerging from, yet nonetheless affecting, bodily phenomena. Organisms provide another illuminating example. Organisms, according to Kauffman, are autocatalytic sets; sets which collectively catalyze their own reactions. Certain molecules catalyze certain reactions. Thus, if a large enough diversity of molecules is present, a phase transition in which a huge number of reactions are catalyzed shall occur, resulting in the production of a stable, self-reproducing set. Collective autocatalysis is, Kauffman (2008, 58) claims, "an example where the integrated system constrains the kinetic behaviours of its parts and organises the kinetic behaviours of the chemicals of which it is made*." The whole *organises*, and hence *affects*, the parts, whilst the parts constitute the whole in the first instance, and still have important roles to play after the whole is formed. The complex whole is not made up of anything but the parts, but, thanks to the relations between the parts and the complex organisation of the whole, the whole has an effect that is *irreducible* to the capacities of the parts. Both examples reveal two features of emergence. First, emergent phenomena are made up of nothing but the matter-energy that constitutes them, whether these parts are fairly basic particles of matter-energy, or already emergent phenomena (for instance, humans who form emergent communities and institutions), which, in turn, were emergent from matter-energy. But despite only being made of these parts, emergent phenomena have some kind of autonomy from the processes and parts that constitute them, and have capacities that are not reducible to the parts themselves. A living organism has the capacity to resist the entropy of its parts, and stay together as a living whole; an organism, as an emergent whole, is anti-entropic, whilst the parts without the organisation of the whole would tend to disperse. Here is found another difference between Spinoza's ontology and my immanent ontology of creativity. For Spinoza, the result of the coming together of composite parts to form a new individual mode was purely additive, with a couple comprising an

individual precisely twice as powerful as the two individuals on their own. But in my ontology, new capacities that go beyond and were not found in the sum of the parts are introduced.

This autonomy of the capacities of emergent systems means that even a mind with an infinite knowledge of all the parts and their effects could not foresee the effects that only exist at the emergent level of the whole. The irreducibility of the whole to the parts means that the nature and capacities of the whole would not be contained in, and therefore could not be deducible from, the parts. The unforseeability of the nature and effects of the emergent whole can be quickly radicalized. First of all, these emergent wholes come to interact with the rest of nature, bringing about a domino effect of unforeseeable events. To cite a simple example, the self-organisation of material into life-forms has numerous further effects, which include the building of civilisations, which subsequently bring about huge movements of physical material, effects on the climate which result in changes in weather, which react back on civilizations, potentially forcing some to move to higher land or colder climates, and so on. Furthermore, causation in such systems is non-linear both in the above sense where the wholes that are created *feed back* on the parts, and in the sense that a tiny difference in initial conditions can have a huge impact on the direction the system takes, or the point at which it ends up. "Small differences, insignificant fluctuations, can, if they occur in opportune circumstances, invade the whole system and create a new regime of functioning"; tiny changes can have huge effects, as the famous butterfly effect indicates, rendering it impossible to predict future states "with certainty" (Prigogine and Stengers, 2007, 38).[75] A changed conception of matter, which renders materiality mobile, insofar as indeterminate enfoldments can progressively differentiate to form clear and determinate forces along with metric spaces, and productive, insofar as it can endogenously generate emergent complex wholes capable of increasingly diverse

---

[75] Philosophical meaning is again prioritized over scientific detail. For more on emergent wholes and non-linear causation, see Stengers (2007), Delanda (2004) and Kauffman (1995, 2000 and 2008).

relations, renders the future development of the universe radically unforeseeable at the very least.

Making the further move and saying that this unforseeability is not merely the result of human finitude, but, in the case of some emergent phenomena at least, owes to a partial lawlessness or lack of determinism in nature is more problematic. In fact, Bergson, a philosopher who was keen to emphasize the creative nature of reality, may have identified a reason why it may be impossible to *prove conclusively* that a change was a partially lawless creation. Possibility, qua pre-existence in the form of an idea or blueprint, emerges along with something real. Once a painting is created, it brings with it a model that can give a blueprint for its mechanical reproduction. In this sense, a creative or seemingly creative act is "reflected behind it into the indefinite past", making it appear to critics of creativity that "it has from all time been possible", or from all time been something that existed as the inevitable result of certain conditions being met (Bergson, 1992, 101).[76] Once a certain enmeshment of matter-energy differentiates such that it produces extensive space, it becomes possible to imagine, as a possibility, a series of conditions (such as high temperature for the emergence of gravity from an enfoldment of forces) that bring about the differentiation of the enmeshment. Similarly, once someone imagines matter-energy self-organising to form a complex whole, they can seek to put those elements and conditions together again to form anew the same whole. An inability to see and manipulate the minute differences that can have a huge impact on the development of a system may mean that they can neither produce the system again, nor even produce something that resembles it, but precisely that finitude and inability to confirm that the conditions were the same shall always enable someone to say that the difference between the blueprint and their attempted reconstruction is down not to a partial lawlessness, but to a difference in conditions. The conditions that rule out a denial of creativity, namely, the radical unforseeability of future states and the impossibility of re-constructing a given set of conditions to see if things evolve or

---

[76] For more on Bergson's account on creations bringing with them a blueprint for their reproduction, see Bergson (1992 and 2002).

emerge the same way repeatedly, also enable one to say that a difference in situation rather than an ontological lawlessness is responsible for differences in what arises.

But despite being unable to *prove* the existence of creativity in the universe, the ontology developed above offers a concrete and coherent means through which creativity can be theorised. In locating creativity at the level of emergent phenomena which, though made up of nothing more than already-existing material parts, exhibit "genuinely novel properties that are irreducible to, and neither predictable nor explainable in terms of" these material parts, my ontology does not have to posit a strange spirit somehow intervening in matter and making it productive of novelty (Kim, 1999, 4). Nor does it challenge an understanding of matter-energy as something that is neither created nor destroyed. Whether emergent phenomena are deemed only an epistemic unforseeability, or whether one goes further and affirms that the universe operates in a partially lawless manner, with genuinely novel phenomena emerging, may perhaps be left at the status of an originary decision or intuition. For Kauffman, as for Bergson and other thinkers of creativity, this decision is easy. It seems far more plausible to think that the multiple forms that emerge over time were not existent as ideational possibilities beforehand, and are instead novel productions. It seems bizarre and counter-intuitive to say that my particular person, in this room now, typing these particular things was given, at least as an ideational 'possible', from the basic particles in the universe, than to say that this moment emerged as a genuine creation; a genuine creation that will perhaps, in a tiny way, expand the possibilities for further ideas and further relations that increase the diversity of what can happen next. Once creativity can be coherently theorised, and no longer requires the introduction of mysterious and vague spirits that render matter mobile or create novel particles from nothing, there seems little reason not to embrace Kauffman and Bergson's intuition regarding the open and creative nature of existence.

Strong or Weak Emergence? Simulations and the Principle of Sufficient Reason

Suggesting that emergent phenomena, at least in some cases, bring about genuine *novelty*, and that this process of emergence owes not only to a lack of possibility of understanding the emergent phenomena before they emerge, but in part to a partial lawlessness in the universe, remains a controversial claim. Two kinds of rejection in particular stand in the way of affirming any intuition of creativity. The first is based on simulations, which some claim indicate the deterministic nature of emergent phenomena, and the second is based on an adherence to the principle of sufficient reason, which rules out the kind of partial lawlessness that I seek to affirm. I shall now deal with these two obstacles in turn, claiming that, in each case, they do not offer any knock down argument against affirming a partially lawless and creative universe, and are themselves, like the affirmation of creativity, decisions that one may make that are not grounded in science or any particular fact, but reflect rather a kind of attitude to the world. Bedau (1997) suggests that the claim of 'strong emergence' that is involved in affirming creativity on the basis of unforeseeable emergence is "irrelevant" and unnecessary for the empirical sciences. Bedau instead defends a version of weak emergence, where the emergent phenomena (including emergent causal laws) can be derived from the materials that together form the emergent phenomena, but due to the unforseeeability of the emergent phenomena, this derivation can be achieved "only by simulation" (Bedau, 1997, 378).

The idea that simulations enable us to derive emergent phenomena is problematic. Simulations, no doubt, have been extremely useful in retrospectively analysing various phenomena.[77] But running a simulation requires, first of all, a sufficient knowledge of initial conditions. I have already highlighted the impossibility of exactly replicating a given set of prior conditions, and the significance this may have given that minor, seemingly insignificant factors can have an enormous impact on the future behaviour of

---

[77] See DeLanda (2011) for descriptions of a whole array of simulations, and scientific lessons that have been learnt from simulations.

systems. Indeed, simulations have been most successful in developing 'mechanism-independent' (DeLanda, 2004, 15) or "transparent" explanations (Cohen and Stewart, 1994, 246). An explanation is mechanism-independent or transparent when it does not depend on precise details of a system. "The evolutionary explanation", for example, is transparent in the sense that it "functions somewhat independently of the precise internal workings of biochemistry." (ibid) For the theory of evolution, it does not matter whether DNA or anything else is what makes humans and is passed on with copying errors, provided something is passed on differentially, and it does not matter if people develop teeth, claws, or any particular feature. It is based not on these lower-level details but simply on the principle that hereditary variations will be selected according to whether they enhance survival chances. This macro-level principle will lead to macro-level tendencies and features, and these features, which are what is learnt in simulations, do not depend on the precise details of the biology involved. This mechanism independence or transparency "explains why we can use partial models to learn about reality" (DeLanda, 2011, 13). But what is learnt concerns general features and tendencies of large scale phenomena, and not finer details. One can learn, using simulations, about very long term weather patterns, like a tendency to cool down with ice ages or heat up. But one cannot, infamously, predict what the weather will be like in one week's time. What is of most significance is not the general patterns but the detail; it does not matter to us that species tend to get increasingly complicated through variation and selection, what matters is that we humans with our qualities were selected. The question of whether our societies as we know them will survive the next two hundred years does not depend on long-term climatic tendencies, but on what happens to the climate in the next century, and we cannot run a successful simulation informing us of that, especially given how much the short and medium term future of the climate will depend on political choices we make here and now. Given that simulations cannot tell us the specifics of what will emerge in cases like these, they cannot help us to decide whether what emerges here emerges 'weakly' or 'strongly'.

Furthermore, simulations become somewhat senseless when one starts talking about trying to discover, through simulation, what will emerge from something that involves relations between immensely vast quantities of factors. Combining a concept from the theory of computation and a Lewis Carroll story shall show the absurdity of simulations introduced to simulate phenomena of a certain degree of complexity.

> And then came the grandest idea of all! We actually made a map of the country, on the scale of a mile to the mile!'
>
> 'Have you used it much?" I enquired.'
>
> 'It has never been spread out, yet,' said Mein Herr: 'the farmers objected: they said it would cover the whole country, and shut out the sunlight! So we now use the country itself, as its own map, and I assure you it does nearly as well' (Carroll, 2007, 65).

"In most cases by far", when dealing with computation, or attempting to 'compute' what a given system will do,

> there exists no shorter means to predict what an algorithm will do than to simply execute it, observing the succession of actions and states as they unfold. The algorithm itself is its own shortest description. It is, in the jargon of the field, incompressible (Kauffman, 1995, 22).

In these cases, the shortest way to predict what a "real physical system will do is just to watch it" (ibid). Evolution would be one example of an incompressible system. To know exactly what will emerge through evolution one simply has to play out what will happen. Indeed, this is why only general, large-scale phenomena of what will happen can be

predicted through simulations; "we can never hope to predict the exact branching of the tree of life, but we can uncover powerful laws that predict and explain their general shape" (Ibid, 23). As was stated above, the devil is in the detail. We are concerned that *we* emerged through evolution, with all our characteristics and features, not that something more complex emerged, as was likely to occur according to general evolutionary laws. Only the process of evolution itself can reveal these crucial details of the evolutionary process; evolution must be used as a guide, and the theorist who wants to understand it must let it play out and see what happens in much the same way that the map-maker who made a map of the scale of a mile to a mile ended up having to use the country itself as a guide. Once again, simulations fail to offer a reason to accept either weak or strong emergence.

Science, therefore, even armed with simulations and computer modelling, cannot, and given the impossibility of exactly replicating a given set of prior conditions, will never be able to make a call between strong and weak emergence. Bedau is right to suggest that science does not need to make the leap from weak to strong emergence; any experimentation on emergent phenomena will remain the same regardless of whether emergence indicates ontological indeterminacy or a permanent and necessary epistemological indeterminacy, but I do not share with him a principle that one should avoid any metaphysical commitments (for instance, to irreducible causal powers and a partial lawlessness in the universe) because science does not need them. I do not, furthermore, believe that where science does not need such metaphysical commitments, they should be rejected as excess metaphysical baggage. What I have tried to show is that science cannot (and need not) address the question of whether emergence is indicative of an unavoidable epistemological uncertainty or an ontological indeterminacy. As a result, the two positions occupy the same (unscientific) status. Scientific discussion cannot settle the dispute either way, and nor can it indicate the virtue of one alternative or the other. To commit to either alternative, therefore, is to make a metaphysical leap. To gauge which side to fall one, a person must ask

themselves which of the alternatives explains more of their intuitions. A strong rationalist like Spinoza, with a commitment to the rational explicability of everything, may regard it important to affirm that the world is fully determined, for otherwise it could not be rationally explained, even by a mind that could understand and exactly replicate all initial conditions and knew of all 'emergentic' laws. But for those who do not share a commitment to the rational explicability of absolutely everything, and see the indeterminacy and creative productivity of nature not so much as a mystery but as an explanation for other seeming mysteries (like the mystery of us having a mind that appears to act, a will that seems partially free, and so on), the decision to affirm a partial lawlessness and a genuinely novel set of causal powers on behalf of emergence and emergent phenomena is an obvious one to make.[78]

I now turn to the objection to strong emergence based on the principle of sufficient reason. It is perhaps only a commitment to the principle of sufficient reason, so embedded in thought for such a long time, that prevents embracing the otherwise enchanting and persuasive intuition of a partially lawless and creative universe. But as Stengers indicates, it is not clear that the principle of sufficient reason remains suitable in light of the changes in science previously documented.

> Chaotic systems mark the point where the ideal of sufficient reason can be abandoned without arbitrariness (Stengers, 2007, 29).

Interestingly, given the importance of Spinoza to the entirety of the project undertaken here, Michael Della Rocca sees Spinoza's entire philosophy as the result of an unabashed and unflinching advocacy of the principle of sufficient reason. What, precisely, is the principle of sufficient reason? It is "the principle according to which each fact, each thing that exists, has an explanation", and where "the explanation of a

---

[78] Kauffman (2008, 197-230) uses ideas of emergence in combination with ideas from quantum physics to indicate how free will might be possible.

fact is enough – sufficient – to enable one to see why the fact holds" (Della Rocca, 2008, 4). Such a principle does not allow brute or inexplicable facts of a kind that are required by an account of emergence which suggests that at times, emergence generates genuine creativity and novelty. In his defence of Spinoza's commitment to the principle of sufficient reason, Della Rocca makes a similar mistake to the one I claim that Bedau makes in his rejection of 'strong emergence'. In justifying the principle of sufficient reason, Della Roca starts by looking at 'explicability arguments', or arguments that suggest that a given thing must be intelligible even if one cannot yet explain it. Take, for example, the claim that two objects that have the "same molecular structure and...the same categorical features" will react to the same event in the same way. "If one of these objects has the disposition to dissolve in water", the other one must also have the disposition to dissolve in water, for "nothing could ground" a "dispositional difference between the two objects, and so we reject the scenario in which there is such a difference" (Della Rocca, 2008, 307).

If such arguments hold for all phenomena, then the Principle of Sufficient Reason must be accepted to be true, for it merely states that all that happens must be intelligible, and there must be a reason, in principle comprehensible beforehand, for every single thing that occurs. But are such explicability arguments generalisable? Della Roca argues that if explicability arguments hold concerning existence, they must hold in general, for they would then hold for all things that exist; "to insist that there be an explanation for the existence of each existing thing is simply to insist on the Principle of Sufficient Reason itself". For Della Rocca, it seems "natural to demand an account of existence, of what it is for a thing to exist". Once we "take this path, then we advance an explicability argument...the existence of each thing must be explicable" (ibid, 309). Della Rocca argues that if we accept, as most people would, the previous examples of explicability arguments, we are under pressure to accept the explicability argument for existence. To accept any other explicability argument, yet reject the one for existence, one would

have to "draw a principled line between the explicability arguments he accepts and those that he does not". And here comes the crunch:

> to draw an unprincipled, arbitrary line is not legitimate in this context in which the truth of the principle of sufficient reason is the very point at issue. To appeal to an arbitrary line here is to appeal to a brute fact- the alleged fact that there is no explanation as to why the line between legitimate and illegitimate explicability arguments is to be drawn here...to appeal to a brute fact in this dialectical context is simply to presuppose that the principle of sufficient reason is false (Della Rocca, 2008, 310).

This move of appealing to a brute fact to reject certain explicability arguments is presumably illegitimate, for Della Rocca, on account of the circularity of an argument that rejects being pushed toward the principle of sufficient reason by rejecting the principle of sufficient reason. Yet what Della Rocca does not seem concerned about is that this very justification of the Principle of Sufficient Reason is similarly circular; much like the person rejecting this argument from explicability is rejecting the principle of sufficient reason in drawing the line that prevents him from committing to the principle of sufficient reason, Della Rocca is using the principle of sufficient reason in order to push someone towards it, and hence in order to justify it. To demand a sufficient reason for the line that is drawn between legitimate and illegitimate explicability arguments is simply to ask for the principle of sufficient reason in order to commit someone to the principle of sufficient reason. If it is illegitimate to reject the principle of sufficient reason when evading it by drawing an arbitrary line, it also seems illegitimate to demand that the principle of sufficient reason is used when trying to get someone to commit to it.

The fact that a circularity is found in attempts both to justify a principle of sufficient reason and to avoid it gives further strength to my claim that the question of whether the universe exhibits a partial lawlessness, and hence leaves a space for creativity, or whether it is law governed down to the last tee, and hence has no room for creativity, remains a question that can be settled only by an intuitive decision. It is also worth noting that emergence may give a non-arbitrary criterion with which to draw a line between legitimate and illegitimate explicability arguments. An explicability argument is appropriate where no emergent phenomena are exhibited, or where conditions can be sufficiently replicated in order to show that the same emergent phenomena occur each time the conditions obtain, yet it would be inappropriate where the complexity of a situation or event is such that it is impossible to generate experiments that can check whether the same phenomena emerge each time, or where attempts to replicate the conditions result in something different emerging.

Whence the obsession with equivalence that lies at the heart of the principle of sufficient reason? Whence this idea that the cause must be equivalent to the effect, and, likewise, the effect must be equivalent to the cause, introducing nothing but what was contained within it? The principle of sufficient reason was formalized by Leibniz, who famously stated that "the full cause is equivalent to the entire effect" (Leibniz, cited in Stengers, 1997, 25). Leibniz, working as he was during the astonishing rise of modern science, was inspired by Galileo's pivotal solution to the problem of comparing and bringing under one law movements of "bodies that move at continually changing speeds, in different time frames, over different distances." If a body is moving at continually changing speeds, then it is no longer possible to define the speed of an object as the time travelled divided by the time taken. Galileo, instead, suggested that 'velocity' (speed) is "that which the body had *gained* during the course of its fall up to that instant" (Stengers, 2007, 25). How can this gain be defined?

It is in the answer invented by Galileo that Leibniz will find the principle of sufficient reason: the gain must be *equivalent* to a loss. The effect must be *equivalent* to the cause that disappears in producing it. The velocity gained is *equivalent* to the lost altitude, which, for Galileo and for Leibniz, means that this velocity is exactly sufficient to allow the body to regain the lost altitude (Stengers, 2007, 25, emphasis added).

Even at the time, there was some evidence that this equivalence did not exist. "In collisions between bodies that are not perfectly elastic, some movement is 'lost', and thus the cause is not equivalent to the effect" (ibid). This was written off as an effect of our imperfect nature as observers, and the principle of sufficient reason became the philosophical counter-part of an inert, reversible, and predictable view of matter. But the view of matter that brought with it the principle of sufficient reason has changed. The new view of materiality articulated here indicates that only in certain material systems, and only in certain material conditions, does matter behave in this inert, predictable manner. A butterfly flapping its wings in one place can cause an earthquake elsewhere, and emergent products can arise through the interaction of causes. Causes, therefore, may not be equivalent to effects. I already demonstrated, in analysing Della Rocca's argument, that there is not a knock-down philosophical argument in favour of the principle of sufficient reason. I have also now demonstrated that the new view of matter documented here erodes any scientific basis for the principle of sufficient reason, and suggests that it is a dead perspective to go alongside a dead view of matter. There is no longer a reason not to abandon the principle of sufficient reason. It is therefore now possible to affirm a world that is partially lawless, a material world abundant with creativity. It is possible, at last, to embrace the intuition that we individuals were not already written in eternal laws that govern all future development

of the universe, but are instead instances of the profoundly creative and productive nature of existence.[79]

By bringing Spinoza's monism into relation with the new view of materiality developed in the sciences of complexity and emergence, I have finally developed a robust and immanent ontology of creativity. Monism has been maintained, but where Spinoza's substance monism was always-already split into qualitatively distinct attributes, and where his substance unfolded and produced modes according to unflinching determinist laws, my immanent ontology sees qualitative distinctions, like those between thought and extension and between living and inert modes, to be *dynamically created* by the one reality of matter-energy. And where Spinoza could only affirm a deterministic world, with the one substance consisting in a fully deterministic nature, I have been able to show that the characteristics of creativity and determination remain immanent to matter itself.

I have developed a monism of a creative matter-energy which, in ways that can be accurately described, differentiates to form more deterministic forms of matter, and

---

79 Whitehead (1967, 12) also criticizes the principle of sufficient reason, suggesting that it is based on a theological heritage and is a hangover from a view of God as the rational creator of the world. "I do not think, however, that I have even yet brought out the greatest contribution of medievalism to the formation of the scientific movement. I mean the inexpugnable belief that every detailed occurrence can be correlated with its antecedents in a perfectly definite manner, exemplifying general principles. Without this belief the incredible labours of scientists would be without hope. It is this instinctive conviction, vividly poised before the imagination, which is the motive power of research: - that there is a secret, a secret which can be unveiled. How has this conviction been so vividly implanted on the European mind? When we compare this tone of thought in Europe with the attitude of other civilisations when left to themselves, there seems but one source for its origin. It must come from the medieval insistence on the rationality of God, conceived as with the personal energy of Jehovah and with the rationality of a Greek philosopher. Every detail was supervised and ordered: the search into nature could only result in the vindication of the faith in rationality. Remember that I am not talking of the explicit beliefs of a few individuals. What I mean is the impress on the European mind arising from the unquestioned faith of centuries. By this I mean the instinctive tone of thought and not a mere creed of words. In Asia, the conceptions of God were of a being who was either too arbitrary or too impersonal for such ideas to have much effect on instinctive habits of mind. Any definite occurrence might be due to the fiat of an irrational despot, or might issue from some impersonal, inscrutable origin of things. There was not the same confidence as in the intelligible rationality of a personal being. I am not arguing that the European trust in the scrutability of nature was logically justified even by its own theology. My only point is to understand how it arose. My explanation is that the faith in the possibility of science, generated antecedently to the development of modern scientific theory, is an unconscious derivative from medieval theology."

also self-organizes to produce, amongst innumerable other things, heterogeneous and heterogenizing life-forms. Indeed, it is the persistence of the capacity of matter-energy to generate emergent phenomena that ensures that the creativity of the universe is not confined to isolated historical events, but continues to subsist. This ontology is immanent because the creativity at the heart of it does not depend on or involve anything other than matter-energy itself. No transcendent consciousness, will, or agent is required to pull together matter-energy in certain ways such that unforeseeable novelty emerges; it does not require a free and creative human, a transcendent God, or a transcendent willing for creative events, such as the endogenous emergence of life from a prebiotic soup, to occur. I indicated that transcendence involved, in its partial form, a splitting of a natural realm from a super-natural realm, and in its stronger form, the additional priority of the supernatural over the natural. Here, I posit no super-natural realm. There is only a world of matter-energy which comes together, sometimes according to the deterministic laws so well understood by physicists (that themselves emerged, perhaps creatively, from matter-energy, as discussed above), and perhaps at other times according to non-deterministic laws. In coming together with no outside help this one reality of matter-energy unforeseeably and perhaps creatively generates emergent phenomena. In creating these emergent phenomena matter-energy is capable of creating qualitatively different forms of being, like life-forms rather than inanimate objects, conscious beings as opposed to unconscious things, social actors as opposed to unsocial or individual things, even ideational things as opposed to physical stuff. But emergent phenomena, whatever qualities they possess, remain made up of and inseparable from the matter-energy that generates them. Furthermore, although emergent existences depend on the parts that come together to produce them, they themselves can, as I have shown, act back on and even change the physical parts that constitute them. At no point is a radical separation, or a radical priority, where one thing or agent can affect many others without itself being affected, introduced. The ontology remains immanent. And in explaining creativity within immanence, this ontology of creativity surpasses the tragic choice between the dogmatic assertion of a separate

creative force injecting creativity into a deterministic world and a thorough-going but immanent determinism.

Though the ontology developed does not *confirm* or *prove* creativity or a partial lawlessness to be real in the universe, it leaves it a constant possibility, with the choice between partial lawlessness and a thorough-going determinism left wide open. Here, though, it is worth noting the difference between ontological creativity and political creativity. I said earlier that the fact that emergent phenomena were not reducible to the parts that made them up, coupled with the non-linearity of the causes that work toward generating emergence, meant that there would seemingly always remain an unforseeability in emergent phenomena, and also, that replicating the exact conditions in which a prior emergence occurred in order to check whether the same thing would always or necessarily emerge from the same set of initial conditions is impossible. Call this the 'epistemological gap' that accompanies emergent phenomena. Whilst affirming creativity at the ontological level requires taking a leap beyond this gap to say that there is a partial lawlessness, and even the same conditions may not yield the same result, affirming a political creativity simply involves recognition of this gap. The epistemological gap, at the very least, suggests that one cannot fully predict when emergence will occur, or precisely what (if anything) will emerge from the relation between various elements. As a result, anything political that emerges cannot have been an object of representational thinking beforehand. Instead, such emergent phenomena can only be created, and such creations will always be, to a certain extent, accidental; a person may act in ways that they deem to make emergence more likely, but precisely what emerges will remain uncertain. Similarly, someone might hope to produce one thing only for something different to emerge. The epistemological gap ensures that there remains a space for political experimentation, and a space for political phenomena that cannot have been foreseen or represented beforehand to emerge, and precisely because these phenomena simply could not have been predicted, or envisioned and represented in advanced, they will be phenomena that can only have

developed creatively, whether that creativity is something pertaining to the universe itself or only to our finite perspective. Crucially, examining the structure of this creativity, even if the creativity is only an appearance, shall enable me to reconceptualise constitutive power in a more materialist and decentred manner.

Creative and Uncreative Matter-Energy

But before I can turn back to politics and articulate the political meaning of the ontology of immanent creativity offered herein, a further problem must be raised. As I have stressed, matter-energy can be both productive and passive, both predictable and unpredictable, both law-governed and partially lawless. Whilst examples of both forms of material existence have been offered, what has not been offered is a more general *principle of differentiation* between the two forms of matter-energy. Might there be a set of conditions that are necessary for matter to be productive or indeed non-productive? Might there be conditions that render the productivity of matter more or less probable? The science of this new materiality is fledgling. It would be remiss to say that conclusions have been reached, and that I can offer a criterion of differentiation between productive and inert material systems. But plausible candidates have been proposed. One candidate principle that, at the very least, makes emergence and productivity likely in material systems is a certain critical degree of diversity amongst parts. Kauffman, for instance, argues that "the emergence of autocatalytic sets is almost inevitable" when "the diversity of molecules in our system increases" sufficiently (Kauffman, 1995, 61-2). This phenomenon is repeated amongst various different systems. For instance, behaviour of individual ants, or a few ants at low density, is chaotic, and no emergent structures arise, but emergent structures relating to the behaviour of an ant colony comes about "when the density of ants exceeds a critical level" (Goodwin, 2007, 38). [80]

---

[80] For more on the emergent behaviour that colonies of ants display, see Mitchell (2008, 3-5).

Along with a certain degree of diversity, systems being put into far-from equilibrium conditions or, in Kauffman's beautiful phrase, poised "at the edge of chaos" is another factor that may be necessary for emergence to occur, or, at the very least, may make it far more likely (Kauffman, 1995, 26). This hypothesis has come about because "it is frequently the case that living processes", and, indeed, non-living ones, "have the characteristics of systems posed between a disordered condition and a highly ordered one", where disordered would be the case of the individual ants, roaming with no discernable structure, and a highly ordered one would be one in which homogeneity rules, and nothing productive occurs. This factor of being poised at the edge of chaos "is in fact a natural attractor for complex self-organizing systems", with many biological, physical, and even cultural processes, including viral epidemics, the growth of cities, and species extinction, exhibiting this feature (Goodwin, 2007, 104). It is important to repeat a point made earlier. That these processes exhibit similar features, and may be law governed by meta-level laws that state roughly what features are required for productivity and creativity to emerge, does not render them non-creative and non-productive. These laws only describe what is *required* for creativity, or to make creativity *likely*, and do not in any way describe what shall be created. As a result, Goodwin (ibid, 117) is correct to argue that the position of being located on the edge of chaos may be "an indicator of creative emergence in the world".

The case for 'far from equilibrium' conditions as a criterion for productive materiality, as opposed to non-productive, repeatable material laws and processes, has been consistently made by Ilya Prigogine.

> When we move from equilibrium to far-from-equilibrium
> conditions, we move away from the repetitive and the universal
> to the specific and the unique. Indeed, the laws of equilibrium
> are universal. Matter near equilibrium behaves in a repetitive
> way. On the other hand, far from equilibrium there appears to

be a variety of mechanisms corresponding to the possibility of occurrence of various types of…structures (Prigogine and Stengers, 1984, 13).

To clarify briefly, equilibrium conditions are those in which a system does not have energy coming in or out of it. These conditions prevail in the laboratory, where elements are isolated from the internal and external exchanges of energy that characterise the outside world. In these conditions, Prigogine and Stengers claim, matter is inert, and does behave in predictable and fully law-governed ways. Were the world a world of pure equilibrium, all would be given. But when systems, or at least certain systems, are pushed far from equilibrium, "there is no longer any universally valid law from which the overall behaviour of the system can be deduced" (ibid, 144-5). Key to the indeterminacy of the behaviour of systems pushed far from equilibrium are "bifurcations" (ibid, 161). At a bifurcation point a system may go down various routes, routes that are not necessarily pre-given. What path a system will forge cannot be determined in advance. At this point, indeterminacy prevails; "it is inherently impossible to determine in advance the next state of the system". But once a path is created, and a stable order and equilibrium conditions return, "determinism takes over again until the next bifurcation point is reached" (Toffler, 1984, xxiii). Prigogine and Stengers, therefore, differentiate between productive, creative materiality and deterministic matter governed by repetitious laws by suggesting that the one reality of matter-energy is deterministic when in equilibrium conditions, but creative when pushed far-from-equilibrium; "when you go far from equilibrium you have bifurcations and something new appears" (Prigogine, 2003, 57).

It may even be the case that both a critical degree of diversity and being located far from equilibrium, or at the edge of chaos, are required for matter to be productive, or at least that both in concert make emergence more probable. "At equilibrium detailed

balance introduces a further condition that restricts and even uniquely fixes" (Nicolis and Prigogine, 1989 29). In equilibrium conditions even systems with the capacity to behave in unpredictable, unforeseeable ways will behave in a passive, ordered manner. But when a critical diversity is combined with far from equilibrium conditions, matter-energy begins to behave in productive, unforeseeable ways, generating novel structures and emergent phenomena. I cannot, as a political theorist, go beyond this fledgling science, and theorise further the principle of differentiation between productive and passive matter-energy at the level of matter-energy itself. Instead, what I eventually propose to do is to offer a political differentiation between creative capacities and more homogeneous capacities using concepts from the study of productive, creative materiality.

How, you may ask, can I begin to differentiate between the creative and non-creative at the political level using concepts from the study of productive and non-productive materiality before I have finalised a distinction at that physical level? Ultimately, this question shall be answered only when I offer an account of constitutive and constituted power in the final chapter, but to show that even beginning this task is not futile, recall that this new view of matter is one that destroys a reductionist view of enquiry, which suggests that something that occurs at one level, say, the biological level, is to be explained in terms of a level that is explanatorily lower, like the chemical level, which is in turn explained in terms of something more fundamental, say, physics. First of all, emergent phenomena are not reducible to that from which they emerge, and there is therefore something that can be explained only at the higher level, and cannot be reduced to something more fundamental. But there is a more important point to be made here. Earlier, the notion of transparency or mechanism independence was discussed. Larger scale explanation, in many cases, does not depend on details of lower level features, properties, and capacities. In this sense, I may be able to find mechanism-independent synergies between political creativity and the creative capacities of matter-energy without having a detailed account of the principle of differentiation between

productive and non-productive materiality. It might be possible, then, to find a principle of differentiation between non-creative, already constituted politics, and creative, constitutive political capacities, even without a detailed account of the principle of differentiation between deterministic and passive and creative and productive materiality. But before I can move on to the elaboration of a materialist and immanent account of this political difference, the immanent, materialist ontology of creativity needs more work. I have discussed the nature of matter-energy at a fairly basic level, and given a few examples of the productions of this univocal matter-energy. But what I have not done, and must move on to do in chapter five, is discuss, more generally, *what* is formed through this creative and productive matter energy, and the *mechanisms of the production* of its products.

Chapter 5: DeLanda: Assemblages and Stratification

The previous chapter closed with two questions. First, what is produced by the flows of matter-energy? Second, what are the mechanisms for their production? In this chapter, the immanent, materialist ontology of creativity shall be completed by addressing these two questions in turn. The products of the creative, univocal matter-energy will be called individuals or assemblages, and understood as the individual formed, with its distinctive set of capacities, date of birth, and date of death, from flows of matter-energy or from the innumerable other individuals or assemblages which, too, are composed of the one reality of matter-energy. Second, I shall discuss the mechanism of the production of these assemblages in terms of two models of stratification. Stratification is the process by which the various 'parts' that make up a given assemblage are sorted and then consolidated such that they form a new individual. The first model of stratification involves the sorting and consolidation of a variety of elements into relatively hierarchical assemblages, which have a fairly centralised structure and tend to dissolve the heterogeneity of the elements of which they are composed, whilst the second involves the production of more meshwork like assemblages, or assemblages in which the heterogeneity of the parts is maintained despite the emergence of a new composite individual. The two different models of stratification should be understood not as radically distinct kinds of stratification, but as two tendencies. All individuals or assemblages will in reality be not a pure meshwork or a pure hierarchy, but a mixture of the two. Similarly, they may be formed by a process that contains elements of both hierarchical and meshwork models of stratification, and they may undergo changes such that they become more hierarchical and less of a meshwork or less hierarchical and more of a meshwork. The two processes and two ideal types of assemblage that they form can, nonetheless, be seen to be analytically different, and between them and all the mixtures thereof, they comprise an abstract explanation of how all the things that surround us may be formed from the one reality of matter-energy.

Individuals/Assemblages

I begin with the question of what is produced by flows of matter-energy. The simple answer is that flows of matter-energy produce all the things that surround us. All that surrounds us remains immanent to the matter-energy that forms it, insofar as it is made of nothing but that matter energy. Matter-energy, being the only existence, must have created all that we see. But this answer is unsatisfactory. In asking what is produced, one desires more than a mere list of things encountered in the world. A response to the question of what is produced that goes something like: 'atoms, cells, humans, the particular human named Robin Dunford, the Green party of England and Wales, Lake Baikal, Mount Everest, the houses of Parliament, England, Exeter…and so on', would be unsatisfactory. What is required instead is an account of what ontological status is being given to species, particular people, groups, institutions, cells, objects, geographical formations, and so on. Part of the reason that an answer as to what the ontological status of these extremely varied things are is demanded is because it would be very easy to re-introduce transcendence through the back door by postulating reified generalities such as 'persons' who form the basic building blocks from which all other social and political phenomena are constructed, and which act as the last point of any reduction, in the sense that groups, organisations, and so on could be fully reduced to the people that make them up, whilst those persons themselves constitute an irreducible essence that cannot be broken down further. Similarly, transcendence may be introduced through the back door in the form of transcendent institutions, organisations, and so on, that have a hierarchical relation over the individuals that construct them in the sense that they produce and give identity to that individual, with such individuals fully reducible to the already given institution or 'Society' that constructs them.

The key is to avoid conceiving of people, groups, species, institutions, societies, and so on as reified, ideal and transcendent generalities, that somehow exist outside of their concrete, material instantiations or as some already-given essence that is realised in the

forms of particular people, groups, societies, and so on. I must also avoid positing a relation between people, groups, institutions, and societies that places some in a position of transcendence with relation to others. This can be achieved in part through a return to Spinoza, and his insistence that all bodies are composites of many smaller bodies, and that these bodies in combination form a new individual body. For instance, a human body is formed of multiple individual and identifiable parts, such as organs, a brain, blood, and so on, which in turn are formed by numerous smaller bodies in certain relations, with the brain, for instance, being a vastly complex structure filled with a vast number of parts in complex relations. Yet despite being made of vastly complex parts in relation, the human body is an individual which is born at a certain time, dies at a certain time, and does certain things (like preserve energy in an anti-entropic manner) as that individual, and not merely as a sum of the parts that make it up. And this human individual can form numerous further individuals, like groups, institutions, species, and so on. A person can combine their powers with numerous others to form an organisation with more power and capacities than the individual alone. And because this organisation can exhibit emergent qualities not reducible to the sum of its members, it can be regarded as an individual in its own right, which is born at a certain time, performs certain actions, and dies at a certain time (presumably when its constituent parts; the people that form it, the laws that render it a legitimate institution, the organisational structure that it exhibits, and so on, cease to exist.) It is, in fact, precisely these emergent capacities that distinguish an individual or, as I shall call them shortly, assemblage, from what Graham Harman (2008, 371) calls "mere aggregates". "We would not claim that there is real assemblage formed by the Pacific Ocean, Angela Merkel, and the set of all coins and beans that have existed or will exist", because these entities have not come together to form an individual with certain capacities for action. This Pacific Ocean-Angela Merkel-Coins collection is a mere aggregate of things imagined by a philosopher, and not a real assemblage.

Larger scale individuals can once more relate together to form yet more individuals of different spatio-temporal scales, with this process iterating until a whole social and/or political field, consisting of a whole array of individual people, individual groups, individual organisations, socially and politically significant objects like material goods, weaponry, even genetics, and so on is formed. Yet further at an even larger spatio-. temporal scale, one finds what Spinoza (L64) called "the face of the whole universe"; the individual formed of the immensely complex network of individuals at smaller scales that we call the universe or existence itself. As Deleuze puts it:

> There is no relation that does not itself combine with some other to form, in a third relation, a further individual at a higher level. And this *ad infinitum,* so that the universe as a whole is a single existing individual, defined by the total proportion of movement and rest, comprising all relations combined *ad infinitum,* the collection of all collections under all relations (Deleuze, 2005, 236).

Following DeLanda (2006), I call these individuals composed of a vast number of further individuals *'assemblages'*. Assemblages, as DeLanda conceives them, avoid the two threats of transcendence named above, namely, the reification of an entity as an abstract essence not based in this world, and the introduction of hierarchies in which an individual is the product of already given groups, or in which groups and societies are the product of already given people. It avoids the first threat by giving entities like 'people', 'groups', 'species', 'organisations', 'cities', 'countries', 'society', 'the universe' and so on the ontological status of an individual assemblage, formed of numerous other assemblages, that has some kind of beginning (the universe may be the one exception here, insofar as it may not make sense to give it a 'date of birth'), that has an end, and that is affirmed as real not by virtue of its abstract essence, but by virtue of its concrete existence, nature, and activities in that time of existence. Terms like 'society', 'person',

'organisation' and the 'universe' must therefore be regarded not as reified, abstract essences, but as "convenient general expressions that can be replaced when necessary by a description of a concrete assemblage" (DeLanda, 2010, 25). My work, here, in offering a philosophical and theoretical account of the resources for politics, constitutive power, creativity, and immanence uses these convenient general expressions, but other work, which offers concrete descriptions of given societies, political structures, and so on must eschew such convenient shorthand and replace it with adequate description of concrete assemblages.

The second threat of transcendence, namely, that of a transcendent, hierarchical relation between terms such as society and the individual, is averted in at least two ways. First, the relation between the 'parts' and 'whole' of the assemblage, or the individuals that connect to form an assemblage and the individual assemblage itself, is non-hierarchical. The assemblage clearly can't exist without its 'parts', but the assemblage has capacities of its own that can act on the individuals that connect together to form it. A close-knit social grouping, as shall be shown later, has a collective remembrance and modes of punishment that exist at the level of the society, and not amongst the individuals. This individual social grouping clearly has great influences over the individual people that make it up, but it still could not exist without them. Furthermore, rather than being determined by an assemblage they form a part of and only existing as part of that assemblage, the individuals that form an assemblage can be part of many assemblages at once, and can also "be detached from one whole and plugged into another one entering into new interactions" (DeLanda, 2010, 3). The individuals that form the assemblage do not fully determine the assemblage, and nor do the assemblages fully determine the individual. Both macro and micro reductionism are blocked, and with their blockage, a hierarchical relation of transcendence between the individuals of different scales, for instance, the person and society, is blocked.

Second, immanence is secured because the difference between the various assemblages, such as the person, the species, and the society, is not a difference in their ontological *level*, but rather simply a difference of spatio-temporal *scale*. The term individual or assemblage "has no preferential affinity for a particular scale", and instead "refers to any entity that is *singular and unique*" (DeLanda 2010, 5). An organisation, even though it is formed by many people, is an individual insofar as it has some form of identity, however fractured that may be, is clearly distinguished from other things, organisations, and people, and is not simply the same thing as the collection of people involved in it or the buildings in which it is located. Avoiding the affinity the term individual can have to a particular, small scale, by looking, for example, at only people, and not organisations, species, and such like, constitutes a significant difference "from philosophical approaches that make a strong distinction between levels of existence", such as individual, family, and society, or genus, species, and organism, insofar as it regards "all entities....as existing at the same ontological level differing only in scale." Rather than being different in kind from an individual person, the human species exists at the same level. As DeLanda puts it, "the human species...is every bit a historical individual as the organisms that compose it. Like them, it has a date of birth (the event of speciation) and, at least potentially, a date of death (the event of extinction)" (ibid). It is important to be clear on the notion of scale that is being used here. Eric Sheppard (2008, 2609) has criticised the notion of assemblages that I adopt from DeLanda for adopting a "naturalistic instead of a constructivist approach to scale, reminiscent of hierarchy theory in ecology rather than scale as theorized in contemporary sociospatial theory." The implication, here, is that DeLanda thinks that assemblages are built up according to a hierarchy of scale, with assemblages that exist at a small spatio-temporal scale, such as, say, humans, coming into relation to form assemblages at a larger scale, say, families, which in turn form neighbourhoods, then cities, then countries, and then the globe. If DeLanda did suggest that this is the case, then his account of assemblages would remain unconvincing. As Urry argues,

the linear metaphor of scales, stretching from the local to the global, or from the micro level to the macro level, does not seem plausible and should be replaced by analyses of multiple systems of mobile connections. There is no top or bottom of the global, but many systems of connections or circulations that effect relationality at multiple and varied materialities and distances (Urry, 2005b, 245).

For instance, some of today's cities are now shaped increasingly through global flows of finance and migration, with connections here going directly between the urban or regional and the global (See Sassen, 2004). In this regard, global flows of financial capital and migration form urban assemblages (cities), with circulation not working according to a simple hierarchy of scales, but instead through what Urry describes as "many systems of connections or circulations" operating at a variety of scales and distances. But Sheppard mistakes the mode of exposition of DeLanda's assemblage theory in *A New Philosophy of Society* (2006), where DeLanda begins with the analysis of persons and interpersonal networks, works through organisations, and finally onto cities and nations, for a hierarchical account of the scale at which assemblages are constituted and operate. Assemblage theory is motivated partly by an attempt to explain the manner in which different entities at different scales come to form new wholes, be they cities, individual persons (who are formed by micro-physical phenomena at a very low scale, and social practices at a scale much larger than them), or a global economy.[81] That assemblages exist at different spatio-temporal scales, then, does not mean that assemblages are produced according to a hierarchy of scale.

DeLanda is keen, though, to limit the scale of assemblages that can be postulated. This limitation is one that I reject.

---

[81] Stengers (1997, 205), reflecting not on DeLanda's assemblage theory but on the idea of assemblages more generally, says that "assemblages are connected together in multiple ways and create communications between what are classically distinguished as different levels of explanations."

> In a flat ontology of individuals…there is no room for reified totalities. In particular, there is no room for entities like 'society' or 'culture' in general. Institutional organisations, urban centres or nation states are, in this ontology, not abstract totalities but concrete *social individuals*, with the same ontological status as individual human beings but operating at larger spatio-temporal scales (DeLanda, 2004, 153).

Similarly, DeLanda rejects an entity that one might call 'science' in general, preferring only to speak of particular, different sciences. I, however, am willing to go further, and speak, in chapter seven, of actual states of politics across the globe, and even of the 'face of the entire universe'. Indeed, providing that I acknowledge that these terms are the product of a number of different, even opposing and contradictory processes, and that I also acknowledge that a concrete study of their formation may just be too complex a study, given the sheer range of processes and smaller-scale assemblages that together, in their symbiosis and in their dissonance, contribute to their formation, I see no reason not to introduce such phenomena. What is objectionable is their introduction as reified totalities that transcend the processes and assemblages that make them up, or their introduction as an empty abstraction to which no real, existing entity corresponds. There is a face of the entire universe, even if it is made up of infinite, ever-changing processes and populated by an infinite, ever-changing set of individuals and capacities. There is a way in which an actual state of politics is at a given time, even if it is extraordinary complex, and is composed of multiple different players related in innumerable different ways. But these entities are in no way reified generalities that pre-exist the assemblages that make them up. They do not have a different ontological status to individual human beings, species, or nations. Rather, they, like those other individuals, are composed of numerous further assemblages, and are composed of them in such a way that they come to have emergent capacities and effects of their own.

As well as pushing assemblages further than DeLanda by allowing for the formation of assemblages as large as the face of the entire universe, I also call for a sharper focus on an assemblage as an individual, bounded entity in its own right. As Graham Harman notices, DeLanda is extremely concerned with the *capacities* of an assemblage, or how it interacts with or affects and is affected by other things, and with the *process* by which a particular assemblage is formed. But he is less concerned with what characterises a particular assemblage itself, or its properties and nature outside of its relation with other things. In other words, DeLanda "never fully develops what the properties of an assemblage are, defining them instead in terms of their capacities to affect and be affected by other things" (Harman, 2008, 379). In the next section, a number of examples shall show the way in which DeLanda accounts for the process by which certain assemblages are formed, and the way in which they interact both with their parts and with other assemblages. The assemblage of sedimentary rock, for instance, shall be explained in terms of the sorting and solidification of sediment, and shall be said to affect its parts by locking them in to a certain structure. Similarly, social class shall be explained in terms of a sorting process by which certain individuals or groups elevate themselves through, for instance, the production of more material goods, and a process of solidification whereby, through the imposition of codified laws and structures of inheritance, the class becomes something that endures beyond the initial advantage of securing a greater number of material goods. Once again, the assemblages of various social classes work to lock in their elements, and, as is clear from the importance of social class to political movements throughout the 19th and 20th centuries, these assemblages play a great part in broader political assemblages. But DeLanda does not offer so much focus on the nature of the assemblage as a bounded whole itself. Harman notes that this is particularly strange given that, as DeLanda himself notices, many different processes can lead to the same outcome; there is a mechanism independence about the formation of a number of assemblages. "A new president appears in the White House due to electoral victory, or through the resignation or murder of a

predecessor, and is equally President in all three cases" (Harman, 2008, 373). The principle of formation, then, is not the only important factor in the nature of an assemblage. And the assemblage, though it is always interacting with and affects and is affected by other assemblages, does have a distinct nature as a bounded individual.

There is no reason why an account of the nature of individual assemblages themselves cannot be added to DeLanda's assemblage theory, provided that the account is based on an empirical study of the nature of particular assemblages, and does not base the nature of assemblages on some kind of transcendent essence or genus. Indeed, we might recall the earlier Spinozist account of the nature of individual things, which understood them both in terms of their capacities to act and be affected (their power), *and* in terms of their internal organisation. This internal organisation, no doubt, is part of what defines a particular individual, and this form of organisation may be based upon a certain attractor, a concept that shall become clear shortly, existing in that particular system which can be arrived at through a number of processes, thus ensuring the mechanism-independence of the resultant assemblage. DeLanda's lack of focus on the nature of individual things or assemblages themselves is perhaps not down to an oversight or underplaying of the importance of the nature of individual things. After all, he does acknowledge that individual things have a degree of independence from their history. Instead, the nature of the assemblages themselves may have been underplayed simply because DeLanda's analysis was not attempting to explain the nature of, say, sedimentary rock, social class, a particular nation state, or a particular city. Indeed, there is already a wealth of empirical literature on each of these that would do far more to explain and analyse these particular assemblages than a work on broader issues of social and historical ontology. Instead, DeLanda was asking the question of what kind of things exist, and the answer, for him, is historically produced assemblages which have a date of birth, a date of extinction, a certain set of characteristics and a certain set of capacities. Going beyond, and examining the nature of each and every assemblage, is a matter for a wide range of empirical work.

But Harman in fact has a broader ontological concern with DeLanda's assemblage theory. Harman advocates not only a focus on the nature of individual assemblages in their own right, as they exist currently and not in terms of their history and potential capacities when in relation with other things. Harman instead advocates "a new model of individual entities as free of all relation, and hence as cut off from each other and from their own histories", claiming that a focus on the historical genesis of assemblages is unable "to account for the way in which individual entities are partially cut off from their own pasts and from each other" (Harman, 2008, 374). Harman is right to point to the importance of the individual things that are formed, and to point out that they have some independence from their history or process of formation. Indeed, DeLanda follows him this far through his understanding of mechanism-independence and redundant causation (an idea which states that certain parts of an assemblage can be causally redundant insofar as they can be replaced and the assemblage as a whole will function in much the same way, as, for example, employees in a company can be replaced without changing the nature and functioning of the company). But Harman is wrong to go further and ignore what he calls, and I shall go on to call, the virtual field of relations, capacities, and attractors that may be actualised. Ignoring this virtual field is to ignore the very real set of mechanism independent processes of formation that both *do* give rise to and partially explain assemblages as they currently exist, and can be used to explain possibilities for transformative change, including, as chapter seven shall argue, transformative, constitutive political change. The next section, on stratification, shall make clear just how real this virtual field of mechanism-independent processes and attractors is, and just how important it is in explaining the formation of different kinds of assemblages.

Stratification

In chapter four, an immanent ontology of creativity was developed, in which a productive monism of matter-energy creatively differentiated itself in multiple ways, injecting the world with increasing heterogeneity in the process. I have now suggested that what matter-energy creates through its productivity are historically produced individuals or assemblages, which are made of nothing but matter-energy, but possess emergent capacities that are irreducible to the materiality that forms them. These emergent phenomena range from things like bits of rock that have capacities that go beyond those of the bits of sediment from which they are formed, through species and organisms, to relatively autonomous (though never completely autonomous) mental, social, and cultural entities like minds, values, and so on, which constitute a hugely complex assemblage of already complex assemblages. Although, over the last two chapters, a few examples of the way in which matter-energy produces the individual assemblages that surround us were discussed, including the formation of an anti-entropic living organism from entropic material parts, what has not been discussed are the *mechanisms* by which matter-energy forms such individuals or emergent wholes. It is in order to elucidate such a mechanism of production that the concept of *stratification,* created by Deleuze and Guattari and given a more concrete and specific meaning by DeLanda, must be introduced.

Instead of giving an initially abstract account of stratification, Deleuze and Guattari start with an example. This example concerns the geological process of stratification through which sedimentary rock is produced. Sedimentary rock is produced by a double movement, or "double articulation" (Deleuze and Guattari, 2005, 40).[82] Rock in exposed mountain-sides consists of layers, each of which contains further layers "composed of pebbles that are nearly *homogeneous* with respect to size, shape, and chemical

---

[82] I do not, here, seek to re-state Deleuze's dense and detailed account of stratification in all its conceptual riches. Instead, I seek to take the basic model of stratification and fill it out with DeLanda's historico-philosophical analyses that demonstrate the occurrence of stratification in the formation of highly diverse physical, biological, and social assemblages.

composition" (DeLanda, 2005, 59). But "pebbles do not come in standard shapes and sizes". Consequently, "some kind of sorting mechanism must be involved"; to form these layers, some "specific device" must "take a multiplicity of pebbles of heterogeneous qualities and distribute them into more or less uniform layers." This sorting device constitutes the first articulation of the double movement of stratification. In the case of sedimentary rock, one such sorting mechanism consists in rivers acting as "sorting machines":

> Rivers transport rocky materials from their point of origin...to the bottom of the ocean, where these materials accumulate. In the course of this process, pebbles of various size, weight, and shape react differently to the water transporting them. Some are so small they dissolve in the water; some are larger and are carried in suspension; even larger stones move by jumping back and forth from the riverbed to the streaming water, while the largest ones are moved by traction as they roll along the bottom toward their destination (DeLanda, 2005, 60).

The rocks are sorted as they move down the river and eventually to the bottom of the sea, where they are deposited in these relatively homogeneous layers. But a "second operation" or second articulation "is necessary to transform these loose collections of pebbles into a larger-scale entity: sedimentary rock." The sediment, though sorted and collected together, is ultimately just a sum of its parts. It is nothing but sediment aggregated in a certain way. Sedimentary rock, on the other hand, has emergent properties of its own, such as "overall strength and permeability", which are not found in the collection of sorted pebbles. What makes the new individual, sedimentary rock, out of sorted sediment, is a second movement which consists in "cementing the sorted components together":

> This second operation is carried out by certain substances dissolved in water (such as silica or hematite, in the case of sandstones) which penetrate the sediment through the pores between pebbles. As this percolating solution crystallizes, it *consolidates* the pebbles' temporary spatial relations into a more or less permanent architectonic structure (DeLanda, 2005, 60)

Once consolidated, the new individual, sedimentary rock, is formed, and with it, a series of new emergent capacities are produced, which can then interact with other individual assemblages, and undergo further processes, potentially generating yet further capacities. Of course, this generation of new capacities is not simply a linear progress where the capacities in existence and possibilities for what may happen next are continually increased. The sedimentary rock may be eroded, broken up again, and the capacities it introduced then fade. Further, its erosion may undermine other assemblages of which it is a part, setting of a chain where many assemblages are destroyed, and with that, their capacities are also destroyed. But when assemblages like sedimentary rock are destroyed, the capacities of the parts that formed them, like sediment, remain enlivened, and may well begin the same process of sorting and cementing again to form once more a new assemblage with new capacities.

In speaking of stratification, Deleuze, Guattari and DeLanda do not simply want to point our attention to the manner in which sedimentary rock is formed. Rather, they claim that the double articulation of sorting and consolidation constitutes an "abstract machine" according to which many identities, singular and unique assemblages, or, to use Deleuze and Guattari's (2005, 50) term, 'strata', are formed. In other words, the "structure generating processes" that yield numerous assemblages operate according to this abstract machine of sorting and consolidation (DeLanda, 2005, 59). Furthermore, Deleuze, Guattari and DeLanda (2005, 58) maintain that the term is not used merely in a metaphorical way. In other words, they do not claim that other identities or

assemblages are *like* sedimentary rock in the sense that they are produced from parts, but have their existence thanks to emergent capacities that obtain only at the level of the whole and not the parts, and that these parts can disconnect from the rock such that the emergent entity is destroyed. Instead, the claim is that there are specific "common physical processes behind the formation" of strata or assemblages; that there is a transparent explanation that explains the work of structure generating processes amongst systems that differ in their particular details. Deleuze and Guattari, though, do not always make clear the non-metaphorical use of the abstract machine of stratification across diverse 'strata' or assemblages. To specify this non-metaphorical content, I turn once more to DeLanda, who shows the same processes occurring not only in the geological phenomena of the formation of sedimentary rock, but also in biological and social formations. Species, for instance, "form through the slow accumulation of genetic materials and the adaptive anatomical and behavioural traits that those genetic materials yield". But genes "do not deposit at random" (DeLanda, 2005, 60-61). Rather, they are sorted "by a variety of selection pressures, including climate, the action of predators and parasites, and the effects of male or female choice during mating" (ibid.) This sorting of materials reveals that genetic materials "sediment just as peddles do, even if the nonlinear dynamical system that performs the sorting operation is completely different in detail" (ibid). But at this stage, much like at the stage where sediment was sorted into layers, but not consolidated into a new structure, the genetic materials are only loosely connected, and this accumulated collection can be lost if conditions change significantly. For a species to emerge, a second articulation which consolidates the collection of genetic material is required. The second operation is "performed by reproductive isolation" (ibid). Reproductive isolation occurs when a subset of a population becomes unable to mate with the rest. This inability to mate with the rest of the species consolidates the accumulated adaption, and makes the accumulation of materials that we call a species far more robust. So, through a double articulation of selective accumulation (sorting) and reproductive isolation (consolidation), "individual animals and plants come to form a larger-scale entity: a new

species" (ibid). The same abstract machine or principle of formation is at work in biological and geological, assemblages.

Finally, this abstract machine of sorting and consolidation can be seen at work in the production of social classes, construed very broadly as a "variety of differentiated roles to which individuals are denied equal access", which may include, for instance, a differentiation whereby certain people control important resources, such as means of production, to which others do not have access. Role differentiation can be "a spontaneous effect of an intensification in the flow of energy through society". For instance, "a big man in prestate societies" might act "as an intensifier of agricultural production". But the "sorting" of these "roles into ranks on a scale of prestige involves specific group dynamics." It will only be in the context of a group that the extra intensity of a persons labour will result in a superior social status. One way in which the person who acquired preferential access through extra production may gain access to a preferential social role may be when "members of a group who have acquired preferential access to some roles [like superior producer, or distributer of goods that came about thanks to their faster production] begin to acquire the power to control further access to them". Most cultures develop some social rankings of the kind that emerge through extra production of a particularly strong or effective person, but they do not always "become an *autonomous dimension* of social organisation." The advantages accrued, for instance, may merely last as long as the extra resources are there, and be reducible to that extra set of resources, rather than an emergent effect of them. This may be the case when "surpluses do not accumulate", as occurs when surpluses are "destroyed in ritual feasts". For social classes to form an assemblage with their own emergent capacities, this process of sorting must be consolidated. The class differentiation may be consolidated by being "given a theological interpretation" and/or "a legal definition" (DeLanda, 2005, 61-62). Once a preferential position is enshrined in law or some kind of narrative or tradition, the position itself, and not the mere extra

resources created for a given short time, becomes efficacious. In other words, an autonomous assemblage known as social class is produced.

Of course, these particular explanations are highly simplified, even in the case of the formation of sedimentary rock. In-depth, historical and empirical analyses would be needed to map the stratification of social classes and biological species. But the simplified examples are useful insofar as they reveal the abstract machine of stratification that is at work in the formation of assemblages in very diverse fields. I asked how assemblages are formed from the multiplicity of matter-energy that makes up the univocal basis of the ontology developed in chapter four. I now have part of an answer; assemblages are formed when matter-energy undergoes a process of stratification, with the strata then forming a new individual on the immanent plane of matter energy, which can then play a role in further stratifications, and become a part of further assemblages. Furthermore, the process of stratification did not only *sort* the flows of matter-energy, or already-existing assemblages, but also *consolidated them* into the new assemblage. This gives the assemblages formed a degree of durability. Sedimentary rock, once consolidated, is reasonably solid, and can withstand certain impacts from outside. A species, once reproductively isolated, will not gradually disperse through cross-breeding, and will only cease to exist if its environmental conditions change significantly for the worst, and social classes, once given legal and/or theological codification, cannot be eradicated easily. But even though I have explained the formation of relatively stable assemblages across different fields, more work is required. Even looking solely at the level of rock formations reveals that not all individual rocks are formed through a stratification of this kind. To complete the account of the production of individuals, another machine of stratification must be added.

The examples of stratification so far have concerned relatively hierarchically organised assemblages. In the case of social class, for instance, the sorting process sorted people

into a hierarchy, which was then ensconced in law. And in the case of sedimentary rock, the rock was ordered in layers sat one on top of another. These examples concern "hierarchies of uniform elements", and not "meshworks" (ibid, 32). Put abstractly, a hierarchy is relatively centralised, or involves centralised decision making and ordering (as in the case of social class, where codification takes place from a centre occupied by those with preferential access to resources, and class become defined in terms of distance from that centre), and will tend to homogenise the elements that compose them (as is the case with sedimentary rock, which composes the layers into homogeneous blocks). Meshworks, on the other hand, are self-organised, and the elements from which they are composed maintain their heterogeneity.

In real instances, things will be a mixture of the two; hierarchies and meshworks should be understood as models or ideal types, with actual assemblages falling somewhere between the extremes of a pure hierarchy and a pure meshwork. Similarly, a things process of formation is not likely to embody solely one model of stratification, with a mixture of the two processes of stratification being involved. Moreover, a particular assemblage can pass from an assemblage that is more meshwork or network like into one that is more hierarchical. For instance, cities or towns can either endogeneously emerge as a number of settlements merge together, whilst these elements still retain an individual character expressed in terms of architectural style, cuisine, cultural traits, and so on, despite composing the city or town, as is the case with many historical cities, or they can be built from a centre through a centralised decision making process, and built in a homogeneous manner with similar architecture, and so on, as is the case with many new towns, like Milton Keynes. And towns often pass from one form to the other. Urban regeneration may take place in a historical town with areas of distinct character, and an area may be rebuilt in the same style as a different area in the town, or numerous areas may be rebuilt in a homogeneous manner after destructive events, like wars or natural disasters. In the opposite case, a homogeneous new town may pass over from a hierarchical assemblage to a meshwork, as residents move in and start 'making the

place their own', as migrants gather in a certain geographical location, and give it a certain regional character, or as the town grows and spreads, with heterogeneous elements added through the growth. Cities will also exhibit both features at once. For instance, a city may grow as heterogeneous elements, be they different companies, different people, etc., decide, without centralised decision making, to rebuild or build outwards, open certain shops and restaurants with certain characters, and so on, but this growth and change will often have to go through a centralised apparatus, like planning procedures, before it is allowed. Further, there may be homogenizing forces at work in these processes, for instance, only certain building materials may be available, cheap affordability of certain designs may ensure different businesses plump for the same style of architecture when building, people may resist certain new shops being opened, or boycott them when they do, and so on. 'Meshworks' and 'Hierarchies' should thus be understood as tendencies. They are not found in their pure form, but it is nonetheless possible to identify some assemblages, or even some aspects of assemblages, as more hierarchical, and others as more meshwork-like. Similarly, it is possible to speak of a process whereby an assemblage becomes more hierarchical, which might be called a further stratification, and a process whereby something becomes more meshwork-like, which might be called a process of destratification. It must be emphasized, here, that destratificaiton is *not* a simple inverse or opposite of stratification; the opposite of stratification, which refers to the formation of things, be they formed as more meshwork-like or more hierarchical, would be *destruction*. Destratification is not destruction, but is instead the process whereby already existing assemblages become less hierarchical and more meshwork-like.

I have articulated a mode of stratification that documents the way in which more hierarchical assemblages are formed. Now, a mode of stratification explaining the formation of meshworks must be offered. Explaining the structure generating processes that give rise to meshworks will require the development of a new series of concepts, concepts that, in time, will be key to articulating the second distinction between

constitutive and constituted power offered here. These concepts are autocatalytic loops, attractors, and stable states. The notion of autocatalysis, or autocatalytic sets, was encountered in chapter four when looking at the emergence of life from matter. The notion must now be explored further. A catalyst is something that changes the rate of a chemical reaction, and catalysis is simply a change in the rate of a chemical reaction. Something is autocatalytic when the product of a reaction is itself the catalyst for that same reaction. When the product of a reaction is the catalyst for that reaction, the reaction will become self-sustaining; there will exist a *loop* whereby a reaction produces something that once more catalyses that reaction, thus ensuring that the reaction continues. It is worth adding, here, that autocatalysis can be *collective*. A set of reactions can endogenously produce enough catalysts to sustain that set of reactions. The product of collective autocatalysis is a catalytic *set*; a collection of entities where each can be catalytically produced by other entities in the set. Organisms are one example of a catalytic set; a series of reactions form an autocatalytic loop, and this loop preserves energy in the whole that is the organism, even though the chemical parts involved in the reaction are subject to a law of entropy.

A key feature of autocatalytic systems is their capacity to generate endogenously their own *stable states* (attractors). An attractor is a state that a system tends to move toward, even if it starts from various different points.

> A large number of different trajectories, starting their evolution
> at very different places in the manifold, may end up in exactly
> the same final state (the attractor), as long as all of them begin
> somewhere within the sphere of the influence of the attractor
> (*the basin of attraction)* (DeLanda, 2004, 14).

Attractors come in different types. Fixed point attractors take a system to a certain point, at which it stays (a *steady* or *stable state*) unless a perturbation that takes it

outside its zone or basin of attraction occurs. Periodic attractors rotate a system through a number of different states (imagine, for instance, predator-prey relations, where at one point there is an excess of species A, species A will then die, and species B, their prey, will profit and grow, before their growth allows more of species A to exist, at which point the system goes back to square one). Finally, strange attractors exist when a system does not repeat a particular cycle, or stay in the same place, yet remains within a particular zone of attraction. In a system governed by a strange attractor "there is never a repetition of activity although the process stays within certain bounds that contain the attractor" (Goodwin, 2007, 34).[83] Three features of attractors are significant for my purposes here. First, they indicate how a system can *endogenously* generate its own stable states. Attractors exist within given systems, and without particular help from the outside, a system will move toward an attractor, and once it is there, stay there unless it undergoes significant changes (either from outside or inside). Second, and more importantly, attractors do not depend on a *particular set* of initial conditions. Rather, a system will reach an attractor provided it finds itself within a *zone of attraction,* which can be very broad. For this reason, attractors are important in explaining mechanism independence. Third, systems can contain multiple attractors. The space of possible states of a system, which will include all the attractors it contains (with different parts of the space being 'drained' by different attractors) is referred to as 'phase space' or 'state space'. When a system flips from one attractor to another and another of its steady states is actualised, the system has undergone a *phase transition.* A brief example may help here. Take the example of water. The matter-energy that makes up water remains drained by the basin of attraction that attracts it to have the qualities of water until temperature is pushed to a certain threshold, either 100 degrees or 0 degrees, at which point it undergoes a phase transition, changing to steam or ice. At this point, it is located in the part of its state space in which it is attracted to steam or ice, and once it is at that point, it remains stable until another change in temperature brings about another phase transition. The fact that a system can contain multiple attractors, and the fact that

---

[83] For more on the different types of attractors, see Mitchell (2009, 27-34).

numerous different particular sets of conditions or locations in state space lead a system toward one attractor, explains how individuals or assemblages can maintain their identity and existence even when they undergo changes.[84]

With these conceptual pre-requisites in place, I can now return to the abstract machine of stratification that generates meshworks. DeLanda explains this abstract machine of "three elements" as follows:

> First, a set of heterogeneous elements is brought together via an...interconnection of diverse but overlapping elements. (In the case of autocatalytic loops, the nodes in the circuit are joined to each other by their *functional complementarities)*. Second, a special class of operators...are needed to effect these interconnections. (In our case, this is the role played by catalysts, which insert themselves between two other chemical substances to facilitate their interaction.) Finally, the interlocked heterogeneities must be capable of endogenously generating stable patterns of behaviour (for example, patterns at regular temporal or spatial intervals) (DeLanda, 2005, 64).

---

[84] The fact that the internal structure of a system itself, in the form of what attractors it contains, is important in terms of the identity, behaviour, and capacities of the system indicates that one must not only look to external effects to explain changes in a system, but also to its internal properties. In other words, the change in a given system cannot simply be explained in terms of its interaction with the outside. To adopt language used by Varela (1984), one cannot only explain a system's organisation using an "input-type description", which explains a system's organisation in terms of the "ways in which it interacts with its environment". A "closure-type description" (25), which explains a system in terms of their "internal coherences which arise out of their interconnectedness," must be added (26). Of course, to explain a given system both approaches are required. For instance, explaining the nature and changes in a social movement will require both a look at its internal dynamics, namely, relations between the people, principles, buildings, and so on that constitute it, and also with its relation to its outside, be it relations with the social and political network or order it acts in, relations with the police, or whatever else. Adding a focus on the internal dynamics of self-organized systems provides another perspective on the way in which the understanding of materiality, as documented in chapter four, has changed from one where it is a passive receptacle, deterministically governed and formed by universal laws to one where materiality has its own spontaneity, character, and capacities.

DeLanda, furthermore, offers three examples, one geological, one biological, and one social, of more meshwork-like assemblages being formed according to this second abstract machine of stratification.

The second abstract machine of stratification can be used to explain the formation of igneous rocks, such as granite. Granite is formed when magma, "a viscous fluid composed of a diversity of molten materials", cools down and as a result, solidifies. The various materials that make up the fluid each have "a different threshold of crystallization". In other words, each liquid becomes a solid state at different temperatures. As a result, the heterogeneous elements that form the magma separate as each successively crystallizes at different temperatures. Those that solidify earlier then "serve as containers for those that acquire a crystal form later", giving granite an interlocking structure of heterogeneous elements, which also gives granite its strength. So, in the case of granite, the heterogeneous elements self-organize into an interlocking structure, providing the first element of the diagram, namely, the interconnection of heterogeneous elements. For the second part, the simple operation of a cooling in temperature, combined with the different internal qualities of the materials in magma, are sufficient to bring about the connections. Finally, the stable patterns that are generated by the diverse, connecting elements in this case come in the form of spatial regularities. Igneous rocks, as a result of their crystallization process, can display "beautiful spiral and concentric-style patterns" (ibid).

Earlier, I showed that species are a good example of an assemblage formed through a relatively hierarchical stratification. Numerous species together, though, form a new assemblage that is more meshwork-like; an ecosystem. Ecosystems link together diverse, heterogeneous animals, obtaining an identity and set of capacities of its own without homogenizing the parts (different species) that form it. Here, the mechanisms of interconnection are diverse, including predator-prey relationships and relations of symbiosis, such as the relation that holds between bees and plants. Food webs "produce

endogenously generated stable states", thus providing the third aspect of the diagram of meshwork stratification (ibid, 65). Food webs, furthermore, are endowed with capacities that are not found in the mere collection of parts. For instance, ecosystems are endowed with top-down causation insofar as they affect the fitness landscape of a given species, therefore effecting the future direction of the species' evolution (Kauffman, 1995, 208).

Finally, I turn to a social assemblage formed through the second abstract machine of stratification. "Small-town markets", which connect together a variety of people, often from different surrounding areas, offer one example. The connection of these people, that brings together and organises their diverse needs, is "performed automatically by the price mechanism"; the varying needs of people can be met in the one place because a value can be assigned to things, allowing different things to be sold at the same place and in the same way. Without a value being assigned to things, it would become extremely difficult for different people to satisfy their different needs in the one place, for the probability of "pure barter"; "two exactly matching demands meeting by chance", is "very low". With a value assigned, and a currency, even a very primitive one like pebbles or cigarettes, "those chance encounters become unnecessary and complementary demands may find each other at a distance". In the case of markets, further elements are required to connect the heterogeneous people with their heterogeneous demands. For instance, rights to use certain resources are often bought and sold, and with these more contract based transactions that last over periods of time, a means of enforcing the arrangement is required. These means of enforcement can, of course, involve a codified law with a police force and legal system to enforce it, but can also be very simple. Where a government or state is not present, there may simply be tacit social rules enforced by means of exclusion, future boycotts, and many other means. Of course, for us to be talking about a self-organized meshwork, and not a hierarchy, "the prices must *set themselves*". They must not be set by a central planning authority, nor set from a centre, as may occur when a wholesaler manipulates "prices by

dumping large amounts of a given product into the market". The fact that markets are ubiquitous and exist where wholesalers and central planning authorities don't exist shows that this regularly happens. For the third stage, "markets generate endogenous stable states, particularly when commercial towns form trading circuits, as can be seen in the cyclical behaviour of their prices" (ibid, 65-66).

With the help of DeLanda, I have shown that meshworks can be formed when heterogeneous elements are interlocked to form an assemblage that endogenously generates stable states. Again, emphasis must be placed on this interlocking. The different layers of granite are literally locked in to the rock, making the rock exceptionally strong and ensuring that it can maintain its existence in the stable state that characterises it. Likewise, in the biological and social examples, the dependency of each interlocking element on other elements means that the assemblage maintains its existence even though the elements are in no way homogenized by the dependencies. Once more, the assemblages formed in some way lock in (albeit not permanently, for eventually granite erodes, people can move away from markets, and species might migrate to different ecosystems or even go extinct) the elements, explaining how relatively stable identities are produced from a flux of matter-energy or a flow of already existing assemblages. Adding this account of the stratification of meshworks to the account of the formation of more hierarchical assemblages through a double articulation of sorting and solidifying results in a powerful explanation of how assemblages are formed from other assemblages (or composite parts) that form them, and indeed, of how assemblages are formed from the multiplicity of matter-energy that sits at the most basic point of the monistic ontology developed in chapter four. Since all assemblages exist on this scale between the extremes of total hierarchy and total meshwork, their formation should be explicable in terms of the two abstract models or two tendencies of stratification described above. The two abstract machines of stratification therefore provide a way of explaining how relatively stable and enduring

assemblages are formed, both from already-existing individual assemblages, and from the matter-energy that provides the ultimate basis for all things.

It is worth, here, briefly drawing out the ontological status of these individuals or assemblages. They are, no doubt, fully real. But their reality is not given beforehand, by some kind of ideal, Platonic essence that gives them a reality and normative status. Nor are they given beforehand as the necessary outcome of a set of deterministic laws. [85] Rather, they are productions from the ever-changing and ever-productive matter-energy that constitutes the univocal form of being. And just because these individual assemblages, be they mountains, rock formations, social and political institutions and values including social classes and ideas surrounding market economies, are fully real, this does not mean that they will continue to be so. Each historically produced assemblage has a date at which it is formed as a temporary consolidation or stratification of a productive, mobile, matter-energy, and also has a date at which it will die, turning into a new assemblage or dissipating back into matter-energy that is then stratified in numerous other ways. The existence of an assemblage may, in the case of a

---

[85] Though DeLanda's analysis of assemblages and stratification is central to my immanent ontology of creativity, it is not clear whether DeLanda would follow me in understanding the universe as creative in the sense of operating according to a partial lawlessness. Indeed, DeLanda is, throughout his work, non-committal on whether the new sciences, with a focus on non-linear causation and emergence, render the universe *creative*, and not only immensely *productive*. To cite one example, noticed by Harman (2008, 379), "DeLanda's notion of catalysis is based on the complex interaction of numerous different factors, so that no one factor has the same effect on all occasions. But what about the same *combination* of factors? Where would indeterminacy come from if the entire environment were stipulated to be precisely the same in numerous different cases? In this respect, DeLanda still allows room for a mechanistic philosophy, though a much more intricate one than usual". But whilst DeLanda does still leave room for a mechanistic philosophy, he in no way states a preference or belief in one, just as he does not state a belief in a creative universe. Perhaps DeLanda, then, has noticed that the sciences of complexity and emergence, as I argued in the previous chapter, cannot offer resources either way for the solution to the question of whether the universe is (productively and complexly) mechanistic or creative and partially lawless. Where DeLanda acknowledges this indeterminacy by refusing to broach the question and make the intuitive or metaphysical leap in either direction, I am willing to embrace an intuitive judgement regarding the creativity of nature. As I argued at the end of the previous chapter, though, a political account of productive and creative constitutive power remains unchanged regardless of whether the intuitive leap to affirm a creative or deterministic universe is taken. In this regard, DeLanda's ontology can still be effective in moving toward an immanent and materialist account of constitutive power despite his silence on the question of whether the universe is creative.

mountain, last a very long time, but this does not mean that it was not produced, nor that it will not cease to exist. To put it in the words of Eugene Holland,

> Being is merely a momentary, subsidiary, and largely illusory suspension (or "contraction") of becoming, on this view; becoming is always primary and fundamental. This means not merely that each and every thing has a history – rather, each and every thing simply is its history: apparent being is always the temporary but actual culmination of real becoming (Holland, 2010, 12)

The model of stratification, as well as highlighting the ontological status of the individual assemblages that surround us, also documents one way in which assemblages and the changes that they undergo can be characterised. Recall that most things are a composite of meshwork-like elements and hierarchical elements. They could tend to be more like a meshwork, or tend to be more like a hierarchy, but rarely, if ever, are things exclusively one or the other. Assemblages, therefore, can be seen to be positioned on a flat plane between two tendencies at the extreme. At one extreme lies a complete hierarchy, which would be something of an ossified structure, only undergoing change when impacted from the outside, consisting of fully homogeneous elements and entirely organised from a central point. Schmitt's constituted political order would appear to provide a political (and, indeed, fictitious) example of this tendentious extreme. At the other extreme would lie a dispersed network, where the connected elements entirely retain their identity without being homogenized. Whilst some dispersive assemblages maintain their identity over time, others may arise solely for a short time, before the elements disconnect simply by operating according to their own heterogeneous logics or decisions, without any external shock or impact. Those that sit closer to the hierarchical extreme could be said to be a highly stratified assemblage, and

those closer to the meshwork extreme can be said to exhibit a low degree of stratification, and the closer things are toward the hierarchical extreme, the higher their degree of stratification would be. Furthermore, as well as being formed by a process of stratification, be it a more hierarchical or a more meshwork-like form of stratification, already existing assemblages can undergo a further or indeed continuing process of stratification or destratification, where they become more hierarchical or more meshwork-like. Stratification, then, has a double meaning. Initially, it refers to the process of the formation of assemblages, be it the formation of assemblages from the one reality of matter-energy or the process of further assemblages from already existing assemblages. The opposite of stratification, here, would be destruction, where assemblages are broken down leaving either the assemblages that came into relation to form them and/or the matter-energy of which they were composed. This initial stratification can take a hierarchical form or a meshwork form, depending on what abstract model of stratification is dominant. In a second stage, when referring to already existing assemblages, stratification refers to a process whereby an assemblage becomes more hierarchical, in which case it is said to become more highly stratified. The opposite of this second sense of stratification is destratification, where an assemblage becomes less hierarchical and more meshwork-like.

A further way of describing assemblages is in terms of their degree of territorialisation or deterritorialization. Degree of territorialisation refers to how sharply the identity of a given individual is defined; an entity is highly territorialized if it is clearly defined, and has clearly marked edges that separate it from other things and mark it out as a particular individual, and highly deterritorialized if, though still an individual, it often appears to merge with other things and has indistinct boundaries. These boundaries can relate to many different things. Something could, for instance, be sharply defined insofar as it is clearly tied to a certain spatial location, and could not function outside that area, or it could be sharply defined insofar as it has a clear and distinct identity, and is not obviously intermingled with other things from which it can hardly be separated.

Shortly, some examples of highly and lowly stratified assemblages, and the ways in which they are territorialized and deterritorialized, shall make things clearer. What the examples also show is that there is no necessary connection between an assemblage's degree of stratification or destratification, its degree of territorialisation or deterritorialization, and the length of time that it endures.

Silicon Valley in California and Route 128 in Boston are regions with heavy computer manufacture industries. But they operate in markedly different ways. The Silicon Valley production network is lowly stratified; it consists of "a regional network-based industrial system that promotes collective learning and flexible adjustment", and contains "dense social networks and open labour markets" which encourage "experimentation" and "horizontal communication among firm divisions and with outside suppliers and customers". As a result, boundaries within and between firms, and between firms and "local institutions such as trade associations and universities", are "porous". In other words, Silicon Valley is not particularly hierarchical, and instead horizontally connects heterogeneous groups in a meshwork. Route 128, by contrast, "is dominated by a small number of relatively integrated corporations" which practice "secrecy and corporate loyalty", ensuring the boundaries between firms are robust, and, within firms, "corporate hierarchies ensure that authority remains centralized and information flows vertically". Here are a number of hierarchies that don't really connect with one another; a collection of highly stratified institutions working separately within the same field (Saxenian, 1990, 2-3).

One cannot simply read from their degree of stratification how territorialized or deterritorialized or how enduring or liable to disperse the firms and the economic areas they make up may be. Silicon Valley has a low degree of stratification, but this does not automatically result in a high degree of deterritorialization. The boundaries between firms are not particularly well-defined, making it hard to see where one assemblage ends and another begins, and consequently hard to identify and give identity to one firm

187

in particular, as opposed to the assemblage that is the Silicon Valley computer manufacture region. In this regard, the firms of Silicon Valley, if not the assemblage itself, has a high degree of deterritorialization. But in another regard, the firms within the Silicon Valley and indeed the assemblage of Silicon Valley itself are highly territorialized. They are territorialized in a quite literal sense of the term, with both particular firms and the entire network depending for their existence on being within a certain region. The firms in Silicon Valley cannot simply move elsewhere, for they would lose the "reservoir of talent that has formed in the region over many years" (Delanda, 2006, 81). And the lack of hierarchical co-ordination across firms, added to the various non-work related ties that the workers on whom the network depend may have to the area, make it extremely unlikely that a co-ordinated relocation of the entire network would take place. The firms in route 128, which are highly stratified insofar as they have clear levels of rank and hierarchy amongst the workers, maintain the capacity to deterritorialize rapidly by changing location, and with that, changing their staff significantly. Because they keep their knowledge and resources in house, they can up sticks and move whilst retaining these knowledges. The hierarchical nature of the organisations, with commands coming from the top, in this case make such a move even easier, provided they can get some of the people at the top to move, or if that knowledge at the top is codified in institutional rules, practices, and so on, removing the dependence on the particular incumbent of a position. In this regard, the high degree of stratification amongst these firms, with their hierarchy of bosses or institutional rules, practices, and knowledges, make them potentially deterritorializable insofar as it minimizes their ties to a certain territory. But in another regard this high degree of stratification ensures that the boundaries between firms are stark, giving them a high degree of territorialisation. Not only, then, is it impossible to read off the degree of territorialisation of an assemblage from its degree of stratification, but different aspects of the same assemblage shall exhibit different degrees of de/territorialisation. As Kam Shapiro (2004, 295) puts it, this time using electronic media as an example, "de- and

reterritorialization can take a variety of forms and typically operate on multiple registers simultaneously."[86]

Degree of stratification does not depend upon or have any necessary connection to degree of territorialisation. Similarly, there is no necessary connection between degree of stratification, or indeed degree of territorialisation, and the capacity an assemblage has to endure. The dependence on a pool of local knowledge and skills means that changes to the outside environment will heavily effect the companies of Silicon Valley; their low degree of stratification and high degree of territorialization in this respect will make them liable to significant gains or losses in their power to act and capacity to continue to exist in light of changes in the surrounding companies and organisations. In the hierarchically ordered and clearly distinct companies of Route 128, this will not be the case; the clear distinction between the firms ensures that the firm will be immune to changes in surrounding companies and organisations, except insofar as their disappearance might open up more market space and prevent competition for resources and staff. But the companies of Route 128 may suffer for their hierarchical nature if they depend heavily on particular people at the top of the hierarchy, who may not be replaceable when they move on. Similarly, institutionally codified rules may not be so well equipped to respond to sharp changes in the kind of skills and knowledges that the company requires to survive in a market place. It is context, ultimately, that will determine whether being highly or lowly stratified, or whether being highly or lowly deterritorialized, will be beneficial for survival.

---

[86] In this instance, Shapiro is talking about the de- and reterritorializing *effects* of electronic media upon other things. "Electronic media, for example," says Shapiro (2004, 295) "are radically deterritorializing at one level, allowing for the movement of images across the globe with little regard for national borders. But the geographical dislocation facilitated by digital reproduction and high-speed transmission is met by a corresponding mediation and distribution of gender, sexual, ethnic, and racial types in the form of sitcom characters, film genres, and media enclaves. In the latter case, geographical deterritorialization is met with demographic reterritorialization". Shapiro goes on to demonstrate the way in which electronic media itself becomes territorialized, and movements of deterritorialization seek to challenge the newly territorialized media forms that are created (See Shapiro, 2004, 295-297). Not only, then, can a given assemblage be deterrirorialized and territorialized in different ways, it can also have different effects of territorialisation and deterritorialization on other assemblages, and often the ways in which it acts to territorialize or deterritorialize either itself or other assemblages will be a matter of contestation.

A human and his heart provide another, very different example of the lack of a necessary connection between degree of territorialisation, stratification, and capacity to endure. One cause of the destruction of the identity of a particular human and the dispersion of the assemblage that forms him is death.[87] Crucial to life is the heart beating, which, until recently, was regarded as the archetypical example of a regular, ordered, homogeneous, and therefore highly stratified process. But this understanding of the heartbeat as fully regular was, in the 1980s, discovered to be a myth. Furthermore, it was discovered that a highly regular heart beat is actually a sign of danger:

> If you look at a series of heartbeats...as recorded in an electrocardiogram, there is considerable variability in the interval between heartbeats. What came as something of a surprise was that this variability is significantly greater in healthy individuals than in people with various types of heart condition, such as cardiac arrhythmias or congestive heart disease. In the latter cases there is more regularity and order in the heart rate than in healthy persons. This is a case in which too much order...is a sign of danger! (Goodwin, 2007, 46).

An overly stratified heart beat is a danger because it signifies the fact that a heart has fallen "into a pattern of order that fails to respond to the body's constantly changing needs"; the heart beat no longer reacts adequately to new stimuli or changing conditions, seriously diminishing its chance of coping with that new situation (ibid 46-7). But likewise, if the heart beat is not sufficiently stratified, or not regular enough, the person is at risk; artial defribulation, "a condition in which the heart beats irregularly",

---

[87] Death is, of course, just an example of how a human's identity may be destroyed. People can change to the point that they may be regarded as a different person a number of times throughout their life. Death, here, is used as an example, and not the only example, of how a human identity and the assemblage that forms it might disperse.

makes men 1.5 times more likely to die, and women 1.9 times more likely to die(American Heart Association, 1998). Kauffman (2005, 26), in fact, makes a more general point regarding an organisms' chance of survival and its degree of order or stratification. Kauffman claims that whilst, on the whole, organisms have the best chance of survival if they are located "at the edge of chaos", the optimum degree of stratification for survival remains context dependent. If "the landscape is highly correlated and quite smooth"; if the environment is very stable and regular, with few changes occurring, what Kauffman metaphorically calls "the Stalinist limit", or the rigidly ordered and stratified organisation of an organism, produces "the best results" in terms of survival. When there are few changes to adapt to, the highly ordered system can continue its regimented functioning with great success. But "as the landscape becomes more rugged", chances of survival are "best" when "the system is near the phase transition between order and chaos" (Kauffman, 1995, 142). In other words, in a changing environment, a system is most effective if it is ordered enough to have a coherence and connection between parts, but not so highly stratified that it really locks the pieces together, for it can then adapt to the changes it is faced with.

What these examples have made clear is that there is no simple correlation between degree of stratification, degree of territorialization, and capacity to endure. Instead, there are different advantages in terms of capacity to endure depending on how stratified an assemblage is, and there are different ways in which they may be more or less territorialized, and different ways in which they may deterritorialize and reterritorialize, depending on context. In addition, given that, as I have argued, complex systems can have degrees of freedom, and react to stimuli in different, partially lawless ways, it is also possible that different systems with different degrees of stratification will react differently, and have different chances of survival, even in the same environmental contexts. It is for in-depth empirical studies and in-depth analysis of particular assemblages and their particular contexts to decide in what ways the different vectors in which they are characterised (degree of stratification, capacity to endure, and

degree of territorialization) affect the other vectors, or, indeed, how certain respects of each vector affect other aspects of that very same vector.

In chapter four it was claimed that the same univocal reality of matter-energy can behave in both deterministic and creative, and both passive and productive ways. Might the creativity or determinism of matter be correlated to a systems degree of stratification or territorialisation? The claim, made in chapter four, that existence at the edge of chaos or in far from equilibrium conditions renders creativity more likely might tempt one into thinking that only lowly stratified systems, poised in a state between order and disorder, are able to act creatively. But though it is no doubt true that far from equilibrium conditions are linked to material productivity and self-organisation, one can have highly stratified systems generating enormous creativity in the far from equilibrium world of, for instance, human affairs and politics. The Chinese and Soviet revolutions created novel political forms (for better or worse), and were a hugely creative force in the direction of politics in the 20th century, despite being extremely hierarchical and stratified. A whole raft of creative academic work, and novel ideas for political revolt, were created in the wake of the May 1968 revolt, despite that revolution being lowly stratified to the point that the French Communist Party helped to quash the revolt because it had not been organised in ways they deemed appropriate. That these concepts do not map on, or that neither the degree of stratification, territorilalization, or creativity is privileged, insofar as it would be possible to read off the other qualities from the nature of the one privileged term, is in no way a problem. There is simply no reason why one should feel the need to reduce all aspects of an assemblage or strata to one of its qualities. What it does mean, though, is that any attempt to gauge the capacity for creativity, security of the identity and consistency of the elements interlocked and degree of stratification of a given assemblage must involve a detailed, empirical study of the assemblage in question. This need for detailed analysis, though, does generate a constraint for what can be suggested in terms of political action from the ontology of immanent creativity offered; I cannot simply offer straight forward and

somewhat crude advice for activists. I cannot simply say 'destratify and you will create', or 'deterritorialize and you will increase your power to act' when it comes to explaining how new political forms might be constituted. The question of what suggestions can be made with regard to creative political action shall be taken up in chapter seven

The immanent ontology of creativity that I proposed to develop is now complete. My ontology, developed by bringing Spinoza's ontology into conversation with the sciences of complexity and the social and historical philosophy of Manuel DeLanda, posits a monism of matter-energy. Matter-energy is the univocal reality of which all things are made. But matter-energy is productive and creative, and in its creativity, produces qualitatively diverse forms of existence. The products of creative matter-energy were described as assemblages, or complex wholes consisting of connectable and deconnectable 'parts', which are themselves assemblages at a different spatio-temporal scale. Finally, the mechanism of production of assemblages from the univocal matter-energy, and the mechanism of production of assemblages from other assemblages, was called stratification. There are two abstract models of stratification, one of which produces more hierarchical assemblages, and the other of which produces more decentred, meshwork like assemblages. These two models and their corresponding purely hierarchical and purely meshwork-like strata are two, potentially fictitious, extremes, with all existing assemblages existing somewhere on a scale between a total hierarchy and a total meshwork. Finally, these assemblages or 'strata' could be characterised using a number of vectors, like their degree of stratification, degree of territorialisation, degree of creativity, and capacity to endure. No one of these terms was privileged, and all the qualities of a system could not be read off from one particular vector. With my immanent and materialist ontology of creativity in place, it is now time to turn back to political theory, in order to demonstrate how this ontology can furnish additional resources for politics, and thereby provide a renewed, materialist conception of constitutive power.

Chapter 6:

Power and Materiality: Spinoza and the resources for Politics

It seems a long time since the opening two chapters on representative political theory and constitutive power. I have traversed a long path, elaborating, and, I have argued, overcoming, a tragic choice which left philosophers forced into either a dreary determinism, or able to theorise creativity and the indeterminacy of nature and people only at the cost of introducing a form of being radically different from an otherwise deterministic natural world. This second form of being, which transcended the otherwise deterministic world of matter-energy, proved unable to relate to the nature it purportedly injected creativity into. Plato, Arendt, and Descartes, who took the choice of introducing creativity, be it through the philosopher kings' awareness of the forms, through the separate substance of thinking things, or through humans capable of free action, all ended up positing splits in Being that could not be bridged, with the transcendent term ending up unable to relate with or impact on the immanent term, and hence ending up as superfluous and irrelevant. Alternatively, a philosophy of immanence was offered by Spinoza. This philosophy of immanence offered coherent explanations of the phenomena other thinkers introduced transcendence to explain without invoking any of the structural incoherencies involved in transcendence and dualism. But Spinoza's philosophy of immanence remained deterministic, and was unable to provide a space for creativity in nature. I seemed condemned to make a tragic choice between the dogmatic assertion of external, transcendent, radically separate creative forces and the immanence of a nature bound by unflinching and eternal mechanical laws. This choice was circumvented through the development of an immanent ontology of creativity, constructed by bringing into play the philosophy of

Spinoza, DeLanda's social and historical ontology, and the sciences of complexity and emergence.

But this philosophical tragic choice was not the only tragic choice that I identified. In the first chapter, I identified a parallel tragic political choice. Representative political theory, I claimed, either offered seemingly accurate representations of already given agreements, but only at the cost of failing to provide adequate resources for political change, or it could indicate resources seemingly capable of generating political change, but only through the dogmatic and unjustified assertion of essences or agreements that were not actually there and could not be justified. Constitutive power, in focusing on a set of creative powers immanent to the demos, the sovereign, or the 'multitude'; all people or collectives of really existing people or institutional structures, offered potential to escape this tragic choice of dogmatism or conservatism. But certain problems were found with existing accounts of constitutive power. In some cases, constitutive power seemed too centred on either particular rare and episodic moments of change or particular single agents of change (Schmitt's sovereign) or on discursive powers rather than more material powers (Arendt). In other cases, constitutive power threatened to reproduce the ontological tragic choice, with the agents of constitutive power, be they Arendt's humans capable of action or Hardt and Negri's multitude capable of creative political interventions, both consisting in a creative force radically different from a constituted, uncreative order that is otherwise left to the ruin of time.

The final chapter shall seek to re-articulate the concept of constitutive power in order to overcome these problems, understanding constitutive power to be structurally and temporally de-centred, and to be a product of powers and capacities that remain immanent to the one reality of matter-energy. But first, two other issues must be addressed. I spoke earlier about the resources for politics. In existence is a set of political institutions, practices, agreements, powers, structures, and so on. But alongside any given political order, and of great importance for political theorists, are a set of

resources that may allow for the change, or indeed the justification, of any political order. In speaking of these resources for politics, I have spoken quite vaguely about values, essences, agreements, understandings, consensuses, institutions, powers, and so on. There has been a reason for this vagueness. The various thinkers that have been discussed, be they Plato, Rawls, Schmitt, Locke, Arendt, or Hardt and Negri, have all theorised these resources in different ways, often placing emphasis on a different one of the aforementioned things as the key resource for political change and justification. Plato saw the key resource for politics as the form of the good, which, when translated into institutional forms and public practices by the philosopher kings, could allow for positive and radical political change. Rawls saw the key resource for politics as a kind of public reason or overlapping consensus. When people are placed in the 'original position' behind a 'veil of ignorance', a certain set of institutional structures could be justified and used in order to to guide political change. Schmitt saw the key resource for politics and political change in terms of the decision of the sovereign, a subject endowed with a certain institutional authority or role, who could decide when an exceptional time or case had arisen and suspend or redraw a constituted order accordingly. Hardt and Negri understood as the key resource for political change the collective body of the multitude, who, when acting in concert, could act with extraordinary power and force changes in any constituted political order. To offer one more example, Arendt saw free human action, understood largely in terms of speech and public discussion, as the key resource for political change, it being the only thing capable of injecting novelty and creativity into already constituted orders which are otherwise left up to the ruin of time.

I am now faced with the following question: do I place a greater emphasis on any particular thing as a key resource for politics? If so, what? Following Spinoza, I understand *power* as the most important resource for politics. This does not mean that I see values, institutions, human subjects and such like as irrelevant or unimportant. Rather, as I shall go on to demonstrate, I see them as important insofar as they themselves constitute *powers.* Furthermore, I have indicated throughout that I hope to

offer a more materialist account of constitutive power, and claimed that Arendt's account of constitutive power is insufficiently materialist and overbearingly concerned with the discursive. In chapter two, I started to indicate why politics should be understood, in significant part, in materialist terms, focussing on the manner in which orders are constituted by and can be resisted through the means by which everyday material life is reproduced. But having developed an ontology that has, at its base, a single reality of matter-energy from which all other things are produced, I want to deepen the materialist sense of my understanding of politics. As I have already acknowledged, the one reality of matter-energy is characterised by a creative productivity which enables the creation of qualitatively distinct forms of being, including mental forms of being, that themselves have relatively autonomous powers of action. The materialist ontology I offer therefore does not automatically lead to a political materialism; it may be possible that the most significant things for politics are precisely these autonomous non-material capacities. I now wish to show that this is not the case by returning to Spinoza in order to argue for the importance of materiality and for the centrality of power in theorising the resources for politics. More specifically, I first use Damasio's account of mind as an emergent product of a certain complexity of material stuff, in order to argue, against Arendt, and against the liberal tradition of political theory, for the importance of materiality in politics. Second, I discuss Spinoza's understanding of right as co-extensive with power in order to demonstrate the importance of power in understanding politics. Furthermore, despite initial appearances that suggest that a focus on power and a relegation of right as something merely co-extensive with power may lead to the dissolution of the distinction between constituted and constitutive power by erasing the constitutive political realm, I argue that this Spinozist flattening in fact opens up a limitless space for constitutive, transformative power.

Materialism and Politics

Common to numerous thinkers in different strands of the liberal tradition, including Locke and Rawls is a notion of consent that justifies given political orders or social practices. It is an ideational affirmation that generates and justifies certain material practices. In the case of Locke and Rawls, a state of affairs is given legitimacy by a logically, if not historically, prior constitutive act of consent or contract. In Locke, a consensual social contract establishes a government with a range of legitimate powers, though these powers are limited by a natural law derived from the commandment from God that we not take our own lives Furthermore, in Rawls' work, a social order with significant inequalities is justified on the basis that people, when not given knowledge of their socio-economic status, accept the existence of such inequalities provided that they maximise the resources of the least advantaged. In each case, established political orders, if they are justified, are justified by an act of consent. A similar move is made in the justification of wage-labour relations. Even though workers may look like they are being subjected to awful conditions and horrendous working hours, these practices are fully justified because the workers signed a contract and thereby consented to them. It is an *act of will* that establishes and justifies a given set of material practices. At first sight, this consent seems to protect the individual. The government can only have powers that the individual gives it, and the individual retains, particularly in Locke and Rawls, some rights that the government simply cannot legitimately alienate, even if it has the power to do so. But in actuality, "far from permitting a critique of servitude", this look towards an internal willing that establishes legitimate governments, inequalities, labour relations, and so on, "becomes its [servitude's] most cunning justification" (Montag, 1999, 50). It functions as a justification of servitude through the invention of an originary, internal will that determines what our body does, a willing which Spinoza's notion of the mind as the idea of the body can be seen to problematize.

Those feeling the constraints of state power, relatively poor people who, despite seeing their financial position in absolute terms rise, remain relatively impoverished, and workers in bad conditions look, on the surface of things, to be in a miserable position. But, the story of liberal philosophy gives us a way of saying that they are, in fact, free. This liberal story turns on the originary act of mind that put the subjects, relatively poor, or workers in their particular position. The social contract or the employment contract produces "the foundation that gives it [the exploitative practice] its legitimacy...a legitimacy derived from the unconditioned will of naturally free and equal individuals who can be shown to have voluntarily given up not their lives...but merely their power and productivity" (Montag, 1999, 50). The free act or decision, in fact, justifies their position, and renders it one that they have freely chosen. They are, therefore, ultimately free despite the appearance of their subjection.

This separation between an internal realm and an external realm is not without its theoretical consequences. It is because people are free internally, and from this realm of internal freedom, affirm and accept state power, their relative poverty or exploitative working conditions, that practices which on the surface appear to be practices of servitude are in fact morally justified and compatible with freedom. It is because people mentally affirm the existence of mass inequalities, provided that they raise our material lot, that the inequalities in societies are claimed to be justified. Spinoza's position, in which speech, writing, thought, and any other mental occurrence is an idea of the body, rules out any such distinction, where people are free internally and determined externally. Bodily position will not be posterior to a mental affirmation. Rather, the mental affirmation will be the *idea* of the bodily subjection, something that *emerges from it*, rather than something that precedes it and justifies it. From such a perspective, the free realm of mental willing justifying material practices of subjection seems senseless. It will only be from a position of subjection that people can affirm their subjection. The sense of mental affirmation will merely be the *idea* of the actual subjection, and something that may encourage people to acquiesce in their subjection, rather than something that might be used to justify it. This acknowledgement has

important implications in terms of how the resources for politics are understood. It questions the efficacy of thinking about politics in abstraction from material engagement in politics. "Disobedience and resistance to servitude and superstition must precede or at least accompany their rational critique, for such critique to be stated at all" (Montag, 1999, 61). Given that the mind is the idea of the body, there seems no scope for "liberation of the mind without...liberation of the body" (Montag, 1999, xxi). To think different forms of politics, one must engage in different material practices, as it will only be by engaging in those practices that a different set of political ideas corresponding to them can be generated. This materialist, Spinozist analysis of politics further calls into question the idealist aspects of Arendt's account of constitutive power. Not only, as I argued in chapter two, are struggles over the means of reproduction of daily life more important than Arendt emphasizes, and, contra Arendt, a useful and central site for political struggle. It is also crucial that these battles are fought if there is to be any kind of more lofty political freedom. Important for politics, then, is not solely a discursive arena of speech and disclosure, but the material relations in which people are involved and the material position in which they are based. It is this material position, and the set of day to day material practices that people engage in that generate corresponding ideas, meaning that free political speech can come only from a liberated material position.

Politics as Power

At the start of the chapter I promised to develop further the idea of politics as power, with power deemed key in theorising the resources for politics. Spinoza, famously, claimed that right is co-extensive with power. In the same way that he flattened a dualist distinction between God and Nature, with God becoming simply the same thing as Nature, Spinoza renders a person or things' right the same thing as its power. When thinking about politics, distinctions between what *is* and what *ought to be* are often invoked. What is morally and politically *right*, is distinguished from what is actually

happening thanks to the current play of *power.* In making these distinctions, the implication is often not simply that things would be better, or more pleasing if they were changed in accordance with is right, but also that there is some kind of imperative demanding that things are brought in line with how they ought to be. What is 'right' denotes not just an ethical sense of the way in which the lives of ourselves and others can be enhanced, but also some kind of moral, normative principles and commands that demand that things are changed in certain ways. One might, for instance, think that people have a right to life and liberty, even in a place where such things are being denied by the political powers that be, and even where the person cannot exercise any liberty and may be at risk of having his life taken away. Such rights are said to belong to the person, and the political powers are deemed to have *got it wrong* according to a standard that should have authority over them. To put these points in the language of the first two chapters, the resources for politics are sometimes conceptualised as a set of already given rights that transcend the constituted play of political powers and forces that exist at a given moment, and these already given rights that constitute the transcendent and already given resources for politics ought to act on and change the actual state of politics. Spinoza flattens out this distinction between the actual play of power, and what morally ought to be. Right becomes coextensive with, or the same as, power. "The right of Nature extends as far as its power extends" (TTP 16:1). Put differently:

> The natural right of Nature as a whole, and consequently the natural right of every individual, is coextensive with its power. Consequently, whatever each man does from the laws of his own nature, he does by the sovereign right of Nature, and he has as much right over Nature as his power extends (TTP2:2).

This claim admits of no exceptions. However heinous we may regard an act to be, if someone has the power to do it, they also have the right to do it. "Right...prohibits

nothing but what no one desires or no one can do; it does not prohibit strife or hatred or anger or fraud or anything at all that appetite forments" (TTP 16:4). This principle holds for all beings across nature. When applying the principle, "we recognize no difference between human beings and other individual things of nature, nor between those human beings who are endowed with reason and others who do not know true reason, nor between fools or lunatics and the sane" (TTP 16:1). Whatever, and whoever we are, our right is coextensive with our power. "For example fish are determined by nature to swim and big fish to eat little ones, and therefore it is by sovereign natural right that fish have possession of the water and that big fish eat small fish" (TTP 16:1). Similarly, a despotic government would have the right to suppress its people, or to go to war with a neighbouring country, provided they have the power to do so. Spinoza justifies this claim for the co-extensivity if right and power by pointing out that all individual things are modifications of the one substance, before arguing that judgements of right and wrong cannot pertain to that one substance, and instead can pertain only to the limited perspective of individual modes. In the absence of anything deeper than perspectival evaluations, what, aside from the power that these different perspectives have to exert their positions, could determine 'Right'? We can object to things, and we can reject things, but this rejection cannot be based on something deeper than our perspectival judgement. There is no higher 'right' or higher 'value', and there is only the right that is constructed here. What is constructed as right will, of course, depend on who have the power to establish their perspectival judgement as 'right.' Right will, therefore, be co-extensive with power. Instead of following Spinoza's argument for the co-extensivity of right and power, I instead base the flattening of right and power on a rejection of the distinction between right and power introduced in the two modes of representative political theory discussed in the first chapter.[88]

Once transcendent values and essences are refused and immanence is instead affirmed, recourse to normative evaluations that transcend the play of power within the world is

---

[88] For an outline of Spinoza's philosophical argument for the co-extensivity of right and power, see appendix D (294-298).

denied. There is no longer a transcendent outside to the play of forces in the world to call on in order to criticise them. In rejecting transcendence and embracing immanent ontology, the possibility of a Platonic or Lockean political philosophy, where value is founded in an eternal set of forms or an eternal decree of God, is lost. The current order cannot be criticised through reference to a normative value outside of it to which it fails to correspond. But what about the other approach that was discussed back in the first chapter? I discussed the problems with approaches locating the resources for politics in a purported consensus of value, but might this approach not give at least a modicum of recourse to a value that differs, even if only slightly, from the current state of power, and that can be used to criticise it? If some consensus is found on an idea of basic moral equality, and this value is being fragrantly violated, can this not be used as a means to say that the practices that exist are simply wrong, or that those in power are violating what is right? Might agreements or consensuses not remain perhaps the key term in theorising the resources for politics?

An example may help here. The American Constitution was founded on notions of equality and liberty, yet some black people initially remained slaves, and were, even after the abolition of slavery, radically inferior in social and political rights. It was only after long resistance movements, and, indeed, a civil war in the first case, that this changed, and they were granted equal rights.[89] Might one say that the standards implicit in the constitutional affirmation, along with the constant talk of the equal rights of man, generated a standard of right which showed that the social and political practices of inequality were simply wrong? Might one say that power violated right? One might be tempted to think so. However, if the meaning of the constitutional statements and 'political culture' of equality and human rights is to remain immanent, we must look at it not as an abstract statement that stands outside of practices that are justified, but instead see the constitutional affirmation as tied to its use. If this discourse

---

[89] That equal rights were granted does not mean that overall equality was established. Racial discriminations still persist in the form of financial inequalities and inequalities in police treatment (with black people far more likely to be stopped and searched, for instance).

was frequently used by those who also regarded black people as radically unequal, and if this meaning was, furthermore, crystallised in law as it was when the Dred Scott vs Stanford case cemented the legal legitimacy of slavery, then it seems that these affirmations effectively mean equality for whites, or equality for white males. To divorce the meaning of the statement of equality from its use is to establish the meaning as an abstract, transcendent phenomena; a quality of words and not practices. There is not a Platonic super-language, which we can look to in order to verify a given use of language. Rather, there is only language as it is used, and it seems fairly clear that the statements of equality were used alongside practices and discourses of radical inequality. Pointing to values that are allegedly inherent in the words we use, practices we undertake, and understandings we have can have meaning only if these practices, understandings, and linguistic meanings are *powerful* enough to assert themselves and have significant effects. Again, right remains co-extensive with power. Indeed, affirmations of the equality of people effectively meant equality for white people, indeed, for white males, or even white propertied males, until various liberatory movements *increased their power to act* by generating changes in social and political practices, laws, and meanings. Perhaps one tactic that was used was to try to establish a contradiction between dominant rhetoric and dominant practices, but it was only the effects of these struggles and their changing of power relations that allowed a reconstitution of meanings such that equality was understood as a notion that must mean equality (if only formal equality) for humans, and not just for white propertied males.[90] It was a change in *power* that allowed for it to seem unthinkable now that the rights established in a constitution could be consistent with practices of racial oppression, and not a notion of

---

[90] Indeed, this tactic was used, with Martin Luther King (1968, 208) highlighting the "amazing universalism" of the Declaration of Independence and the Bill of Rights, stating that "it does not say some men, but it says all men. It does not say white men, but it says all men, which includes black men". But it must be emphasized that this move of pointing the contradictions of law was not successful in its own right. Indeed, were it sufficient it would have proved sufficient in the Dred Scott v Stanford case and would have led to a legal abolition of slavery before the American Civil War. Rather, it took a war in the case of the abolition of slavery, and in the later civil rights movement, a powerful social movement generating a change not in a normative statement of rights, but in relations of power to assert one potential meaning of a document over another.

the rights of people that could generate, without a resistance movement that enhanced its power to act, a change in power-relations.

At first site, one might think that this focus on power as the key resource of politics, a focus that follows Spinoza in rendering right co-extensive with power, would lead to a radically conservative politics which serves only to justify a given status quo. There may be a worry that this Spinozist approach loses constitutive and transformative political force and is left only with a given constituted form of politics. But returning again to Spinoza reveals that this is far from the case. First, Spinoza, from starting points based on individual's striving to increase their power to act and the co-extensivity of right and power, arrives at a sociable and optimistic view of politics. Second, the refusal to allow any room for rights that transcend power, rather than firming established grips on power, in fact throws power relations into constant question. There may be no transcendent value that can be used to correct and change established powers, but *there is also no value or right that secures their power*. Both of these facets of Spinoza's politics can be drawn out by looking at two further ways in which Spinoza distinguishes himself from Hobbes. First, it is worth briefly mentioning the sociable and optimistic politics that Spinoza derives from egoistic foundations. Key to Spinoza's politics is the claim that "nothing is more advantageous to man than man" (EIVP18S). Indeed, when "two individuals of completely the same nature are combined, they compose an individual twice as powerful as each one singly" (EIVP18S). And "the greater the number who form a union in this way, the more right they will together possess" (PT 2:14). Humans have many differences and many sources of conflict. But humans have more in common with other humans than with anything else. There is, therefore, great potential for humans combining forces to make more powerful individuals. This is just what happens in the formation of a state. Individuals, on their own, have little power, and are subject to the vagaries of nature and to the whims of other people. For Spinoza, humans simply cannot survive on their own. But if they form a state, they have a great deal more power, both over their environment, and in relation to their ability to protect

themselves from other humans. In a 'state of nature', or a condition of life without the state and its various laws and enforcement agencies, I can rely only on my strength to protect myself. As Hobbes notes, this protection is always extremely vulnerable, for even if I am exceptionally strong, I still must sleep, and can look only one way at a time. There will, therefore, be many moments where I can be defeated, even by someone vastly weaker than me. My striving for self-preservation, then, leads me to the point where transferring my powers to protect myself to the state is a good idea. Spinoza and Hobbes share these starting points. But they differ radically from here. Whilst Hobbes ends here, with the transfer of power from individual to a sovereign in order for the person's protection, Spinoza goes much further, offering not only security from our relations with other men and existence in a state, but also flourishing and freedom. My purpose here is not to discuss the sociable nature of Spinoza's concept of politics. [91] Instead, I wish to turn to what Spinoza identifies as a key diference between himself and Hobbes in order to finally demonstrate the manner in which Spinoza creates an unlimited space for constitutive political power.

On Spinoza's account Hobbes, in suggests that individuals transfer their power to the sovereign. [92] , The people therefore only have anything more than extremely limited rights to challenge and resist the sovereign if and when the sovereign breaks its part of the bargain by failing to ensure security and protection. Right, then, is divorced from power, with a persons right to resist not determined by their power to do so, but by the terms of the social contract through which they have transferred their power to the sovereign. Spinoza refuses this separation of right and power, and in so doing, leaves a greater space for liberatory politics and constitutive political powers. Indeed, Spinoza is quite explicit in stating that "the difference between Hobbes and myself...consists in

---

[91] For more, see Gatens andLloyd (1999, 87-100).

[92] I leave open the question of whether Spinoza's account of Hobbes, which suggests that Hobbes does not preserve natural right, is a fair or accurate interpretation. My purpose here is to draw out Spinoza's position, and not offer any reading of Hobbes. Subsequent references to Hobbes refer to this Spinozistic account of Hobbes, and are used ain order to identify Spinoza's position on the equivalence of right and power.

this, that I always preserve natural right in its entirety, and I hold that the sovereign power in a State has right over a subject only in proportion to the excess of its power over that of the subject" (L50). For Spinoza's Hobbes, , contracts remain obligatory; even if you cannot force me to pay some money that I promised to pay, I am obliged to repay you. Similarly, the sovereign still has the right to rule, and ought to rule over the multitude, even when faced with a debilitating civil war that renders its attempted rule utterly inefficacious, and, indeed, sees the sovereign overthrown.[93] For Hobbes, then, there is a radical break between the state of nature and life in a state. In the state of nature, I have the right to protect myself, and the right to do whatever I have the power to do. But the moment the state is formed, that right becomes permanently restricted, and, even if I or a group of which I was part were in a position of such power and could could take over the state we would no longer have the right to do so, unless the sovereign had failed to uphold its part of the contract. On Spinoza's account, then, a right that transcends power is therefore introduced by Hobbes. But Spinoza rejects such a difference between a natural state and a civil state. The co-extensivity of right and power holds at all times. The state only has the right to rule if it has the power to do so, and the moment a group, generally identified as the multitude, has the power to usurp the state and rule in its stead, it has the right to do so. Similarly, even if the state were formed for the purposes of protection, if it became sufficiently powerful, it could abandon that role, and instead treat the citizens as it pleases. In Spinoza, there is not really a transfer of right and power from the individual to the state. Rather, there is a construction of the state, which constitutes an individual with significantly more power than the humans and groups that constitute it, and this constructed state has the right to rule only because it has this extra power. The moment the state loses such power, it retains no right to rule, and were it to have sufficient power to rule despotically, it would have the right to do so.

---

[93] Hobbes was writing Leviathan in part to justify the role of the monarch in light of the civil war which saw it lose powers to parliament. See Hampsher-Monk (2005, 1-69).

The immediate reaction to Spinoza's unerring flattening of right and power is a concern that it allows for entirely despotic states. But there is a twist in the tale. A despotic state can never last long. For Spinoza, "men have never transferred their right and surrendered their power to another so completely that they were not feared by those very persons who received their right and power" (TTP 17:1). A state simply cannot make people love those who cause them sadness, nor make people dislike those who bring them joy. "It would be vain to command a subject to hate one to whom he is indebted for some service, to love one who has done him harm, to refrain from taking offence at insults, from wanting to be free of fear, or from numerous similar things" (TTP 17:1). People simply cannot be controlled entirely, *even by* a state that gives itself fictitious rights and laws that suggest that it can do so. With the refusal to grant any right that transcends power, Spinoza notes that "absolute power can be nothing more than a juridical fiction" (Montag, 1999, 66). And this gives the state permanent reason to fear the multitude, for there is *no guarantee* that they do not revolt, nor an ultimate right that ensures that the rulers can maintain their position of rule. The permanent possibility of revolt, and the fact that the state cannot control the individual entirely, makes it extremely unlikely, if not impossible, for a tyrannical state to last a long time.[94] Spinoza, in denying any distinction between right and power, not only denies illusory rights that individuals have, that they can call on even when they have no power to have them enforced, but also denies any rights of oppressors and tyrants, that they can call on to attempt to prevent their people from rebelling and overthrowing them. "The demand to abandon the idea of a right or justice that transcends power relations" is therefore "simultaneously the demand to end power relations that require and stimulate the illusion of transcendence and to bring it about so that one will live one's right as power" (ibid, 63). Of course, this does not mean that one should simply not worry, and quietly accept brutal, tyrannical rule. It will only cease to have power if people do indeed act against it and come together to form a body powerful enough to prevent its savage rule. It does not, further, mean that one should not be worried about

---

[94] "Human nature will not submit to unlimited repression, and, as Seneca says in his tragedy, rule that depends on violence has never long continued" (TTP 5:11).

the significant damage it does in the short term. But this damage will not be prevented by the granting of illusory rights that stand aside from power, even if these rights enable us to take a fictitious moral high-ground and brand such tyrannies as illegitimate from the start. But at least it assures us that through resistance and through breaking our quiet acquiescence, we can ensure that the tyranny lasts as short a time as possible. A tyranny can never establish for itself a permanent right of rule.

What is found in Spinoza's flattening of right and power is not so much a refusal to grant individuals rights that ultimately mean nothing unless they bring with them the power to enforce them, but a refusal to give a state legitimacy over the multitude that grants it its power. What we see is not a closure of constitutive political powers but, rather, the refusal to limit constitutive power. It is the multitude that come together to form the state. And it is the combined powers of the multitude that give the state the excess of power over individual humans that gives it the right to rule. The "king's sword or right is in reality the will of the people" or the multitude (PT 7:26). If the multitude is angered and upset sufficiently, the acquiescence or support that allows the state to continue to hold the excess of power that brings with it the right to rule will be shattered, and the sword that is the will of the multitude will quickly be turned back on the powers that rule. Of course, when the multitude does turn its sword back on the ruling powers, the ruling powers *no longer have any right to call on.* Hobbes, if what Spinoza says about his separation of the civil state from the natural state is true, grants the sovereign a permanent right to rule, that holds even when it doesn't have the power. Likewise, Locke's state has a right to rule even where it doesn't have the power to do so provided it hasn't violated the terms of the social contract or natural right. But for Spinoza, the state has no such enduring right. The moment it loses its power, it loses its right to rule. This leaves radical changes in the make-up of the state a permanent possibility. Nothing is ruled out for the state, provided it has the power to do it, but by the same token, *nothing is ruled out for the multitude, provided it can organise and empower itself sufficiently.* Whilst Hobbes, Locke, and, indeed, any thinker who holds on to notions of

right that transcend power, put limits on what the multitude can do, and in so doing put limits on constitutive power, Spinoza demarcates no such limits. Of course, this is not to say that the multitude can easily and painlessly overthrow rulers that place it in some form of servitude. Struggles against tyrannies, which tend to be backed up by armies and weapons that they are happy to use, will be painful and bloody. It is also not to say that the multitude will always act against oppression. Forms of domination are often hidden and subtle, and far less likely to rouse the indignation of the multitude. These forms of domination bring about new sets of challenges. But what can be drawn from Spinoza and his refusal to separate right from power is an understanding that there are no limits to what the multitude can do, provided it can gain sufficient power.

Spinoza's flattening of right and power points toward "a politics of permanent revolution, a politics utterly without guarantees of any kind, in which social stability must always be re-created through a constant reorganisation of corporeal life, by means of a perpetual mass mobilization, in order to increase the maximum power to act" (Montag, 1999, 84-85). Furthermore, given that one individual alone has very limited power, but individuals coming together have vastly more power, there will, contra Schmitt, not be "the slightest possibility of an individual solution"(ibid). Spinoza's politics allows the start of an understanding of what is required to escape the tragic political choice that was discussed in the first chapter, and of how constitutive power might be reconceived in materialist terms, as promised in the second chapter. Indeed, Spinoza's flattening of right and power enables me to radicalise the criticism of representative political theory offered in the first chapter and the conceptions of constitutive power discussed in the second chapter. To recall, I said that representative political theory was limited insofar as it could only account for already given resources that were sufficient to generate an a-critical and conservative politics, and could only develop a more critical and potentially transformative set of resources for politics at the expense of dogmatically purporting to represent agreements, values, or essences that could not be adequately identified. Furthermore, I claimed that thinkers such as Arendt

understood constitutive power in overly idealist terms. Now I can claim, further, that regardless of the failure to account adequately for the given values, representative political theory and idealist conceptions of politics are mistaken in conceiving the resources for politics predominantly in terms of values, understandings, discursive arenas, and agreements, whether they are ideas that can be represented and argumentatively justified, or ideas that are yet to be created. What is required is not an intellectual, academic, or theoretical solution. It is not abstract values that are required to escape a political malaise, and to transform established constituted political orders, but rather the building of *movements with power to act*. These may be oriented around values, newly created or otherwise, but these values are only of significance insofar as they are embodied within a powerful political mobilisation. The creation of values, then, may be of some importance, but only insofar as it may help in the *creation of movements.* Indeed, even if what one desires is a world of Rawlsian, Platonic, or Lockean values, the important task is not to justify them as values that ought to be adhered to whatever the current state of force relations, but to generate movements powerful enough to enforce and promote these values. It is, then, constitutive *power,* and a constitutive power that does its work of constituting orders through movements, struggles, and interventions that are not only, nor even primarily, discursive but, more importantly, change the material position of people, that provides resources for political change.

Chapter 7: Constituted and Constitutive Power

In the previous chapter, I claimed that *power,* and in particular, *constitutive* power, is the key resource of politics and of political change. But as the second chapter demonstrated, existing accounts of constitutive power are unsatisfactory. I have spoken of a need to think of constitutive power in more materialist terms and as something that is not overly centred on either one particular agent of change or on rare, episodic, and sudden moments of change. I also claimed that it was important to ensure that constitutive power is itself rooted in the immanence of a single nature, and does not enter as some kind of bolt from the blue from a separate, creative force that has a freedom radically other to the deterministic constituted order in which political interventions take place. It is now time for me to utilise the immanent ontology of creativity developed in the previous chapters in order to develop a concept of constitutive power that both distributes constitutive power structurally and temporally and ensures that constitutive power remains something that is located within the one nature. In understanding constitutive power within immanence, I am seeking to avoid two positions: first, transcendence, in the form of any commitment to entities that exist outside of the one nature formed of the one reality of matter-energy, and second, what Bhaskar (1997) has called 'actualism', or the view that "the world is made only of things as they are here and now" (Harman, 2008, 373). I must, then, point to constitutive capacities that go beyond what is immediately given here and now, but do so in a manner that avoids transcendence. Key to this move is an idea, developed in this chapter, of *virtual capacities*, capacities that are real but are not presently actualised or given. Virtual capacities, then, retain an element of potentiality or possibility. They are something that may or may not be actualised, but unlike the ordinary modal category of possibility, virtual capacities are not opposed to real capacities, and the process of actualization is, unlike the process of the realization of a pre-given possible, not governed by a law of resemblance. As shall become clear throughout this chapter, any

given system has multiple attractors which lead it to different modes of functioning with different capacities and affects, but only a particular one of these many attractors will be actualised at any one moment. It shall take a constitutive change to flip a system, be it a living organism or a global form of capitalism, from one attractor to another, at which point a real virtual capacity shall be actualised, and a new constituted order or state of affairs shall be constituted.

Chapter two discussed two related ways in which thinkers have differentiated between constituted and constitutive power. The first differentiation was made in terms of structural qualities, with constituted power taking the form of the day to day institutions, practices, rules and regulations, and so on that exist in given historical periods, and constitutive power consisting in a set of capacities, values, or presuppositions that both constitute politics and go beyond day to day politics. The second differentiation was more temporal, with constituted power, once again, consisting of day to day political activity. Constitutive power, on the other hand, was understood in terms of a creative event of rupture with a given order of day to day politics, and the institution of a new, often revolutionarily new, mode of political functioning. Constituted power referred to the quotidian political action of governance, whilst constitutive power was an often more democratic moment in which political practices, institutions, and values are created in a flurry of political activity. Different thinkers of constitutive power were criticised in different ways. Schmitt was criticised for offering a conception of constitutive power that was too centred on a unified individual or body who made a sovereign decision, and too temporally centred with the decision made all at once in one moment. Arendt was said to offer an overly speech-oriented conception of constitutive power and of politics more generally, one which failed to pay attention to the day to day material practices that constitute and reconstitute political orders. Arendt was also criticised on the basis of her overbearing privilege of humans as the only agents capable of the creative action at the heart of her notion of constitutive political activity, a privilege that led to humans being conceived as

something that transcended and operated according to different rules from the an otherwise deterministic nature. Further, I claimed that Hardt and Negri, despite developing a more materialist and decentred understanding of constitutive power, encounter their own set of limits. Specifically, they do not theorise the possibility of a materialist and immanent account of creativity in nature. I suggested that an exploration of these issues would lead to a political ontology that differs in certain ways from Hardt and Negri's account of constituted Empire and the constitutive Multitude. This chapter shall now go on to use the productive understanding of the one matter-energy as the basis for a conception of constitutive power based on productive capacities. The structural and temporal distinctions between constituted and constitutive power will be maintained, but my structural distinction will be based on a distinction between the actual state and the productive virtual capacities of a system. Furthermore, where the temporal distinction was based on a mysterious notion of an event or an absolute and miraculous rupture with the past, I shall base it on the productive capacity of matter-energy to undergo phase transitions and move from one steady state to another.

Actual States of Politics and Virtual Constitutive Capacities

In the first, structural distinction between constituted and constitutive power, constituted power will be conceptualised as the series of political powers, institutions, organisations, groups, values, understandings, legal structures, and so on that are already given (or, actual). Constitutive power, on the other hand, will refer to a field of virtual capacities, powers, and relations. The set of institutions, organisations, relations, and so on that are actualized at any present moment will correspond to just one of the infinite set of virtual capacities that might be actualized. As one can imagine from the emphasis placed on creativity throughout, this larger field of virtual capacities cannot be finitely mapped, and the effects a given set of relations may have cannot be known before that set of relations is actualized.

Understanding the first, structural difference between constituted and constitutive power that is to be drawn here requires a return to some Spinozistic ideas discussed earlier. Recall that, for Spinoza, Right was co-extensive with power. A person, organisation, group, or institution is able to enforce what it believes to be right only insofar as it has the power to do so. When the power of a movement, idea, or person disappears, so too does its right(s). Politics is understood in terms of powers, and political action is only possible insofar as a person or group has the power or capacity to enforce that action. When it comes to articulating who has what power, though, Spinoza speaks of our ignorance as to what people or groups are capable of. "Nobody has yet determined the limits of the body's capabilities: that is, nobody as yet has learned from experience what the body can and cannot do" (EIIIPIIS). As one can imagine from Spinoza's deterministic metaphysics, this uncertainty is a product of our ignorance, rather than a result of the creative capacities of bodies (be they individual bodies, or bodies formed by a concatenation of individuals (a group) or a concatenation of such concatenations (a group formed of various groups), etc). This ignorance of what a body can do comes about, instead, because we have not yet (and due to the infinite nature of modes, never will) experience all the effects that we might undergo and might produce. As a result, we do not have the idea of all of these affections, and therefore do not understand what affects we might produce (what powers to affect we have) and what affectations we can undergo (what powers to be affected we have). If someone were to know all the affects that the composite that is the human individual could produce and be subject to, then they could also understand what all groups formed of humans could produce and be subject to, because the groups are solely additions of their individual parts. There are, for Spinoza, no emergent capacities that can make a group capable of more than the mere addition of the parts.

Using my ontology of emergent creativity, I can quickly radicalise the ignorance of what a body can do. Parts in relation are capable of generating emergent effects that go

beyond the mere sum of the parts. This is the case, for instance, with the composite that forms the individual human, or, for that matter, any other organism. The human composite is made up of parts that are entropic; the energy of the parts tends to disperse. The organism, be it a human, or an ant, is anti-entropic; it conserves energy and conserves the organisation of parts which, left to their own devices, tend to disperse. This power of the preservation of energy can only emerge in the relation or organisation of the parts, for it is not a capacity that any of the parts themselves have. Furthermore, an understanding of the parts themselves, before the event of their relation, could never enable someone to understand the anti-entropic assemblage that emerges; nothing in the entropic parts suggests that newly formed individual human or individual ant would be anti-entropic. Similarly, groups can have powers that go beyond the powers of the individual parts. For instance, "tightly knit communities that inhabit small towns or ethnic neighbourhoods in large cities" are characterised by a large number and high-density connections. This density of connections enables certain capacities that would not have been present amongst the individuals in the group, or even all the individuals simply added together, rather than bound together as a social whole. For instance, in such densely connected groups, "word of mouth travels fast, particularly when the content of the gossip is the violation of a local norm", allowing the "community as a whole" to "act as a device for the storage of personal reputations", and also to provide "an enforcement mechanism", involving "simple behavioural punishments like ridicule or ostracism", in order to enforce conformity to these norms. These powers of collective remembrance and enforcement only exist at the level of the dense social group, and do not come about thanks to a simple addition of the parts. "The property of density and the capacity to store reputations and enforce norms are non-reducible properties and capacities of the community as a whole" (DeLanda, 2010, 4).

The emergent nature of certain composites, and the possibility for effects not in the parts to emerge in groups, radicalizes our ignorance of what bodies can do. Not only is it

impossible to foresee the capacities of an emergent whole that arises as more than the sum of its parts, but it is also impossible to see what might be formed by this new emergent whole in relation to other people, institutions, organisations, and so on. Each new emergent whole brings about the capacity for yet further relations to be formed, which themselves may generate further emergent phenomena, which again provide new capacities for relations, and so on and so forth. As I argued in chapter four, this constant production of new emergent wholes with further capacities to act allows the suggestion of a fourth law of thermodynamics which indicates that the universe tends "persistently" to "increase the diversity of what can happen next", or tends persistently to increase capacities for action (Kauffman, 2000, 4). Of course, this is a *tendency* to increase capacity for action, rather than a linear, progressive increase in capacities; wholes continue to depend on their parts, and when the parts disperse or change in certain ways, the whole will cease to exist, as will its capacities for action. Indeed, sometimes events occur that are devastating with regard to the capacities for what can happen. Mass extinction events, often precipitated by major climate change, hugely decrease the capacity for what can happen next. For instance, the Permian-Triassic extinction, which occurred 250 million years ago, involved "the most extensive loss of species of any known event of the past 550 million years" (Berner, 2002). This event resulted in the extinction of "an estimated 95% of the earth's species" (Tickell, 2009, 215). With those species went a huge range of the capacities of what could happen next on this particular planet. It also took a huge amount of time for anything like the range of capacities that was present before to emerge again. For "4-5 million years subsequently, land vegetation consisted almost entirely of low-growing ferns, and it was not until the middle Triassic that forest ecosystems returned" (ibid). But the very fact that, in the past, the Earth has recovered from these devastating events, with new species, and with them new cultures, societies, and so forth with an immense range of capacities to act emerging goes to show the robust nature of the tendency for the capacities in the universe to increase; even devastating events that generate a mass

destruction of capacities for action fail to prevent the perpetual generation of further capacities.[95]

The entire social, political, economic (etc) field that is present at a given moment corresponds to one of the potentially infinite configurations of relations amongst the (composite) individuals that constitute it. At any moment, matter-energy is forming countless small particles, which in turn form many objects, organisms, humans, groups, groups of groups, all contributing to the vast network that may be called Being or Nature. And in this network some people, groups, organisations, institutions, and even objects have certain powers or capacities over other institutions, people, groups, and so on. At the same time, the group that are inferior in power in certain respects to, say, an institution may have powers over that same institution in other respects. And millions of these assemblages will exist in a vast, extremely complex network, where people, objects, institutions, groups, collectivities, and so on will affect and be affected by other people, objects, institutions, groups, etc. The end product of these multiple capacities and force relations would be some kind of status quo of politics or power, however complex and contested that may be. To give an example, the configuration of bodies and capacities that exists in the present sees, at the governmental level and level of international politics, the American government being particularly powerful and able to get its way, though they are increasingly challenged by an arising competitor in the form of China and by deteriorating domestic economic circumstances, and it cannot always exert its power even over far smaller, less well equipped groups, like so-called terrorist groups fighting back in Afghanistan. Simultaneously, and perhaps more significantly, found in the current configuration of politics is a set of material relations of production, with certain large companies employing vast numbers of people across the world, and

---

[95] It must be emphasized that this tendency for the capacities within the universe to increase does *not* mean a tendency for the universe to get progressively better, or imply any form of progressivism. Capacities can be good or bad. Indeed, some capacities that are generated, like the capacity to engage in nuclear war, or pollute the climate, are precisely capacities to destroy an awful lot of species, individuals, ecosystems, communities, and so on. The tendency for capacities to increase means that capacities that we deem good, and ones that we deem bad, will tend to emerge.

others responsible for vast transfers of finance across the globe. The capacity to employ many people, and employ them all over the world, not to mention the sheer sums of money being controlled, generates hugely significant powers. The combination of employing lots of people, and being able to move labour away should they wish to, not to mention the funding they can give to governments or candidates for government, gives corporations great power over government policy. Similarly, the abstract nature of finance, and the way it can move with ease from place to place, again ensures that the financial sector has great powers through threats of capital flight. Yet perhaps even more significantly, the weight of projects of advertising, merchandising and similar activities taking place all over the world helps generate subjects who aspire to consume certain goods and live a certain way, which, particularly when combined with the production of subjects of labour which results from capitalist working relations, extends a consumerist, neo-liberal capitalist ethos even further across the world (all performed, of course, from a material base in terms of their dominance of productive forces), extending massively the power to act of neo-liberal, capitalistic institutions, values, discourses, and so on.[96] Without the spread of consumerist practices and a consumerist ethos, and without processes that force people across the world to sell their labour in order to retain a living, this global capitalist state of politics could not exist, even in spite of the existence of large corporations and powerful financiers.

Foucault's account of the production of disciplinary society and a biopolitical mode of governance offers a similar explanation of how the various capacities and activities of biological materials, individual organisms, groups, collectivities, institutions, and so on connect together to form a more pervasive 'diagram' of society or, as I have called it

---

[96] The power of finance and corporations over states may suffice to say that markets, and not governments, are the closest thing to a sovereign body in contemporary times. This suggestion is being borne out at the moment, with European leaders in Greece and Italy being replaced by economic technocrats and numerous other governments, including the Conservative-Liberal Democrat coalition government in the UK, are citing maintaining the confidence of 'the markets' as their main concern and priority. This is not to say, though, that markets are fully sovereign. As I indicate in this chapter, it takes an entire social field, and not just some (particularly important) portions of it, to constitute an actual state of politics.

here, an *actual state* of society and politics. A series of changes in day to day practices in workplaces, homes, schools, and so on, whereby people, who previously were not a matter of interest until they transgressed clear laws and were then punished, were instead constantly and rigorously observed, examined, researched, and judged against a norm, led, according to Foucault, to the formation of a disciplinary society. These changes were not made with the aim of generating a new form of society. Rather, they often took place for mundane reasons. In military practices, for instance, it was the invention of the rifle, a gun that required great technique to operate, that encouraged practices of observation and examination which are central to what he describes as a disciplinary society (Foucault, 1977, 153). Similarly, in the work place, it was the introduction of expensive machines which required correct operation to avoid being broken that ensured that workers must be closely monitored (Foucault, 1977, 175). REFERENCES FOR THESE SPECIFIC POINTS Similar changes, in particular the rise of social sciences (including, crucially, economics) associated with the new practices of observation, examination, and so on, also led to the establishment of a politics whereby power has worked to "incite, reinforce, control, monitor, optimize, and organize…forces", rather than a power of the kind exercised by old monarchic sovereign bodies, who simply decided who should live and who, as punishment for certain crimes, should die (Foucault, 1998, 136). My concern here is not with the specifics of disciplinary society and bio-politics, but with the mode in which these pervasive societal forms and political methods emerge. They are a product of the capacities of the individuals, groups, and so on in relation which constitute them, and correspond to a particular configuration of a virtually infinite multiplicity of capacities and relations.

But though constituted power corresponds to one particular configuration of constitutive political capacities, though the diagram of society or actual state of politics corresponds to the series of capacities in relation that make it up, the former does not simply represent the latter. The actual state of politics and diagram of society is not simply the same as the 'microscopic' capacities in relation or configuration of

constitutive power that gives rise to it.[97] Given the emphasis that has been placed throughout this thesis on the emergence of wholes with capacities that exceed the sum of their parts, it should not be surprising that this emergence will explain the non-identity between the actual state of politics and the configuration of relations in the virtual field of constitutive power. Rather than being a mere image of the configuration of the constitutive political forces from which it is generated, the actual state of politics has qualities and causal capacities of its own. In Foucault's words, there is a 'double conditioning' between the unstable force relations and the more stable political order or societal diagram that emerges from them.[98] Politics depends on, and does not exist apart from, the mobile force relations that constitute it; no strategy "could achieve comprehensive effects if [it] did not gain support from precise and tenuous relations serving, not as is point of application or final outcome, but as its prop and anchor point" (Foucault, 1998, 99). But this does not render the actual state of politics or power a mere surface image or epiphenomenon, with no capacities except those contained in the parts in relation that constitute it.[99] A sovereign form of power does not pre-exist

---

[97] Nathan Widder (2000, 130) also notes this non-identity between microscopic force relations and large scale forms of power. "The large scale forms of power are neither the sum of these relations, nor simply other to them". Widder continues, saying that what Foucault (1998, 102) describes as "far reaching, but never completely stable effects of domination" are formed "through a composition of micro-forces that is in no way a mere aggregation or totalization" (Widder, 2000, 130).

[98] That the overall societal form or macroscopic form of power is more stable does not mean that it is fully stable or unchanging. Rather, with the microscopic relations of force changing all the time, the macroscopic power form will change. Furthermore, relations between different macroscopic forms of power may change any particular macroscopic power form. The macroscopic form of power or actual state of politics is *relatively stable,* insofar as it is more stable than the ever-changing network of relations that make it up, but this does not make it fully stable. Shortly, I shall explain the relative stability of an actual state of politics or broader societal form of power in terms of attractors and zone's of attraction.

[99] In this regard, whilst I agree with Nathan Widder (2004, 414) that Foucault's understanding of macroscopic power, and of identities formed through a set of constitutive powers in relation more generally, as something derivative from a more fundamental field of differential force relations, I do not follow him in regarding macroscopic power and identities or assemblages formed through composite force relations as "simulacrum that arise from power relations rather than a substantiality that relations of power and resistance constitute and demolish." I should note that this difference is a slight one. Widder (2008, 9) describes these macroscopic forms as "macroscopic emergent phenomena that are irreducible to their microscopic conditions of emergence", before going on to say that they "are no less real for being simulations." In this regard, mine and his positions are very close. But I do not follow Widder when he goes on to say that "they do not have the substantiality and durability often attributed to them." Recall the criticism Graham Harman levelled at Manuel DeLanda. Harman claimed that DeLanda failed to pay sufficient attention to the distinct, robust objects formed from a set of virtual productive processes. Whilst I want to maintain, contra Harman, the importance of the differential and ever-changing

the numerous local relations that make it up, but when it comes into being, it has capacities of its own that make it capable of *acting back* upon relations of force, in part to stabilise them and arrest their movement, but also through the capacities it provides for new sets of relations and powers to act and be affected. For instance, once private property is enshrined in stable conventions and laws introduced by the political powers that be, a persons ownership no longer depends on their being able to cling onto the property against attacks and attempts at acquisition, and is therefore more stable. Furthermore, private property is a key component in market economies, showing that the production of private property generates new capacities. Furthermore, once a financial form of global capitalism has been established, it locks in the various areas or hubs in which it is located into a dependence on that very form of capitalism. The United Kingdom has become dependent on money raised in the financial sector based in London, and its initial success in driving economic growth perpetuated a huge decline in the manufacturing industry.[100] The newly constituted financialised world economy and the financial centres that come along with it therefore lock in their constituent parts, but they also bring about new capacities, including financial derivatives that can drive further speculation and capital accumulation. And as well as bringing about new capacities for financial speculators, it brings about new potential avenues and powers for those resisting an unequal financialised world economy. The occupy movement has

---

virtual force relations that make up any formation, I also want to maintain that the formation produced can, in some cases, have a robust and enduring nature. This is not to make formed identities already given substantialities, nor is it to make them copies of already given Platonic forms, but it instead makes them emergent and produced entities or assemblages that may endure for a very long time. I share, however, Widder's (2008, 157) criticism of Foucault scholarship which understands power as something that "fixes and imposes identities on its subjects, while resistance...opposes this first power and thereby dissolves or deconstructs power's identity formations." First of all, as Widder (2008, 158, 164) points out, Foucault emphases the manner in which power fails to construct stable and normalised individuals, with this failure the very justification for the continuation of disciplinary and bio-political forms of power. Second, Foucault makes clear that power and resistance are always bounded together, meaning that any macroscopic power formation will already contain within it many resistances, and any forms of resistance will already contain within themselves vestiges of the power that they are resisting. For more, see Widder (2004) and Widder (2008, 157-165)

[100] To cite another example, the formation of the Euro-zone as a new assemblage artificially deflated the German currency, making Germany ripe for manufacture and an export driven economy. As a result of this new emergent body and the emergent capacities it provided, Germany is now locked into the Euro with the result that it may be required to pay significant chunks of government debt in other Euro-zone countries.

located its protests against financial centres like Wall Street and the City of London, and the process of financialisation has opened up the possibility of a Robin Hood or Tobin tax on currency transactions; a demand behind which a powerful movement might be starting to gather. These further capacities show that the actual state of politics is not simply the same thing as the configuration of capacities in relation that generates it. Nor is it, as in Hardt and Negri, a factor which solely *limits* the wider field of capacities that constitute it. I can therefore say that the actual state of politics, to use the formulation Deleuze uses in a more abstract discussion of the philosophical nature of the relation between actual and virtual, "correspond[s] to - without resembling" or representing, the virtual field of capacities that constitute it (Deleuze, 1994, 212).

I have shown that any actual, given state of politics comes about as the emergent effect of a configuration of relations amongst an infinite virtual field of capacities. Yet it only constitutes *one* of the *infinite* relations that these parts or capacities can enter. At all levels, the configuration of the parts might change, with one change perhaps leading to another, and so on. Furthermore, any change, however small, might produce emergent new bodies, organisations, institutions, collectivities, or whatever else, which have new capacities for acting and being affected, and thereby further extend the virtual range of capacities that might be actualized. This virtual field of capacities or powers that might be actualized is therefore infinitely larger than the actual, present political (and social, economic, biological, etc) formation found at any given moment. Notice, further, that constituted power is an emergent product of constitutive power. The actual state of politics is the emergent product of a series of things, people, institutions, organisations, and so on in relation. As I showed in chapter four, emergent phenomena are in principle unforeseeable, and cannot be known before the event of their emergence. Further, these emergent phenomena, at least in some cases, can be seen as *creations* that are not fully determined by the conditions that make them up. They therefore cannot be represented and do not precede their actualisation or emergence, even in the form of an idea or a 'possibility'. The constitutive resources for politics, being a virtual field from

which actual politics emerges, is therefore unrepresentable, and though it exists as an indeterminate capacity for creativity or a potential set of relations, its existence as a determined state of politics with a series of emergent effects that go beyond the capacities of the causes that brought it into being does not precede the moment in which that configuration is actualized as an actual politics. The constitutive resources for politics, then, consist of a decentred field of creative matter-energy that gives rise to actual forms of politics which cannot be represented, but can only create, and in creating, create actual states of politics that correspond to a particular configuration of constitutive power without representing it. The constitutive resources for politics should be understood not in terms of the decision of a sovereign who transcends the social field, nor as a set of powers generated solely through human speech, but in terms of immanent, material creativity. To use the term introduced in chapter five, actual states of politics, whether they be the actual state of politics in a local community, in a country, or across the globe, should be understood as stratifications of the infinite assemblages that make them up. Constituted power is produced from constitutive power in the same way that assemblages are produced as emergent wholes with capacities that emerge from, but are not reducible to, the matter-energy and other assemblages, that form them.

A promise was made to show how the distinction between constituted and constitutive power developed here differs from Hardt and Negri's account of Empire and Multitude. In as much as they offer a decentred and materialist account of constituted and constitutive power, Hardt and Negri come as close to my conception of the political difference as anyone else. Briefly differentiating my position from theirs shall offer a further elaboration of the claims that I am making. As I demonstrated in chapter two, Hardt and Negri differentiate between empire, which is the form of constituted power present today, and multitude, the infinite, constitutive power that is constrained by the constituted empire that it gave rise to. Empire was produced by the multitude, but also, Hardt and Negri claim, locks the multitude into one of its creations, and in that sense

constrains the virtually infinite power of the multitude. Unsurprisingly, given that both Hardt and Negri and I utilise an actual/virtual distinction to differentiate between constituted and constitutive power, there is a degree of synergy between their distinction of constituted empire and constituent multitude and my distinction between actual states of politics and the virtual capacities that constitute the field of constitutive power or constitutive resources for politics. But whilst Hardt and Negri tend to valorise Multitude, or constitutive power, over Empire, or the actual state of politics, and render the constituted/constitutive power distinction one that maps on to or corresponds to a Manichean division between good and bad, I do not state any preference for constitutive over constituted power. Indeed, rather than being something that simply constrains the infinite virtual capacities of constitutive power, the actual state of politics is precisely the *result* or *product* of its *creation.* It makes no sense, on the basis of the distinction I have articulated, to castigate the actual form of politics for the way it limits the virtual capacities of the multitude, for without producing an actual state of politics, and creating the modes of political action, the political institutions, organisations, frameworks, and so on that constitute the actual state of politics, the virtual capacities would remain virtual, and ultimately *create nothing.* The virtual field of capacities should be celebrated, and it is important to show vigilantly that they are not exhausted by the actual state of politics that they produce. The constitutive resources for politics are vastly larger than any one given order that they give rise to. Constitutive power does allow for creativity within politics, and allows the imagination of a future that is novel and might be better. But in producing something novel and perhaps better, constitutive political capacities will be producing new and better *actual states of politics*. Furthermore, as the examples of the production of markets from private property and the production of new financial products and new avenues for resistance from a globalised financial capitalism demonstrate, aspects of the actual state of politics do not only lock constitutive power in to one of its creations, but bring about new capacities, which in turn increase the possibility of what may happen next and alter the virtual field of constitutive power. These new capacities can, of course, be good or bad. More likely,

they will be enabling for some whilst being disabling for others. The actual state of politics must therefore also be celebrated, for it is precisely the *creative product* of the infinite virtual set of capacities that forms the constitutive resources for political change.[101]

This difference between mine and Hardt and Negri's account of the difference between constituted and constitutive power can perhaps be traced back to a slightly deeper difference. Whilst Hardt and Negri (perhaps despite themselves) retain something moral or ethical in their distinction, mine remains strictly ontological. Recall that for Hardt and Negri the Multitude was not just the set of capacities that constitute politics, but a *particular organisation* of them. More specifically, the Multitude was people connected together in a manner that was non-hierarchical, and in a way that did not erode their differences. Chapter five claimed that all things, be they rocks, people, or groups like social classes and institutions like markets, are formed according to a process of stratification. Furthermore, chapter five also articulated two models of stratification, which each correspond to two of the tendencies of individuals or assemblages formed; the hierarchical model of stratification, which generates more hierarchical and homogeneous assemblages, and a meshwork model of stratification, which generates more self-organized assemblages, where elements that remain heterogeneous come

---

[101] A number of scholars offer a related criticism of Hardt and Negri, arguing that they draw constituted and constitutive power too far apart. Passavant (2004b, 106) argues that "the relation of strict separation between forms of constituent and constituted power in Hardt and Negri's narrative cannot be maintained" on the basis of an analysis of the creative and constitutive potential of already constituted laws. Passavant cites the American Revolution, which attempted to use British law creatively against the British government at the time as part of its constituent act as an example. Dean (2004, 284) takes issue with "the impossibly clean division between constituent and constituted power reappearing throughout *empire*". Dean here raises the kind of argument I make above, saying that "there is no constituent power without that which is constituted, and clearly there can be no constituted power absent that which constitutes it", rendering each "incomplete and in need of the other". Furthermore, Dean argues that "the multitude itself is always constituted by that which it has constituted"; in other words, constituted power acts back on and helps to constitute the constitutive power that gives rise to it. In this regard, "constituted power is of course constituent, productive, performative, generating new arrangements of bodies." Dean argues, on this basis, that political struggle must not only operate by deserting the presently constituted order of Empire, but must also engage with it. Finally, Buchanan and Pahuja (2004) use an analysis of World Bank reports and practices to show that the constituted order has numerous effects of its own.

into connection in a less hierarchical manner. Hardt and Negri only include the more meshwork like assemblages in their account of constitutive power, and even within this, restrict the Multitude to human meshworks.[102] But both hierarchies and meshworks can create, and both can produce political change. It can, therefore, only be an ethical, moral or political choice, and not an ontological choice, to consider constituent power as a heterogeneously connected group of people. And it is this moral, ethical, or political choice that allows them to posit a good, non-hierarchical Multitude (constitutive power) against a bad, hierarchical Empire (constituted power) that perverts, divides, and hierarchizes the Multitude, whilst also suppressing its creative power.

Losing the distinction between a good constituent power and a bad constituted power, further, means that one cannot expect a huge, undivided multitude to spring up acting in concert. Rather, the fact that there are winners and losers in the formation of stable, actual forms of politics means that the body of people that Hardt and Negri hope to form the Multitude are more divided than they acknowledge, and have far more invested in the present regime of politics than they point out. The constituted form of

---

[102]My use of the term assemblage is different from Jane Bennett (2010), another theorist of assemblages' concept. Bennett only understands meshwork type assemblages to be assemblages, whereas I use it as a general term to refer to individuals formed on the immanent plane of matter-energy. The difference between meshwork assemblages and hierarchical assemblages is one of their degree of stratification, and not one of kind. Rabinow (2003, 56) also has a more specific understanding of assemblages, once more understanding meshworks, and not hierarchies, as assemblages. "Assemblages are secondary matrices from within which apparatuses emerge and become stabilized or transformed. Assemblages stand in a dependent but contingent relationship to the grander problematizations…they are comparatively effervescent, disappearing in years, decades, rather than centuries. Consequently, the temporality of assemblages is qualitatively different from that of either problematizations or apparatuses." I do not wish to argue that Bennett or Rabinow are wrong in defining assemblages differently. Rather, provided that the parameters of the concept are clear, as they are in the work of both thinkers, there is no reason why, for some work, it may not be more restricted, with what I am calling more stratified and more enduring assemblages instead being called apparatuses. My reason for having a broader conception of assemblages is to emphasize that mountains and loosely organized social movements do not differ in their ontological status; both are real entities formed of a multitude of parts in complex relations, and both have certain capacities that are not reducible to the capacities of the parts that form them. They differ not in ontological kind, but rather in their degree of stratification and in their capacity to endure. Provided that thinkers who use different terms to refer to assemblages which differ on these and other vectors are not using the different terms to signify entities that have different ontological statuses, and are instead using the different terms as a convenient means to distinguish between some of their varying objects of study that have the same ontological status but nonetheless differ in various ways, then there is no clash between my use of the term 'assemblage' and theirs.

power is not bad in itself. It is good for some, and bad for others. Some end up with houses, successful businesses, lots of wealth, and others are left in deprivation. Those who win from a given constituted order are likely to feel uneasy about contributing toward a struggle which throws the current order, and all that they gain from it, into question. The formation of the Multitude is therefore a far more difficult task than Hardt and Negri seem to imagine. It is only in times of mass austerity and mass deprivation that a multitude may arise as easily and as something as unified as Hardt and Negri depict it. Even in poorer parts of the world, there are some who have jobs in the system that exploits them, leaving them better off than many around them, even if they are still deprived. Again, they have some kind of investment in the given constituted system, and some fear that things may be worse if they were to join an effort to overthrow it. The constitutive moment, and the means by which one might be precipitated, are therefore far more complex than Hardt and Negri depict.

Later in this chapter I develop the beginnings of an account of how a constitutive moment may occur without a mass, undivided multitude being behind it, but before I reach that point, one more way in which my account of constitutive power differs from Hardt and Negri's, and, in this case, Arendt's, must be stated. I criticised Arendt for restricting constitutive power to humans, with their unique capacity for creative action rendering them something that somehow stand separate from a deterministic nature that is radically other. I also said that in not addressing the question of how creativity is possible in the universe itself, and not just through the multitude of humans, Hardt and Negri were in danger of similarly understanding humans as a kingdom within a kingdom, endowed with creative powers that are not rooted in the nature of which they are formed. One way in which my account of constitutive power evades this problem should already be clear. Any human creativity involved in constitutive power will be but one of many expressions of the creativity of matter-energy; human creativity is no longer separate, but one of many expressions of a creative nature that, even before humans emerged, expressed its creativity in the form of the production of more homogeneous

forms of matter-energy, the production of a habitable planet, and the production of organisms, including the creative production of the human being themselves.

But my removal of these magical creative powers from their exclusive possession by humans goes further still. The field of constitutive power is in no way solely a field of human powers. Rather, non-human actors play a crucial role in constituting any given political order. Toward the end of this chapter this point shall become very clear, with the formation of a capitalist economy being deemed the product of multiple factors, some of them involving human decisions, and others involving non-human factors relating to what sources of energy are available. But for now, one example of the huge effects seemingly insignificant actors can have shall make clear the important role for non-human actors can have in constituting given social and political orders. Even "small agencies...in the right confederation with other physical and physiological bodies, can make big things happen" (Bennett, 2010, 94). It might seem very strange to consider worms in some way responsible for the human society, and for the global warming that human society has caused since the industrial revolution. But human societies, and all eco-systems, depend heavily on food provisions, and sufficient food provisions are only possible thanks to the work of worms operating on the topsoil. As Darwin (1881, 305) carefully observed, worms contribute hugely to the production of topsoil. After digesting "earthly matter", worms "would deposit the castings at the mouth of their burrows, thus continually bringing to the surface a refined layer of vegetable mould" (Bennett, 2010, 95). As a consequence, "the whole of the...mould over any...expanse has passed, and will again pass, every few years through the bodies of worms." In helping to generate the healthy topsoil in which animals can live and food can grow, worms "have played a more important part in the history of the world than most persons would at first assume" (Darwin, 1881, 305). Worms make vegetable mould, which allows for the existence and flourishing of "seedlings of all kinds" (Ibid 309), which in turn "makes possible an earth hospitable to humans, which makes possible the cultural artefacts, rituals, plans, and endeavours of human history" (Bennett, 2010, 96).

Human culture, rituals, practices, and so on in turn act back on the environment, generating a cascade of new effects, including effects of human caused global warming. That it can at times be hard to identify what is part of a given individual and what is merely acting in or on it, added to the fact that assemblages involve such gargantuan and complex arrays of causes, shows that it is very difficult to work out where to apply responsibility for particular occurrences.[103] Thinking of the importance of geographical factors, conditions, and climatic changes to given political societies only serves to reinforce the importance of non-human activity in constituting political orders further. One cannot, as Schmitt wishes to do, see a centralised, unified sovereign as the sole agent of a constitutive political decision. And one cannot, as Arendt does, restrict creative, constitutive political action to humans with their distinct set of creative capacities. Rather, the responsibility for the institution of a constituted political order, and the responsibility for constitutive political changes, is distributed across a dispersed array of actors[104] and practices.[105]

Quotidian Politics and 'Constitutive Moments'

The structural difference between constituted and constitutive power, where constituted power was conceived of as the presently actualized configuration of relations between individuals or assemblages, and constitutive power as the ever-changing and often growing field of virtual relations and capacities that gives rise to the actual state of politics, may suggest that 'constitutive political moments' in which the

---

[103] Bennett (2010, 20-38) excellently uses the example of the 2005 North American blackout, which affected 50million people, to show how distributed agency or effectivity can be in assemblages, and how difficult it can be to identify responsibility for given effects.

[104] I use the word actors here, and not agents, because, unlike Bennett, I do not want to conflate action, understood as having some kind of effect or playing a role in something, and agency, which involves some form of self-conscious or intentional action. My focus on constitutive power is on what actors constitute an order, and not on what agency is involved.

[105] Urry (2003, 56) makes a broader sociological point regarding the networked nature of social activity. "Humans are intricately networked *with* machines, texts, objects and other technologies. There are no purified social networks, only 'material worlds' that involve peculiar and complex socialities *with* objects." A similar claim is made by John Law (1994, 2), who claims that "the notion that social ordering is, indeed simply social also disappears...what we call the social is materially heterogeneous: talk, bodies, texts, machines, architectures, all of these and many more are implicated in and perform the social".

actual state of politics changes and a new configuration of relations and capacities is actualized occur all the time. The field of relations is, of course, ever-changing. The people, groups, and things that make up an actual state of politics are ever-changing, and those changes have the capacity to feed into the overall state of politics that emerges as the over-all result of the network of capacities in relation. But any old change in the network of capacities in relation is not sufficient to generate a 'constitutive political moment' where the overall actual state of politics changes in a significant and perhaps even dramatic manner. Rather, it will take a certain degree of change for constitutive political moments to occur. The relative rarity of 'constitutive political moments', and their difference from the day-to-day, ordinary and more administrative politics will therefore be maintained, but now the difference will be articulated not through an intangible and non-material notion of the 'event', precipitated by human speech or a sovereign decision, but instead using the notion of steady states and phase transitions encountered in the materialist description of assemblages or strata outlined in chapter five, and using the distinction between actual political forms and the virtual set of capacities and relations that underpins the structural account of constituted and constitutive power. I shall return to the concept of steady states to explain how the maintenance of identity through such change is possible, before I return to the notion of phase transitions to show that once change reaches a certain threshold, or certain particularly significant changes are made, a more dramatic change that alters the identity of the whole, perhaps even dissolving it and replacing it with something else, occurs.

Like individual organisms, larger scale individuals like institutions, organisations, and even what I am calling the actual state of politics have parts that change, and can retain their identity through certain degrees of change, but also have their identity changed when their contents change to a certain degree. It is evident that the parts of these assemblages change all the time. A given person connects to certain institutions, organisations and so on at some times, and disconnect from them at others. And even

when they stay connected to, say, a job or a political party, their role within that assemblage often changes, and the person changes, and with that, their contribution to the assemblage changes. In more complex assemblages like cities or an actual state of politics millions of changes will be occurring all the time, without those changes being sufficient to suggest that it is no longer the same organisation, institution, city, or actual state of politics. A political party will, with the exception of certain charismatic or important people, not be significantly changed by members leaving and joining, and an actual state of politics will rarely be dramatically changed by the formation or disbanding of certain NGO's or minor political parties. Similarly, there is often a regular turnover in politicians without a change in the overall actual state of politics. Political leaders have come and gone in times when the overall state of politics did not change, with numerous American presidents overseeing a similar state of political affairs where two superpowers were fighting over territories and to sway parts of the world behind their vision. So even seemingly significant changes, and changes that themselves reflect a broad array of changes at a smaller scale, given that the changing choice of American president, at least to a small extent, reflects the choices of the changing American people, can occur without the larger scale assemblage that is formed changing dramatically.

How is the maintainence of the coherence of the whole through changes in parts possible? It is time to re-introduce the concept of steady states, raised in the discussion of the second abstract machine of stratification in chapter five. Recall the concept of attractors. Attractors lead a system to behave in a certain way provided that the conditions the system found itself in remained within a *zone* of attraction that could be quite broad. The system, therefore, does not change its overall nature even when it undergoes numerous changes. It takes a certain degree of shock or change, introduced from within or without, to change significantly. To put this in terms of groups, a group can remain within the same basin of attraction even as it sheds and gains members, and therefore will remain pretty much the same through changes. Similarly, the capitalist

economic and political system will remain in existence providing that a certain threshold of economic liberties, markets, and variation of suppliers exists, and it can undergo many changes in the extent of liberties, suppliers, services offered by non-market forces, and so on, without ceasing to exist.[106] It takes a particularly dramatic change to knock the system away from the attractor that leads towards capitalism and toward something else, whether that something else is socialism, mutualism, or a novel economic system. Furthermore, one system can contain within it numerous attractors. It can undergo significant change, but rather than destroying it, this change flips it onto a different attractor, enabling it to actualise different stable or steady states. The system once again survives the change, although this time its actual behaviours and qualities are changed. Capitalism, to stick to the same example, has numerous attractors. One might correspond to a hyper-capitalism, with entirely unregulated markets, and all social provisions and services left to the markets, with a minimal state only responsible for maintaining law and order. A certain threshold of change in such a system may lead toward the zone of attraction of a neo-liberal capitalism, where the most damaging excesses of rampant markets may be ameliorated, or certain basic services, like education, may be offered by the state, rather than or as well as being offered by markets, even if the motivation for offering these services is solely to secure the functioning of markets, which require a healthy and educated workforce.[107] Alternatively, a capitalist system may be located within the basin of attraction of a welfare capitalist system, where an array of services like education and health are taken up by the state and funded through taxation. As well as other potential capitalist

---

[106] Deleuze and Parnet (1987, 127) speak of 'lines of flight', a variety of movements, differences, and changes that together constitute a particular system, be it political or otherwise, which can lead to a "curiously stationary journey" despite moving "at infinite speed". My focus on attractors here may be one way, albeit perhaps a different one from that taken by Deleuze and Parnet, of explaining how an ever-changing constitutive field of relations can constitute a seemingly stable political or other system. Because these changes take place within a zone of attraction, the system can remain stable despite the change in the constitutive parts and relations that form it. For more on the way in which Deleuze and Foucault explain given unities, identities, and structures in terms of an ever-changing constitutive field of differential relations, see Widder (2008, in particular 115-121 and 177-183)

[107] The system could also change immediately to a welfare capitalist system; a system need not go through attractors that seem 'closer' to the state it starts in on their way to one further, but can leap between different attractors whilst bypassing others.

systems that already exist or have already existed, a new kind of attractor within capitalist systems may indeed develop; remember that the attractors a system has, whether that system is a small group, an actual state of politics, or the face of the whole universe, are not finitely given once and for all. As new emergent wholes are formed and new capacities which can enter new relations are produced, new attractors may be created and a phase transition may lead to a novel regime of functioning for capitalism, or for a group, or for anything else.

At the point of the phase transition from one attractor to another or one system to another the previous laws of functioning for the given system change, with new ones instead emerging. Prevailing practices give way to new ones. To continue with the example of capitalism, when a phase transition occurs between a Fordist capitalism and a post-Fordist capitalism, the previous practices in which workers work specific hours in a hierarchically managed factory completing menial tasks according to a regimented routine give way to practices where the workers work more flexible hours doing more skilled tasks, and work amongst a more fluid network of individuals carrying out related tasks sometimes at some distance and in different settings. To go back to Foucault's term, the 'diagram' of economic functioning changes, and the ordinary regime of functioning and laws of functioning do not see further factories and menial jobs being regularly introduced, but instead see the regular introduction and production of networks of workers working 'flexible' hours, taking their work home, and so on. The quotidian, ordinary functioning and governance of a system changes from one thing to another; a new economic, political, and labouring routine is *constituted.* This phase transition or bifurcation point, where the one regime switches from one of its attractors to another or where one system is destroyed and another produced may be, as chapter four argued, partially lawless. The phase transition may result in the introduction of something genuinely novel, going beyond the causal factors that gave rise to it, and creating new emergent products with emergent capacities. The point of a phase

transition may be the point at which a genuinely novel politics or genuinely novel political bodies and forms emerge.

The system of capitalism is vastly more complex than a number of natural systems that have been shown to have a number of attractors. As a result, the distinction between the different attractors and different states may not be quite so clear cut; basins of attraction may fade into one another, making certain borderline cases a matter of potentially irresolvable dispute; it may not be clear whether a given capitalist system is, at a given time, a neo-liberal one, within the basin of its neo-liberal attractor, or a welfarist one. As a result of this lack of precision, the use of complexity concepts like attractors retains, here, a degree of metaphor, unlike the use of it made in chapter five on stratification.[108] But the lack of precision does not render the language entirely metaphorical. The fact that the distinction between different attractors is muddy and unclear does not mean that the attractors do not exist; it remains clear that there are these different kinds of capitalism, and that a certain threshold of change, or certain particularly important changes (like Margaret Thatcher's breaking of the Unions and privatisation of public services in Britain in the 1980s) take it from one basin of attraction to another (in this case, from welfarist capitalism to neo-liberal capitalism). When such changes do occur, like those either side of the second world war in much of the developed western world, which saw a lot of services being taken over by the state and delivered universally, not according to market principles, capitalism survives, even if, for instance, liberal, laissez-faire capitalism does not. It undergoes a phase transition, moving from one zone of attraction to another. It then remains in that zone of attraction before another phase transition occurs, which may result in a shift from one attractor to another within a capitalist system, or a shift away from capitalism and into

---

[108] As Mackenzie (2005, 62) argues, treating complexity literally and as a metaphor for the study of social and political phenomena are not mutually exclusive. Rather, "treating complexity as a metaphor remains legitimate to the extent that it does not prevent other kinds of movement on the continuum from being imagined or enacted". Indeed, one might go further and say that a metaphorical use can give way to a literal, non-metaphorical use of complexity. In the case regarding the complex system of capitalism and its variety of attractors, it may be possible to replace the metaphorical elements of the above analysis through a detailed study on the varieties of capitalism and the shifts that have occurred between them.

something else. Attractors and the steady state that they generate by draining a basin of attraction explain how an assemblage or individual can remain the same whilst undergoing a certain degree of change.

Furthermore, when combined with the notion of phase transitions, attractors offer a means of distinguishing between the everyday governance and continuation of a given actual state of politics and more extraordinary and dramatic constitutive political moments. It is when a threshold of change which introduces a phase transition is reached that an extraordinary constitutive political moment occurs. The small, day to day changes that occur all the time will often see a system remain within the same zone of attraction. But sometimes, more dramatic change will occur, and a phase transition will lead to a constitutive political moment in which the actual state of politics changes. When the phase transition shifts an actual state of politics from one attractor to another; when a move occurs, for instance, from neo-liberal to welfarist or welfarist to neo-liberal forms of capitalism, a *relative* political moment occurs. When a phase transition destroys a system entirely, replacing it with another, an *absolute* political moment occurs. A change from one dictator to a different, perhaps more or less repressive, dictator, or a change from a neo-liberal capitalist world order to a welfare capitalist world order would be a relative political moment, but a change from a dictator to an inclusive democracy or from a capitalist world order to a world order governed by non-capitalist, non-market principles would constitute an absolute political moment.

It should be noted that the distinction between extraordinary, constitutive political moments (absolute or relative) and ordinary, quotidian politics based on attractors and phase transitions outlined above captures only one aspect of constitutive political moments. Sometimes dramatic and extremely important moments of politicization amongst people occur even where that politicization does not have an immediate impact in shifting the actual state of politics from one basin of attraction to another. Anyone who has been involved in activist, grass roots protest events, or indeed in any

236

kind of revolution or mass revolt, will know and speak of how powerful the effect it had on them in terms of what groups and relations they formed, what it made them think was possible, how it inspired them to do certain things and think certain things, and how it effected their outlook on numerous things, like the present state of politics, people and their movements, alternative modes in which people may organize their society, and so on. Often, this aspect of political moments, which sees a politicization or inspiration of people and the formation of various groups goes alongside a dramatic change in the actual state of politics. But at other times, it occurs without succeeding in immediately generating changes in the actual state of politics. Sometimes, a political movement or revolution that fails or is ineffective in the actual sense of pushing a system out of its basin of attraction and leading to a relatively or absolutely new actual state of politics can be powerful insofar as, despite failing to make an actual change in politics, it creates or highlights aspects of the virtual field of constitutive power that may later be actualized and, through being actualized, force a significant change in actual politics. Deleuze and Guattari's (2007, 233) analysis of May 68 as a partially lawless "event" is particularly pertinent here. In May 1968, France saw an enormous, nation-wide uprising. Two thirds of the work force took part in a general strike for two weeks, a wave of occupations occurred, and street battles between protestors and the police became a regular occurrence. The wave of resistance was not called for, as previous resistances had been, by the French Communist Party. Instead, it appeared more as a spontaneous eruption of resistance performed by a diverse array of people and groups, emerging together in the moment of resistance. The results of the revolution, in terms of actual changes in French politics, were surprisingly small. An election was called, but the election only strengthened, rather than undermined, the position of the De Gaulle government. In this sense, no actual political event or constitutive political moment occurred. "May 68 didn't happen" (Deleuze and Guattari, 2007, 233)

But in a different sense, an important political moment occurred. Here I meet the difference between the actual and virtual aspects of constitutive political moments

themselves. May 68 still constituted "a new existence", not in the form of a dramatic shift in the actual state of politics, but in terms of a change in the virtual structure of constitutive power. "The children of May 68, you can run into them all over the place" (ibid, 235). May 68 generated new subjectivities amongst people. It resulted in the formation of new people, new relations, new capacities, new literature, with many French philosophers writing after may 68, including Deleuze and Guattari, claiming to be heavily influenced and inspired by the events of 68 (indeed, it was during the events of may 68 that Deleuze and Guattari met and started their working relationship). New political groupings emerged after may 68, displacing the French communist party who were discredited by their attempts to suppress the revolt. A parallel can be found in contemporary England. A new student movement emerged in the latter part of 2010 and the early part of 2011 opposing rising higher education fees, along with the Conservative-Liberal Democrat program of drastic public service cuts more generally. These groups emerged without the backing of, and indeed, sometimes when being actively opposed by, the usual student political group, the National Union of Students. The movement against fees and cuts has inspired numerous people, in particular it has inspired and politicized numerous 14-18 year olds. It has led to the formation of lots of new groups, like the education activist network, Uk Uncut, and the student broad left. Yet it has not, yet at least, had any impact on the rise in fees and the government cuts more generally. These moments of politicization, though they do not alter the actual state of politics, remain important political moments because they alter and add to the virtual set of capacities that corresponds to constitutive power. The new groupings, powers, ideas formed, and new relations that they make possible may later become actualized in a constitutive political change.

Sometimes, the link between the virtual politicization and production of resources and actual political changes occurs with far more temporal proximity. As I am writing, a surge of resistance and revolution is spreading across the Middle East. First, the Tunisians revolted, and overturned Ben Ali's 24 year reign of power, with the Egyptians

then revolting and ending Murabak's 30 year reign. Now, the revolt has spread right across the region, with a revolution currently underway in Libya and huge protests occurring in Bahrain and Syria. Both revolutions were again not co-ordinated by any one particular group, but instead came about through a politicization of a diverse group of dissatisfied people. In these cases, the virtual moment of politicization included the groups that it created, the tools that it generated (which notably included the use of mobile phones and social media to get around various obstacles in planning protests and mobilizing people) and, crucially in this case, the change in subjectivization where people who previously thought it was impossible to overthrow the repressive regimes that existed and were fearful of publically airing their dissent in light of the repressive measures that may be taken against them were inspired by the courage and determination of the first wave of protesters. This first wave encouraged a huge group of people to join revolts or start them in their own countries.[109] The virtual change in capacities and subjectivities, here, almost immediately passed over into actual changes in politics. And these changes, the dramatic constitutive political moments occurring in the Middle East, will no doubt have huge ramifications for the actual state of politics across the globe, and may feed back into the virtual field of constitutive resources for politics, generating new possibilities, new relations, potentially changing our lives in the West by making it more problematic for us to get cheap oil, or the lives of those in Israel and Palestine by changing the relations between Middle Eastern countries and Israel, and so on.

It is important, briefly, to quell one worry which may have arisen in the course of this distinction between the virtual and actual aspects of political moments. In mentioning the subjective changes, the changes in what people deem to be possible that then inspire them to act, I am not returning to a form of idealism and saying that it was a set of ideals and visions for the future that generated the revolt across the Middle East. It is no doubt true that many people were inspired by the actions of some and would not

---

[109] Benoit Challand (2011, 281) points out that this new "emerging political subjectivity...will have lasting effects for politics well beyond the Arab world".

have gone out and revolted had they not been given an impression that change was possible. In this sense, an idea did play an important role. And this is something that should not be surprising. I have claimed throughout that ideas, though emergent from and made up of nothing but the material that constitutes them, can have emergent capacities that are not reducible to the materiality that forms them. Furthermore, I claimed that ideas can be politically significant insofar as they constitute powers to act, and this idea that change was possible was no doubt empowering for many people. But this change in the sense of what is possible could not alone generate a revolt. It was merely the last factor in a whole chain, with increasing food prices, increasing poverty and deprivation, and a lack of jobs, particularly for young people, being key factors.[110] Without all these material factors, the revolutions would not have occurred.

Chapter two discussed the concept of constitutive power and its difference from constituted power. The field of constitutive power was seen to be different from any given constituted political order in structural terms, with constituted power representing the day to day practices of politics found at a given moment, and constitutive power consisting in the broader set of capacities or actors who instituted and may go on to change that constituted order. In temporal terms, constituted power was understood as the ordinary, day to day governance of the current regime, and constitutive power was understood as a far rarer, far more dramatic and often far more inclusive moment in which these day to day regimes are disrupted, often destroyed, with new day to day political institutions, values, and so on created or instituted. It was argued that existing concepts of constitutive power tended to lack a solid, material basis for this distinction, and instead either grounded it in idealist terms, such as Arendt's solely human capacity for speech and action. Furthermore, constitutive power was

---

[110] As Challand (2011, 273) notes, key factors in the rise in food prices, which, in turn, was a major factor in the Arab revolt, were huge flooding in Australia in November and Early December 2010 and "financial speculation on food commodities". We see, here, the way in which causes that might initially appear small and regionally specific begin to have huge effects on far larger scales. We see, also, the manner in which the seemingly ordinary and quotidian processes of the reproduction of material life come to be of huge significance in constitutive political movements.

previously understood as something too strongly tied to a single agent of change, such as Schmitt's sovereign.

This chapter has so far attempted to retain this political difference, but place it firmly within the immanent and materialist ontology of creativity developed in chapters four and five. In the first part of this chapter the structural distinction between constituted and constitutive power was reformulated. Constitutive power consisted in the ever-changing infinite field of virtual capacities and relations that exist, while constituted power consisted in the actual state of politics that corresponded to, without resembling, the presently actualised or presently given configuration of those relations. In light of the arguments made in the second half of the chapter, which recast the more temporal distinction between ordinary, constituted politics and the constitutive political moment, this formulation must be refined slightly. The actual state of politics at one moment does not simply refer to the very particular configuration of relations at a given moment, but refers instead to the attractor that drains the part of the field of the ever-changing set of relations and capacities at the given moment. Constituted politics contains within it a certain threshold of change, but a change that will remain relatively predictable and far from dramatic. When, and here we reach the second, more temporal aspect of the political difference, a dramatic, often unpredictable change occurs, a constitutive political moment, which moves from one of the attractors in the infinite field of virtual capacities and relations to another takes place, the currently given state of politics changes, and a new actual regime of politics is *constituted.* This regime will, once more, correspond to, without resembling, a particular attractor within the virtual field of capacities and relations, and that regime will remain until change reaches a sufficient threshold again, and a new constitutive political moment occurs.[111]

---

[111] In making a further distinction between a relative political moment, where a given political (or other) system switches from one attractor to another attractor that remains within the same system, and an absolute political moment, where the phase transition from one attractor to another results in the destruction of one system and its replacement by another, I have also developed further resources with which to state the criticism, raised in the first chapter, of representative political theory in different terms. The representative modes of political based on already-existing agreements could only, at best, envision a relative political moment, and never an absolute political moment. Rawls and Nozick may be able to argue

My promise to recast the political difference in more materialist and decentred terms has been largely fulfilled. The immanent ontology of creativity developed in chapters four and five furnished me with the resources to re-state the difference between constituted and constitutive power, or constituted politics and the resources for politics. But I have not yet demonstrated fully the decentred temporal dimension of this political difference. In the second chapter, I criticised Schmitt for saying that political moments occur all at once, and criticised Arendt for deeming political moments as a kind of miracle which make an absolute break from what has gone before and bear no relation to any previous causal chain of events. I shall now demonstrate that political moments do not occur all at once or like a miracle, but are rather only *partially* lawless; previous events can lead towards them, and multiple factors, often acting at a distance, can contribute toward political moments, but only at certain moments do these various causes and changes reach a tipping point at which a partially lawless and partially creative rupture occurs, with a new political regime instituted. The partially lawless nature of constitutive political moments can be established through a final turn to political action.

---

for political ideals that correspond to different attractors within liberal capitalism, with Rawls asking for a relatively egalitarian distribution of resources with inequalities only justified if they are to the greatest benefit of the least advantaged, and Nozick arguing for absolute rights to property, providing it was legitimately acquired, with the result being that a redistribution of resources is wrong. But one cannot, using already existing agreements, achieve an absolute political moment. To put it in the words of Paul Patton, who, when comparing the political philosophy of Rawls with that of Deleuze, argues that Rawls can suggest only these kind of relative political changes and not more radical, absolute political changes, the Rawlsian, representative method can point only to a way of "criticising the workings of actually existing democracies in the name of the egalitarian principles *that are supposed to inform their institutions and political practices*" (Patton, 2007, 50, my emphasis). What it cannot do is go beyond this relative form of critique, which ultimately depends upon some variant of the institutions, political practices, and the political values that inform them, toward an absolute form of critique that might point beyond these institutions towards absolutely new political forms. This more radical form of critique, as was argued in the first chapter, cannot be based on representation, but must instead tap into the creative capacities found within the virtual field of constitutive power. Only such a form of critique is fitting for the "constitution of new earths and new peoples" characteristic of what I am calling absolute political moments (Patton, 2007, 56).

Political Action

Although I argued that constitutive power gives rise to actual states of politics through processes of stratification and can, in constitutive political moments, yield significant changes in politics, I have not addressed the tactical issue of how one might facilitate the emergence of novelty in politics. In other words, though I have located the virtual capacities that can be used to escape the tragic political choice outlined in the first chapter, I have not shown how they can be *utilised, enacted* and *actualised* in order to create new political practices, institutions, and values. There is a good reason for this lack of focus on tactics. First of all, the novelty that might be produced by the capacities in relation that makes up the field of constitutive power is precisely *novel;* it produces emergent assemblages with emergent capacities that cannot be read off from the parts. As a result, whilst it may be possible to guess broad directions of creative processes in politics and shift processes toward one end rather than another, what will emerge simply cannot be fully predicted in advance, and it would be no good to attempt to deduce from the capacities what they might produce. A more modest question, namely, what is likely to facilitate emergence, may make more sense. It may be the case that certain conditions, like a density of number or communication added to a degree of diversity amongst the elements involved make emergence more likely in a diverse range of cases. But ultimately, this can be decided only through experiment and simulations, and as such, is a topic for the extension of this theoretical thesis into an empirical arena. Furthermore, in chapter five I argued that there was no necessary link between how stratified an assemblage is and how creative it is, nor between how stratified an assemblage is and its degree of power. Consequently, I cannot say, from a tactical perspective, whether a centralised, hierarchical stratified movement or a dispersed, non-hierachical and heterogeneous movement is more effective in terms of generating political change and creativity; I cannot trot out crude and empty platitudes like 'destratify and you will create' or 'deterritorialize and you will increase your power to act'. Given the sheer complexity of the assemblage that constitutes an actual state of

politics, the chances are that a diversity of groups would be needed with a diversity of tactics, but the overall effect and power of those different groups will change depending on context. For instance, it was possible for a very centralised, and relatively hierarchical workers movement to be very powerful for a number of years, whilst there was a large group that had fairly homogeneous interests (the improvement of working conditions) that also had power in terms of the dependence of others on their labour. But now that the working class is far more dispersed and internally heterogeneous, such a movement is far less effective, and a dispersed movement that connects heterogeneous interests (in other words, a lowly stratified movement), or, perhaps better, a lowly stratified assemblage of movements that may, internally, be highly or lowly stratified (a lowly stratified 'movement of movements') is more likely to be effective.[112] This overly simplified example is not intended as an analysis of present social and political movements and their legitimacy or effectivity. The point is that the kind of tactics that are required cannot be read off, in any simple way, from the ontology that has been provided here. To understand what movement may be effective in terms of engendering the creation of moral and political practices and ideas would require practical experimentation and empirical study.

Instead of articulating political tactics, which can be developed only through practice and experimentation, I shall have to settle for highlighting some of the hopes that political actors seeking transformative change may retain. Highlighting the reasons for this hope shall also enable me to complete my decentred notion constitutive power, and in so doing, show that, contra Schmitt and Arendt, the constitutive political moment does not occur all at once as if by a miracle, but instead can be happening continuously

---

[112] There are numerous debates around contemporary social movements, with some, including Hardt and Negri valorizing the dispersed nature of the modern day 'movement of movements', and others, including Callinicos (2003), saying that the movement of movements is and always will be inefficacious on the grounds of its lack of centralised decision making structures. Furthermore, it should be noted that debates surrounding the form of social movements are not just practical; they do not just concern what will be most effective. Rather, numerous thinkers, particularly those in the Anarchist tradition, reject the idea of a centralised movement not because it is ineffective, but for moral and political reasons based on a rejection of hierarchy and an affirmation of autonomy.

and can gradually grow over a long time before finally reaching a critical point at which a dramatic change occurs.

The immanent ontology of creativity and account of constitutive power developed here suggests an attitude of *cautious experimentation*. The reason as to why the attitude should be an experimental one should be obvious. Remember that we do not know what bodies or individuals can do, particularly when the bodies in question are highly complex assemblages. It is not possible to know precisely what emergent assemblages will form when various other assemblages relate together, nor is it always possible to know what capacities these assemblages may generate. There is therefore a huge space for experimentation and a huge space in which one can try to learn just what people might be capable of, and form associations that may be hugely efficacious and powerful. But why the caution? In many ways, for just the same reason; we do not know what we might be capable of, and what might emerge from our actions, and therefore must proceed with caution and maintain a critical attitude to what we do produce. But also, as I demonstrated earlier, and will show again shortly, it sometimes takes just a small shove to push a system onto a new regime of functioning. A number of changes may have been made without having hugely significant effects, only for a further event to trigger a phase transition to a new regime of functioning. Given how powerful some actions may be, the need for caution is multiplied. Yet the very same fact that requires caution also inspires some *hope* and *optimism*. The fact that systems can gradually move toward new regimes of functioning should give great hope, for it indicates that a mass and hugely organised mobilisation of the kind that has been difficult to imagine since the decline of the working class in the west is not necessary for radical political change and creativity. A huge, bloody revolution may not be needed to enact significant political change, whether that change consists in overthrowing capitalism or whatever else may be desired. Instead, even a small action may push a given system or actual state of politics to a tipping point and bring about a cascade of events that may overthrow that system whilst simultaneously creating something new. Furthermore,

small changes over a certain time scale may encourage the gradual deterritorialization of a given system or actual state of politics until eventually a phase transition occurs and something new is produced.

Two examples, one historical and one more of a hope for the future, of the way in which phase transitions have been reached or might be reached in order to bring about a new economic and political regime can be found in an article that highlights some political implications of complexity theory written by Eugene Holland. Before discussing both these two examples and extending the examples through reference to John Urry and Michel Foucualt, I want to refer back to one of the criticisms levelled at Hardt and Negri earlier in the chapter, before developing a related criticism of their approach. The two examples shall demonstrate ways in which my account of constitutive power overcomes two limitations found in Hardt and Negri's account of constitutive power. I claimed earlier that because constitutive power, or, in their words, the multitude, is actually far more divided than they depict, it cannot easily rise up with one voice to break with the constituted power of empire and institute a new order of absolute democracy. A criticism of this kind is also levelled at Hardt and Negri by Ernesto Laclau. Laclau picks up on Hardt and Negri's lack of any account of the *articulation* of political struggles, or, in other words, on the lack of any account of how different acts of resistance link up together to form an attack on the constituted order itself, and not only on a more minor or local issue. Hardt and Negri, as Jodi Dean (2004, 281) notices, believe that "struggles do not need to connect with each other, because each can impact Empire directly".[113] As Hardt and Negri put it, if various points of resistance

---

[113] Dean (2004, 281) is critical, albeit for different reasons, of this focus on impact at the virtual centre of empire, asking "what sort of lasting effects are associated" with the "intensity" gained from struggles that operate at the virtual centre of empire without linking up amongst themselves. Dean (2004, 277) also worries that "making the virtual world a key location of struggle risks conceding the more mundane terrains, practices, and institutions of power to those forces of conservatism and capitalism old-fashioned enough to continue their occupation." And that Hardt and Negri's move to a virtual centre "also seems to rely a lot more on the symbolic, affective, caring, and domestic labour of community building."

were to constitute something like a new cycle of struggles, it would be a cycle defined not by the communicative extension of the struggles but rather by their singular emergence, by the intensity that characterizes them one by one. In short, this new phase [of resistance against empire] is defined by the fact that these struggles *do not link horizontally*, but each one leaps *vertically*, directly to the *virtual centre* of Empire (Hardt and Negri, 2000, 58, my emphasis).

As Laclau (2004, 26) indicates, this move, as well as being somewhat problematic in speaking of a 'virtual centre' of an empire that is otherwise said, as I indicated in chapter two, to be decentred and produced in different ways and in different places from one moment to the next, contains three unrealistic assumptions. First, it assumes that "a set of unconnected struggles tend...to converge in their assault on a supposed centre", second, that "in spite of their diversity, without any kind of political intervention, they will tend to aggregate with each other", and third, "that they could never have aims that are incompatible with each other."[114] "Unfortunately", Laclau (2004, 27) goes on, "social struggles do not follow this simplistic pattern. All struggle is the struggle of concrete social actors for particular objectives, and nothing guarantees that these objectives will not clash with each other." Indeed, one look at different resistances taking place across the globe indicates that they do frequently clash, as ethnic and nationalistic conflicts indicate. Local and small scale resistances no doubt have some constitutive impacts. They no doubt generate certain transformations in particular places and at particular times. But there is absolutely no guarantee that they will link up to force the kind of epochal shift from an emperial constituted order to the kind of absolute democracy that Hardt and Negri desire. Instead, for more radical changes to take place, the changes must connect up somehow.

---

[114] Jodi Dean (2004, 281) offers a similar criticism.

Laclau (2004, 30, my emphasis) suggests that "multitudes are never spontaneously mutitudinarious; they can only become so through *political action."* The articulation of political struggles for Laclau, then, is performed through what he calls political action. He does not go on to indicate precisely what he means by political action. But if by political action he means some kind of deliberate or subjective and presumably communicative co-ordination of various struggles, then I do not share his understanding that 'political action' is required to connect political struggles. There are no doubt some cases in which communication is essential to co-ordinate struggles, and in some cases a deliberate co-ordination of movements has been, and in the future will be, helpful in the generation of constitutive movements. But it is by no means essential, and different practices, be they the struggles of the oppressed or behaviours, institutional changes and battles amongst those who are in far more prosperous positions can connect up, as Hardt and Negri indicate, without a deliberate communicative extension. This does not mean that they do not need to become connected. They do not attack the virtual centre of the constituted order; indeed, I would maintain that the present constituted order is decentred and plural, and as a result it does not have a virtual centre. But they can connect horizontally through a kind of *self-organisation,* and in their non-subjectively driven relation they can generate major constitutive changes. The examples provided by Holland show this horizontal but predominantly non-communicative and non-intentional articulation of different practices in action.

A related criticism of Hardt and Negri surrounds their lack of concern with particular places or spaces of resistance. As already indicated, Hardt and Negri claim that resistance is effective not by virtue of its action in a certain space or at a particular location, but by virtue of its action on the 'virtual centre' of Empire. Indeed, Hardt and Negri (2000, 212, my emphasis) go so far as to say that "battles against the empire might be won through subtraction and defection. This desertion *does not have a place*; it is the evacuation of the places of power." Hardt and Negri claim, further, that they swim "against the current of...friends and comrades on the left" who focus on "sites of

resistance" in terms of "place-based movements or politics", indicating that this approach is damaging insofar as it rests on a "false dichotomy between the local and the national". Instead of thinking about resistance in terms of particular spaces and places, Hardt and Negri (2000, 206-7) claim that we must "learn to think globally and act globally." There is no doubt that the presently constituted form of political power, which Hardt and Negri call Empire, and which might also simply be called a globalised neo-liberal capitalism, operates globally, and this means that resistance must, in some senses at least, operate globally. But this exclusive focus on the global scale and the virtual centre of empire, at the expense of focusing on particular spaces and places of resistance, overlooks the extent to which "the global is multiscalar", as Saskia Sassen puts it (2004, 176). In other words, global processes are often localised in particular places. Finance operates across the entire globe and has effects at a global scale, but financial centres nonetheless tend to be conglomerated in very particular places, with the city of London being one. And certain cities, which Sassen calls 'global cities', themselves often bring together in a concrete space processes and practices which are critical to the constituted global order of today, processes including financialisation or "global corporate capital" and processes of migration (ibid). So the constituted order of Empire or of neo-liberal capitalism, despite being global, is also localised in certain places, and certain places may lend themselves more effectively to processes and actions of resistance.[115]

More fundamentally, as I have indicated, my conception of constituted and constitutive power does not involve any notion of a virtual centre. Rather, the constituted order and constitutive forces that give rise to it are fully decentred, with the constituted order formed through the self-organisation of the various constitutive powers in relation that

---

[115] To put the same point in more abstract terms, any network, and Hardt and Negri's Empire is an example of a networked and distributed form of power, will have certain nodes that are of huge importance by virtue of their connectivity. These nodes, which in the actual terms of 21st century capitalism, are global cities, are far more important to the functioning of the network than less connected nodes, and as a result, disrupting the network would be far, far more effective if these well connected nodes were targeted. For more on networks and particularly important nodes, see Mitchell (2009, 227-291)

form it. These powers, practices, and relations that form a constituted order will all be localised in a certain place. At times, this localisation may have been highly centralised, with a clear sovereign backed up by a powerful army holding much of the power that upholds the constituted order. At other times, a constituted power may be far more dispersed, as it is in contemporary global financial capitalism, although even this decentred system has particularly important nodes and particularly important spaces, be they the big three credit rating agencies that play a huge role in determining the rate at which countries can borrow money, or the global cities discussed above.[116] Since a constituted order is always localised, however dispersed the locations at which it is produced and reproduced may be, resistance will always have to operate in and from a particular place. It is therefore imperative to acknowledge that while resistance and constitutive political practice is "transnational", it is nonetheless "centred in concrete localities" (Sassen, 2004, 196). It is imperative, then, not to simply think globally and act globally, but to act and think both locally and globally at the same time.[117] Indeed, the two examples to which I shall now turn shall demonstrate that resistance takes place in a certain place, and whilst ideas of desertion and exodus remain important, they do not involve a desertion to nowhere. A desertion to nowhere could only be accompanied by a return upon realising that no alternative mode of the reproduction of material life is possible. Rather, desertion and exodus must be a desertion *to* a certain site of resistance, with that site of resistance providing an alternative means for the reproduction of material life. And it is through the connection of these potentially enduring sites of resistance, a connection that does not require subjective direction, that broad constitutive changes are possible.

---

[116] The big three credit rating agencies are Standard and Poor's, Moody's Investor Service and Fitch Ratings. These agencies issue short and long term credit ratings which are used by investors, including banks, to make decisions on where to invest their money. If the credit rating agencies reduce the ranking of a particular country, the interest rate at which they borrow money will tend to increase, making it important for governments to satisfy and maintain the confidence of the credit rating agencies.

[117] Chaloupka (2004) offers a similar criticism of the lack of any concern for local spaces or places in Hardt and Negri's account of constitutive power.

Holland's historical example concerns the formation of capitalism. First, a caveat. Talk of 'Capitalism' can be misleading. 'Capitalism' has changed immensely over its 200+ years of existence, and there are, as I indicated earlier, many varieties of capitalism.[118] I do not, here, intend to give a detailed analysis of capitalism, or of the varieties of capitalism. Rather, it is used as an example to show how constitutive political moments might be possible. The abstract understanding of capitalism used here revolves around it being a system of accumulation based on wage-labour relations in which workers depend on wage-labour for their existence, and the profit made is largely reinvested to produce further growth and further profit. There are great differences in the way that capitalism achieves this very basic task, and there are many resistances contained within capitalism that attempt to subvert such actions, as well as many failures within capitalism where profits are not made and are therefore not there to reinvest, but these can be bracketed in order to get at the points surrounding the hopes for a revolutionary constitutive political moment that I wish to make here.

Capitalism arose in an unplanned way. Capitalism "arose by accident" as the result of an array of seemingly disconnected causes. Holland proposes to read Marx backwards by analysing the emergence of the constituted capitalist order that Marx analysis in the opening chapters of Capital through primitive accumulation, discussed in the closing chapters of the first volume of Capital.

> At some point, conditions were such that there happened to arise a "critical mass" of so-called "free" labour available for hire, and at around the same time and place, there happened to be a critical mass of liquid wealth available for investment. A fortuitous encounter between these two critical masses created a specific reaction – commodity production by means of commodified labour-power – and the reaction eventually

---

[118] See Hall and Soskice (2001)

became self-sustaining. The "laws" of capitalist production weren't necessary to begin with: they became-necessary...as the system consolidated itself (Holland, 2010, 4).

A third factor needs to be added here. Not only was there liquid wealth available to invest and labour available to invest in, but there was also an array of new technology, like machines and technological means of generating energy (notably, the steam engine) that the machines needed in order to function. Capitalism, then, was in no way given in advance, but was produced once the capacities present in the virtual field of constitutive power were related in a certain way, with available labour capacity on the look-out for work, and those with the capacity to invest in infrastructure on the look-out for workers who could utilise the new machines and technologies that they could invest in and that could allow them, when combined with the sheer quantity of labour power available, to produce *en mass*. Various factors acted as important catalysts in this process. The freeing of the peasants, particularly when combined with the enclosure of common land, acted as a catalyst by producing a huge range of available labour, and, of course, by producing people who depended for their very lives and sustenance on the ability to sell their labour for money, given that they no longer had a patch of land on which they could satisfy their most basic needs. Further, the invention of the steam engine meant that this labour could be continuously used, without being hindered by the finite energy that could be produced by flowing water spinning water wheels. But the onset of capitalism is not reducible to any of these features. They were catalysts that sped up the reactions that forced the becoming-necessary of a capitalist system, and not the sole causes of the laws of accumulation and wage-labour relations that characterise capitalism.

As the system of capitalist production started, it became a self-sustaining one; dependencies of the workers on wage labour were entrenched as they entered wage-labour relations, which ate in to any time they may have had to pursue or develop other

means of sustenance. Owners of means of production, furthermore, became dependent on the success of their factories and industries for the continual re-investment of profits that enabled them to maintain and extend their wealth and status. Furthermore, the formation of a capitalist system engendered new capacities for its extension, whether that extension was performed by capitalists themselves gaining capital through their factories that enabled them to invest in and create new factories and industries, or through the imperial extension of a capitalist system at a more political level. The catalytic loop that led to the becoming-necessary of capitalism engendered capacities that could further extend capitalism, leading to further dependencies and the extension and entrenchment of capitalist relations of production. To put it in terms of the abstract machine of stratification developed in chapter five, the formation of capitalism involved a sorting mechanism, where people were moved into larger conurbations nearer factories through the enclosure of common land and freeing of peasants from their farm-land, and a process of consolidation which locked people in to their new wage labour relations; their new accommodation and the destruction of alternative means of sustenance like common land ensured a dependence on the wage earned from labouring, the length of time that they were working prevented workers from finding alternatives, and the dependence of the capitalist on continual profits all contributed to the consolidation of capitalist wage-labour relations.

Once again, the point here is not to give a detailed account of the history of capitalism. Such an account would clearly require a richly detailed historical analysis. But even this very basic account of the onset of capitalism is sufficient to show that it was not always necessary, and did not occur through some grand planning (though in some respects, its extension would have been planned), nor through one event that was necessary and sufficient for its arisal. Rather, it occurred when a number of factors connected together and reached a critical point at which the phase transition toward a capitalist economic and political system *became necessary.* Capitalism, since it became necessary rather

than being necessary all along, is *contingently necessary*. Given the concatenation of causes and the creation of emergent capacities that entrenched and extended capitalism, a capitalist system of production, and a political system based heavily on that system of production (which includes negative freedoms, the imperial extension of free market policies, private ownership of means of production, and so on), capitalism remains necessary. But it is only necessary in light of those contingent factors. It may be that the dependencies of workers (be they factory workers or stock market investors) on wage relations, the dependencies on growth to ensure re-investment and further profits, and the other factors necessary for the perpetuation of the capitalist system of accumulation fade away, either gradually or suddenly. In such a case, the factors that made capitalism necessary no longer obtain, and its necessity would fade. Much like the rise of capitalism, a social, economic, and political system that has permeated almost all relations we have, arose thanks to the interplay of factors that appear "slight and inconsequential" relative to the effects they have, "the potential for widespread social change...may reside in the slightest variation of conditions at a tipping-point" (Ibid, 8).

The point that small changes can eventually force a phase transition can be extended through a brief return to Foucault, and the difference he articulates between 'microscopic' power, "produced from one moment to the next…in every relation from one point to another", and 'macroscopic' power, which is "permanent, repetitious, inert, and self-reproducing". Foucault claims that this latter form of power, which, being the "name that one attributes to a complex strategical situation in a particular society," would be the power of an actual state of politics, "is simply the over-all effect that emerges from all these mobilities, the concatenation that rests on each of them and seeks in turn to arrest their movement" (Foucault, 1998, 93). These forms of power are not separate; they remain immanent to one another. The over-all effect of macroscopic power is the result of the series of tactics, groups and relations that become "connected to one another, attracting and propagating one another", until they "end by forming comprehensive systems" (Ibid, 95). It is, then, "a network of relations, constantly in

tension, constantly in activity" that constitutes the broader form of power, be it state power, the power of corporations, or the power of financial institutions, that is initially observed in any political analysis (Foucault, 1979, 26). Finally, these systems, or macroscopic forms of power that would correspond to what I have called an actual state of politics, are produced in a "non-subjective" manner; though the powers in the relations at the microscopic level may have a clear intention; the soldier may be trained and examined to ensure the rifle works properly, and the worker observed to ensure that they do not break or steal expensive equipment, and a worker may enter a wage labour relation to earn a living, the overall form is not produced by some kind of organising subject or intention (Foucault, 1998, 94). The disciplinary society and the capitalist society that arise from these microscopic power relations and intentionalities are not planned, but emerge or self-organize without a guiding, God-like hand organising things with a certain goal in mind. How does this brief foray into Foucault help with the point regarding phase transition and a revolution based on small changes?

> Just as the network of power relations ends by forming a dense web that passes through apparatuses and institutions, without being exactly localized in them, so too the swarm of points of resistance traverses social stratifications and individual unties. *And it is doubtless the strategic codification of these points of resistance that makes a revolution possible* (Foucault, 1998, 96).

Revolution, rather than involving a large group that exercises pressure at one point of resistance, can occur when pressures exerted at numerous points, in different ways, connect together. Much like the various small scale force relations present in schools, hospitals, barracks, and factories connected together to form a disciplinary 'kind' of power, different resistances can connect together to radically change this kind of power. The actual state of politics, to return to the language used here, is the product (albeit the emergent one, with new and irreducible capacities) of the complex array of

255

assemblages in relation that form it. It therefore depends on this set of relations that form it, and if there are enough changes in the virtual field of capacities in relation, a tipping point will be reached and the actual constituted state of politics will give way to a new regime of functioning. Revolution is therefore possible as a result of numerous changes in small scale, local level practices, provided a critical mass of change is reached. Constitutive political action does not constitute a miraculous new beginning separated from any causal chain that goes before. Rather, it will consist in a partially lawless shift in actual states of politics generated, not through a miracle, but through multiple interacting causal factors. Furthermore, revolution will not be sustained unless changes occur at this microscopic and constitutive level; any attempt to change the overall effect of power without changing the various smaller scale power relations that collectively form it will not last, for a regime corresponding to those microscopic powers will re-emerge. This is not to say that all grass roots movements are equally effective; those that undermine the key nodes of a capitalist system, be they the functioning of financial centres or the work of credit rating agencies, will no doubt have more impact than those at work on the margins of the reproduction of the contemporary capitalist order. Furthermore, it is not sufficient to conclude from the importance of microscopic powers that revolution must be 'bottom up', or that change at a local level must come first. Highlighting the dependence of the actual state of politics on the complex network of power relations that constitute it does not mean that one cannot generate changes in local level relations from the institutions and systems of an actual state of politics. Often, legislation from the top does have some impact on practices of people and groups (though, of course, that legislation will have been influenced, in part, by changes in local level views, practices, and so on). To reluctantly adopt a phrase so overused by contemporary English politicians, history has tended to judge badly attempts that focus predominantly on the seizing the overall effect and not day to day changes, insofar as they (think Cromwell's English Revolution which saw Cromwell seize an autocratic power for himself, the French Revolution for freedom, equality, and fraternity that resulted in Napoleon's despotism, and the Soviet Revolution that resulted in Stalin) tend

to reproduce, and perhaps in some cases intensify, the despotism that they reject. However, that an exclusive focus on seizure of the macroscopic power form tends to end badly does not mean that there is no role for modes of political resistance that work on, pressurise, and potentially seize some aspects of a given constituted order, provided that these resistances are connected in some way to a broader social movement which attempts to change the entire fabric of society.

Invoking Holland and Foucault, and the way they have utilised an ontology similar to the one developed here for re-thinking the notion of revolution, allows me to make clear that the reason for caution in our political attitude is at one and the same time a reason for *hope* and *optimism*. Because seemingly small changes can have drastic and unforeseeable effects, we must tread carefully, continually maintaining a critical attitude toward the unforeseen consequences that may arise from political action, but we must also tread with joy and the hope that we may well be able to change the present and create novel social, economic, and political groupings, orders, and relations, or at least contribute to this change through any grass-roots, local level political actions in which we may be involved. But is there any way of directing this change? The fact that small changes can have a big effect of course means that it is hard to predict *when* a change might occur, but that does not mean that it is not possible to think through what kind of processes and actions might lead to constitutive changes, even if it remains the case that small changes may divert any path identified.

Perhaps the most famous account of predictive revolutionary or constitutive changes was provided by Marx, who, of course, predicted changes internal to the capitalist system which would eventually bring about its own destruction at the hands of a revolutionary and organized proletariat body. John Urry, like Holland, offers a complexity reading of Marx, with Urry focusing on the production of a capitalist global order through a set of local, small-scale intentionalities, and its emergent product, a working class who may be capable of resisting capital. The globalisation of capital, on

Urry's (2005b, 241) understanding of Marx's account, is "the consequence of repeated local actions". Owners of the means of production did not deliberately plan to create a global capitalist order. Rather, they were acting with the simple, local intention of maximising their profit. Maximising their profit, of course, meant minimising what they would pay workers. This led capital to flee and spread across "the whole surface of the globe". Capital must "settle everywhere, establish connexions everywhere" in order that cheap labour can be found" (Marx and Engels, 1952, 46-7). But this emerging capitalist order, created through local intentionalities, brings with it large scale "emergent contradictions" (Urry, 2005b, 241).

> First, since it is in the interests of each enterprise (but not of all enterprises), to minimize the wages paid to their employees, the emergent level of demand for capitalist commodities is sub-optimal. Hence, there is over-production, the under-employment of capitalist resources (especially labour-power) and periodic capitalist crises that call into question the system as a whole, although these are subsequently mitigated in the mid-20th century through 'Keynesian' policies to increase 'effective demand' through public expenditure (Urry, 2005b, 241).

Second, the competition to drive down prices paid to labour "produces a workforce that is relatively deprived and has the potential to be increasingly organized." This problem is only intensified by the desire, amongst the capitalists, to increase their profits again having widespread impact through the attempt to open up global markets and global production, something that ensures that this potential body of resistance is increasingly vast. "Emergent from ordered capitalist relations is a working class that, through widespread class struggle, will generate social revolution." In this regard, local "capitalist relations over millions of iterative actions are seen as producing the opposite of what capitalists intend to reproduce through exploiting their particular workforce." Put

differently, "local capitalist exploitation results, Marx argues, in non-linear emergent effects of a revolutionary proletariat increasingly organized across the globe" (ibid).

But as Urry acknowledges, we now know that this prediction of a proletariat revolution was "mistaken" (ibid, 242). Urry indicates that this failure may not have been a huge failure on the part of Marx's thinking, but rather, that a few small changes may have occurred that themselves had big impacts, impacts that meant that this revolution was no longer a likely occurrence. In this regard, Marx was not so much wrong in the content of his prediction, which may have explained the future direction of the capitalist order as it then stood perfectly well, but he was wrong in thinking that he could predict with such accuracy, given the way in which small changes can have a big impact in the direction a complex system like the global capitalist order may take. In a sense, then, Marx's optimism regarding a future constitutive change brought about by a proletariat revolution was not cautious enough. Changes in capitalism that led both to an increasingly fractured, disjointed, and even divided working class, and an increasing prosperity amongst the majority of people in the wealthy western world may have put paid to Marx's predicted revolution, but this failed prediction raises a challenge for my account of constitutive power. It remains the case that "complex relationality explains the ways in which local forms of information and action can result in the emergence of far-from-equilibrium system effects," and that "the emergent complex system [global capitalism, in this case] results from a rich interaction of...elements that respond to the limited information each is presented with" (ibid). This much has been demonstrated by Holland and Urry's complexity-inspired readings of Marx regarding the emergence of capitalism, and by Foucault's analysis of the emergence of disciplinary and bio-political forms of power. But what is no longer known is what kind of processes and actions might bring about a future constitutive change away from the contemporary form of global capitalism. Whilst the limited power of any prediction regarding future changes to a system as immensely complex as the global capitalist order must always be acknowledged, questions facing any political actor seeking to change the world and

inspire a new constitutive moment of political change require that at least some attempt is made. It is here that Holland's second example comes in.

As well as discussing the non-linear formation of capitalism, Holland also elaborates on the claim that capitalism may well be changeable, even without "the kind of massive force of resistance aimed directly against the massive power of capital that is prescribed by the dialectic of labour and capital located squarely within near-equilibrium capitalist phase-space", and instead through "some slight and apparently inconsequential shift in the balance of social relations at a far-from-equilibrium bifurcation point on the edge of capitalism" (Holland, 2010, 8). Briefly discussing the concept of the 'slow-motion general strike' that he articulates in order to gesture towards how slight and, in the scheme of things, apparently inconsequential actions may eradicate capitalism and replace it with something new shall enable me to give a genuine content to the hope that I am claiming to find in the conception of the constitutive resources for politics developed through my immanent ontology of creativity. As Holland demonstrated, a central catalyst in the rise of capitalism was "enforced dependence on capitalist markets." Workers freed from serfdom had no land to produce on and nothing to sell but their labour power, forcing them into wage labour relations. It was this dependence, combined with other factors including the rise of machines and other technologies and the availability of liquid money to invest in capital, which made capitalism necessary. "Remove this catalyst," says Holland (ibid, 27), "and capitalism ceases becoming-necessary." Important in resisting capital, then, is "securing alternative means of life, alternative modes of reproduction". It will only be possible to escape the dependency on wage labour relations if genuine alternatives exist; if someone attempts to flee without finding or creating alternatives to capitalist wage labour relations, they will quickly be forced back into wage labour relations in order to pay bills and procure means of sustenance. We see, then, that resistance cannot take the form of an exodus to a non-place, as Hardt and Negri indicate, but must involve an exodus *to* the site of an alternative means of the reproduction of daily life. Holland claims that some alternatives "already exist". Many

"alternative economies co-exist within or rather beside and all around capitalism." These alternatives include "Community Supported Agriculture; the co-op movement; the Open-Source Software movement; Fair Trade". For a revolution that overthrows capitalism to occur, what would be required is for "a critical mass of people to invest their lives in" the four alternatives named above, as well as others, be they existing ones or ones that may be created in the future, "rather than in capitalism" (ibid).[119]

Shortly, a problem shall be highlighted with this slow-motion general strike. But first, to see why it offers such hope, I want to contrast it briefly with the traditional concept of the general strike. The general strike involves mass strike action performed by the workers. The workers are not walking into anything new. They are simply leaving work, and during the time the strike is on, will depend only on the savings they and their unions have accumulated. But because huge numbers of workers walk out *en mass*, the capitalist system, it is hoped, grinds to a halt, allowing the workers to overthrow it. The key difference between the general strike and the slow motion general strike, for my purposes here, concerns the respective difficulties of each. The general strike requires the building of an enormous and highly coordinated movement, which is capable of sustaining a strike for as long as it takes for capitalism to be weakened sufficiently. As the general strike in England in 1926 revealed, that can be a significant length of time, with the workers sustaining their mass strike for ten days without successfully forcing the British government to prevent the reduction of wages and worsening of working conditions. Even when there was a strong bloc of people with homogeneous interests, it proved impossible to gain sufficient power to enact demands, rendering the hopes for a traditional general strike now, when the traditional working class has become far more dispersed and heterogeneous, with widely differing interests, negligible. Finally, the movement would also actively need to overthrow capitalist institutions and practices, perhaps even seizing governmental power in order to do so, and this would seem to require a tough and bloody struggle. The long term general strike, as presented by

---

[119] Gibson-Graham (2006) offers an analysis of these alternatives existing within capitalism.

Holland, requires none of these things. It does not require an overly co-ordinated movement. Rather, it involves numerous different alternatives to capitalist wage-labour relations. These movements may connect in various ways, but do not need to do anything beside provide an alternative to capitalism in their own differing ways. It would not have difficulty sustaining the strike over time, as it is itself providing the resources the people involved need for sustenance. And finally, the long term general strike would not need to stage a tough and bloody encounter between it and the alternative it is fighting. Instead, it just builds positive alternatives, allowing "people in various aspects of their life-activity walk away from capital – having secured in advance at least the rudiments of alternative means of life." And it can do this over a long spell of time, not during one fight. It can just keep building alternatives until "sufficient numbers of people in enough areas of life do so [walk away from capitalism]", at which point "a tipping-point will have been reached, a non-linear birfurcation threshold crossed, beyond which capitalism will not only no longer be necessary". Because the dependencies on wage-labour relations that made capitalism necessary no longer prevail, capitalism will "become un-necessary and thereafter just 'wither away'" (ibid, 28).

The above example concerns capitalism. But the same principles hold for any actual state of politics. An actual state of politics becomes necessary given the relations between the capacities that constitute them. But a change in those relations erodes that necessity and generates change. The thought that, in our day to day practices, we can produce and practice alternatives to any actual state of politics that we do not like, and that if enough people make enough changes, a bloodless and calm revolution or 'political moment' will take place, shifting us from one actual state of politics to another, is clearly a cause for hope and optimism. This hope, though, must now be tempered somewhat. The slow motion general strike or the 'non-linear revolution' of which it is but one example initially seems too good to be true. And that first impression is unfortunately correct. Holland's concept of non-linear revolution and the long term

general strike forgets one key phenomenon: reterritorialization. Throughout its history, capitalism has been faced with many deterritorializing movements and threats. These range from the kind of small, day to day deterritorializing threats that Holland mentions, such as the formation of workers co-operatives which blur the crucial distinction between wage-labourer and owner of capital or the business, to larger scale threats like mass workers groups trying to seize the means of production, or at least to ensure better working conditions and higher wages, and decolonisation, where the colonies, who were taken over and had resources taken to feed the capitalist economy and were sold a western, capitalistic way of life, resisted and demanded self-government of their resources and way of life. But these threats have not slowly built up toward a tipping point at which capitalism withers away to be replaced with something else. Instead, many of these dispersive, deterritorializing flows have been *re-territorialized;* capital has found a way to bring them under its wing, and incorporate the flows that were dispersive, turning them into another facet or mode of capitalism.

Workers movements, for years deemed the greatest threat to capitalism and the harbinger of social, political, and economic change, have been reterritorialized in a variety of ways. Most obviously, attempts at revolt and attempts to form alternatives through practices including the occupation of factories which put the means of production back in the hands of workers tend to be crushed ruthlessly and often violently. Capital does not let people leave without a fight. Furthermore, one can cite the development of more welfarist modes of capitalism, created in part in response to economic crises, but also in response to the demands and actions of the workers resistance movements.[120] The welfarist mode of capitalism gave workers, and those

---

[120] Karl Polanyi (2001, 76) speaks of a "double movement" of capitalism, where attempts to disembed markets from society, or generate free, self-regulating markets are met by measures of social protection which re-embed markets within broader social concerns including concerns for the welfare of people. As Polanyi (ibid) puts it, "while on the one hand markets spread all over the face of the globe and the amount of goods involved grew to unbelievable proportions, on the other hand a network of measures and policies was integrated into powerful institutions designed to check the action of the market relative to labour, land, and money. While the organization of world commodity markets, world capital markets, and world currency markets under the aegis of the gold standard gave an unparalleled momentum to the

who could not work, moderately better conditions, which were sufficient to take the threatening edge off workers movements and reterritorialize workers as satisfied or at least sufficiently docile members of a capitalist society who are not disillusioned enough to rebel. Also important in this regard is the manner in which workers have been placated with consumer goods.[121] Furthermore, the globalisation of capital has found a way to reterritorialize the workers movement whilst also extending the reach of capitalism. Workers in countries where there was sufficient wealth for people to survive when they went on strike for extended periods, where there were sufficient political freedoms to prevent protest being devastatingly dangerous, and where the workers were amongst the worse off, have been replaced by workers in countries where there isn't sufficient money for workers to cope with even short periods without pay, where protest is often extremely dangerous and requires great courage or great desperation, and where the workers are not in fact the worst off in their society (and therefore may not be as desperate as they might be and have a lot to lose, with their resistance likely to be met by a response which hands their job to some of that reserve army of those

mechanism of markets, a deep-seated movement sprang into being to resist the pernicious effects of a market-controlled economy. Society protected itself against the perils inherent in a self-regulating market system-this was the one comprehensive feature in the history of the age." Markets are re-embedded partly because of demands by people that their concerns are addressed, but also because of internal contradictions surrounding disembedded markets. A free market that offers no social protection, for instance, can undermine the health of the work force in such a way that the functioning of the market comes under threat. Polanyi (2001, 142) felt that his age, the mid-20th century, would "be credited with having seen the end of the self-regulating market", history has proved the double movement to be somewhat more obdurate, with the rise of neoliberalism since the mid-1970s comprising a new attempt to disembed markets from social protection. (For more on the rise of Neoliberalism and the manner in which it has eroded social protections, see Harvey (2005) and Klein (2007)). Indeed, according to Nancy Fraser (2011), the double movement is still pertinent today, with the 2007-2008 financial crisis potentially marking a point at which the forces of social protection fight back against an increase in market freedoms that have emerged with the rising dominance of neoliberal economic governance and doctrine since the mid 1970s. At this stage, it is too early to judge whether the 2007-8 crisis will mark a decline (whether temporary or permanent) or intensification of the free and purportedly self-regulating neo-liberal market.

[121] See Adorno and Horkheimer (1997) for an analysis of the manner in which consumer culture, and culture more generally, has worked to satiate the working classes and dull their revolutionary potential. This process has only intensified in the time since Adorno and Horkheimer were writing, with globalised forms of capitalism shifting the manufacturing of consumer products to areas where labour is cheap, allowing the working classes in the developed world to enjoy cheap imported consumer products.

who are worst off).[122] A number of those who had previously formed the working class and productive force in the western world moved into service jobs with better pay and condition. This resulted in a more dispersed network of workers who could not easily form one integrated resistance movement, like a trade union movement, and who on account of their better working conditions and the cheap goods coming from poorer parts of the world, were not sufficiently upset to resist capitalism. In this process of the globalization of production, capitalism reterritorialized the workers movements, in the sense that it turned a potentially dispersive, revolutionary force into happy, consuming members of a capitalist society. And this occurred whilst the scope of capitalism was massively extended.

One can find many other examples of capitalist reterritorialization. Though the colonies are, by and large, gone, they have been replaced by subtler or longer distance means of enforcement and capitalisation. Capitalist governments prop up certain governments in the developing world and put pressure on others, often in the name of democratisation and liberalisation, though the overwhelming tendency is to criticise and unsettle governments who do not favour a capitalist free market, and to prop up and support, or at least go easy on, governments that advocate a free market, even where their record on human rights abuses, democratic rights, and so on, is equally poor.[123] Further, institutions like the International Monetary Fund and World Bank attach

---

[122] Pierre Bourdieu (1998) points out the importance of the struggle of workers against fellow workers and potential workers. In the late 20th Century "a Darwinian world emerges - it is the struggle of all against all at all levels of the hierarchy, which finds support through everyone clinging to their job and organisation under conditions of insecurity, suffering, and stress. Without a doubt, the practical establishment of this world of struggle would not succeed so completely without the complicity of all of the *precarious arrangements* that produce insecurity and of the existence of a *reserve army of employees rendered docile by these social processes that make their situations precarious,* as well as by the permanent threat of unemployment. This reserve army exists at all levels of the hierarchy, even at the higher levels, especially among managers. The ultimate foundation of this entire economic order placed under the sign of freedom is in effect the *structural violence* of unemployment, of the insecurity of job tenure and the menace of layoff that it implies. The condition of the 'harmonious' functioning of the individualist micro-economic model is a mass phenomenon, the existence of a reserve army of the unemployed" This multi-levelled hierarchy means that even relatively exploited people can see and are in competition with people in a worse situation, thus ensuring that the working classes become dispersed and enter into competition with one another, and not with capitalism.

[123] See Chomsky (2008)

'conditionalities' to the loans they offer, and those conditionalities generally involve the liberalisation and capitalisation of economies.[124] To give one more of the many examples, media sources, be they films, adverts, television programmes, and so on, are globalised, and provide an often romantic image of life in a wealthy, capitalist society. In so doing, they produce desires for such a life, and help spread capital further throughout the developing world in general, including the ex-colonies. Finally, even one of Holland's examples of anti-capitalist alternatives existing alongside capitalism and ready to destroy capitalism when a critical mass of people join them, has been a victim of reterritorialization. Fair trade has been taken up by many capitalist companies, like 'Nestle', ensuring that a significant part of the market share occupied by fair trade products goes to capitalist companies, who will re-invest in further products to sell, extending or prolonging the flow of capital. Furthermore, the reterritorialization of fair trade has seen fair trade constituted as just another consumer choice, a consumer option that one can pick from amongst other cheaper and not 'fair' products, thus ensuring that it fully fits in within a capitalist framework of consumer choice, rather than providing a potentially subversive alternative to it. Reterritorializations undoubtedly change capitalism to a certain extent, and sometimes, but certainly not always, this change is for the better. But in so doing, it recaptures potentially disruptive practices and ensures that they function for a modified capitalism, and do not contribute to a movement that subverts capitalism. [125]

Reterritorialization does not entirely destroy the optimism generated from the ontology of creativity developed here. It does not entirely negate the slow motion general strike. It remains the case that if a critical mass of activity escapes an actual state of politics, society, and economics, that actual state will disperse and something new will come into being. It therefore remains the case that numerous small activities, grass-roots

---

[124] See Klein (2007) for more on the IMF's use of conditionalities.

[125] Here I do not claim to give an exhaustive or indeed in-depth account of the manner in which workers movements have seen their power and significance undermined by changes in capitalism. Instead, I have solely attempted to show that forces that escape and potentially undermine capitalism can be and often have been reterritorialized and made to work for, and not against, capitalism.

organisations, and so on, can eventually cause huge changes and form part of a revolutionary social, political, and economic change. But reterritorialization means that we must acknowledge that when things escape a given order, be that order capitalism or any other, they may still be reterritorialized. Capitalism is particularly adept and powerful when it comes to reterritorialization, and other actual states of politics that have existed or may exist may not be so effective. But where we are faced with a reterritorializing order, our optimistic hope for creative political change must be supplemented with a *resilience* through which we are always on the look-out for ways our practices may be reterritorialized, and, whilst accepting any slight improvements that the reterritorialization may bring to the given order, ensure that our practices remain truly subversive. Furthermore, a certain *urgency* is required, whereby we acknowledge that we cannot simply engage in some practices that offer existing alternatives to capitalism and wait for enough people to engage in other potentially subversive practices until a critical mass is assembled, but must ensure that a movement can be built with sufficient *speed* so as to reach the critical point of transition, and engender a constitutive political moment, before the practices that contribute to it are reterritorialized. If we simply wait, things may be reterritorialized as quickly as new deterritorializations take place, and there will therefore be no shift toward a constitutive moment of political change. In our political action, we must show *urgency* to ensure movements are built quickly enough, *resilience,* to ensure that movements are not reterritorialized, *caution,* for we cannot fully know in advance what we may create, and, finally, *hope* or *optimism,* on the basis that our small scale practices can, given enough similarly subversive practices and movements, have huge effects and contribute to the creation of novel actual states of politics.

Conclusion

I argued that a creative, constitutive form of power, and not already given normative values, is the key resource for explaining and driving political change. I argued, furthermore, that constitutive power is rooted in and one expression of the wider creativity of the natural and material world. Rather than occurring as a kind of miraculous intervention in an otherwise deterministic world, constitutive power is a continuation of, and has similar features to, the creativity of a natural world that has produced, often creatively, all the things we see around us, be they mountains, organisms, or thinking humans. Constitutive power, furthermore, is operating at all times and in all places through the means by which people reproduce their everyday material life.

Political theories which attempted both to explain and drive political change through the representation of already given values or essences were, I argued, problematic for two reasons. As chapter six argued, they neglect the fact that the key driver of politics is power, and it is powerful actors and movements, and not normative values and understandings, that drive political change. Second, attempts to represent already given values led to a tragic choice, identified in chapter one, between an adequate representation of values that were insufficient to drive transformative political change, or a dogmatic assertion of values that can neither be justified nor be shown to connect to this world in which political action takes place. My understanding of power as the fundamental resource for politics and the driver of both the maintenance and change of political orders, combined with my claim that the resources for politics are not already given, and therefore cannot be represented, led me to turn toward constitutive power. Constitutive power is a creative power through which political orders are instituted and changed. But existing accounts of constitutive power were shown, in chapter two, to be problematic. Schmitt's understanding of constitutive power as something centrally located in a unified sovereign body operating episodically in rare moments of

constitutive change, and Arendt's understanding of constitutive power as a distinctly human endeavour taking place in a discursive arena away from everyday material concerns of life and labour could be partially overcome by Hardt and Negri's insistence on the quotidian and materially grounded nature of constitutive power. But, despite themselves, Hardt and Negri ran the risk of following Arendt in theorising constitutive power as something uniquely human, separate from the rest of nature. In Arendt, the division between a uniquely human creative and constitutive power and an otherwise deterministic world was particularly stark. Constitutive power appeared as a kind of miraculous gift possessed by humans despite a world that tends toward deterministic cycles and stasis. Arendt's move, here, was characteristic of a response to a second, philosophical tragic choice. As chapter three demonstrated, a view of the natural and material world as something static and deterministic, unfolding according to causal chains governed for eternity by basic physical natural laws, made it seem as though creativity could only be introduced from a transcendent outside or through a human kingdom within a kingdom, operating according to a set of laws that differed from the laws that governed nature. The only alternative to this move to transcendence, the only way an immanent ontology, or an ontology in which there is only one form of existence and in which all things, human and animal, animate and inanimate, are made of the same stuff and governed by the same laws, could survive was at the cost of the kind of determinism to which Spinoza subscribed.

I rejected any dualist or transcendent ontology which proposes different substances of which things are made or proposes that different things operate according to a different set of laws. If constitutive power is to be possible it must be rooted in the wider creativity of nature, and not arise as a miraculous exception to a deterministically closed world. A key task, then, was to develop an ontology in which the natural and material world, of which humans are formed and are fully a part, was creative of its own accord. I needed to theorise creativity as something immanent to matter-energy, and understand constitutive power and the human creativity that makes up a key part of it as one

particular expression of this wider creativity of the natural and material world. I achieved this end by bringing Spinoza's ontology, which proposes that there is only one reality which differentiates itself to form all the individuals and qualitatively distinct things that we see around us, into conversation with the sciences of complexity and the social and historical ontology of Manuel DeLanda. The result, discussed in chapters four and five, was an ontology in which there is only one form of existence, namely, matter-energy. But matter-energy was capable of creative and productive action, with living things, and later, thinking things, produced as a certain complex (self-)organisation of matter-energy. Indeed, through processes of stratification, all the individual things that we see around us could be formed from the one reality of matter-energy. The result of this material production is historically produced individuals with a date of birth, at least a potential date of death, a certain complex internal organisation, and a set of capacities by which it can affect other things and be affected by other things. These individuals were called assemblages.

Key to the production of assemblages was *emergence*. Assemblages were formed from numerous further assemblages or composite wholes, much as the individual human being is formed of numerous cells, tissues, organs, and so on, which are in turn composites formed of numerous composite parts. But the assemblage that is produced is not reducible to the sum of the composite parts that form it. Instead, assemblages have capacities which are neither found in nor predictable in terms of the parts of which it is formed. An individual organism is made of nothing but the material parts that constitute it. There is no separate force of life that animates an organism. But organisms nonetheless have capacities that are not found in the parts. The parts that make up an organism are all subject to a process of entropy; all tend to lose the energy that makes them up and disperse. But the organism as a whole is anti-entropic, and works to conserve its energy and conserves itself as a whole, without tending to disperse. Furthermore, the capacities that exist at the level of a whole could interact with other assemblages, massively increasing the scope for potential future assemblages and

capacities. Living reproductive organisms, once formed, could evolve, and in so doing, create new individual species with new capacities. And these new capacities act back on the environment from which they were formed, changing the fitness landscape and prospects and possibilities for all things to which they were related. Indeed, millions of emergences later, once humans and their societies, practices, and lifestyles involving an insatiable demand for polluting fuel were formed, the capacities that exist at this socio-politico-economic assemblage act on the entire planet and it's climatic system, potentially changing, in a dramatic manner, the scope of what may happen in the future for all things on planet earth. It was in this process of emergence and action both back on the parts of which it was formed, and on other assemblages, that creativity could be located. I argued that there was no way of showing, scientifically, whether emergent phenomena arise out of an incredibly precise set of initial conditions, or emerge partially lawlessly. In light of this undecidability, a clear space for creativity was left.

This immanent ontology of creativity provides the first significant contribution to knowledge offered by this thesis. In bringing Spinoza, a thinker only occasionally used in new materialist literature, and used for his analysis of bodies, rather than for his monism, into relation with the more conventional new materialist sources of complexity theory and Manual DeLanda, I offered a distinctive take on new materialist ontology. I placed emphasis on the way in which a 'new materialist' ontology can allow for the explanation of the production and differentiation of all the things that we see around us from within a monism, and without dogmatically introducing magical entities or separate substances which cannot be shown to relate together. Furthermore, unlike DeLanda, whose ontology comes closest to the immanent ontology that I develop, I highlight the way in which the sciences of complexity make room for an understanding of the creativity of nature. In this regard, my thesis gives philosophical content to the intuition held by a number of complexity theorists, including Kauffman and Goodwin, that the complexity sciences can provide a persuasive account of how nature can be coherently understood to be creative.

Perhaps the most original contribution to knowledge made by my thesis consists in the way in which it uses this immanent ontology of creativity to understand constitutive power as something rooted in the natural and material world. Complexity inspired sociological literature has used complexity theory to understand social processes and social changes, notably those surrounding globalisation. Furthermore, some political theorists including Jane Bennett have used complexity theory in order to demonstrate the political significance of non-human actors. But very little work uses complexity theory to theorise political change and political resistance. Indeed, of all the work discussed here, only Eugene Holland's work on non-linear historical materialism directly links complexity with political change and movements of resistance. Even Holland's excellent work only went so far as to give two examples, one past, and one speculative, of how a phase transition has, and might again, occur thanks to the self-organisation of distinct and independent processes. I sought to fill in this gap in new materialist literature by basing an account of constitutive power on my immanent ontology of creativity. But my motivation here was not solely in filling in a theoretical gap and changing the concept of constitutive power. Rather, the political circumstances of the present encouraged me to think that this gap was an important one to fill. In the late 20th and early 21st century, two related factors have significantly contributed to the decline of left wing politics. First, the working classes, previously a group located in industrial centres living on very similar incomes in similar material circumstances, have become increasingly divided and differentiated. Spatially, the working class is now located across the globe, and often live in places where the big profits of a capitalist economy do not reach. As a result, the workers are often amongst the better off, or at the very least, not particularly badly off, in the place where they reside. Materially, the working class are increasingly differentiated, with some earning more than others. Secondly, and partly because a clear common material position and with it a clear common interest no longer unites the left, the left is increasingly divided. These factors combine to make traditional forms of resistance based on a mass and unified movement

with a single voice and common demand difficult, if not impossible. As a result, it is important to think about ways in which a more dispersed left may nonetheless achieve co-ordinated effects. Linking constitutive power with complexity theory seemed to me to be a way of understanding how a movement that is not clearly unified and that does not necessarily have a common voice may nonetheless contribute towards major transformative political changes.

In pointing out the political context and motivation for the work, I do not want to make preposterous claims regarding the role of theory in real life political movements. I do not want to say that my discoveries are somehow essential to any transformative movements, or that they might save and restore the left. Indeed, I have emphasized throughout that *powerful* and *collective* movements, and not theorists reflecting on anything from values to tactics, are what drive political change. But there is no reason why a theorist cannot form part of this powerful and collective movement. This part is not more important than the part of those fundraising on the street, the part of those who cook and provide legal and medical support to activists, nor the part of those who put their freedom at risk in performing direct actions. But it is nonetheless a part, and if fortune dictates that ideas in this work do disseminate amongst circles of those making constitutive changes, the importance of this work would be twofold. First, it would encourage a focus on the way in which the practices of everyday material life help constitute broader states of political affairs, thus encouraging people to focus not on lofty discursive ideals, but instead on how the conditions of material life are reproduced. Second, it can explain the hope that changes in the way everyday material life is reproduced may, over time, and with enough work done to preserve, deepen, and proliferate these alternative practices, lead to wider transformative changes.

How do I reconceive constitutive power, and how does this reconceptualisation of constitutive power on the basis of a more philosophical account of the creativity of the natural and material world do the political work that I am suggesting it does? First of all,

with the world of matter-energy itself understood as something creative, constitutive political power no longer needs to be understood, as it was in Arendtian terms, as something separate from or exceptional to an otherwise deterministic world. It is, instead, just another expression of the boundless creativity of the one nature of matter-energy. More importantly, the immanent ontology of creativity provided a means with which to identify a set of creative capacities that could generate constitutive political change. First of all, I suggested that any presently given constituted order or 'actual state' of politics is itself an assemblage formed through a certain complex association of innumerable assemblages. But this presently given order only corresponds to one of the potentially infinite configurations that the broader field of assemblages might enter. The existence of attractors, which mean that the overall properties of a system remain the same despite being composed of different elements in different relations, provided that the elements and relations remain within a fairly broad basin of attraction, means that this actual state does not change with even the smallest changes in the huge set of capacities in relation that form them. But despite the actual state of politics draining a broad basin of attraction, the set of possible capacities in relation vastly exceeds the zone of attraction that results in the present state of politics. Alongside the actual state of politics, then, exists an infinite field of virtual capacities; capacities which are real, insofar as the assemblages that might come into relation to form them fully exist, but are not actual, insofar as the relation is not, at this stage, entered. Furthermore, this virtual field of potential relations is itself ever-changing. Recall that, in any encounter or relation between assemblages, emergent assemblages with emergent capacities may be formed. As new relations are formed and new assemblages are produced, new capacities emerge, thus changing the field of virtual capacities. And as relations are disbanded, some assemblages are destroyed, again changing the field of virtual capacities. This field of virtual capacities provides a real set of resources for political change, but since, before the relation is entered, it is impossible to predict what, if any, emergent products and capacities might be formed, the virtual field of capacities is a *creative* power that cannot be the object of representative thought.

At any time, certain relations may be exited and others entered, and if these changes are sufficient to drive an assemblage, be it a regional or neighbourhood practice or the assemblage of the present state of social, political, and economic affairs (which might be described as a globalised neo-liberal capitalism, in present times) away from its basin of attraction, a constitutive change may take place. These changes could result in a relative political moment, where a system changes from one of its attractors to another, as would be the case in a change from neo-liberal capitalism to a more Keynesian, regulated capitalist order, or they can result in an absolute political moment, where one system is destroyed entirely and gives way to another, as would be the case in any future move from a capitalist to a post-capitalist order. Whilst some nodes in the networked assemblage or meshwork that forms a global capitalist order may be particularly important, with the functioning of financial centres like London and Wall Street, and certain financial agents like the IMF, the World Bank, banking institutions, and some major corporations having more impact in the development and maintenance of the system than other assemblages, the actual state of politics is nonetheless the product of the entire fabric of interwoven assemblages that form the current order. As a result, constitutive power, along with the constituted orders it gives rise to, is decentred, and it will take, as the example of the formation of capitalism and its potential overthrow in a slow motion general strike made clear, change at many places to generate a constitutive change to a new political order. This change, furthermore, need not occur all at once. Various small changes can work to gradually shift and unsettle a system, before a tipping point is reached where some further small changes generate a phase transition, and the system either breaks down and is reproduced as something new, or shifts from one attractor to another. Constitutive power, then, is decentred both spatially or structurally and temporally. An entire field of virtual capacities existing in different spaces makes up the structure of constitutive power and, as the example of the slow motion general strike suggested, changes at different times

could eventually result in even an absolute political moment of radical and revolutionary constitutive change.

Along with highlighting the embeddedness of constitutive, creative power in the natural and material world, and highlighting the set of constitutive resources that can drive political change, the manner in which I have based an account of constitutive power on an account of the creativity of the natural and material world has led to a different conception of constitutive power. This different conception of constitutive power offers a third significant contribution to knowledge. Hardt and Negri identify constitutive power exclusively as a force for political good, an entirely democratic and egalitarian mode of political activity which brings about changes for the better. But my account has removed these moralistic elements from an account of constitutive power, understanding it instead as the set of capacities in relation that constitute given political orders, practices, institutions, laws, and so on. In this regard, actors like financial organisations and multinational corporations are seen to be part of the constitutive power that led to a globalized and financial form of capitalism. And whilst these actors could not have formed it alone, without a vast array of processes, practices, people, groups, energy sources, and so on allowing for globalised forms of production, consumption, and exchange, they nonetheless form a particularly powerful subset of the wider field of constitutive power. Their constitutive power reveals, furthermore, that capacities for constitutive power are unevenly spread and inequitably distributed. Different sites will be vastly more important than others, with certain actors located in global cities, for instance, being particularly powerful in the constitution and continued functioning of global financial capitalism, and different actors will have vastly different and unequal constitutive powers. Of course, a more precise account of constitutive power that given actors, be they political activists, everyday consumers, advertising firms, or multinational corporations have would require in depth empirical study. Indeed, one potential avenue for future research that may be suggested by the theoretical account of constitutive power developed here would be the study of

constitutive power as an empirical reality; it may be possible to show, through a selection of empirical examples of constitutive power in action, the spatially and temporally distributed, and indeed the inequitably distributed nature of, constitutive power.

However, the theoretical account offered here has revealed that it is no good attempting to develop a Manichean division between constituted and constitutive power, with the former being the set of hierarchies, divisions, and oppressions that uphold present day orders and the latter existing as an equal and radically democratic field of resistance that may bring about positive, transformative changes. Despite the impossibility of pointing to an exclusively good, democratic, and equal form of power that can bring about political change, I have nonetheless shown that there is room for a cautious optimism in political struggle. At times, small changes can have a big impact on the future functioning of an actual state of politics. And a number of small changes can build up over time to eventually reach a tipping point where one order gives way to another. And though it is not possible to predict the timing and exact nature of changes that may occur, there is no reason to think that the changes cannot be partially guided, with changes that make positive differences in the lives of those who are suffering potentially contributing to broader changes toward a more free and equal world. Pursuing these small changes, which involve changes in the way we reproduce our daily material life, should in no way detract from bigger questions, nor from putting pressure on the nodes of the network of constituted (and indeed constitutive) power that are particularly important to the functioning of the global and financialised neo-liberal capitalism that makes up the actual state of global politics today. Indeed, constitutive power can work to disrupt, through direct action, as well as to construct alternative modes that allow for an exodus over an extended period of time. Furthermore, this disruption may be required to prevent the constitutive forces of neo-liberal capitalism from intensifying the global capitalist order, and it may enable some pressures on important elements of the neo-liberal capitalist order to make changes at key locations

in the network of global capitalism. But, particularly in light of the increasing division of the working classes and the difficulty with which agreement amongst those on the left is achieved, it is important that big questions and co-ordinated struggles of resistance are supplemented with an understanding of how different, independent movements can self-organize to make larger, co-ordinated changes. Furthermore, any large changes can occur and be sustained only if the means by which everyday material life is reproduced is changed. An actual state of politics emerges from the vast network of capacities in relation that make up the world at any time, and without material changes in the way these capacities are organised occurring, any lofty arena of speech, values, and other 'distinctly political' forms of activity and engagement will prove itself to be futile.

Appendix A: Transcendence in Plato's post-*Parmenides* dialogues

There is some debate regarding whether Plato gave up on transcendence in light of the criticisms raised in the Parmenides dialogue. Scholars including Gilbert Ryle (1965) and G.E.L. Owen (1965) indicate that Plato came to doubt and give up the theory of forms in light of the self-criticism of the *Parmenides* dialogue. This view is often supported by acknowledging the total absence of the forms from the *Theaetetus* dialogue, which immediately followed *Parmenides*. A possible obstacle to this interpretation is provided by the *Timaeus* dialogue, commonly regarded as a very late dialogue written after *Parmenides,* which appears to follow a theory of forms similar to that of pre-*Parmenides* dialogues like *Republic*. It is for this reason that Owen (1965) argues that the *Timaeus* was in fact written before the *Parmenides*, and should be understood as a middle-period dialogue written shortly after *Republic* was written. But this view, both of the Timaeus and of Plato's abandonment of the forms, remains marginal and controversial (see Adalier, 2001). There are good reasons for thinking that Plato still saw the forms as important and took them seriously. Most obviously, the Parmenides closes by affirming the necessity of maintaining some theory of forms, as without them, discourse based on general terms is said to be impossible. These claims lead Francis Cornford (2003, 11) to suggest that "Plato's intention may be to show that he is as aware as any others that they [the problems with the theory of forms] exist, and to set his pupils to think about them." Additionally, the *Theaetetus* dialogue is largely critical, with attempts to base knowledge on sensible experience and on opinion rejected. *Theaetetus* does not lead to any positive account of knowledge, leading Gokhan Adalier (2001) to suggest that the *Theaetetus* in fact affirms the middle period theory of forms by demonstrating of the failure of attempts to account for knowledge when the forms are removed from enquiry. As Adalier (2001, 36) puts it, *Theaetetus* "does not mark a moment of doubt in Plato's intellectual life, or even a break with previous attachments, but rather a moment

of reaffirmation of those attachments." This negative argument, however, is insufficient to restore faith in transcendence and the forms, with no positive account of how to overcome the wealth of problems offered, and with numerous contemporary accounts of knowledge and discourse which do not posit anything resembling transcendent forms having been offered (see footnote 20).

A stronger argument for Plato's post-*Parmenides* transcendence is provided by Charles Kahn (2007). Rather than involving an outright return to the middle period theory of forms, Kahn (2007, 36) argues, the post-*Parmenides* dialogues, starting with *Theaetetus,* see Plato engaging in a "long-term project of reshaping his metaphysical doctrine in light of the problems raised in the *Parmenides."* For Kahn, the *Theaetetus,* in its failure to account for knowledge without the forms, does not consist in a negative justification of the forms, but rather provides a reason for continued engagement with the theory of forms, an engagement that then takes place through the *Sophist* and *Statesman* dialogues, which Plato wrote immediately after and as a follow up to *Theaetetus*. But as Kahn (2007, 36) acknowledges, "the objections of the *Parmenides* are never explicitly answered", and it takes Kahn some manoeuvring to construct an account of Plato's revisions of the forms. Kahn (2007, 38) notes that the project of reforming the theory of forms after *Parmenides "*must confront three problem: 1) the nature of the forms, 2) the nature of sensible phenomena, and 3) the connection between the two." Kahn (2007, 39) first focuses on *Theaetetus,* indicating that it does not even mention the forms, and instead "is concerned primarily with becoming, that is to say, with sensible phenomena." Kahn suggests that this is because Plato regarded it as important to test whether claims to knowledge based on the sensible world of becoming might be legitimate, only to conclude negatively. *Sophist*, on the other hand, does explicitly deal with the realm of the forms. *Sophist,* though, deals solely with the realm of the forms, focuses on their relation amongst themselves. It does not deal with the sensible world, or, crucially the relation between the forms and the sensible world. It is, then, this third

problem, of the connection between the forms and the sensible world that "is the most intractable" (ibid 38).

It is "only the *Timaeus"* that "undertakes to provide a positive theory of the physical world, in which the flux of phenomena is ultimately structured by a relationship to forms" (ibid, 54). "The lynch-pin of Plato's solution", Kahn (ibid) continues, "is his new concept of the receptacle, introduced by a new and, for the first time, constructive treatment of flux." The receptacle is introduced, in *Timaeus* (49a), as a "third kind" alongside forms and their imitations. It is a formless stuff upon which eternal, formal patterns are imposed. According to Kahn (2007, 54-55), "sensible images of the forms are now construed as modifications of the receptacle, not as beings in their own right. Thus Plato avoids the problem of reifying images as separate entities or immanent forms, the problem that leads to the paradox of two independent worlds." But it is not at all clear that this move does avoid what *Parmenides* identified as the greatest difficulty, that of the separation of forms from empirical copies and the consequent creation of two separate worlds that could not relate. First, the receptacle must be put into context. *Timaeus* (28a) offers an account of a beneficent "craftsman" or demiurge, who imposes as much order and stability as possible on a pre-existing, chaotic universe by modelling and shaping it in accordance with an unchanging, eternal model. Parallels with *Republic*¸ where philosopher kings imposed as much order and stability as is possible on human affairs by ruling by looking toward the forms and then to the sensible realm, modelling the latter on the former, should not be surprising; *Timaeus* (17a-19b) opens with Socrates reminding Timaeus of the previous days discussion about politics, which makes clear references to the conclusions reached in *Republic.* The receptacle comprises the enduring, formless, and characterless substratum upon which various characteristics are imposed by the demiurge. But to presume that a demiurge can impose order, whether it be imposed directly on sensible things or on a receptacle which exists as a substratum of sensible things, is already to suppose that the demiurge has access to both the forms and the sensible world, which is already to suppose that

the gap between forms and particulars has been bridged. Kahn's move, where an intermediary (the receptacle) is placed in between forms and sensible things, meaning that sensible images of the form become modifications of a receptacle and not beings themselves, does not avoid the problem of separation, for it is still necessary for a demiurge to be able to see the forms and act on the world of stuff, something which *Parmenides* ruled out. Kahn (2007, 57) goes on to point out the role, in *Timaeus*, of applied mathematics, through which the demiurge translates unchanging and eternal forms into a plurality of changing and transient sensible things, but this still does not answer the question of how the demiurge can see and know both worlds in order to perform this translation. The problem of separation, then, remains unsolved, even in Plato's late dialogues, and as a result, Plato's transcendence cannot be saved.

One alternative reading of Plato's response to his self-criticism in the *Parmenides* dialogue is provided by Nathan Widder (2008, 54) who argues that "Plato's post-*Parmenides* development should be seen neither in terms of progressive dissatisfaction with the Forms nor as a direct revision of the theory, but rather as a shift to explore the theory's necessary conditions." See Widder (2008, 54-55) for the full exposition of this reading. The upshot is that the necessary condition of the theory of forms is the domestication of becoming through an "organization of time, which, through its dimensions of past, present, and future" "imitates eternity and revolves according to a law of number", "allowing temporal things to copy eternity through repetition and propagation" (ibid, 55) The ontology I develop here does not allow for the domestication of creative becoming under the aegis of eternity. Thus, if the ontology of creative becoming that I develop here is even remotely accurate, the conditions for a theory of transcendent forms are not met, and once more, transcendence cannot be saved.

Appendix B: Spinoza's Argument for Substance Monism

Spinoza's argument for Substance Monism is contained in the first fourteen propositions of the Ethics, and occurs in four main stages. The first claim comes in proposition five, where Spinoza argues that no two substances can share an attribute, or, as Spinoza puts it, that "in the universe there cannot be two or more substances of the same nature or attribute" (EIP5). Were there to be several such distinct substances, they would have to be distinguished either by a difference of attributes or by a difference of affections (modes). Substance is defined by Spinoza as "that which is in itself and is conceived through itself; that is, that the conception of which does not require the conception of another thing from which it has to be formed" (EID3). Since substance does not require the conception of another thing, whilst modes are "the affections of substance", which are "in" substance, and are "conceived through" (EID5) the substance that they are in, substance must be "by nature prior to its affections" or modes (EIP1). Given the priority of substance over modes, two substances that supposedly differ in terms of their mode would, when looked at in themselves (or, without reference to their modes), be the same. By a principle of the identity of indiscernables, which suggests that if two things have "all the same properties", and are thereby indiscernible, then they are "identical", and hence do not constitute two separate things, two substances therefore cannot be distinguished from one another according to their modifications (Della Rocca, 2008, 47). Were two substances to be distinguished only by virtue of their different attributes, "it will be granted that there cannot be more than one substance of the same attribute"; the substances would be different, but only by virtue of having different attributes, thus ruling out, Spinoza claims, the idea of two substances of the same nature or attribute existing (EIP5PR).

The second stage involved in the argument for substance monism comes in Proposition seven, where Spinoza argues that "existence belongs to the nature of substance" (EIP7). The first part of the proof to this proposition claims that "substance cannot be produced

by anything else" (EIP7PR). Substance cannot be produced by anything else because, first of all, it could not be produced by a mode, since the mode is, by definition, posterior to and dependent upon substance. Second, it could not be produced by another substance. There cannot, remember, be two substances of the same attribute or nature. As I have repeatedly emphasized, where two things differ radically in nature, they cannot causally interact. As Spinoza puts it in proposition three, "when things have nothing in common, one cannot be the cause of the other" (EIP3). Thus, one substance could not produce another substance, for it would have to produce another substance that is different in nature (since substances cannot share attributes), which is impossible. The second part of the proof suggests that, since substance cannot be produced by anything else, it "is therefore self-caused; that is, its essence necessarily involves existence" (EIP7PR). This move seems rather strange. There seem to be two possible conclusions that might be drawn from the premise that substance cannot be produced by anything else: either it is self-caused, or it simply doesn't exist. Spinoza only produces an argument that indicates that we should accept the former conclusion in the second proof for proposition eleven, where he states that "for every thing a cause or reason must be assigned *either* for its existence *or for its nonexistence*" (EIP11PR2, my emphasis). For substance not to exist, therefore, there must be a reason for its non-existence. In the case of modes, there are two kinds of reason for their non-existence. They could not exist because they are logically contradictory. For instance, a square circle cannot exist simply because it is a logical contradiction, and therefore incoherent. But they may also not exist because the "order of universal corporeal nature" does not account for their existence (Ibid). This means, quite simply, that the order of causes has not established them, and that is a reason for their non-existence. So a book written by me does not exist, not because it is a logically incoherent and contradictory entity, but because the order of causes have not, thus far at least, led to the production of a book written by me. Things external to the book written by me have led to its non-existence, or have not been set up in such a way that it exists. But Substance is prior to its modes and is conceptually independent of anything external to it. So this latter reason for non-

existence does not hold for substance. Substance could only not exist, therefore, if it were logically incoherent and contradictory. Yet there seems nothing contradictory about the existence of an independent existence that relies only on itself for its existence. Substance, since it has a coherent nature and cannot be prevented from existing by any other thing, therefore necessarily exists.

The third and most important stage in the argument for substance monism comes in proposition eleven, which states that "God, or substance consisting of infinite attributes, each of which expresses eternal and infinite essence, necessarily exists" (EIP11). The final, concluding stage which comes in proposition 14 follows fairly simply from the claim in proposition eleven. Proposition fourteen (EIP14) reads: "There can be, or be conceived, no other substance but God". God is equivalent to, or the same as, a substance consisting of infinite attributes, where infinite attributes is equivalent to *all* the attributes. Since God (or Nature) contains all the attributes (for God is not limited in any way, and does not lack anything, and hence must contain all the attributes), and different substances cannot share attributes, there are no attributes left to constitute any other substances. God (or Nature), therefore, must be the only substance *providing* that it consists of infinite attributes. As Curley (1988, 10) puts it, "if there must be a substance which has infinite attributes...and if there can't be two substances which have the same attribute, then the existence of the substance with infinite attributes (God) excludes the possibility of there being any other substance." The argument for proposition eleven is, therefore, all important. The crucial question, then, is why substance consists of infinite attributes. Spinoza's proof of proposition eleven is unconvincing. The first proof he offers asks us to conceive that God does not exist. A consequence of this would be that "his essence does not involve existence", which is, Spinoza claims, "absurd" (EIP11PR1). As a result, God necessarily exists. This poof revolves around the definition (EID4) of God as "substance consisting of infinite attributes". Proposition seven does indeed tell us that Substance must exist, and the definition of God or Nature as a substance with infinite attributes would then be

sufficient to validly claim that such a substance exists, but why should definition 4 be accepted in the first place? It seems that this notion of a substance with an infinity attributes is precisely what needs to be proved to justify proposition eleven, so it is unacceptable that this definition features heavily in the proof.

Part of Spinoza's second proof for proposition eleven was encountered when his argument for proposition seven was strengthened. Indeed, the claim that a cause or reason must be assigned for a things existence or nonexistence seems to be the key claim in this second proof. Spinoza here offers the argument that was offered here in favour of P7, namely, that the cause for God's non-existence would have to be in its own nature, for substance exists and is conceived through itself, so cannot have its existence or non-existence explained by anything other than itself. To not exist, then, God, or a substance consisting of infinite attributes would have to be internally contradictory. "But to affirm this of a Being absolutely infinite and in the highest degree perfect is absurd", so "neither in God nor external to God is there any cause or reason which would annul his existence", and "therefore, God necessarily exists" (EIP11PR2). Again, at stake is the definition of God as infinite and perfect, which is precisely what Spinoza is purporting to prove. Spinoza has still not shown why it is coherent and not paradoxical, contra Descartes, for a being to contain an infinity of different attributes or essences. Further, he has not indicated why one should not start by defining, say, extension or thought as a substance consisting of one attribute, before going on to say that this, being a substance, necessarily exists. It would then be impossible for a substance to contain all of the attributes on account that it would have to share an attribute with extended substance.[126] The only indication Spinoza seems to offer as to why God, and not one (or many) of these other single-attribute substances, should exist and be non-contradictory in nature appears to be in his conception of God or Nature as *perfect*. God is *perfect*, and thus must be able to contain infinite essences, for otherwise, his nature would be limited, and hence imperfect. But to use a notion of perfection seems

---

[126] Garrett (1979) raises an objection of this kind.

problematic, not only because it starts to make Spinoza's argument look strikingly like Descartes' ontological argument for the existence of God, the argumentative form of which has been shown to be illegitimate by Kant, but also because it seems to smuggle in shadows of theological transcendence.[127] Why should God be perfect, if it is just the same thing as nature? It would seem rather bizarre to describe nature as a perfect being. One might want to say that nature contains many imperfections, or, more plausibly, that perfection and imperfection do not pertain to nature; that it would be some kind of category mistake to apply these terms to nature. Spinoza's argument, then, seems to be lacking, insofar as it fails to indicate why the notion of a substance consisting of an infinity of attributes is coherent, and why alternative options, for instance, multiple single-substance attributes, are incoherent.

Della Rocca attempts to tease out an argument for proposition eleven by combining Spinoza's claim that there must be a reason for both the existence *and* the non-existence of a given thing with Spinoza's conceptual separation of attributes. For Spinoza, "each attribute of one substance must be conceived through itself" (E IP10). What was meant by this conceptual separation, and why attributes are conceptually separated, was revealed in the earlier discussion of Descartes. But whilst Descartes wanted to maintain a causal influence across attributes that were conceptually separate, Spinoza does not allow this. As Spinoza says, (E IP3) "when things have nothing in common, one cannot be the cause of the other". With this in mind, return to the proposed single-attribute substance. Suppose that this substance is characterised by the attribute of extension. Does this substance have any other attributes, for instance, the attribute of thought? If the answer is no, Della Rocca claims, one must go on to ask: "in virtue of what does it lack thought?" There must, of course, be a reason for this lack, but what could it be? A Cartesian would presumably reply by suggesting that the "fact that it is extended is the reason that the one extended substance lacks thought". But given the total separation between the attributes that Spinoza articulates, this reason is

---

[127] See Kant (2003, 500-507)

"illegitimate". Because the attributes are so radically separated, "no fact about thought depends on any fact about extension". This would mean, for example, that "the fact that a substance is extended cannot explain why it has the attribute of thought", but it also, crucially, means that the fact that a substance is extended "cannot explain why it lacks the attribute of thought." "To explain the lack of thought by appealing to extension would be to explain a fact about thought in terms of a fact about extension". To say that a substance lacks thought because it is extended would therefore "violate the conceptual barrier" between the attributes. The "strengthening...[of] the conceptual separation of the attributes" (Della Rocca, 2008, 54-55) means that "although two attributes be conceived as really distinct, that is, one without the help of the other, still we cannot deduce therefrom that they constitute two entities, or two different substances" (E IP10S). Della Rocca infers from this lack of reason for a substance having only one, and not infinite attributes, that "if this substance did lack thought, that would be a brute fact and as such ruled out by" Spinoza's strong version of "the principle of sufficient reason" (Della Rocca, 2008, 54).

Della Rocca's argument, however, is insufficient. It is insufficient because, whilst emphasizing Spinoza's strong use of the principle of sufficient reason, it appears to have neglected the part of the principle that demands that there must be a reason *for the existence* of a thing, focussing instead exclusively on the demand that we give a reason for the *nonexistence* of a thing. The conceptual separation of the attributes, whilst it shows that one cannot explain that a substance does not contain thought simply because it is extended, also shows the illegitimate nature of explaining that a substance *does* contain thought because it *is* extended. The conceptual separation of the attributes gives no hint as to whether a substance should contain only one or infinite attributes. It leaves both options as seemingly brute facts, unless, of course, a *positive reason* as to why a substance should contain infinite attributes and not one attribute is provided. Della Rocca's argument meets one demand of the principle of sufficient reason, but it will not be enough to affirm that substance has infinite attributes unless

the fact that there is no reason for its non-existence can be supplemented with a reason for its *existence.* And it will only be when a reason for the existence of infinite attributes in the one substance is offered that a substance with just one attribute will have been shown to be incoherent. A positive reason for affirming a single substance with all the attributes, rather than plural substances with different attributes, can be drawn from the discussion of the problem of separation discussed in relation to Plato and Descartes. The moment that a substantial difference between things is introduced, the relation between things can no longer be explained, leaving irresolvable problems. If such a distinction is not made, then there may well be greater hopes for explaining the relation between two different attributes, such as thought and extension. This may, initially, appear a strange claim, given that Spinoza suggests that there *can be no relation* between these different attributes, but the fact of their being in the one substance in fact enables him to explain why there *appears to be* a relation between the two, and why certain mental states, for instance, my feeling of pain, correspond to certain states of extension, such as a brick falling on my head. To see the positive reason as to why multiple attributes are contained in the one substance, and do not each constitute separate substances, and indeed, to see how the qualitative distinction within the one that is involved in a substance with plural attributes is possible, Spinoza's second flattening, a flattening which leads him to claim that mind and body are parallel attributes of the same one substance, is required. This flattening, and the parallel nature of mind and body with which Spinoza is left, is discussed in the main body of this thesis.

Appendix C: Spinoza's Differentiation of the Attributes

Much scholarly dispute surrounds the question of the nature of Spinoza's distinction between the infinite different attributes. Attending to Spinoza's definition (EID4, my emphasis) reveals an immediately obvious way in which to understand how multiple attributes might exist in the one substance. "By attribute I mean that which the *intellect perceives* of substance as constituting its essence". This reference to what the intellect perceives makes one immediately think that Spinoza is claiming that substance is simply the self-same thing, but differentiated into attributes by a finite mind that understands it differently from how it really is. But this reading cannot be maintained. First of all, Spinoza seems to rule out such a reading by saying (EIP10S) that the attributes are "really distinct". To see that we should take his second suggestion, that they are in some way really distinct, over the idea that they are products of perception that do not correspond to reality, it is sufficient to recall Spinoza's notion that the attributes of thought and extension do not causally relate. From the perceptual perspective, our body affects our mind, and our mind affects our body. Yet Spinoza rules out any such causal relationship between the conceptually distinct attributes. If the attributes were mere phenomena of perception, this move would make no sense. If the attributes were merely perceptual phenomena, then what is perceived of them would be all they are, and it would make no sense to say that, despite our perception, they do not relate. Our perceiving that they interact would be sufficient to guarantee the fact of their interaction, since all they are is our perception of substance in any case. The distinction between the attributes must, therefore, be more than a difference generated by our perception. "The attributes are not ways of seeing pertaining to the intellect" (Deleuze, 1988, 51), and instead must really be "in substance, whose essence they constitute" (Macherey, 1997, 74). The problem of "how we remain true to Spinoza's language, which regularly speaks of substance as a complex, in which each of the attributes is an element, without suggesting that substance could somehow be decomposed into its

various elements, or that some of these elements might exist apart from the others",
therefore remains (Curley, 1988, 30).

What might the real distinction of the attributes mean? Perhaps the Cartesian notion of
real distinction might help. Spinoza, in his geometrical presentation of Cartesian
philosophy, defines real distinction as "that whereby two substances, whether of
different or of the same attribute, are distinguished from one another", where this
distinction can be "recognized from the fact that each of the two can be conceived, and
consequently can exist, without the help of the other" (PCP Appendix 2:5). It is clear
that Spinoza takes up one part of this definition, namely, the conceptual distinction of
the attributes; each attribute is "conceived through itself" (EIP10). Each attribute is
understood without the help of any other attribute. Extension can be conceived, as
Descartes argued earlier, without conceiving of thought. This, for Spinoza, also means
that one attribute "could not have been produced by another", which implies that, from
the perspective of the attributes at least, one could exist without the other (EIP10S). In
fact, since both are part of substance, which Spinoza will go on to claim, could not have
produced anything other than what it does produce, it turns out that one attribute
could not have come without the other, but this is because of their mutual relation to a
substance that produces them (and could have produced nothing but all of them), and
has nothing to do with the attributes in themselves or the relation between the
attributes. Spinoza, therefore, takes up the second half of this Cartesian definition of
real distinction. But he maintains that "although two attributes be conceived as really
distinct, that is, one without the help of the other, still we cannot deduce therefrom
that they constitute two entities, or two different substances" (ibid). The radicality of
their conceptual distinction, which implies that a fact in or about one attribute cannot
tell us anything about a fact in or about another attribute, ensures that the difference in
attributes does not generate a difference in substances. What this all means is that
there must be some kind of distinction that is *real* and *not ideal*, in the sense of being
perceptual or imaginary. But despite being real, the distinction must not be *ontological,*

for it does not generate a distinction in different *beings*. A notion distinction of distinction whereby attributes can be really distinct, but co-exist in the one form of Being, is required.

Deleuze offers a very helpful suggestion as to where such a distinction might be found. Deleuze suggests that Spinoza's concept of the 'real distinction' of the attributes finds itself close to Duns Scotus' conception of 'formal distinction'. Duns Scotus distinguishes between a real distinction, where "x is *really* distinct from y if x can exist without y, or y without x, or both", and a *formal* distinction, where the definition of x does not include the notion of y or the definition of y does not include the notion of x or both" (Schmidt, 2009, 90). Duns Scotus claims that "it is possible that x and y are *really* identical", so could, for instance, exist in the same substance, and require the same substance for their existence, but remain "*formally* distinct", with their definitions "conceived independent from each other" (Ibid). Duns Scotus, further, emphasizes that "a definition does not only signify a notion produced by the intellect *but a quiddity [essence] of the thing*" (Duns Scotus, 1968, 770, my emphasis). This notion of formal distinction was common[128] amongst Medieval philosophers, who generally admitted a "threefold distinction" between "the real distinction, which entails a distinction between individuals in actual existence; the rational distinction, which is purely conceptual with no foundation in objective reality; and an intermediate distinction, which, though defined rationally, has some kind of basis in reality" (Duffy, 2006, 96). Though Spinoza suggests that the attributes are really distinct, so is not simply taking up the terminology from Duns Scotus, and though Spinoza, despite his familiarity with Duns Scotus' work, does not explicitly refer to him, the notion of formal distinction does precisely the argumentative work that is required for Spinoza to explain his claim that the one substance can have multiple attributes.[129] Indeed, one can also understand why Spinoza would want to describe such a kind of distinction as *real*, rather than formal, "for a

---

[128] Wolter (1990, 28)

[129] Deleuze claims that "Scotist themes were certainly known to Spinoza, and played a part, along with other things, in forming his" philosophy (Deleuze, 2005, 66).

formal distinction *is* a real distinction in the wider sense, that is, a distinction that has its foundation in the things itself and that is not only imposed on them by us" (Schmidt, 93-94). Deleuze (2005, 66) suggests that this notion of formal distinction "provides an absolutely coherent concept of the unity of substance and the plurality of attributes, and gives real distinction a new logic." And the key in rendering the unity of substance compatible with a plurality of attributes is a distinction between *quality* and *quantity.* Formal distinction is "a real distinction between the attributes", but one that is "not...a numerical distinction, since it is established between qualities which allow for the unity of substance" (Duffy, 2006, 99). The attributes are, therefore, qualitatively, but not quantitatively, distinct" (Deleuze, 2005, 37). These attributes are, indeed, "qualifications of substance" (Duffy, 2006, 99), but the qualifications of substance "form only one substance from the point of view of quantity" (Deleuze, 2005, 37). Nature has different qualities, or can be qualified in different ways; there is thinking in nature, there is extension in nature, but it remains the one nature in which thinking occurs, and in which extension happens. Nature is "ontologically one, formally diverse" (Deleuze, 2005, 66).

Appendix D: Right as Power - Spinoza's Argument

Spinoza's philosophy flattens any distinction between right and power, with Right becoming the same thing as power in much the same way that God became the same thing as Nature. How does Spinoza argue for the co-extensive nature of Right and Power? First, along with all other finite, existing things, we humans are modifications of the one substance; God, or Nature. As modifications, we depend on God or Nature for our power of existence. It is substance that generates our existence, and hence generates whatever power we have to exist and to remain in existence. Spinoza moves quickly from this starting point to the claim that Right is co-extensive with power.

> From the fact that the power of natural things by which they exist and act is the very power of God, we can readily understand what is the right of Nature. Since God has right over all things, and God's right is nothing other than God's power...it follows that every natural thing has as much right from Nature as it has power to exist and to act....By right of Nature, then, I understand the laws or rules of Nature in accordance with which all things come to be; that is, the very power of Nature. So the natural right of Nature as a whole, and consequently the natural right of every individual, is coextensive with its power. Consequently, whatever each man does from the laws of his own nature, he does by the sovereign right of Nature, and he has as much right over Nature as his power extends (TTP 16:4).

This justification moves from the fact that God's right is nothing other than God's power, through the dependence on finite things of God, to the claim that the right of finite things is co-extensive with their power. The move seems unproblematic. If we do depend on God or Nature, the right of which is co-extensive with its power, then our

right will similarly be co-extensive with our power. But why is God or Nature's right co-extensive with its Power? To understand Spinoza's argument, some grounding principles are required. First, for Spinoza, an individual finite mode is characterised by its relation of movement and rest. Each body is a composite of numerous smaller bodies. Society, for instance, is a composite of numerous humans, who in turn are a composite of numerous cells, organs, and so on, and each of these, in turn, are composites formed of numerous, smaller things. What sustains a particular body in existence, and indeed, what expresses its essence, is that "its parts communicate their motions to one another in a certain fixed proportion" (EIVP39Pr). Each body can change many of its constituent parts, as, indeed, the cells of a body die and are replaced over time, but in order to remain the same body, expressing the same essence, the relations of motion and rest between the parts that characterise the body must remain within certain limits. A particular body will "die when its parts are so disposed as to maintain a different proportion of motion and rest to one another" (EIVP39S2). These modes, characterised by certain proportions of motion and rest, always come together to form higher-level individuals. The various cells, organs, genes, and so on relate together to form an individual human body, which is a part of numerous further relations, which in turn to create new, larger-scale individuals like societies. Indeed, individuals far larger than societies are composed of these manifold individuals.

> There is no relation that does not itself combine with some other
> to form, in a third relation, a further individual at a higher level.
> And this *ad infinitum,* so that the universe as a whole is a single
> existing individual, defined by the total proportion of movement
> and rest, comprising all relations combined *ad infinitum,* the
> collection of all collections under all relations" (Deleuze, 2005,
> 236).

This collection of all collections is what Spinoza calls "the face of the whole universe, which although varying in infinite ways, yet remains always the same" (L64). Over time, the particular individuals that are formed will change; relations of motion and rest will change, leading to the destruction of a given individual. Now, each relation of "movement and rest comprise[s] the essence" of something. That something can exist only as that (virtual) essence, not presently realised amongst the current set of finite modes, or it can exist both as that essence, *and* as an *actual,* finite mode, existing at this present moment. If the relation of motion and rest of a given thing changes, the individual characterised by that proportion of motion and rest will, clearly, lose its actual existence. But in its place, a different essence, characterised by the new proportion of motion and rest, will gain an actual, durational existence, until, again, it is destroyed and a new essence is actualized in its place. The destruction of one individual consequently always involves the formation of other individuals; "decomposition is only the other side of composition" (Deleuze, 2005, 237). It is in these constant variations of the given individuals that are in actual existence at each particular moment that the face of the whole universe varies in infinite ways. But through these variations, the proportion of motion and rest in the entire universe remains the same. It is merely its distribution amongst the particular individuals that differs.

From the perspective of the proportion of motion rest in the universe, the universe remains always the same, but from the perspective of the individuals that make it up, it varies all the time, with some individuals formed, some cells, people, couples, and societies constructed, and others destroyed. From the perspective of God or Nature, there is no good and evil. There is just a proportion of motion and rest, which remains the same all the time. But from the limited perspective of finite things, notions of good and evil enter. In Spinoza's words, if something is bad, it "not bad with respect to the order and law of universal nature but only with respect to the laws of our own nature" (TTP 16:4). If something, in striving to increase its power to act, threatens to destroy the relation of motion and rest that constitutes me, I will regard it as bad or evil. But if

something is conducive to the relation of motion and rest that forms me, or if a relation allows me to retain my existence as an individual, whilst also making me part of a larger individual that endows me with capacities that I do not have on my own, then I will regard it as good. Nietzsche captures this perspectival nature of good and evil wonderfully when he says that "there is nothing strange about the fact that lambs bear a grudge towards the bird of prey"; there is nothing surprising about lambs seeing birds of prey as bad or evil. But it is also not surprising that the bird of prey will say that they "don't bear any grudge at all towards these good lambs, in fact, we love them, nothing is tastier than a tender lamb" (Nietzsche, 2008, 1:13). For the birds of prey, the lambs are good, because eating them nourishes them thereby increases their power to act, bringing them joy. But for the lambs, the birds of prey destroy the relations of motion and rest that constitute them, making them bad or evil. But from the perspective of Nature or Substance itself, nothing has changed in this encounter. Nature retains the same proportion of motion and rest. There can therefore be no good or bad in it. There is no higher, deeper value than these perspectival evaluations. Finite modes can get their existence and their power from the substance that they depend on and that produces them. Indeed, since it forms them with a striving to maintain their existence and increase their power to act, it gives them the raw material to form moral evaluations, for it can see things as bad for it if they decrease its power to act, and good for it if they increase it. But these evaluations can emerge only as a result of their limited perspective, and cannot come from substance itself, to which such judgments simply do not apply.[130] And in the immanent realm of perspectival judgements, in the absence of deeper judgements to back them up, the only thing that can determine which is to be regarded as 'right' is the degree of power that the perspective offering the judgement has. Right will be co-extensive with Power.

---

[130] For more on Spinoza's rejection of good and evil on the basis of his understanding of the face of the whole universe, see Deleuze (2005) 235-254

Bibliography

Adalier, G. The Case of *Theaetetus*, *Phronesis,* 2001, 46 (1): 1-37

Adorno, T and Horkheimer, M. (1997) *Dialectic of Enlightenment,* London: Verso

Althusser, L. (2006) *Philosophy of the Encounter,* London: Verso

American Heart Association, *Irregular Heartbeat Shown to Increase Risk of Death as Well as Disability; Particularly Harmful to Women,* Press Release in Science Daily (9/9/1998) available at: (http://www.sciencedaily.com/releases/1998/09/980909072000.htm, accessed 16/9/10)

Ansell Pearson, K. (2002) *Philosophy and the Adventure of the Virtual: Bergson and the Time of Life,* London: Routeledge

Arendt, H. (1978) *The Life of Mind Volume 2: Willing,* San Diego: Harvest Books

Arendt, H. (1990) *On Revolution*, London: Penguin

Arendt, H. (1993) *Between Past and Future: Eight Exercises in Political Thought,* New York: Penguin Books

Arendt, H. (1998) *The Human Condition,* Chicago: University of Chicago Press

Balibar, E. *Jus-Pactum-Lex: On the Constitution of the Subject in the Theologico-Political Treatise* in Montag, W. and Stolze, T. (eds) (1997) *The New Spinoza,* Minnesota: Minnesota Books

Balibar, E. (2008) *Spinoza and Politics*, London: Verso

Barry, B. (1995) *Justice as Impartiality,* Oxford: Clarendon Press

Bedau, M.A. Weak Emergence, *Philosophical Perspectives* 1997, 11: 375-399

Benhabib, S. (ed) (1996) *Democracy and Difference, Contesting the Boundaries of the Political,* Princeton: Princeton University Press

Bennett, J. (2010) *Vibrant Matter: A Political Ecology of Things,* London: Duke University Press

Bergson, H. (1921) *Time and Free Will*, (London: George Allen and Unwin

Bergson, H. (1991) *Matter and Memory,* New York: Zone books

Bergson, H. (1992) *The Creative Mind: An Introduction to Metaphysics,* New York: Carol Publishing Group

Bergson, H. (1998) *Creative Evolution*, New York: Dover,

Bergson, H. (2002) *Key Writings*, edited by Ansell Pearson, K and Mullarkey, J. London: Continuum, 2002

Bergson, H. (2006) *The Two Sources of Morality and Religion,* Indiania: University of Notre Dame Press

Berner, R.A. Examination of hypotheses for the Permo–Triassic boundary extinction by carbon cycle modeling, *Proceedings of the National Academy of Sciences of the United States of America,* 2002, 99 (7): 4172-4177

Bernstein, R. Hannah Arendt: The *Ambiguities of Theory and Practice*, in Ball, T. Ed (1977) *Theory and Practice: New Perspectives,* Minneapolis: University of Minnesota Press

Bernstein, R. (1986) *Philosophical Profiles,* Philadelphia: University of Pennsylvania Press

Bhaskar, R. (1997) *A Realist Theory of Science,* London: Verso

Bourdieu, P. (1998) Utopia of Engless Exploiation: The Essence of Neoliberalism, *Le Monde Diplomatique,* December 1998, available at: http://mondediplo.com/1998/12/08bourdieu, accessed 2/4/2012Borwinick, A. and Connolly, W. (eds) (2001) Democracy and Vision: Sheldon Wolin and the Vicissitudes of the Political, Princeton: Princeton University Press

Breen, K. (2012) (forthcoming). *Under Weber's Shadow: Modernity, Subjectivity, and Politics in Habermas, Arendt and MAcIntyre,* Farnham: Ashgate

Buchanan, M. (2002) *Nexus: Small Worlds and the Groundbreaking Science of networks,* London: Macmillan

Buchanan, R. And Pahuja, S. Legal Imperialism: Empire's Invisible Hand?, in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 73-95

Bunge, M. (2009) *Causality and Modern Science,* New Jersey: Transaction Publishers

Byrne, D. Complexity, Configurations and Cases, *Theory, Culture and Society,* 2005, 22 (5): 95-111

Callinicos, A. (2003) *An Anti-Capitalist Manifesto,* London: Polity

Canovan, M. *Introduction* in Arendt, H. (1998) *The Human Condition,* Chicago: University of Chicago Press vii-xx

Capra, F. Complexity and Life, *Theory, Culture and Society,* 2005, 22 (5): 33-44

Carroll, L. (2007) *Sylvie and Bruno,* Gloucestershire: The History Press

Challand, B. The Counter-Power of Civil Society and the Emergence of a New Political Imaginary in the Arab World, *Constellations,* 2011, 18 (3): 271-283

Chaloupka, W. *The Irrepressible Lightness and Joy of Being Green: Empire and Environmentalism,* in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 199-217

Chomsky, N. (2008) *The essential Chomsky,* London: Random House

Cohen, G.A. (2008) *Rescuing Justice and Equality*, London: Harvard University Press

Cohen, J. and Stewart, I. (2000) *The Collapse of Chaos,* London: Penguin Books

Coole, D. and Frost, S. (eds) (2010) *New Materialisms: Ontology, Agency, and Politics,* London: Duke University Press

Connolly, W. (2011) *A World Of Becoming,* Durham: Duke University Press

Cornford, F.M. (2003) *Plato's Theory of Knowledge: The* Theaetetus *and the* Sophist, New York: Dover

Curley, E. (1988) *Behind the Geometric Method: A reading of Spinoza's Ethics,* Princeton: Princeton University Press

Damasio, A. (2004) *Looking For Spinoza,* London: Vintage

Darwin, C. (1881) *The Formation of Vegetable Mould, Through the Action of Worms, with Observations on Their Habits.* London: John Murray

Dean, J. *The Networked Empire: Communicative Capitalism and the Hope for Politics,* in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 265-289

DeLanda, M. (1995) *The Geology of Morals*, available at http://www.t0.or.at/delanda/geology.htm, accessed: 20/4/2011

DeLanda, M. (2004) *Intensive Science and Virtual Philosophy,* London: Continuum

DeLanda, M. (2005) *A Thousand Years of Non-Linear History,* New York: Swerve

DeLanda, M. (2006) *A New Philosophy of Society: Assemblage Theory and Social Complexity,* London: Continuum

DeLanda, M. (2010) *Deleuze: History and Science,* New York: Atropos Press

DeLanda, M. (2011) *Philosophy and Simulation: The Emergence of Synthetic Reason,* London: Continuum

Deleuze, G. (1988) *Spinoza: Practical Philosophy*, San Francisco: City Light Books

Deleuze, G. (1991) *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, New York: Columbia University Press

Deleuze (1994) *Difference and Repetition*, New York: Columbia University Press

Deleuze, G. *Spinoza and the Three 'Ethics'* in Montag, W. and Stolze, T. (eds) (1997) *The New Spinoza,* Minnesota: Minnesota Books

Deleuze, G. (1999) *Foucault*, London: Continuum Books

Deleuze, G. (2002) *Bergsonism*, New York: Zone Books

Deleuze, G. (2004) *Difference and Repetition,* London: Continuum

Deleuze, G. (2005) *Expressionism in Philosophy: Spinoza,* London: Zone Books

Deleuze, G. (2005b) *Pure Immanence: Essays on A Life*, London: Zone Books

Deleuze, G. and Guattari, F. (2003) *What is Philosophy*, London: Verso

Deleuze, G. and Guattari, F. (2004) *A Thousand Plateaus,* London: Continuum Books

Deleuze, G. and Guattari, F. (2005) *A Thousand Plateaus,* Minneapolis: University of Minnesota Press

Deleuze, G. and Guattari, F. *May 68 Didn't Happen*, in Deleuze, G. (2007) *Two Regimes of Madness,* New York: Semiotext(e), 233-237

Deleuze, G. and Parnet, C. (1987) *Dialogues,* New York: Columbia University Press

Della Rocca, M. (2008) *Spinoza*, London: Routeledge

Descartes, R. (1985) *The philosophical Writings of Descartes. Vols I and II,* Cambridge: Cambridge University Press

Descartes, R. (1991) *The Philosophical Writings of Descartes. Vol III.* Cambridge: Cambridge University Press

Dikeç M. Space, politics, and the political, Environment and Planning D: Society and Space, 2003 23(2): 171 – 188

Driver, F. Bodies in Space: Foucault's account of disciplinary power in C. Jones and R. Porter. (eds) (1994) *Re-assessing Foucault*, Routledge: London, 113-31.

Duffy, S. (2006) *The Logic of Expression: Quality, Quantity and Intensity in Spinoza, Hegel and Deleuze*, Hampshire: Ashgate

Duns Scotus, J. (1982) *A Treatise on God as First Principle,* Chicago: Franciscan Herald Press

Einstein, A. (1954) *Ideas and Opinions*, New York: Crown

Ekman, P. 'Facial Expressions of Emotion: New Findings, New Questions', iPsychological Science, 1992, 3*:* 34-38

Foucault, M. (1973) *Truth and Juridical Forms*, in Foucault, M. (2000) *Power, essential works of Foucault 1954-1984),* London: Penguin, 1-90

Foucault, M. (1979) *Discipline and Punish,* New York: Vintage Books

Foucault, M. (1982) *The Subject and Power*, in: Foucault, M. (2000) *Power, essential works of Foucault 1954-1984),* London: Penguin, 326-349

Foucault, M. (1991) *The Foucault Reader*, Edited by Rabinow, P. London: Penguin Books

Foucault, M. (1998) *History of Sexuality volume one: The Will to Knowledge*, London: Penguin

Foucault, M. (2000) *Power, essential works of Foucault 1954-1984,* London: Penguin

Foucault, M. (2002) *The Archaeology of Knowledge,* London: Routeledge

Fraser, N. (2011) *A Polanyian Feminism? Re-Reading the Great Transformation in the 2st Century,* Lecture Delivered at the University of Cambridge, 8/3/2011, Available at: http://www.crassh.cam.ac.uk/events/1534/, accessed 2/4/2012

Frohlich, N. Oppenheimer, J.A. and Eavey, C.L. Laboratory Results on Rawls's Distributive Justice, *British Journal of Political Science,* 1987, 17:1: 1-21.

Gatens, M. and Lloyd, G. (1999) *Collective Imaginings: Spinoza, Past and Present*, London: Routeledge

Garrett, D. (ed) (2009) *The Cambridge Companion to Spinoza,* Cambridge: Cambridge University Press

Gerson, L.P. (ed) (1994) *The Epicurus Reader*, Indianapolis: Hackett

Gibson-Graham, G.K. (1996) *The End of Capitalism (as we Know it): A Feminist Critique of Political Economy,* Oxford: Blackwell

Gibson-Graham, G.K. (2006) *A PostCapitalist Politics,* Minnesota: University of Minnesota Press

Goodwin, B. (2007) *Nature's Due: Healing Our Fragmented Culture,* Edinburgh: Floris Books

Gueroult, M. *Spinoza's Letter on the Infinite* in Greene, M. (ed) (1973) *Spinoza: A Collection of Critical Essays*, Indiana: University of Notre Dame Press, 182-212

Hall, P.A. and Soskice, D. (2001) *Varieties of Capitalism: the Institutional Foundations of Comparative Advantage,* Oxford: Oxford University Press

Hampsher-Monk, I. (2005) *A History of Modern Political Thought*, Oxford: Blackwell

Hampshire, S. (1976) *Spinoza*, London: Penguin Books

Hardt, M. *Foreword: Three Keys to Understanding Constituent Power*, in Negri, A. (2009) *Insurgencies: Constituent Power and the Modern State,* London: University of Minnesota Press vii-xiii

Hardt, M. and Dumm, T.L. *The Theory and Event Interview: Sovereignty, Multitudes, Absolute Democracy: A Discussion between Michael Hardt and Thomas L. Dumm,* in in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 163-175

Hardt, M. and Negri, A. (2000) *Empire*, London: Harvard University Press

Hardt, M. and Negri, A. (2004) *Multitude: war and democracy in the age of Empire,* New York: Penguin

Hardt, M. and Negri, A. (2009) *Common Wealth,* Massachusetts: Cambridge University Press

Harman, G. DeLanda's Ontology: Assemblage and Realism, *Continental Philosophy Review,* 2008, 41: 367-383

Harvey, D. (2005) *A Brief History of Neoliberalism,* Oxford: Oxford University Press

Hauptmann, E. A Local History of the Political, *Political Theory* 2004, 32 (1):34-60

Heller, K.J. 'Power, Subjectification, and Resistance in Foucault', *Substance* 1996, 25 (1) pp.78-110

Hegel, G.W.F. (1977) *Hegel's Phenomenology of Spirit,* Oxford: Oxford University Press

Hegel, G.W.F. (2004) *Elements of the Philosophy of Right,* Cambridge: Cambridge University Press

Heraclitus (2003) *Fragments*, London: Penguin

Hird, M.J. From the Culture of Matter to the Matter of Culture: Feminist Explorations of Nature and Science, *Sociological Research Online,* 2003, 8 (1)

Hirst, P. *Carl Schmitt's Decisionism,* in Mouffe, C. (ed) (1999) *The Challenge of Carl Schmitt,* London: Verso, 7-18

Hobbes, T. (1983) *De Cive*, Oxford: Clarendon Press

Hobbes, T. (1968) *Leviathan*, London: Pelican Classics

Holland, E. (2010) *Non-Linear Historical Materialism: Or, Some Political Implications of A Minor Marxism*, Unpublished Manuscript

Hume, D. (1978) *A Treatise of Human Nature,* Oxford: Oxford University Press

Kahn, C.H. Why is the *Sophist* a Sequel to the *Theaetetus, Phronesis,* 2007, 52 (1): 33-57

Kalyvas, A. (2009) *Democracy and the Politics of the Extraordinary: Max Weber, Carl Schmitt, and Hannah Arendt*, Cambridge: Cambridge University Press

Kant, I. 1991) *Political Writings,* Cambridge: Cambridge University Press

Kant, I. (2003) *Critique of Pure Reason,* Hampshire: Palgrave Macmillan

Kant, I. (2005) *The Moral Law*, Oxfordshire: Routeledge Classics

Kant, I. (2007) *Critique of Judgement,* Oxford: Oxford World's Classics

Kateb, G. (1983) *Hannah Arendt: Politics, Conscience, Evil*, New Jersey: Rowman and Allanheld

Kateb, G. Political Action: its Nature and its Advantages, in Villa, D. (ed) (2000), *The Cambridge Companion to Hannah Arendt,* Cambridge: Cambridge University Press, 130-148

Kauffman, S. (1995) *At Home in the Universe: The Search for Laws of Complexity,* London: Penguin Books

Kauffman, S. (2000) *Investigations*, London: Penguin Books

Kauffman, S. (2008) *Reinventing the Sacred,* New York: Basic Books

Kelsen, H. (1945) *General Theory of Law and State,* Cambridge: Harvard University Press

Kelsen, H. (1967) *Pure Theory of Law,* Berkeley: University of California Press

Kelsen, H. (1992) *Introduction to the Problems of Legal Theory,* Oxford: Clarendon Press

Kemp Smith, N. (2003) *A Commentary to Kant's Critique of Pure Reason*, Oxford: Clarendon Press

Klein, N. (2007) *The Shock Doctrine,* London: Penguin

Kim, J. Making Sense of Emergence, Philosophical Studies 1999, 95: 3-36

Knauer, J.T. Motive and Goal in Hannah Arendt's Concept of Political Action, *American Political Science Review,* 1980, 74 (3) 721-733

Koistinen, O. (ed) (2009) *The Cambridge Companion to Spinoza's Ethics:* Cambridge University Press

Kymlicka, W. (2002) *Contemporary Political Philosophy: An Introduction*, Oxford: Oxford University Press

Laclau, E. *Can Immanence Explain Social Struggles,* in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 21-31

Law, J. (1994) *Organizing Modernity,* Oxford: Blackwell

Liebniz, G.W. *Correspondence with Clarke,* available at http://www.bun.kyoto-u.ac.jp/~suchii/leibniz-clarke.html, accessed: 20/4/2011

Lloyd, G. (2008) *Routeledge Philosophy Guidebook to Spinoza and the Ethics,* London: Routeledge

Lloyd-Morgan (1923) *Emergent Evolution,* London: Williams and Norgate

Locke, J. (1988) *Two Treatises Of Government*, London: Everyman Classics

Love, N. 'Foucault and Habermas on Discourse and Democracy, *Polity* 1989, 22 (2), 269-293

Luther King Jr, M. (1968) *A Testament of Hope: The Essential Writings of martin Luther King,* New York: Harper Collins

Macherey, P. (1979) *Hegel ou Spinoza*, Paris: Maspero-La Decouverté

Macherey, P. *The Problem of the Attributes* in Montag, W. and Stolze, T. (eds) (1997) *The New Spinoza,* Minnesota: Minnesota Books

MacIntyre, A. (2007) *After Virtue,* Cambridge: Cambridge University Press

Mackenzie, A. The Problem of the Attractor: A Singular Generality Between Sciences and Social Theory. *Theory, Culture and Society*, 2005, 22(5), 45-66

Maffettone, S. (2010) *Rawls: An Introduction*, London: Polity Press

Marchart, O. (2007) *Post-Foundational Political Thought: Political Difference in Nancy, Lefort, Badiou and Laclau,* Edinburgh: Edinburgh University Press

Marx, K. (2000) *Collected Writings,* Oxford: Oxford University Press

Marx, K. and Engels, F. (1952) *The Communist Manifesto*, Oxford: Oxford University Press

Matheron, A. *The Theoretical Function of Democracy in Spinoza and Hobbes* in Montag, W. and Stolze, T. (eds) (1997) *The New Spinoza,* London: Minnesota Books

Mcnay, L. The Foucauldian Body and the Exclusion of Experience, *Hypatia,* 1991, 6 (3), 125-139

Mitchell, M. (2009) *Complexity: A Guided Tour,* Oxford: Oxford University Press

Montag, W. (1999) *Bodies, Masses, Power: Spinoza and his Contemporaries,* London: Verso

Montag, W. and Stolze, T. (eds) (1997) *The New Spinoza,* London: Minnesota Books

Morowitz, H.J. (2004) *The Emergence of Everything,* Oxford: Oxford University Press

Mouffe, C. (2005) On The Political, London : Routledge

Mouffe, C. (2005b) *The Return of the Political,* London: Verso

Murray, J. Complexity Theory and Socio-Legal Studies; Coda: Liverpool Law, *Liverpool Law Review,* 2008, 29: 227-246

Nancy, J.L. (1993) *The Experience of Freedom*, Stanford: Stanford University Press

Negri, A. (2003) *The Savage Anomaly: the Power of Spinoza's Metaphysics and Politics,* Oxford: University of Minnesota Press

Negri, A. (2009) *Insurgencies: Constituent Power and the Modern State,* London: University of Minnesota Press

Nicolis, G. and Prigogine, I. (1989) *Exploring Complexity,* New York: W.H. Freeman

Nietzsche, F. (1998) *The Genealogy of Morals*, Oxford: Oxford University Press

Nietzsche, F. (1974) *The Gay Science*, New York: Vintage Books

Nietzsche, F. (2003) *Twilight of the Idols and the Anti-Christ*, London: Penguin

Nozick, R. (1975) *Anarchy, State and Utopia*, Oxford: Blackwell

Owen, D. Nietzsche's Event: Genealogy and the Death of God, *Theory and Event,* 2002, 6 (3)

Owen, G.E.L. *The Place of* Timaeus *in Plato's Dialogues,* in Allen, R.A. (ed) (1965) *Studies in Plato's Metaphysics,* New York: Humanities Press, 313-338

Panagia, D. Ceci n'est pas un argument : An Introduction to the Ten Theses, Theory and Event 2001, 5 (3)

Parekh, B. *Hannah Arendt's Critique of Marx,* in Hill, M. (ed) (1979) *Hannah Arendt: The Recovery of the Public World,* New York: St Martin's Press

Parmenides, *On Nature,* at http://www.crandallu.ca/courses/grphil/OnNature.htm, accessed 17/4/2011

Passavant, P. (2004a) *PostModern Republicanism*, in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 1-21

Passavant, P. (2004b) *From Empire's Law to the Multitude's Rights: Law, Representation, Revolution*, in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 95-121

Patton, P. Utopian Political Philosophy: Deleuze and Rawls, *Deleuze Studies* 2007, 1 (1): 41-59

Pitkin, H. Justice: On Relating Private and Public, *Political Theory,* 1981, 9 (3) 327-335

Plato. (1997) *Complete Works,* Cambridge: Hackett Publishing Company

Plato. *Sophist,* in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company 235-294

Plato. *Statesman*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company 294-359

Plato. *Parmenides,* in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company 359-398

Plato. *Protagoras*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 746-791

Plato. *Meno*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company 870-898

Plato. *Republic*, in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 971-1224

Plato, *Theaetetus,* in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 157-235

Plato. *Timaeus,* in Plato (1997) *Complete Works,* Cambridge: Hackett Publishing Company, 1224-1292

Polanyi, K. (2001) *The Great Transformation: The Political and Economic Origins of Our Time,* Boston MA: Beacon Press

Prigogine, I. and Stengers, I. (1984) *Order out of Chaos*, New York: Bantam Books

Prigogine, I. (2003) *Is Future Given?* London: World Scientific Publishing Company

Prigogine, I. and Stengers, I. *The Reenchantment of the World* in Stengers, I. (2007) *Power and Invention,* Minnesota: Minnesota Books, 33-61

Rabinow, P. (2003) *Anthropos Today: Reflections on Modern Equipment,* Oxfordshire: Princeton University Press

Rancière, Jacques 'Politics, Identification and Subjectivization', *October* 61, 1992: 58-64.

Ranciere, J. (1999) Dis-Agreement: Politics and Philosophy, Minneapolis: University of

Minnesota   Press

Ranciere, J. 'Ten Theses on Politics', *Theory and Event* 2001, 5 (3)

Ranciere, J. (2007) *On the Shores of Poltiics*, London: Verso

Rasch, W. (2004) *Sovereignty and its Discontents,* London: Birkbeck Law Press

Rawls (1985) *Justice as Fairness: Political not Metaphysical,* in Freeman, S. (ed) (2001) *John Rawls: Collected Papers,* London: Harvard University Press pp.388-415

Rawls, J. (1999) *A Theory Of Justice (revised edition),* Massachusetts: Harvard University Press.

Rawls, J. (2001) *Justice as Fairness: A Restatement,* London: Harvard University Press

Rawls, J. (2001b) *Law of Peoples,* London: Harvard University Press

Ricoeur, P. *The Political Paradox* in Ricoeur, P. (1965) History and Truth, Evanston: Northwestern University Press, 247-270

Ruhl, J.B. Complexity Theory as a Paradigm for the Dynamical Law-and-Society System: A Wake-Up Call for Legal Reductionism and the Modern Administrative State, *Duke Law Journal,* 1996, 45 (5): 849-928

Ryle, G. *Plato's* Parmenides, in Allen, R.A. (ed) (1965) *Studies in Plato's Metaphysics,* New York: Humanities Press, 91-147

Sassen, S. *The Repositioning of Citizenship: Emergent subjects and Spaces for Politics,* in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 175-199

Sandel, M.J. (1998) *Liberalism and the Limits of Justice,* Cambridge: Cambridge University Press

Sassen, S. (2006) *Territory, Authority, Rights: From Medieval to Global Assemblages*, Oxford: Princeton University Press

Saxenian, A. (1990) *Regional Advantage. Culture and Competition in Silicon Valley and Route 128*, Cambridge, MA: Harvard University Press
http://www.sciencedaily.com/releases/1998/09/980909072000.htm accessed 16/9/10

Schmidt, A. *Substance Monism and Identity Theory in Spinoza* in Koistinen, O. (ed) (2009) *The Cambridge Companion to Spinoza's Ethics:* Cambridge University Press, 79-99

Schmitt, C. (1989) *Verfassungslehre,* Berlin: Duncker und Humblot

Schmitt, C. (1996) *The Concept of the Political,* London: University of Chicago Press

Schmitt, C. (2003) *The Nomos of the Earth,* New York: Telos Press

Schmitt, C. (2005) *Political Theology,* London: University of Chicago Press

Shapiro, K. *The Myth of the Multitude,* in Passavant, P. and Dean, J. (eds) (2004) *Empire's New Clothes: Reading Hardt and Negri,* London: Routeledge, 291-318

Sheppard, E. Geographic Dialectics? *Environment and Planning A,* 2008, 40, 2603-2612

Singer, P. (2011) *Practical Ethics,* Cambridge: Cambridge University Press

Smith, D. *Deleuze and Derrida, Immanence and Transcendence: Two Directions in Recent French Thought,* in Patton, P. and Protevi, J. (eds) (2003) *Between Deleuze and Derrida*, London: Continuum, 46-66

Smith, J. and Jenks, C. Complexity, Ecology and the Materiality of Information, *Theory, Culture and Society,* 2005, 22 (5):141-163

Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company

Spinoza, B. *Principles of Cartesian Philosophy and Metaphysical Thoughts,* in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 108-213

Spinoza, B. *Ethics*, in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 213-383

Spinoza, B. *Political Treatise,* in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 676-755

Spinoza, B. *Letters*, in Spinoza, B. (2002) *Complete Works,* Cambridge: Hackett Publishing Company 755-961

Spinoza, B. (2007) *Theological Political Treatise*, Cambridge: Cambridge University Press

Stengers, I. (2007) *Power and Invention,* Minnesota: Minnesota Books

Stolze, T. (eds) (1997) *The New Spinoza,* Minnesota: Minnesota Books

Tickell, O. (2009) *Kyoto 2: How to Manage the Global Greenhouse,* London: Zed Books

Toffler, A. *Foreword: Science and Change* in Prigogine, I. and Stengers, I. (1984) *Order out of Chaos*, New York: Bantam Books

Urry, J. (2003) *Global Complexity,* Cambridge: Polity Press

Urry, J. The Complexity Turn, 'The complexities of the global', *Theory, Culture and Society,* 2005a, 22 (5): 1-14

Urry, J. The Complexities of the Global, *Theory, Culture and Society,* 2005b, 22 (5): 235-54

Veyne, P. 'Foucault Revolutionizes History' in Davidson, A. I. (ed) (1998) *Foucault and his Interlocutors*, Chicago: Chicago University Press pp. 146-183

Varela, F.J. Two Principles of Self-Organisation in Ulrich, H. and Prost, G.J.B. (eds) (1984) Self-Organzation and Management of Social Systems, Berlin: Springer Verlag

Villa, D. (1996) *Arendt and Heidegger: The Fate of the Political,* Princeton: Princeton University Press

Virno, P. (2003) *A Grammar of the Multitude*, California: Semiotexte

Westfall, R.S. (1983) *Never at Rest: A Biography of Isaac Newton*, Cambridge: Cambridge University Press

White, S. Three conceptions of the Political: the real world of late modern democracy. In Borwinick, A. and Connolly, W. (eds) (2001) Democracy and Vision: Sheldon Wolin and the Vicissitudes of the Political, Princeton: Princeton University Press, 173-193

Whitehead, A.N. (1967) *Science and the Modern World,* New York: The Free Press

Whitehead, A.N. (1978) *Process and Reality,* New York: The Free Press

Widder, N. 'What's Lacking in the Lack: A Comment on the Virtual', *Angelaki,* 2000, 5 (3): 117-138

Widder, N. 'Foucualt and Power Revisited', *European Journal of Political Theory,* 2004, 3 (4): 411-432

Widder, N. (2008) *Reflections on Time and Politics*, Pennsylvania: Pennsylvania State University Press

Wilkinson, R. and Pickett, K. (2010) *The Spirit Level: Why More Equal Societies Do Better*, London: Penguin

Wittgenstein, L. (2001) *Philosophical Investigations*, Oxford: Blackwell

Wittgenstein, L. (1969 *On Certainty,* Oxford: Blackwell

Wolin, S. *Fugitive Democracy* in Benhabib, S. (ed) (1996) *Democracy and Difference: Contesting the Boundaries of the Political*, Princeton: Princeton University Press, 31-46

Wolter, A.B. (1990) *The Philosophical Theology of John Duns Scotus,* Ithaca: Cornell University Press

Zizek, S. *Carl Schmitt in the Age of Post-Politics,* in Mouffe, C. (ed) (1999) *The Challenge of Carl Schmitt,* London: Verso 18-38