RE-ENCHANTING HUMAN ECOLOGY: IDENTITY AND DIFFERENCE, PROCESS
METAPHYSICS, AND EMERGENCE

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Abstract

       Drawing from historical political thought and 20th century western philosophy, this dissertation advances a theory of 'secular enchantment' of nature, humanity, and their relationship. Its underlying social and political goal is to inspire an ethic of ecological conservation and stewardship. Its philosophical goal is to lay a new ontological foundation for thinking and talking about the unique human place within the ecological world.

       Modern scientific inquiry and reasoned philosophical reflection can expose the facts and uncover the truths about the human relationship with nature. Such an endeavour is important, and forms the backbone of this dissertation. But it is not enough. The natural world is in crisis and the truth alone cannot save it. If it is to be deemed worth saving, nature must be restored as a fundamental site of meaning in human life.

       The great modernizing project has purged the supernatural from nature, and with it the grounds for meaning and ethical direction. Still, wielded properly, science and philosophy can reestablish the enchantment of nature. Using a wide variety of thinkers, this dissertation shows that rational inquiry can inspire a sense of wonder for ecological complexity, and for the special place humans occupy in the natural whole.

<u>Acknowledgments</u>

I would like to thank my entire dissertation committee for the time and effort that allowed this project to come to completion. Of course, Terry Maley has been especially instrumental. A student could not ask for a more engaged or supportive supervisor. Terry read each draft with great care, and has nudged me along slowly but steadily for almost six years now. Perhaps he could have been a little tougher on me at times, but that is not a complaint.

My wife, Riiko Bedford, has contributed immensely. It's been a great privilege for us to work on doctorates along the same timeline. Our intellectual curiosities no doubt fed each other and sustained us both for the long haul. My own work ethic pales in comparison to Riiko's, and I imagine that it was the desperate attempt to stay abreast that kept me going. Far more important than academic considerations, she has made it a joy to build a life and family together. Riiko's unending love and support has nurtured my passion, and always will.

Lastly, and at the risk of stooping to cliché, I must acknowledge the beautiful outdoors that has become a central part of my life. In the end, this dissertation is little more than a lofty expression of my love for the natural world. Watching small trout sip mayflies on a June evening. Hiking through a grove of ancient hemlocks. Foraging wild mushrooms. Turning over rocks with my son to find salamanders. It is my great fortune to enjoy such experiences, and often. Nature never ceases to fill my heart with wonder and my life with meaning.

Table of Contents

Chapter 1: Introduction

The present historical conjuncture is increasingly being understood as one of ecological

crisis. Atmospheric carbon continues to climb to dangerously high levels, spurring unpredictable

and devastating changes in the global climate. The oceans are both rising and acidifying,

resulting in the displacement of people and the extinction of marine life. Natural resources and

wilderness areas are in significant decline. In only a few generations, the planet may no longer be

able to sustain human life. The well established scientific consensus, of course, is that these

phenomena are anthropogenic. It seems cruelly paradoxical that humans are inflicting the

ecological damage that could very well lead to their own demise as a species, as well as

significant disruptions to non-human nature. Yet, it is not humans, *per se*, who are the chief

perpetrators of the ecological crisis. Rather, it is humans acting within the totalizing logic that is

modern capitalism.[1] Ecologically-minded critical scholars have for some time directed their

attention to the connection between the capitalist system of production and environmental

degradation. Increasingly, even mainstream thinkers are exposing this relationship (see Klein

2014). While avoiding vulgar Marxist formulations concerning socio-political determination by

the economic base, the present argument does take seriously the historical materialist insistence

that real empirical conditions of existence — production and consumption carried out by

individuals in the context of determinate social relations — exert an important causal influence.

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[1] This is not to assert that capitalism is the only socio-economic system that is ecologically destructive.
The environmental record of the U.S.S.R. indicates that socialist systems can be a threat as well.

In other words, capitalism is a key analytical category and is a necessary object of ecological critique. However, adequate socio-historical methodologies recognize that capitalism is not an all-encompassing totality, but is rather a *totalizing logic*. In this way, real causal potential is rightfully given to the agency of individuals acting within the context of that logic, as well as to their (possibly counter-hegemonic) ideas. As it concerns the present analysis, this means that while the capitalist system of production is deeply implicated in the contemporary ecological crisis, progressive solutions must look further than merely transforming the economic system. They must account for the *ideas* that are operationalized in capitalism's treatment of the ecology and seek to provide alternatives to those ideas.

It is precisely here where the present argument seeks to intervene in contemporary ecological thought and practice. A different way of thinking about nature can help to encourage different ways of interacting with it — for better or for worse. What is argued here, however, is deeper than the case that changed ideas about the natural world will lead to more sustainable ecological practices. This dissertation is intended as an exploration of the human place within a dynamic ecological system. More than a contribution to a set of *ideas*, it is a philosophically and scientifically informed project that aims to uncover the *truth* of some core aspects of human being-in-the-world, which can only be articulated with reference to the ecological world. As Herbert Marcuse has argued, adequate ways of thinking about the world have at their centre an "ontological concept of truth" (Marcuse 1964, 130). These modes of analysis take as fundamental an opposition between the truth of things and the facts of everyday reality. Dedicated scientific and philosophical thought can strive towards a better understanding of the

ontological truth, with the underlying goal of improving the actual state of affairs. As it concerns this dissertation, that means working toward a better understanding of three things: nature itself, conceptualized as 'ecology'; humans, especially their special powers of self-consciousness and praxical transformation of nature; and, most importantly, the human relationship with nature. As they are conceived in the ideology of capitalist modernity, these three components are tremendously distorted. Humans are understood as radically separate from nature, which for its part is taken to be merely the raw material to be manipulated for human advancement. This way of thinking about humans and nature not only informs devastating ecological practices, as well as the subordination of many human beings, but it is also fundamentally untrue. It will be the core objective of this dissertation to describe an alternative to this dominant way of thinking about nature and the place of humans within it. More than simply an alternative, this conception will endeavour to be adequate to its object, to be an accurate and defensible description of the ontology of human-ecological relations. A more reasonable theory of human ecology will not be sufficient to carry out the goals of an adequate ecological politics, or to create a just and ecologically sensitive post-capitalist future. Nonetheless, it will be a necessary condition.

In the early 21st century an extended exploration of 'enchantment,' let alone a dissertation dedicated to a 're-enchantment' of humanity and nature, seems out of place. Indeed, the term has mythico-religious and spiritual connotations. It smacks of new-age mysticism and its abstract metaphysical speculation, or of backward religious ontologies. 'Enchantment,' surely does not seem compatible with modern scientific thought. And yet, it will be argued here that the concept of 'enchantment' is necessary if humans are to understand themselves, the ecology, and

their integration within dynamic ecological systems. This dissertation will defend a version of 'enchantment' that can be substantiated not *in spite of* but rather explicitly *because of* modern science. This version of 'enchantment' makes reference to the sense of wonder and amazement engendered by human experiences of, and in, nature, as well as through contemplation of their own place in the world and the special powers they possess. More specifically, this means that science provides no shortage of reasons to be amazed by nature. Meanwhile philosophy, particularly the philosophy of mind, shows that humans have unique and special characteristics — namely subjectivity and self-consciousness — that can inspire genuine awe. This approach to enchantment strives to be compatible with philosophy and modern science, and can do so only on the basis of a non-reductionist and non-mechanistic ontology. As Hobbes would have it, if all life can be reduced to simple matter in motion, all quality passes into quantity and the possibility of genuine novelty is foreclosed. On the other hand, actual experience of the world indicates that while matter is indeed foundational, it can be organized — or even organize itself — according to laws and patterns that cannot be reduced to the physical. It is these moments — the emergence of biological life from physical and chemical processes, and the development of self-consciousness out of biology — that must be appreciated as 'enchanted,' even as they can be accounted for within the framework of scientific inquiry.

This dissertation will build its case for an 'enchanted' conception of human ecology (a term that refers to the human relationship with nature) by exploring the ways in which that relationship has been portrayed in three philosophical schools. The first of these is termed the 'historical-dialectical' tradition and refers to the thought of Jean-Jacques Rousseau, G.W.F.

Hegel, Karl Marx, as well as the Frankfurt School thinkers Herbert Marcuse and Theodor Adorno. The second school, process metaphysics, is most commonly associated with Alfred North Whitehead. However, this dissertation will focus more attention on the lesser known Charles Hartshorne, whose work speaks more directly to ecological issues. The third and final approach is emergentism, a tradition in the philosophy of science that explores the emergence of qualitative novelty. This is a diverse tradition with investigations spanning neuroscience to Marxism. The present analysis will centre on the emergence theory of Roy Bhaskar, the founder of the Critical Realist school of philosophy of science. The purpose of these expositions is to help clarify the place of human beings within their ecological context, so that we can better appreciate what is special, or 'enchanted' about both humanity and non-human nature. This, the most substantial theoretical contribution of the present argument, takes as constitutive the fundamentally contradictory character of the human-ecological relationship. That is, humans are simultaneously a part of nature but also outside of it in important ways. On the one hand, they are physical, chemical, biological entities, embedded within nature as a whole and within particular ecosystems. Humans rely on constant interaction with the natural world for their continued survival. In this way, they are very much a part of nature. On the other hand, however, humans have characteristics that no other animals possess. The most important of these is self-consciousness: *thought* that is able to conceive of itself as such. This power, Rousseau was the first to argue, makes humans *historical* beings, able to consciously decide how they will interact with nature to produce and reproduce themselves. They are not determined by the laws of nature to the same extent that non-human nature is. Rousseau famously remarked that when nature calls

all other beasts obey, but humans can choose to disobey — often to their own detriment (Rousseau 1987, 44). Likewise, Marx observed that non-human animals cannot choose how they interact with nature, while humans do have the power to do so (Marx 1992, 328-9). If these two facts — that of human integration in nature and that of human separation from it — are held too far apart, numerous problematic dichotomies arise: nature vs. culture/history, naturalism vs. humanism, ecocentrism vs. anthropocentrism, etc. Adequate theories of human ecology must transcend these dualistic ways of thinking and conceptualize human being as something that is at once identical and non-identical with nature. Indeed, there have already been many important developments in this area (see Biro 2005).

In an important sense, this exploration is about self-discovery. It takes up the command from the oracle at Delphi for humans to know themselves. Philosophical thinking since Plato has emphasized the importance that knowledge about the truth of human being has for political affairs. This dissertation aims to contribute to these discussions by describing some existentially necessary facets of human being-in-the-world that are connected to ecological relationships. In essence, this dissertation is a meta-theoretical contribution. It seeks to provide the ground for such things as Ecological Political Theory, but does not delineate a particular political project. This is not to say that it does not have political motivations. The renewed conception of human being herein described can serve as the foundation of a new 'political.' This term is often associated with the political theory of Sheldon Wolin. For Wolin, 'politics' refers to the ongoing affairs pertaining to the organization of powers and distribution of resources. 'The political,' on the other hand, is an episodic occurrence in which the collectivity comes together and exercises

its power to protect its own wellbeing (Wolin 1994, 11). Terry Maley observes that "Wolin is acutely aware the creation or revival of the *political*… takes place in a disenchanted world that has been made meaningless by the awesome powers of the modern state, bureaucracy, and capitalism as well as by the science and technology that have come to dominate these spheres of life" (Maley 2011, 21-2). Not seeking to return to any form of 'enchantment,' 'Post-modern' and 'post-Marxist' approaches have attempted to preserve 'the political' while denying it any ontological foundations (Valentine 2006, 510). This dissertation takes precisely the opposite approach, affirming materialism as well as ontological and epistemological realism. More concretely, this means that humans and the ecological systems in which they find themselves are not only really existing, but they are possible objects of scientific and philosophical discovery. We *can* have valid, if limited knowledge of ourselves and these truths can and must serve as the ontological grounding for a renewed 'political' that is adequate to the social and ecological challenges of the current conjuncture.

This dissertation, then, has two projects — one philosophical, the other political. The philosophical projects consists in the attempt to theorize humans and the ecology in such a way that they can once again be objects of wonderment: a sort of materialist, scientific, non-supernatural 'enchantment.' The political project is simply the suggestion that this understanding of humans, nature, and their place within it can provide the ontological foundation for a renewed sense of the 'political.' Perhaps surprisingly, none of the thinkers dealt with in the substantive chapters of this dissertation are associated in any significant way with the concepts of

'enchantment,' or the 'political.'[2] To be sure, the historical-dialectical philosophers — Rousseau, Hegel, Marx, Marcuse and Adorno — are all *political* thinkers. Hartshorne and Bhaskar may have political leanings, but their philosophy deals in no significant way with politics or the 'political.' The historical-dialectical thinkers, with the possible anomaly of Adorno, do not devote much attention to enchanting or re-enchanting the world. On the other hand, Hartshorne's philosophy is motivated by a sort of theology — pantheism — but one which rejects supernaturalism. Bhaskar, meanwhile, is ambiguous: his early work consists of a materialist philosophy of science, but in later writings he develops a controversial mysticism. Ultimately, what each of these thinkers thinks specifically about enchantment is not of direct importance to the analysis developed here. In the investigations of these philosophers that make up the substantial contribution of this dissertation, the emphasis will be on how each one conceptualizes the human relationship with nature, and what this tells us about both humans and the ecological world. The goal is an amalgam of these different ways of seeing human ecology, one which is more true than the sum of its parts. This final picture will, on its own, command a discourse of enchantment.

Human Ecology and 'Enchantment'

      The *process* of 'disenchantment' has a long history in the western tradition and has been accelerated with the development of modern science since the scientific revolution. Here, the

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[2] The exception here is Adorno, who addresses disenchantment at great length in his *Dialectic of Enlightenment*, co-authored with Max Horkheimer.

analysis will concentrate less on the specific ways in which scientific discovery has disenchanted the world, and more on how nature has consequently come to be understood as mere 'stuff,' or lifeless inert matter. Gilbert G. Germain argues that self-conscious *discourses* of disenchantment begin in earnest with Descartes (Germain 1993, 1). Germain notes that for the ancients, Aristotle in particular, scientific study was intended to uncover the ontological order of being. Descartes breaks decisively with this tradition by arguing that science instead has the purpose of knowing nature to control and manipulate it. With Descartes the concern is no longer, as it was for the ancients, the good or true life, but instead simply a comfortable life — one presumably made so by the control of nature. Most importantly, for Descartes the knowing subject is wrought from its formerly integrated place in the order of being. That is, subject and object are ontologically detached. What were formerly the highest philosophical concerns, metaphysics and ontology, are replaced by epistemology (Germain 1993, 11-13). The autonomous *ego* confronts a nature, or *res extensa*, that is fundamentally other. This is the important ontological movement: the separation of subject and object. Whether the epistemological solution is rationalist, as with Descartes, or empiricist, as with Hume, the end result is the ontological separation of mind and matter. Nature comes to be understood as essentially mechanical and fundamentally inert. It is lifeless matter that can be controlled by the rational *ego*. All meaning is arrogated to the subject.

The concept of enchantment — or more accurately, disenchantment — finds its first political theoretical expression in the work of Max Weber, who is said to have advanced the 'disenchantment thesis.' Although the concept was an essential feature of his own inquiry, Weber mentions the concept explicitly in only a few places in his work (Germain 1993, 28). Writing in

the early 20th century, Weber observed that modern science and technology, though their

processes of rationalization, erase all need for recourse to the explanatory power of magic.

Indeed, magic is ultimately shown to be a powerless art, while science is much less so (Germain

1993, 29; Wolin 1985). For Weber disenchantment does not necessarily imply that humanity is

moving towards a complete knowledge of the world, but rather that science operates under the

assumption that *if it wanted to*, it could attain such knowledge (Weber 2004, 12). He describes

disenchantment as follows:

> It means that in principle… we are not ruled by mysterious, unpredictable forces,
> but that, on the contrary, we can in principle *control everything by means of
> calculation*. That in turn means the disenchantment of the world. Unlike the
> savage for whom such forces existed, we need no longer have recourse to magic
> in order to control the spirits or pray to them. Instead, technology and calculation
> achieve our ends.[3]

Weber is not so much concerned about questions concerning the actual history and philosophy of

science. Rather, he is primarily interested in sociological inquiry. For him, the motivating

questions are not about the ways in which science disenchants the world, but rather with how we

have come to think and act as though the world is disenchanted (Germain 1993, 34). In his

influential essay "Science as a Vocation," Weber describes how science and rationalization alter

public life. In earlier times human affairs were animated by "the ultimate and most sublime

values" which have now retreated into "the abstract realm of mystical life or into the fraternal

feelings of personal relations between individuals" (Weber 2004, 30). In other words, in the

modern world social and political life are no longer governed by appeals to higher forces or more

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[3] Weber 2004, 12-3.

supreme values. Science, as Weber saw it, can offer no meaningful prescriptions on how to live a good life. It is fundamentally neutral with respect to values.

Borrowing heavily from Weber, the Frankfurt thinkers Theodor Adorno and Max Horkheimer make extensive use of the concept of disenchantment. For Adorno and Horkheimer the process of 'enlightenment,' which they understand much more broadly than '*the* Enlightenment*,*' modern science, and rationalization, necessarily entails the disenchantment of the world. In their *Dialectic of Enlightenment*, they write, "Enlightenment, understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing themselves as masters. […] Enlightenment's program was the disenchantment of the world" (Horkheimer and Adorno 2002, 1). As opposed to Germain, for whom Descartes' separation of subject and object is the decisive moment in modern disenchantment, Adorno and Horkheimer see Francis Bacon's project of mastering and controlling nature as emblematic. They remark that the animating feature of 'enlightened' thought is its treatment of nature as a means for human control (Horkheimer and Adorno 2002, 1-3). Like Weber, the Frankfurt School thinkers see disenchantment as the erosion of meaning in human affairs: "On their way toward modern science human beings have discarded meaning" (Adorno and Horkheimer 2002, 3).

But Adorno and Horkheimer take their analysis further than Weber, taking aim directly at the modern 'scientistic' way of treating nature, and elaborating a sophisticated critique. Following Nietzsche's famous declaration that 'God is dead,' Adorno and Horkheimer observe that the modern, rationalizing, controlling subject has in fact replaced God. They write, "In their mastery of nature, the creative God and the ordering mind are alike" (Horkheimer and Adorno

2002, 6). Just as in the dynamics of capitalist exchange relations commodities become mere abstract equivalents, bearers of quantitative value, nature becomes, for the modern ego, an abstract equivalent. It is simply inert 'stuff,' to be organized, classified, and ultimately controlled. Adorno and Horkheimer comment, "Nature, stripped of qualities, becomes the chaotic stuff of mere classification, and the all-powerful self becomes a mere having, an abstract identity" (Horkheimer and Adorno 2002, 6). In this passage, the disenchantment of the human subject is hinted at, a theme to which the analysis turns below. Here, the important observation is that the meaning and value that was once found in nature is reduced to simple abstract quantity and the controlling subject imposes meaning from the outside (Horkheimer and Adorno 2002, 6-7). A direct consequence of this disenchantment and expropriation of all meaning by the subject is alienation. In a world in which nature is fundamentally 'other' and inherently meaningless, humans are increasingly alienated from their natural foundations. Adorno and Horkheimer hold, "Human beings purchase the increase in their power with estrangement from that over which it is exerted" (Horkheimer and Adorno 2002, 6).

In all this there is a distinct ambivalence about modern science — if not concerning its epistemological validity, then certainly about its ultimate role as a progressive historical force. Indeed, as Adorno and Horkheimer see it, enlightenment necessarily becomes its opposite: myth. They write:

> Just as myths already entail enlightenment, with every step enlightenment entangles itself more deeply in mythology. Receiving all its subject matter from myths, in order to destroy them, it falls as judge under the spell of myth. It seeks to escape the trial of fate and retribution by itself exacting retribution on the trial. In myths, everything that happens must atone for the fact of having happened. It is

no different in enlightenment: no sooner has a fact been established than it is rendered insignificant.[4]

Such pessimism about the historical possibilities opened up by scientific understanding can perhaps be explained by Adorno and Horkheimer having been survivors of Nazi Germany and its unprecedented horrors. To them, this was the logical conclusion of the modern rationalizing project. Understandable as this position may be given its historical circumstances, it is not one that is replicated in the present analysis. While the so-called 'scientific' ontology of subject-object and human-nature dualism will be interrogated, the privileged status of scientific methodology will be upheld. Insofar as the as the present argument is a critique of 'scientific' understanding, it will be one that challenges the dominant conception of nature as inert, lifeless matter. In fact, this prevailing view will be shown to be fundamentally *non*-scientific. The Frankfurt School theorists correctly observed that these types of discourses have been instrumentalized in the wholesale and uncritical domination of nature. This has resulted not only in ecological catastrophe, but dehumanization as well.

Drawing on the Critical Theory of the Frankfurt School, William Leiss' *The Domination of Nature* offers an intellectual history of this approach to nature and its corollary: the domination of people. In a 1994 preface to this work (originally published in 1972), Leiss notes that the notion of human mastery of nature is one that characterizes the modern consciousness. The idea that progress requires the domination of nature is not necessarily the invention of capitalism, but it is certainly complementary (Leiss 1994, xviii). Leiss observes that both

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[4] Adorno and Horkheimer 2002, 8.

capitalist and socialist projects have treated nature as something to be controlled and mastered, and both have resulted in unsustainable ecological degradation. In the current conjuncture, the important political task, he holds, is to formulate "an appropriate representation of the relation between humanity and nature" (Leiss 1994, xxvi). Horkheimer, Leiss notes, makes a fundamental distinction between two types of reason: objective and subjective. The former sees truth as ontological category that is part of the necessary order of things. For objective reason, human rationality is part of the rationality of the world. Subjective reason, on the other hand, concerns itself with non-rational, ultimately subjective ends, and does not consider the value or order of non-human entities (Leiss 1994, 149). Leiss writes, "subjective reason exclusively seeks mastery over things and does not attempt to consider what extra-human things may be in and for themselves" (Leiss 1994, 149). Unsurprisingly, it is subjective reason that Horkheimer associates with enlightenment, disenchantment, and the domination of nature. Leiss holds:

> [T]he attributes of the modern scientific conception of nature which predispose it
> for the purposes of mastery are, in part: the principle of the uniformity of nature,
> the inherent technological applicability of its findings, the reduction of nature to
> pure 'stuff' or abstract matter through the elimination of qualities as essential
> features of natural phenomena, and especially the primacy of mathematics in the
> representation of natural processes.[5]

The final outcome is the radical separation of subject and object, and a corresponding scarcity of any objective or collective sense of meaning. As Horkheimer himself describes it, "As the end result of the process, we have on the one hand the self, the abstract ego emptied of all substance except its attempt to transform everything in heaven and on earth into means for its preservation,

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[5] Leiss 1994, 151-2.

and on the other hand an empty nature degraded to mere material, mere stuff to be dominated, without any other purpose than that of this very domination" (Horkheimer 1947, 97). Unlike Horkheimer, who sees it as gone forever, Leiss stresses the importance of a return to objective reason. More specifically, Leiss advocates a reinterpretation of the mastery of nature. This would mean a shift of focus to ethical and moral development as opposed to scientific and technological development, or 'progress.' Importantly, the mastery or domination of nature would cease to be the subordination of non-human nature to the whims of subjective reason. Instead it would become the control of 'internal nature,' those human impulses that unchecked lead to ecological degradation. Leiss writes: "The task of mastering nature ought to be understood as a matter of bringing under control the irrational and destructive aspects of human desires. Success in this endeavour would be the liberation of nature — that is, the liberation of human nature: a human species free to enjoy in peace the fruits of its productive intelligence" (Leiss 1994, 193). Leiss's analysis explains the deep interrelation between disenchantment, the domination of nature, the modern ontology of radical subject-object separation, and subjective reason.

Leiss makes it clear that for Horkheimer both human subjectivity and the world it inhabits have been degraded by disenchantment. It is clear that there is no possibility of returning to a world that is understood to be 'enchanted' in a literal sense; modern science's banishment of magic is far too epistemologically robust to be abandoned. Nor would a progressive politics even want to return to a time when (non-existent) impersonal and arbitrary forces animated social life. Nonetheless, the present analysis contends that some form of 're-enchantment' can both provide much needed meaning to human affairs and describe adequately the place of human beings in the

ecological world. Describing such a form of 're-enchantment' that can be compatible with science and philosophy will form the main theoretical thrust of this dissertation. Taking an important cue from Germain, the present argument acknowledges that any contemporary alternative to disenchantment must grapple with the "ontological interrelation of humans and the non-human natural world," (Germain 1993, 4). That is, such an alternative must articulate an acceptable human ecology.

The critique of disenchantment is longstanding and takes numerous forms, many of which are thoroughly problematic. In contemporary ecological thinking there is a disturbing form of anti-humanism that broadly falls under the classification of 'deep ecology.' In the field of political theory, this general outlook has recently been expressed by Jane Bennett in her *Vibrant Matter: A Political Ecology of Things*. Bennett observes quite correctly that for progressive change to occur in ecological terms, the inherent value of non-human nature must be recognized. She seeks a view of nature that takes it to be more than 'mere stuff.' As she puts it, "There will be no greening of the economy, no redistribution of wealth, no enforcement or extension or rights without human dispositions, moods, and cultural ensembles hospitable to these effects" (Bennett 2010, xii). The philosophical undertaking, holds Bennett, is to effect a sort of 're-enchantment' of non-human entities, showing that they are capable of meaning and action without human intervention. To this extent, Bennett's project is admirable. Unfortunately, she takes the analysis much too far, abandoning science and a commitment to rational inquiry. She disturbingly argues that "A relentless approach toward demystification works against the possibility of positive formulations" (Bennett 2010, xv). Elsewhere she advocates that we

"revisit and become temporarily infected by discredited philosophies of nature," including

superstition and animism (Bennett 2010, 18). Trying to articulate an ecological ontology and

politics with no reference whatsoever to ecological science, Bennett arrives at a worldview in

which all entities are considered 'actants' that interact on a totally equal plane. That is, all entities

exert agency and causal force on their surroundings to the same degree. An earthworm exercises

agency in the same way humans do (Bennett 2010, 96). In one particularly ridiculous passage,

she contends that a pile of debris caught in a storm sewer has the ability to 'act' (Bennett 2010,

4-6).

Absurd as are Bennett's formulations, her errors provide a foil for two important

philosophical commitments that will be described in this dissertation. The first commitment is to

a *differentiated* and *hierarchical* ontology. Whereas Bennet argues for a fundamental ontological

and ecological equality, this view sees different entities as in important ways radically unequal. It

will be shown that process metaphysics and emergentism deal with this issue in different but

complementary ways. In short, entities differ greatly with respect to both their internal

complexity and causal power. For example, biological entities are significantly more internally

complex than physical ones. Higher animals are capable of exerting much greater degrees of

causal force than are single-celled organisms. Although she does not admit it, Bennett's levelling

opens path to a dangerous form of deep ecology in which ontological equality provides the

foundation for ethical equality. If her anti-humanist formulations are true, an earthworm

possesses the same moral worth as a human. Luckily, this is not the case. Herein lies the second

important commitment: humanism. While Bennett highlights the very important point that

humans are not the *only* bearers of ethical value, she also denies humanity its unique place within

the differentiated ecology. Foreseeing the types of errors committed by Bennett, Murray

Bookchin writes in his *Re-Enchanting Humanity: A Defense of the Human Spirit Against Anti-*

Humanism, Misanthropy, Mysticism, and Primitivism that attempts to re-enchant nature often end

up disenchanting humans:

> I find it particularly ironic that at a time when so many of these anti-humanist
> book and articles exalt the need to 're-enchant Nature', the 'Planet', and indeed
> the entire 'Cosmos', the most pronounced effect that have is to 'disenchant'
> humanity itself: specifically, its unique potentiality for rationality. […] In the end,
> it is our claim to be able to reason and to rationally intervene in the world around
> us that is under siege. The special features that make us remarkable products of
> natural evolution are in one way or another viewed with acute suspicion or
> forcefully maligned.[6]

While it will be argued here that ecological politics must account for and respect the inherent

value of non-human nature, Bookchin's warnings must always be heeded. There is something

special about humans. What exactly this is will be the focus of much of this dissertation. It will

be shown that humanity's special characteristics are deeply dependent upon natural (biological

and ecological) foundations. Furthermore, the proper expression of these unique causal powers

requires human social forms that are properly *in* and *of* the natural world. In the course of

developing a world-view that encapsulates these truths about the human place within the

ecology, simplistic dualisms, such as the ontological divide between humanism and naturalism or

the ethical boundary between anthropocentrism and ecocentrism, will be shown to be wholly

inadequate.

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[6] Bookchin 1995, 5.

The Political (and the Ethical)

Taking up Weber's observation about disenchantment, Wolin translates the phenomenon into what he calls 'the absence of myth' (Wolin 1985). In modern society belief in myth — or in the enchantment of the world — carries on, but Wolin describes it variously as "the consolation of marginal minds" and "a confessional sign of powerlessness in a technological society" (Wolin 1985, 218). Wolin's contributions are of particular importance because he focusses on the specifically political consequences of disenchantment. That is, it is precisely this 'absence of myth' that determines the politics of modern society. Returning to Weber's "Science as a Vocation," Wolin writes that this text perfectly captures "the tension between modernist deference toward the natural sciences and the postmodernist despair at their cultural consequences…" (Wolin 1985, 220-1). In the absence of any foundational myth, individuals are left to decide for themselves what is right and wrong, good and bad. Politics is divorced from ethics, and political life is no longer animated by a collective sense of the 'good,' or of the 'good life.' Just as Hobbes inaugurated modern political though with precisely such a denial, postmodern thought carries it through to its logical conclusion. Tracy B. Strong takes up Hannah Arendt's term, 'thinking without a banister,' to describe the modern lack of foundations. He writes that for Arendt "humans no longer could rely on any transcendental grounding to finalize their thinking — be that God, or nature, or history" (Strong 2012, 1). Understanding very well the consequences of this postmodern condition, Wolin, it will be shown, attempts to create a new sense of the 'political' that can inform politics — and indeed establish a polity — in spite of the lack of mythological or transcendent foundations. This dissertation takes much more inspiration

from canonical philosophy and political thought than from contemporary political theory, in the sense that it is concerned primarily with the ontological foundations of political action and ethical judgement. Contra Arendt (and Strong), it is argued here that the categories of nature and history, properly understood, form the bases for reasonable judgement. While 'post-foundational' theory, of which Wolin's may be a species, is shown to be logically contradictory and politically dubious, there are nonetheless important lessons to be gleaned from contemporary theory. First, however, it is necessary to ask what precisely is meant by 'the political'?

Although in contemporary political theory the term is frequently associated with Wolin, Arendt also used the term. Drawing heavily from Aristotle, Arendt aims to delineate a special sphere of human existence, above all others. That sphere is the political one, and it alone can endow human life with meaning. As Ronald Beiner puts it, "Without politics, without a common space in which human beings speak and act, life is empty and meaningless, but with politics… life is capable of 'splendor'" (Beiner 2014, 2). Despite longstanding ideas that Arendt's philosophy is fundamentally neo-Aristotelian, Beiner disrupts this claim. For Aristotle humans are essence-bearing individuals who fulfill their *telos* in the activity of politics. Arendt, however, disputes such teleology and argues instead that humans are constituted not by *what* they are (as Aristotle would have it) but by what they *do*, or more specifically, *who* they are (Beiner 2014, 5). There is no essence beyond the appearance that makes human *what* they are. For Arendt, the analysis pivots on the difference between 'life,' which is essentially subjective experience and 'world,' which refers to the inter-subjective sphere of collective meaning-creation (Beiner 2014, 6). Thus, as noted above, Arendt refuses to delineate any universal conception of the good, or of

human nature, as the foundation of political activity. Like Wolin, however, her conception of the

political is open, democratic and collective (see Kalyvas 2008, 254-291). These characteristics

make her definition of the political of importance to the argument developed here.

According to Jeremy Valentine, 'the political' is a conceptual object that occupies the

space between the realm of politics and the factors that condition it (Valentine 2006, 506).

Valentine observes that the main thrust of the modernizing project has been to destabilize and

subvert any solid ground or foundation for political life. This brings into serious question the

possibility of establishing a sense of 'the political.' As Valentine puts it:

> Thus what may be most significant about the concept of the political is that a
> requirement to establish a ground goes against the critical and radical thrust of the
> thought and politics through which modernity happens. In other words, the
> political is the attempt to establish a ground where the possibility of doing so has
> been subverted through ungrounded radicalization….[7]

Operating in the distinctly modern fashion in which an ultimate ground of normativity has been

abolished, Valentine nonetheless wishes to describe some sense of 'the political.' For him, in the

context of "deconstructive or post-foundational" politics, the political is best described as the

difference between politics and their grounding (Valentine 2006, 507). The question he poses,

then, is if "it is possible to extract some sense of the political from within modernity

itself?" (Valentine 2006, 509). To do so, and to thereby create a truly postmodern sense of 'the

political,' Valentine insists that political thought must advance beyond what he calls the

'metaphysics of presence.' Here, he points to Jacques Derrida's belief that Western metaphysical

thought has decided to "conceptualize concepts in exactly the same way that empirical

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[7] Valentine 2006, 507.

phenomena are conceptualized as fully present to sensation and consciousness" (Valentine 2006, 506). Bracketing the absurdity of Derrida's claim, the way beyond such a scenario would necessitate further interrogation of the distinction between the conceptual and the empirical. Taking this even further, Valentine argues that a properly post-foundational politics avoids the metaphysics of presence completely (Valentine 2006, 510). That is, such a politics would avoid entirely all reference to transfactual concepts and thereby any appeal to necessary truths. He identifies several approaches to 'the political' that satisfy this criteria, two of which are of interest to the present argument.

First, Jean-Luc Nancy argues that the contemporary disintegration of the polity is an indication that there can be no appreciable ground for any sense of 'the political.' Instead, writes Valentine, for Nancy "the political becomes a matter of relations organized by the shared commonality of nothing" (Valentine 2006, 510). Valentine criticizes this formulation on the ground that these 'relations' do not necessarily preclude violence. The issues with Nancy's approach run much deeper, unfortunately. He commits the central error of all postmodern thought: a self-referential contradiction. While denying, on the one hand, the possibility of any ontological foundations for 'the political,' on the other hand Nancy points to the "shared commonality of nothing," which serves as a political foundation. Just as to say that no certain knowledge of the external world is possible stipulates one piece of certain knowledge, Nancy's shared commonality of *nothing*, necessarily designates a shared commonality of *something*. On this very basis, his anti-foundationalism reverts into a form of foundationalism.

Second, there is Wolin, whose 'radical-democratic' approach also makes reference to a sense of commonality. For Wolin, however, the commonality occurs in distinct 'moments.' That is, it is episodic. To use his own words, the political refers to "moments of commonality when, through public deliberations, collective power is used to promote or protect the wellbeing of the collectivity" (Wolin 1994, 11). As opposed to the day-to-day affairs of politics, 'the political' signifies a rupture, a punctuation in the equilibrium that re-organizes and re-conditions political affairs. Valentine holds, "These are essentially creative, heterogeneous and transgressive moments, temporary and occasional, which are equated with democracy and revolution; they are contrasted with business-as-usual politics in the polity…" (Valentine 2006, 510). The important point here is that 'the political' is based on a shared, democratic moment, characterized by the recognition of an element common to all political actors.

Wolin passes over the possibility that such commonality has its basis in a deeper truth, or in something more fundamental. In this way, Valentine sees a correspondence to another important contemporary political theorist: William Connolly. Valentine approvingly cites Connolly's assertion that "nothing is fundamental" (Valentine 2006, 510; Connolly 1995). Connolly's sense of pluralism, or 'pluralization,' finds its premise in the increasing acceptance that 'nothing is fundamental,' and that therefore everything is contingent (Valentine 2006, 510). Thus Connolly, like Nancy, commits a self-referential contradiction: if nothing is fundamental, at least one thing is fundamental. These thinkers — and those mentioned here are merely a few examples of what is a widespread pathology that plagues contemporary theory — necessarily find themselves in the dead end of attempting to do political theory, which is the study of the

good and the ends of political life, with no feasible conception of what the good, or even human nature might be.

Thus, one of the central difficulties posed by these various anti-foundationalisms is that they suggest a 'political' and a politics that lack substantial content. If Connolly is in fact correct that nothing is fundamental, there is nothing solid on which to base political action and no ultimate standard by which to evaluate social and political reality. The entire project of political theory is premised on investigations of 'the good,' and those who deny its possibility relinquish the right to call their undertakings political theory. As Beiner writes, "I am extremely skeptical that one can participate in the theory enterprise at all without asserting claims about human nature, the human good, 'the good' for human beings, and so on" (Beiner 2014, xxv). Throughout the 20th century theorists consistently backed away from such grand claims. There is no doubt that concerns about the totalitarian results of many universalizing theories inspired the postmodern trend to renounce the banister, to use Strong's phrase. But decades of anti-foundationalist speculation have left us with the choice of outright nihilism on one hand, or committing the performative contradiction of making normative claim while simultaneously denying their basis in deeper truth, on the other. In the early 21st century there is an increasing recognition that theory and politics do require foundations. We may return to thinking with a banister, but we must be certain that it is the *right* banister. What exactly that banister is, and how it might be discovered are open questions. However, it is more and more clear that any thought that calls itself political theory must focus on questions regarding the truth of human being and the possible 'good life' that we may achieve.

In this endeavour, there is something useful to be extracted from the preceding discussion of the political. These thinkers, and Wolin in particular, articulate the necessity of a common moment in the political process. In other words, the political, and therefore politics as well, require a shared experience of commonality. Politics requires a political *community*, even if its expression is a fleeting one. For Nancy, it is the shared experience of sharing nothing fundamental. For Wolin, the common moment is episodic. What the theorists of 'moments of commonality' fail to interrogate are the conditions that make such moments possible. That is, they assume that the common moment can happen contingently, that it 'simply occurs.' This seems highly unlikely. Much more convincing is the argument that humans all possess something fundamental that *allows* them to share these moments of commonality. In other words, they possess a trait, or a set of traits, that provide the conditions for expressions of 'the political.' In this formulation, the political does not occur accidentally and despite fundamental difference. Rather, it is a moment — and sphere of experience — that can only happen if humans share something essential in common. Along with the rich history of political philosophy since Plato, the present study seeks to uncover (if even partially) this essence of human beings — their *species differentia*. In so doing it aims to provide some solid ontological ground for the political, as well as contribute to discussions about 'the good,' and the ends of human life.

In placing so much emphasis on 'the political,' Wolin tried to correct what he saw as a perennial flaw in political theory: the reduction of politics to ethics or philosophy (Wiley 2006, 215). In his seminal work, *Politics and Vision*, Wolin writes, "Unless the distinctively political context is preserved, political theory tends to vanish into larger questions, such as the nature of

the Good, the ultimate destiny of man, or the problem of right conduct, thereby losing contact

with the essentially political questions that are its proper concern…" (Wolin 2004, 40). Wolin

may be correct that political philosophy often does lose sight of its distinctly political character.

The foregoing discussion of the political is meant to delineate the importance of politics in the

contribution to human ecology that forms the substance of this dissertation. However, it is also

the case that it is because of its interest in 'larger questions' that political theory can make

convincing contributions to political affairs. It is its interest in the truth of human being that

allows political theory to describe valid ontological foundations for the political and for politics.

In a related manner, political theory also makes pronouncements on 'right conduct,' or ethics. In

the present historical conjuncture the questions posed by ecological ethics are becoming

increasingly important. More specifically, in the context of alarming natural resource depletion,

the matter of reasonable use of non-human nature is of critical significance. Along with

providing ground for renewed conceptions of the political, the theory of human ecology set forth

in this dissertation aims to contribute to critical discourses concerning reasonable use of natural

resources. More specifically this will entail an interrogation of the dichotomy between

anthropocentrism and ecocentrism. The former accords the only special moral status to humans,

while the latter denies it entirely. The view developed here preserves the special status of human

beings, while also appreciating the ethical necessity of respecting other forms of life.

Furthermore, a fuller sense of the human place within nature encourages different ways of *being*

in nature, of using and interacting with it, as well as appreciating the endless aesthetic

experiences that it offers.

<u>Chapter Outline</u>

To sum up, this dissertation is a contribution to the tradition of political philosophy insofar as it aims to describe some ontological facts about human being-in-the-world. These facts, it is argued, can form the foundations for a sense of 'the political,' and thereby politics, that are not only radically democratic and inclusive, but also adequate to confronting the ecological apocalypse that looms over late modern capitalism. The intention is to inspire an appreciation for the 're-enchantment' of human being, the ecology, and the human-ecological relationship. Enchantment does not suggest supernatural factors. Indeed, the discussion makes use of modern scientific ontology and theories of causation. Modern science, it will be asserted, can help stimulate a sense of enchantment. The scientific understanding of and appreciation for human cognition, ecological complexity, and the human integration within natural processes increases the capacity for meaningful aesthetic experience of human ecology. The task at hand, then, is to describe a logically defensible theory of the human place in nature. This exploration of the human-nature dialectic begins with Rousseau, Hegel and Marx, as well as Adorno and Marcuse. Each of these thinkers stresses the importance of history in the development of the relationship of subject and object (humanity and ecology). Subsequently, alternative paradigms, including process metaphysics and emergentism, are brought into the discussion. I suggest that these bodies of thought can be brought into a creative dialogue with the lineage that extends from Rousseau to the Frankfurt School, having important affinities as well as fertile divergences.

The argument develops as follows. Chapter I begins with a brief excursion into Ancient Greek cosmology, which describes the complete inclusion of humans in nature. On the other

hand, Descartes and Locke are exemplary in their insistence on radical exclusion — the total split of subject and object. According to several important commentators, Rousseau is the first to see that humans are simultaneously identical to and different from the ecology (Biro 2005, 58). The majority of this chapter is devoted to his notions of nature, convention, perfectibility and history. Interestingly, while Rousseau sees that our reason has irreversibly set us on the path of history, he is one of the first to acknowledge that reason disenchants nature and can impair our ability to generate meaning.

Chapter II extends Rousseau's argument by bringing Hegel and Marx into the conversation. In each of these bodies of work, the notion of a simultaneous identity and non-identity characterizes the subject-object relationship and by extension the human-ecology relationship. Much of the best contemporary ecological theory follows this tradition of political philosophy. Here, the categories of history, alienation and mediation are central, as is the notion that humans are decidedly a part of nature, yet also distinctly outside of it. As Andrew Biro writes, "what is necessary is a way of thinking about the human relationship with nature that does not force us into choosing nature at the expense of convention or vice versa" (Biro 2005, 76). Borrowing heavily from Rousseau, Hegel and Marx help us to extend this line of thought. For Hegel, it is accomplished through his system to absolute idealism, while for Marx it is historical materialism. Unlike Rousseau, however, the Germans are 'enchanted' by reason. While they acknowledge that the subject is dependent on the object, it is the former that is the ultimate source of meaning. For Hegel and Marx, reason is what drives history forward, and although it does entail a certain loss, it is ultimately progressive.

In Chapter III Adorno and Marcuse enter the conversation. They are the inheritors of the project commenced by Rousseau, Hegel, and Marx. From Adorno we are given the most theoretically and technically dense account of the subject-object relation contained in this dissertation. It is also likely the most robust, and in purely theoretical terms, has the most to offer the philosophy of human ecology. Adorno's account of the identity and non-identity of subject and object is as nuanced and enriching as it is demanding. Marcuse's account of the subject-object relation, also invaluable, introduces the Freudian concepts of basic and excess alienation and deepens the understanding of the historical relation between humans and nature. At the end of this chapter, Marcuse is also marshalled to defend a version of ecological aesthetics. This is central to the sense of 'enchantment' of nature that is here delineated. Although they are greatly influenced by Hegel and Marx, the Frankfurt theorists are not 'enchanted' by reason. Quite the opposite: they see it as utterly disenchanting of nature and connect it to the loss of meaning in modern life.

Chapter IV brings to light a shortcoming of the identity/non-identity paradigm: the specific content of the sameness humans share with nature is often reduced to materiality, while the difference is explained as mind/consciousness. This is not incorrect, but it is incomplete. As a necessary supplement, this chapter shows that process metaphysics can provide a more concrete foundation for both the identity and the non-identity of human and nature. Process thinking, particularly that of Charles Hartshorne, focuses on the unity of being, but stresses that being exists in degrees. Its principal ontological category is sensitivity: entities have being to the degree that they are internally complex and therefore externally sensitive. In this way, humans

can be understood as identical with nature to the extent that they — like all entities — are sensitive to some degree. However, humans can be understood as sensitive and complex to an ontologically different degree that other elements of the ecology. Not only does this help to extend the arguments of the 'historical-dialectical' thinkers, contained in the foregoing chapters, it also has important implications for ecological ethics.

If process metaphysics shows humans to be complex to an ontologically different degree, it does not necessarily explain the faculty of self-consciousness that characterizes human existence and being-in-the-world. In other words, process thinking is limited in its ability to explain where the quantitative measure, complexity of processes, passes over into a qualitative distinction. In Chapter V, the concepts of 'stratification' and 'emergence,' long influential in philosophy of science and biology, helps to explain thinking that is aware of itself. In short, emergence relies on a conception of stratified and hierarchical order of nature. Higher (more complex) strata contain properties and generative mechanisms that are irreducible to the properties of the strata below them. For example, sociology is dependent upon but not reducible to biology. In this way, self-consciousness can be shown to have material and biological foundations, but cannot be reduced to these categories. As Sean Creaven notes, the different strata of nature are identical to the extent that they are each part of a unified hierarchy, yet different in the sense that they differ qualitatively and in that higher strata are irreducible to lower ones (Creaven 2007, 21). This line of thinking shows emergence to have affinities with a process conception of the world.

The totality of this analysis points to the existence of layers of reality that are not immediately material. Many variants of ecological thought have pronounced spiritual elements that are deeply problematic. However, the turn to a philosophy that sees both nature and humanity as 'enchanted,' to borrow terminology used by Weber and the Frankfurt School, need not be incompatible with reason and scientific thinking. It simply means a rejection of determinism, mechanism, and vulgar materialism. Indeed, phenomenology, process metaphysics, and emergentism all point in this direction. Working from, and synthesizing, these diverse philosophical paradigms, my dissertation aims to show that the identity and non identity of humans and nature can only by fully understood when the active, super-material — although not supernatural — side of both humans and nature is brought into play. Such a project takes its inspiration from Hegel's lament that "'thought' is all too commonly used as if it belonged only to spirit, or consciousness, while 'objective' is used primarily just with reference to what is unspiritual" (Hegel 1991, §56).

Chapter 2: Ancient Cosmology to Rousseau

<u>Introduction</u>

In this first substantive chapter, I set the foundations for the discussion of the human place within nature through an analysis of the subject-object dialectic. The basic subject-object ontology has been thoroughly challenged in the history of philosophy, and as a basic schema it hardly remains useful for understanding human ecology. In essence, the subject is represented by the cognizant, conscious human psyche, while nature is the inert, passive object of experience. This rudimentary Cartesian picture, in which the two poles of the dialectic are held as completely differentiated and distinct, obfuscates the complexity and depth of the human-ecological relationship. It is in the critiques of this representation, however, that are to be found some more illuminating truths about human ecology. There are a great many such critiques to be found in the history of philosophy as well as contemporary theory. In a work of the present scope it would be impossible to outline them all, let alone do any of them justice. This chapter articulates in detail the position of Rousseau, who in turn set the stage for the exposition of Hegel, Marx, and the Frankfurt School theorists in the following chapters. This selection of thinkers, which I will refer to as the 'historical-dialectical' school, is not meant to be exhaustive. Indeed, there are many others who tackle the subject-object dilemma, and could also be marshalled in favour of arguments concerning the *specialness* of humans and/or the ecology. Rousseau, Hegel, Marx and the Critical Theorists represent a certain lineage though, and together they provide a quite

reasonable and critical foundation for thinking about the human place in nature in terms of the subject-object conception.

Ancient Cosmology

The important thing about the historical-dialectical thinkers is that they each conceive of human beings as simultaneously inside *and* outside of nature. Humans are a part of nature, yet also somehow fundamentally different from it. The subject is identical to its object, but also non-identical to it. The complex and dialectically mediated relationship between subject and object develops in the course of history. There are two approaches to human ecology and subject-object relations that may be contrasted with this one. The first holds that human being is completely identical to nature, which is understood as essentially unified. The other sees human subjectivity as entirely divorced from nature. Here, nature is fundamentally 'other,' lifeless, and inert. Although often forgotten, R.G. Collingwood's 1945 study, *The Idea of Nature*, remains a key secondary text on the history of cosmology. Here I will bring Collingwood back into play, as his analysis speaks to contemporary ecological theory. The present analysis takes advantage of Collingwood's typology of cosmological thinking, particularly his conceptions of the Greek and Renaissance views of nature. The Greek view is sharply distinguished from the Renaissance by its conception of mind as embedded in all being, an outlook that is embraced by some contemporary ecological thinkers. Collingwood's classification provides a structural apparatus that is useful for understanding the history of cosmological thinking. In much contemporary thought there are sharp metaphysical distinctions between animate and non-animate nature, as

well as between humans and the rest of nature. While Collingwood's more general argument —

concerning the relationship between changes in the philosophy of nature and the evolution of

natural science — is not of concern for this essay, his historical typology of the development of

cosmology provides an excellent analytical structure, which I would like to revise and update as I

develop it in light of the historical-dialectical school. Collingwood's conceptions of the Greek

and Renaissance views help to illustrate the way in which subsequent thinkers treated in this

chapter see nature and the human relationship with nature.

"Greek natural science," writes Collingwood, "was based on the principle that the world

of nature is saturated or permeated by mind" (Collingwood 1945, 3). This immediately means

that nature itself is something that is active and alive. 'Mind' imbues all of nature with a vitality.

Furthermore, mind actively organizes and determines the motion and order of nature. This is a

holistic view of the natural order. It is important that the Greeks saw nature as ordered; in

addition to being essentially 'alive,' nature conformed to rationally knowable, or scientifically

discoverable, patterns. For the Greeks, this meant that the mind within nature was also intelligent

(Collingwood 1945, 3). Ecologically, this has important consequences. Collingwood explains:

> The life and intelligence of creatures inhabiting the earth's surface and the regions
> adjacent to it… represented a specialized local organization of this all-pervading
> vitality and rationality, so that a plant or animal… participates in its own degree
> psychically in the life-process of the world's 'soul' and intellectually in the
> activity of the world's 'mind', no less than it participated materially in the
> physical organization of the world's 'body.'[8]

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[8] Collingwood 1945, 3-4.

The result is an all-encompassing totality: mind, body, and soul all bound together. However, while nature is psychically, intellectually, and materially interconnected, it is still composed of discrete individual parts. It is, then, a differentiated unity. According to Collingwood, the notion that there are physical identities between human and non-human nature is not foreign to the contemporary understanding. What strikes the modern reader about the ancient view though, he writes, is the concept of a psychic and intellectual connection with nature (Collingwood 1945, 4).

Beginning with Copernicus, the Greek view of nature was eventually replaced by what Collingwood calls the Renaissance view. This view repudiates the idea that nature is an active organism and that it is imbued with life and intelligence. To be sure, the movements of nature are still rationally ordered. But the order is imposed from without, rather than from within. Accordingly, the concept of immutable 'laws of nature' is central to the Renaissance view (Collingwood 1945, 5). Collingwood writes, "The Renaissance thinkers… saw in the orderliness of the natural world an expression of intelligence: but for the Greeks this intelligence was nature's own intelligence, for the Renaissance thinkers it was the intelligence of something other than nature: the divine creator and ruler of nature" (Collingwood 1945, 5). While for the Greeks mind inheres essentially in nature and in the body, the Renaissance view abolishes this unity. This separation is most clear in the philosophy of Descartes, who hypothesized that mind and body are metaphysically distinct substances. Spinoza's monism is hardly an improvement, holds Collingwood: "for thought and extension are in his philosophy two utterly distinct attributes of this one substance, and each, as an attribute, completely transcends the other" (Collingwood 1945, 7). Ultimately the Renaissance view can be summed up as an analogy: that of a

clockmaker and a clock. The clockmaker stands in for God and the laws of nature, while the clock itself represents nature (Collingwood 1945, 8-9). The analogy has another advantage in its portrayal of nature as essentially mechanistic. For the Renaissance view, nature is both devoid of its own inherent life force, and is composed of matter that moves and changes according to mechanical laws.

Much of the secondary literature on the cosmological scheme portrayed in Plato's *Timaeus* concerns its supposedly Pythagorean roots; the fundamental role played by numbers in the creation of nature is said to be Plato's extension of Pythagoreanism (see Russell 2008, 108-110). The present analysis, however, sets aside the Pythagorean question and even the problem of a numerical foundation. Instead, the focus here is on the active totality of nature as described by Plato. Superficially, the role of god in the creation of nature as depicted in the *Timaeus* contradicts Collingwood's Greek view of nature, and, in fact, seems much closer to the (external) machine maker of the Renaissance view. However, Plato (speaking through Timaeus) is clear that there is only one sphere of being. Timaeus says, "So, in order that this living thing should be like the complete Living Thing in respect to uniqueness, the Maker made neither two, nor yet an infinite number of worlds. On the contrary, our universe came to be as the one and only thing of its kind, is so now and will continue to be so in the future" (Plato 1997, 31b1-5). Understood this way, god is both the creator of nature and its immanent life force. G.R. Carone claims that in the *Timaeus* god is synonymous with the world-soul (Carone 2006, 49). Importantly god, or the divine demiurge, begins with unformed matter and "disorderly motion" (Plato 1997, 30a5). The demiurge infuses its own reason and perfection into this

unformed matter to create an ordered, reason-filled nature. Timaeus says, "Since the god wanted nothing more than to make the world like the best of the intelligible things, complete in every way, he made it a single visible living thing, which contains within itself all the living things whose nature it is to share its kind" (Plato 1997, 30d1-31a2). The remainder of the *Timaeus* is a description of the formation of nature along these lines, from the basic geometric shapes to the bodies and souls of human beings.

This type of cosmogony does not immediately seem to have any significance for contemporary ecological thought. As Joanne H. Wright notes, Plato's account is creationist as opposed to evolutionary (Wright 2004, 27). This means it has little identity with modern evolutionary science and would seem to have little to say about ecology. Furthermore, the *Timaeus* contains a series of latent political aims that make it incompatible with progressive politics: Wright observes that Plato's creation story is distinctly patrogenic and thus serves to obscure the necessity of women in human reproduction (Wright 2004, 31-32). For these and other reasons, it does not seem compatible with a materially grounded science of ecology. Nonetheless, the concept of a single, interconnected sphere of being, ordered according to the laws of reason is an important one. Firstly, the idea of being as ordered makes possible scientific enquiry; systematic knowledge of nature is possible only if it is structured according to underlying, yet discoverable, principles. More importantly, Plato's description of the totality of nature as singular and permeated by reason provides a basis for a basic identity between human and non-human nature. In the *Timaeus* this is presented as an analogy between the human body and the universe — microcosm and macrocosm. Johansen explains this as follows:

> Timaeus says, having intelligence also implies having a soul, while having a soul implies having a body. The cosmos thus becomes an ensouled body, qualifying as a living being. The account of the cosmic soul and body occupies Timaeus up till 69, after which the exposition turns to the composition of the human soul and body, which is itself modelled on that of the cosmic soul and body. One might say, therefore, that Timaeus' entire cosmology is in fact biology.[9]

This last point may be overstated. The specifically biological, biotic, or ecological concerns of the *Timaeus* are not clear. Nonetheless, it is obvious that, to use Collingwood's terminology, human bodies are materially, psychically, and intellectually connected to nature.

In his *History of Western Philosophy* Bertrand Russell makes a clumsy transhistorical distinction between those thinkers who are concerned with numbers (Pythagoras and Plato) and those whose thought emphasizes empirical study, namely Aristotle (Russell 2008, 738). While the careful student of philosophy is rightly skeptical of such broad claims, the opening lines of Aristotle's primary cosmological investigation, in Book A of the *Metaphysics*, do display an appreciation for observational — or what would today be called empirical — analysis that is not present in Plato (Aristotle 1941a, 980a-981a). However, their differing foundations should not obfuscate the similarities in the pictures of nature drawn by Plato and Aristotle. After an exposition of Pre-Socratic and Platonic ontologies, Aristotle claims, "It is evident, then… that all men seem to seek the causes named in the *Physics*, and that we cannot name any beyond these…" (Aristotle 1941a, 933a12-14). These causes are, of course, the material, formal, efficient and final (Aristotle 1941b, 194b16-195a3). Of course, the addition of efficient and final causes to the metaphysical scheme represents a significant and important supplement to Plato's

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[9] Johansen 2008, xxiv.

'formed matter.' The key point here, however, is that the movements within nature arise from efficient causes that are *part of* nature. Thus, Aristotle describes nature as self-moving, which is very similar to the configuration discussed in the *Timaeus* (Collingwood 1945, 82). This conception of nature as self-moving and self-causing — as containing within itself the principles of its own movement — is sharply contrasted with the view offered by the thinkers in the following section.

Descartes and Locke

Western thought takes a decisive and irreversible turn with René Descartes' division of subject and object. When the French philosopher posited mind and body as two distinct substances (somehow connected in the pineal gland) the unity of nature conceived by Greek thought was shattered. Of course, Descartes did not reach his conclusion entirely independently; scientific developments, especially in astronomy and physics, set the stage for the Cartesian revolution. In this regard, the contributions of Copernicus, Bruno, Bacon, and others were pivotal. But a set of dualisms — between body and mind, nature and god, rationalism and empiricism — become explicit with Descartes (Collingwood 1945, 100). He writes, "our soul is of a nature entirely independent of the body…" (Descartes 2010, 70). The metaphysical division of body and mind, as well as the cosmological separation of god and nature, are especially significant for rethinking the human relationship with the ecology.

The detachment of subject from object — of the *human* subject from its *natural* object — places human consciousness distinctly outside the realm of nature. The consequences of this

view, with regards to ecological thought, are immense. Humans are seen as unequivocally morally superior to the rest of nature, and the ecology is understood as devoid of any 'active' element, which is believed to reside solely in human consciousness. Nowhere is the human/non-human distinction more unambiguous than in Descartes. Humans have thoughts, he writes, and animals do not. Furthermore, this metaphysical difference translates into an ethical one: humans are justified in the complete domination of animals. Descartes writes:

> I cannot share the opinion of Montaigne and others who attribute understanding or thought to animals. I am not worried that people say that human beings have absolute dominion over all other animals; for I agree that some of them are stronger than us, and I agree that there may also be some animals which have a natural cunning capable of deceiving the shrewdest of human beings. But I consider that they imitate or surpass us only in those of our actions which are not guided by our thought.[10]

The key differentia, the basis upon which Descartes draws the conclusion that animals do not have thoughts, is that they do not use speech. "All human beings use [speech]," he writes, "however stupid and insane they may be, even though they may have no tongue and organs of voice; but no animals do. Consequently this can be taken as a real specific difference between humans and animals" (Descartes 2010, 72). Animals, for Descartes, exhibit no measure of free will, and act simply according to external mechanical laws. This exposition is not meant to criticize Descartes from an animal-rights perspective — although such a critique may be warranted. Rather, it is to demonstrate the difference between the Greek and Cartesian views of nature. For Descartes, thought, mind, or the otherwise active and alive element, is restricted to human consciousness; conversely for the Greeks activity permeates all of nature.

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[10] Descartes 2010, 70.

While the passages from Descartes examined above restrict the discussion of non-human nature to animals, this conception implicitly extends to the totality of organic and non-organic nature. John Locke, however, is explicit about the human dominion of all nature. For Locke, the 'active side' is represented by human labour power. In Chapter V of his *Second Treatise of Government*, Locke holds that while all of nature belongs to humanity in common, individuals may combine their own labour with the inanimate parts of nature, making them their own private property (Locke 2009, 285-289). Wolin notes that private property is central to Locke's outlook because he sees it as necessary for increased productivity (Wolin 1989). While he sets limits on accumulation in the state of nature, Locke uses the introduction of private property and money, along with arguments about natural right, to make the case for unlimited accumulation — all for the sake of enlarged output (Maley 2011, 135; Macpherson 2011, 202-203). So preoccupied with productivity is Locke that he justifies the appropriation of land from those who are not using it to its most profitable capacity (Locke 2009 285-302). The venerable C.B. Macpherson has rightly called this the 'political theory of appropriation' (Macpherson 2011). Disturbingly, this line of argument has historically been used to justify the dispossession of First Nations territory in North America, and is still at work in more recent debates concerning Indigenous land claims (see Cheney 2011).

Nature, for Locke, is simply the raw material provided by god for humans to furnish the goods required for their material advancement. On its own, nature is almost entirely without value. Locke writes:

> [*L*]*abour makes the far greatest part of the value* of things, we enjoy in this
> World: And the ground which produces the materials, is scarce to be reckon'd in,
> as any, or at most, but a very small, part of it; So little, that even amongst us, Land
> that is left wholly to Nature, that hath no improvement of Pasturage, Tillage, or
> Planting, is called, as indeed it is, *wast* [sic]; and we shall find the benefit of it
> amount to little more than nothing.[11]

Elsewhere, Locke announces that "'Tis *Labour* then which *puts the greatest part of Value upon Land*, without which it would scarcely be worth any thing…" and that "Nature and the Earth furnished only the almost worthless materials…" (Locke 2009, 298). The human view towards nature, for Locke then, is an entirely instrumental one. Nature is to be dominated without restraint, with the goal of extracting from it the maximum possible quantity of value (Locke 2009, 291). For Locke, as for Descartes, the ecology is understood essentially as 'other,' having no identity with humans. In the following section, Rousseau is marshalled to complicate this view.

Rousseau

"Fascination with and curiosity about origins… and an interest in the beginnings of human societies, human life, and indeed the cosmos itself, lie at the heart of religious, scientific, and philosophic inquiry," holds Joanne Wright (2004, 3). This is certainly true for Rousseau, who constructs an elaborate origin story, an account of the 'state of nature,' in his *Discourse on the Origin of Inequality* (henceforth the *Second Discourse*). For Rousseau, the state of nature serves as an ideal from which to base his normative politics and critique of social inequality, modernity

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[11] Locke 2009, 297.

as a whole, and even civilization itself; it is the foundation of his political thinking. While

Rousseau is by no means the first or only thinker to posit a pre-political condition as a

foundational origin story, he differs from other state of nature theorists — notably John Locke

and Thomas Hobbes — in that his state of nature is also the regulative ideal of his politics. Of

what, then, does Rousseau's state of nature consist?

In the *Second Discourse* Rousseau begins with a description of the physical conditions of

humans in their natural state. He is not interested in the biological evolution of the human

species, for "Comparative anatomy has as yet made too little progress…" (Rousseau 1987, 40).

However, Rousseau is concerned with the relationship that humans should have, and apparently

did have, 'naturally,' with their ecology, or their natural physical surroundings. Rousseau

envisions a person in the state of nature as follows: "I see him satisfying his hunger under an oak

tree, quenching his thirst at the first stream, finding his bed at the foot of the same tree that

supplied his meal; and thus all his needs are satisfied" (Rousseau 1987, 40). The 'savage' person

described in Rousseau's account is a free and autonomous being. This person is not dependent on

others for the satisfaction of his or her needs. Indeed, this state of independent, autonomous, self-

legislating freedom is, for Rousseau, how people ought to live. Interestingly, it is of equal

importance, but seems to have received far less attention, that Rousseau's 'natural' human exists

in a state of direct connection with physical nature, within ecological processes undamaged by

human interference. At this stage, humans are pre-social and have not yet developed their faculty

of reason. They therefore cannot make the types of distinctions that would allow them to

dominate nature they way Locke so championed. I contend that for Rousseau the alienation from

nature that humans experience in civil society is as much an alienation from direct intercourse with the ecology as it is a separation from the state of autonomous freedom. These twin forms of alienation are, perhaps, two sides of the same coin. Rousseau's comparisons between the natural state and civil society further illustrate this case.

"Since the savage man's body is the only instrument he knows," maintains Rousseau, "he employs it for a variety of purposes that, for lack of practice, ours [the bodies of those in civil society] are incapable of serving" (Rousseau 1987, 40). With only their bodies as instruments, humans in the state of nature are tough, independent and versatile. In contrast, people in civil society lack "force and agility" (Rousseau 1987, 40). Their bodies are weak and ill-adapted for most tasks. Furthermore, Rousseau holds that while wild animals, such as bears and wolves, exceed natural humans in brute strength, humans in nature are skillful and cunning and therefore learn not to fear the beasts (Rousseau 1987, 41). Consequently, humans in the state of nature live in perfect confidence and security in their surroundings. Although they may be the most formidable animals, for Rousseau natural humans are still in a condition of physical unity with their surroundings. They are perfectly integrated into the metabolism of their ecology and hardly affect it, taking only what they need. Without the pressures of civil society, especially the market, there are no competitive or social reasons to take more than one needs. The quality of this lifestyle means that as physical beings these humans are infinitely superior to those living in civil society. However, it also means that humans are inseparable from nature; the division of human subjectivity from its objective surroundings has not yet taken place. Nature, at this point in Rousseau's analysis, might still be understood as the Greeks described it: a perfect unity of

which humans are part. Asher Horowitz writes, "At the proto-human stage nature is still an undifferentiated whole, a simple unity in which neither subject nor object can be said to have yet appeared" (Horowitz 1987, 73). This stage is "proto-human" because it is the division of subject and object — the differentiation of self/mind from the physical body — that makes human "being" possible. Rousseau makes this clear as he turns from a consideration of humans as they are physically to how they are morally.

When he turns to explain the "metaphysical," or moral condition of humans, Rousseau introduces a key distinction between humans and other animals: "an animal cannot deviate from the rule that is prescribed to it, even when it would be advantageous to do so, while man deviates from it, often to his own detriment" (Rousseau 1987, 44). Rousseau now switches to a distinctly Renaissance terminology about nature; humans and animals are machines and the operations of nature are governed by laws (Collingwood 1945, 5; Rousseau 1987, 44). However, humans realize that they do not need to follow the commands of nature. Humans are now understood as free agents, controlling their own actions (Rousseau 1987, 44). They are still free, autonomous and self-legislating, perhaps even more so, but human subjectivity is at this moment differentiated from the objectivity that surrounds it. It is the awareness of the ability to consciously — even self-consciously — transform and interact with the ecology that renders the subject separate from its object. This is not to say that subject and object are permanently isolated, but that they become differentiated and mediated.

For Rousseau, there is a moment at which the human subject realizes that it is not bound by the laws of nature or determined by them. Entering into this condition also introduces the

possibility of what Rousseau terms 'perfectibility.' Rousseau describes this potential as "the faculty of self-perfection, a faculty which, with the aid of circumstances, successively develops all the others, and resides among us as much in the species as in the individual" (Rousseau 1987, 45). It would be a mistake to assume that Rousseau's use of the term 'perfectibility' means that humans can attain perfection. On the contrary, Rousseau asserts only a few lines later that this capacity "is the source of all man's misfortunes…" and that it "eventually makes him a tyrant over himself and nature" (Rousseau 1987, 45). However, what 'perfectibility' does mean is that change — self transformation — is possible. Thus, after the separation of subject and object, humans enter into a dynamic state, over which they — theoretically — can freely exercise control over themselves and over nature.

For Rousseau and his contemporaries, who wrote before the Darwinian revolution and the emergence of evolutionary biology, the phylogenetic change of humans, or any other animal, could not occur in nature. Nature was a state of continuity and eternity, not dynamism and time. Rousseau writes, "There was neither education nor progress; generations were multiplied to no purpose. Since each one always began from the same point, centuries went by with all the crudeness of the first ages; the species was already old, and man remained ever a child" (Rousseau 1987, 57). In this account, there is no historical change, nor is there biological evolution. However, with the separation of subject and object and the consequent formation of human freedom and perfectibility, historical change of the human species becomes possible. Still, this change is not yet considered 'history.' At this point Rousseau gives an account of human change that is independent of nature, change that occurs within convention. Already the

line between nature and convention, and 'savage' humans and their 'civilized' counterparts starts

to blur. Humans still live in the pre-political condition, but after the separation of subject and

object, the state of nature becomes dynamic rather that static. Interestingly, in a short passage

that might be read as proto-Hegelian, Rousseau refers to the "progress of mind," which occurs as

a result of the separation of subject and object (Rousseau 1987, 46). He suggests that with its

separation from nature, human consciousness develops on its own. Hegel will later assert that it

is this development — of mind — which is the true causal force that drives history forward.

Horowitz maintains that for Rousseau the moment at which they attain perfectibility

humans have not entered history; they may have left the pure state of nature, but history proper

has not yet commenced. The human species first passes through a stage of 'pre-history,' in which

"the biological and psychological foundations of culture are laid…" (Horowitz 1987, 73). In the

second stage, which Horowitz calls history, culture develops (Horowitz 1987, 73-74). Of course,

Rousseau conceived of this development as a more fluid process than simply the transition of

'pre-history' into 'history.' In the first part of his *Second Discourse*, Rousseau recounts the

development of speech, which was initially simply a primeval "call of nature," but eventually

developed and became more sophisticated (Rousseau 1987, 49). With the evolution of speech

and then language, general ideas became possible and then social relations, beginning with the

family, develop (Rousseau 1987, 50-51). At this point though, humans have not reached the state

of civil society. Social relationships are generally benevolent, because they are governed by the

natural sentiment of 'pity,' which prevents humans from doing unnecessary harm to one another

(Rousseau 1987, 55). Finally, with the institution of private property, social relations become

dominated by invidious comparison, humans forget their natural pity towards one another, and

civil society is truly established (Rousseau 1987, 60). Clearly, Rousseau did have an acute sense

of the complicated relationship between nature, convention, and history. Leaving nature, or no

longer being bound by natural law, does not mean that humans immediately enter civil society.

Building on this account of the gradual transformation of humans over time, Horowitz

maintains that the strict division of nature and convention is actually impossible, and is indeed

not the point of Rousseau's analysis:

> Although the second *Discourse* purports to separate nature from artifice and
> condemn the latter in terms of the former, it actually accomplishes the collapse of
> the two concepts within a sophisticated concept of history. Artifice is essential to
> the nature of the historical being, yet artifice is never identified with nature, nor
> does it ever replace nature.[12]

Artifice, to be sure, is different from nature, but it is not completely separate from it. Elements of

nature, then, continue to exist in history and in civil society. From an ecological perspective, the

absolute separation from nature is an impossibility, as humans are fundamentally dependent on

physical nature for their continued existence as material beings. History becomes the realm in

which nature and convention are not divided abstractly, but rather exist together and are

mediated dialectically. Horowitz writes, "Nature is therefore something that lives on in history

just as history is the dialectical unfolding of human nature" (Horowitz 1987, 85).

The phylogenetic development of the human species also means development in the

human-ecological relationship. While perfectibility means the development and change of

humans, both as individuals and as a species, this process of change does not occur simply in

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[12] Horowitz 1987, 51.

'mind,' or in human consciousness. With the realization of their freedom, humans begin to freely, and eventually self-consciously, transform nature. Not only is human subjectivity separate from its object, physical nature becomes the object of the human transformative capacity. Through this process, humans also transform themselves, Horowitz holds. He writes that perfectibility is "the process of self-transformation that occurs when men at first unconsciously and later consciously set out to transform nature" (Horowitz 1987, 73). Importantly, the potential to transform nature in such a way, as a free agent, must have existed in humans in the pre-political condition, as this freedom is an essential — if not *the* essential — characteristic of human being. It is when this free agency is realized and exercised that humans can be said to have reached the level of perfectibility and the subject is decisively separated from its object (Biro 2005, 76). Therefore, perfectibility, the separation from nature, and free, self-conscious transformation of nature clearly means a fundamental change in the human relationship with the ecology.

If perfectibility is a process that is characterized by change over time, and it also represents a profound shift in how humans interact with nature, then the human relationship with nature, or human ecology, can and must also be understood historically. In other words, the human relationship with the ecology changes and develops over time. As well, it follows that the ways in which humans interact with nature are therefore free and self-conscious. Marx would later develop this notion much further in his explorations of human 'species-being' and alienated labour, contained in his *Economic and Philosophic Manuscripts of 1844* (Marx 1992, 328), but the idea is certainly present in Rousseau's *Second Discourse*. Biro holds that because the free and self-conscious transformation of nature requires the division of subject and object, the human

relationship with nature is necessarily one of alienation (Biro 2005, 76). It is my contention that an adequate manner of thinking about ecological politics, one that in Biro's words will offer a "way of thinking about the human relationship with nature that does not force us into choosing nature at the expense of convention or vice versa," (Biro 2005, 59) requires a more rigorous analysis of the concept of alienation from nature than that which Rousseau provides. But Rousseau does offer a useful point of departure for further exploration into this problem because his philosophy establishes the idea that separation from nature is a *necessary condition* of human existence. In other words, there is no 'going back' to an uninterrupted relationship with nature. This raises a difficult question regarding the goal of ecological politics, which do, in a sense, seek to turn back the clock of climate change and ecological degradation. However, the reversal of these problematic trends need not be at odds with Rousseau's theory. All living entities adapt, change, and posses the capacity to recover from adverse events. Such is the unending forward movement of historical, as well as biological, time. Overcoming the calamities of climate change and ecological degradation, then, are best understood as moving forward to something better, rather than going backwards in time.

Returning to a state of perfect harmony with nature, however desirable he may have thought it, Rousseau recognized as a complete impossibility. He holds that the state of nature "no longer exists… perhaps never existed… [and] probably never will exist…" (Rousseau 1987, 34). For Rousseau the state of nature serves only as a regulative ideal. In addition, Rousseau acknowledged that an accurate account of the state of nature, while desirable, is indeed not attainable. He holds that his description of the state of nature is, and can only ever be,

conjectural: "Let us therefore begin by putting aside all the facts, for they have no bearing on the question. The investigations that may be undertaken concerning this subject should not be taken for historical truths, but only for hypothetical and conditional reasonings…" (Rousseau 1987, 38). Rousseau admonishes Hobbes and Locke who both, in their fictional descriptions of the state of nature, attribute to humans the characteristics they recognized humans to have in civil society (Rousseau 1987, 40-41). However, even Rousseau himself cannot achieve a clear view of the natural state, because from his location in civil society he is unable to avoid reading convention into nature.

While this problem represents a certain and irresolvable contradiction in Rousseau's thinking on the state of nature, or on the possibility of a return, I would like to suggest that there is a deeper, more substantive aporia as well. For Rousseau the fundamental quality of human being is freedom. But this freedom arises out of an capacity to *self*-legislate. For the subject to self-legislate, it must be separate from its object; it must in some way exist outside of its natural object so as not to be governed by the laws of nature but by its own, self-given laws. The ideals of freedom and complete non-alienation, then, are irreconcilable. Accordingly, an attempt at an unmediated return to nature, or an unqualified reunification of subject and object, would also entail the end of human freedom. Capturing this sentiment, Horowitz writes that Rousseau "could not advocate a real return to nature without advocating the destruction of the [human] species" (Horowitz 1987, 32-33). Immediately following this, Horowitz also remarks, "But neither could [Rousseau] rest content with a simple reliance on reason to deliver mankind from its self-imposed calamities" (Horowitz 1987, 33). Rousseau therefore proposed resolutions to the

acute miseries of modernity, which he so lamented. Still, I contend that this tension between the subject-object dilemma and the possibility of human freedom plagues not only Rousseau's attempts to envision a better future or alternative modernity, but also one of the most important pieces of secondary literature concerning Rousseau's treatment of these problems: Ernst Cassirer's famous essay "The Question of Jean-Jacques Rousseau." However, this tension also provides a site for creative reinterpretation and rethinking of the human-ecological relationship.

Voltaire made the famous claim that Rousseau idealized the state of nature so much that he wished humans to return to the forest and to walking on all fours. Biro notes that this is a fundamental misunderstanding of the Rousseauian project: Rousseau constructed his state of nature as a *regulative ideal* and was well aware that any attempt to achieve such a state in practice was impossible (Biro 2005, 59-60). However, Rousseau's later works, in particular the *Social Contract*, attempt to provide political solutions to the problems diagnosed in the *Second Discourse*. His aim was in some way to overcome the alienation and relations of unfreedom he saw in modernity, while keeping humans within their social and post-natural condition (Biro 2005, 60). However, debate persists as to Rousseau's central problematic, his consistency, and which of his later works is the definitive solution.

Ernst Cassirer's classic contribution to Rousseau scholarship, his essay "The Question of Jean-Jacques Rousseau," establishes the *Social Contract* as the conclusive answer to the problems described in the *Second Discourse*. Cassirer recognizes that the process Rousseau describes is bound up in a history that moves only in one direction: there is no going back. "The return to the simplicity and happiness of the state of nature is barred to us," writes Cassirer, "but

the path of *freedom* lies open; it can and must be taken" (Cassirer 1988, 18). Cassirer is correct that the return to a pure state of nature is implausible. But it is not so clear that Rousseau would have accepted Cassirer's dichotomy of simplicity and happiness on one hand, and freedom on the other. Indeed, Cassirer later notes that Rousseau could not escape the eudaemonism of 18th century philosophy: "Rousseau himself, it is true, was unable to break theoretically the hold of the eudaemonism which dominated all eighteenth-century ethics. From the outset, his whole thought was moved by the problem of happiness: its aim was to find a harmonious union of virtue and happiness" (Cassirer 1988, 29). Meanwhile, the central problematic to which the *Social Contract* addresses itself is freedom. Cassirer's analysis, then, is burdened with an inconsistency about what exactly Rousseau tries to accomplish in the *Social Contract*. Additionally, the central, most difficult, and most theoretically fruitful problem — that of the subject's alienation from others and from nature, in modernity — is left out of Cassirer's account. But this inadequacy should only direct attention back to the central aporias in Rousseau's own thought: the tensions between freedom and non-alienation and between subject and object. Cassirer's mistake is to assume that these problems, articulated in this way, can have theoretical or practical solutions.

Whether Rousseau's solution is convincing or not remains to be answered, as does whether the resolutions of the *Social Contract* are indeed consistent with the *Second Discourse*. To the latter question, Cassirer certainly responds in the affirmative. He notes that until his old age, Rousseau was completely satisfied that his body of work was theoretically unified (Cassirer 1988, 17). Cassirer, too, is convinced that the symptoms diagnosed in the *Second Discourse*

receive coherent and persuasive resolutions in the *Social Contract*. He writes that the two works

"contradict each other so little that each can rather be explained only through and with the other"

(Cassirer 1988, 25). This is possible, according to Cassirer, because in the *Social Contract*

Rousseau recreates the community that he had found so wanting in modernity. Again, Cassirer

contradicts his own assertion that it is only freedom which the *Social Contract* offers. Humans,

in Rousseau's vision of the social contract, are no longer alienated from each other; there is a

rediscovery of community. The 'general will' is more than a mere association of individuals for

purposes of political expediency or stability. Rather, is it the embodiment of the real ethical

substance of the community. Cassirer writes, "the will, as ethical will, really exists" (Cassirer

1988, 24). Accordingly, the 'general will' becomes the foundation of legitimate political power.

The state is not only allowed to execute the 'general will,' it becomes intertwined with, and

grows with society (Cassirer 1988, 25).

Cassirer's claim that the *Social Contract* and the *Second Discourse* are congruous is

convincing — to a point. The unfreedom and social estrangement described in the *Second

Discourse* are claimed to be superseded with freedom, legitimate political power, and the

establishment of real community in the *Social Contract*. Rousseau describes the problem as

follows: to "Find a form of association which will defend and protect, with the whole of its joint

strength, the person and property of each associate, and under which each of them, uniting

himself to all, will obey himself alone, and remain as free as before" (Rousseau 1994, 54-55).

The *Social Contract* claims to offer an answer to this problem. Of course, the real liberty one

might enjoy in a community whose members are "forced to be free," is dubious (Rousseau 1994,

58). Substantially however, Cassirer's account — and Rousseau's — only really seems to address the problem of freedom. Where Cassirer falls short, the problem lies in Rousseau's own deficiencies. Even on the problem of freedom, the *Social Contract* offers at best the feeble assertion that individuals might remain free within the social contract if they unanimously consent to give up all of their natural freedom. The existence of the "Legislator," the "Censor," and the establishment of a civil religion in Rousseau's proposed contract make his contention that this state is truly free highly doubtful.

In the *Social Contract*, Rousseau also attempts to overcome the invidious comparison, competition between individuals, great disparities in wealth, and the inauthentic ways of being that all characterize modernity. But the project fails because Rousseau does not deal sufficiently with the problems of alienation, nature, and alienation from nature. The division of the subject from its natural object (i.e. physical nature) receives no attention and the reunification of individual subjects with one another is given only dissatisfying treatment in the formation of the 'general will.' Rousseau describes the general will as an "act of association [that] produces, in place of the individual persons of each contracting party, a moral and collective body… and which, by the same act, is endowed with its unity, its common self, its life, and its will" (Rousseau 1994, 56). It might be argued that the *Social Contract* succeeds in establishing a true community by binding together the totality of individual subjectivities into a single unified will. However, this still only amounts to a synthesis of particulars; it says nothing of the mediation between subject and object, or of the relationship between humans and nature.

It is Biro's contention that Rousseau was fully aware that the problems he identified in

the *Second Discourse* could be resolved only through dealing with the issue of alienation from

nature. Indeed, alienation from nature for Rousseau is the principle cause of human suffering

(Biro 2005, 60). The conflict between the general and particular wills — the divergence that the

Social Contract attempts to rectify — is rooted in human separation from nature. Biro writes that

the "distinction between individual self-interest and the interest of the community as a whole —

a distinction… that is rooted in the problem of alienation from nature — is of course what the

Social Contract is intended to overcome" (Biro 2005, 68). The objective, then, is for humans to

remain within political society, but also to overcome alienation. Understood in this way, the

program contained in the *Social Contract* seems even less convincing. While it may purport to

reclaim what Rousseau understands as the essential human quality of freedom, it says very little

regarding the human relationship with nature — either 'human nature' or the ecology.

Referencing some Marxist commentators on Rousseau's work — Louis Althusser and

Lucio Colletti — Biro holds that a key distinction that Rousseau overlooks is between

'exchange' and 'division of labour.' That is, Rousseau does not acknowledge the difference

between the particular society that he inhabited, 'exchange' society, and society in general,

understood by the Marxists as 'division of labour.' The failure to recognize this difference,

according to Althusser and Colletti, prevents Rousseau from articulating a convincing resolution.

This is because the critique of one determinate society thereby becomes a critique of society *tout*

court (Biro 2005, 69-70). Rousseau is left having to reform society is all its forms, rather than

one particularly deleterious form. An interesting corollary to the distinction between 'exchange'

and 'division of labour, is the differentiation between 'basic' and 'surplus' alienation. In what

follows, I map Biro's exploration of these two concepts, in their relation to Rousseau, and

suggest that these distinctions can serve as the foundation of a rethinking of the human-

ecological relationship.

Biro holds that "For Rousseau, alienation from nature — the splitting of human

subjectivity from the natural object… is the defining characteristic of human existence" (Biro

2005, 76). I would like to suggest, however, that 'alienation' is too strong of a word to describe

this necessary quality of the human-ecological relationship. Rousseau is quite right that human

subjectivity exists apart from its object and that humans are not bound by laws of nature. It is this

separation that permits freedom, as well as free, self-conscious transformation of nature.

Nevertheless, humans are also fundamentally *in* and *of* nature, specifically in an ecological sense.

In material terms, humans are absolutely dependent on the ecology for their continued physical

existence; nature is "man's *inorganic body*…," as Marx will later remark (Marx 1992, 328). In

ideational terms, the ecology provides the 'boundedness' that human consciousness requires to

situate itself. As such, the term 'mediation' provides a better descriptor for the relationship

between humans and the ecology. In other words, human subjectivity is necessarily apart from its

natural object, but it is not independent of it; the two elements are different, but not distinct.

Building on Rousseau's notion of perfectibility, I have shown that the human relationship

with the ecology is one that exists in history; that is, it changes over time. As such, even if the

human-ecological connection is not necessarily one of complete alienation — and, because we

depend on the ecology for our survival, never can be — *how* the relationship is mediated is not

static. Biro draws an instructive comparison between Althusser and Horowitz. Althusser has an over-simplistic reading of Rousseau, history, and alienation — a consequence of his determinism. For him, the problem of alienation is overcome with the development of the productive forces: the growth of capitalism, which eventually erupts into socialist revolution, and the creation of communism. Alienation can be totally overcome, for Althusser, but its solution lies in total alienation (Biro 2005, 78). Horowitz, on the other hand, realizes — as Rousseau did — that subject and object cannot be re-unified and that alienation is a necessary condition of human existence (Biro 2005, 78). However, as Biro writes, "if Rousseau cannot recommend a return to a natural state, neither does he want to suggest that all moments or forms of alienation [read: mediation] must be judged to be equal" (Biro 2005, 77). For Rousseau it is possible to make judgements about how and to what extent the relationship between society and nature is mediated.

Using both Freud and Marcuse, Horowitz makes a key distinction between 'necessary' and 'excess' denaturation. Others call this 'basic' and 'surplus' alienation, and Biro uses the terms 'objectification' versus 'alienation.' Differences in terminology aside, Horowitz's distinction makes it clear that for Rousseau, not all forms of alienation from nature are the same. Indeed, he argues that Rousseau attempts "to separate the necessary denaturation of a cultural and social being from the unnecessary or excessive denaturation attending inequality or class-divided society" (Horowitz 1987, 213). With this in mind, Rousseau's project in the *Social Contract* becomes, if not convincing, much more understandable. Engineering and entering into a social contract is not intended to overcome alienation, or solve the subject-object split, for

Rousseau, but represents one of the more benign forms that alienation could possibly take (Horowitz 1987, 211). If the relationship between individual subjects in political society and 'human nature' can embody different forms, some better than others, then the same can be said of the human-ecological relationship. That is, the ways that the human-ecological relationship are mediated need not be understood as static or immovable. Thus, the alienation from nature that is manifested by industrial capitalism is not a necessary consequence of the impossibility of a total reunification of humans with the ecology.

Biro writes that Rousseau's pre-political state of nature is — subsequent to the separation of subject and object — dynamic. So too, therefore, must be the state of political society (Biro 2005, 77). Indeed, it is Rousseau's account of human freedom, the freedom which arises from the separation of humans from nature and the condition of perfectibility, that permits this dynamism. Rousseau's own inability to create a state in which alienation from nature takes a more benign form does not mean that the project should be abandoned. Combining Rousseau's understanding of the human relationship with nature as dynamic and historical with his assertion of the fundamental human potential for freedom creates the possibility of a truly critical and radical politics. This has further implications for a post-modern, post-capitalist ecological politics. While there is no eternal human nature, or pure uncontaminated ecology, to which humans can return, we can use the freedom that we have by virtue of the subject-object separation to create a renewed relationship with the ecology. Transcending capitalist social relations means not only developing a new politics, but also taking control of *how* our relationship with the ecology is mediated.

Rousseau does not have the last word on the division of subject and object. Kant, Hegel, and many others continue the exploration, and bring to it much more logical and philosophical rigour. But Rousseau's account provides a theoretically rich point of departure for contemporary ecological politics and ecological political thought. There are two principal reasons for this. First, Rousseau's insistence that humans cannot return to nature precludes futile attempts to rediscover a 'natural' human state of existence, or a perfect, idyllic, or unmediated relationship with the ecology. Rousseau forces us to think of nature and convention not as polar opposites, but as two categories that are entwined in the historical process. Second, while a return to nature is impossible, Rousseau's explanation of the human capacities of 'perfectibility' and freedom create the possibility of radical reconfigurations of society and politics, as well as corresponding rearrangements of human-ecological relations.

Conclusion

The above discussion of Rousseau shows the central importance of history, nature, and self-transformation in his analysis. It is now evident that Rousseau's outlook is a rich and complicated one. He is the progenitor of what has here been called the 'historical-dialectical' approach to subject-object analysis and human ecology. Where the ancient Greeks saw perfect, timeless unity, and Descartes and Locke saw radical separation, Rousseau sees complex, historical intertwinement. He balances the sameness and difference of subject and object — the identity and non-identity of humans and the ecology. What, though, does this say of enchantment? I would like to suggest that there is a fundamental paradox at work in here in

Rousseau. On the one hand, his analysis points to the specialness, the enchantment, of human beings. We are that unique species that leaves the eternity of nature, enters historical time, and takes control of its own destiny. This character of our being, as will be consistently argued in the remainder of this dissertation, surely inspires a sense of enchantment. On the other hand, Rousseau sees the outcomes of this special characteristic as thoroughly disenchanting. Reason, which allows humans to control and manipulate nature, washes away the magic of the ecological world. Furthermore, history, made possible by reason, takes humanity further and further away from its connection to nature. While Hegel and Marx, the subjects of the following chapter, might be said to have succumbed to the 'enchantment of reason,' Rousseau is clearly more ambivalent. While he may not have all the answers and solutions, Rousseau's thought is clearly a necessary moment in the generation of a *self-understanding* of the human location in nature.

<u>Chapter 3: Hegel and Marx</u>

<u>Introduction</u>

      The previous chapter made clear that philosophical thinking on the human place in nature changed a lot from the ancients, to Descartes and Locke, and then to Rousseau. With the latter, human ecology can be said to take on a historical and dialectical character. Hegel and Marx continue this tradition, making important contributions of their own. They use more explicitly the 'subject-object' terminology, and in many place take the analysis to further philosophical depths than Rousseau. Commonalities abound; however, it is clear that Hegel and Marx diverge from Rousseau in one key way. While he sees the necessity of historical change he nonetheless laments it. For Hegel and Marx, on the other hand, there are things that are lost in the inevitable march of history, but it is ultimately a progressive force. This is because Rousseau sees human reason and its corollary, the domination of nature, as essentially disenchanting. Conversely, Hegel and Marx might be said to be 'enchanted by reason' and its seemingly infinite possibilities. Although this outlook is worthy of critical scrutiny, it also illuminates what is special about human being: self consciousness, rational thinking, and the capacity to labour freely. Of course, Hegel and Marx do not share the vulgar outlook, exemplified by Locke and Descartes, that humans are completely outside of nature. Their philosophies advance the discussion of human ecology that is central to this dissertation in important ways. This is especially evident in their abilities to balance the simultaneous identity and non-identity of subject and object. To make this case, the present chapter proceeds as follows. The first section,

on Hegel, begins with a discussion of his political philosophy to give an idea of his method and general outlook. It then investigates Hegel's famous *Phenomenology of Spirit*, to draw out the human ecological implications of his theory of subjectivity and self-consciousness. The second section turns to Marx, a student and critic of Hegel's. Marx focusses more explicitly on the category of labour in the historical process, and this has important implications for the human relationship with nature.

G.W.F. Hegel

At first glance, Hegel's work seems a world apart from Rousseau's. The latter's writing style is easily comprehended and his philosophy is not, for the most part, conceptually difficult. The German, on the other hand, presents the reader with a daunting set of works that initially appears to be impenetrable. Hegel's style is famously difficult, a hurdle that is compounded by the fact that he often introduces his own terminology. Despite these apparent differences, as it concerns the present study Rousseau and Hegel confront much the same principal political and ethical problem: alienation. More specifically, this means the separation of subject and object. Subjectivity can be conveniently (although not adequately) summed up as the phenomenological capacities and inwardness of the human individual. The meaning of objectivity, however, is far more ambiguous. For example, it can refer to the objective political and ethical community, to the object of phenomenological experience, or even to the objective physical natural world — the ecology. With the exception of the critical theorists, and particularly some of the literature on Adorno, this ambiguity is often insufficiently appreciated, especially in political theory. It has

been shown in the forgoing that conceptualizing 'the object' as 'the ecology' complicates but also enriches Rousseau's political philosophy. Like Rousseau, Hegel aims to overcome the radical separation of subject and object to restore a sense of community and subjective at-home-ness in the world (see Dallmayr 1994, 50-53). Going further than Rousseau's 'political solution,' as per the *Social Contract*, Hegel attempts to ultimately identify subject and object. It remains controversial whether this means the complete subsumption of subjectivity into an objective whole, as Adorno, for example, has alleged. What is clear, however, is that for Hegel subjectivity shares an identity with objectivity insofar as the categories of knowing are identical to the categories of being, as argued in his *Encyclopaedia Logic*. The human-ecological significance of this argument will be explored further below. Immediately evident however, is that Hegel offers a strong foundation for believing that humans are in very important ways identical with nature.

The question of where to begin with Hegel is a difficult one. As Fred Dallmayr has noted, Hegel was a truly systematic thinker. He was "the last great *systematic* thinker in the history of Western philosophy, a thinker who sought to render all facets of reality accessible to philosophical understanding and to integrate them into an intelligible whole" (Dallmayr 2002, 1). A thinker whose oeuvre is so all encompassing presents no easy points of departure, especially as the elements of Hegel's system are all so deeply intertwined. Hegel himself saw phenomenology, the study of the bare facts of consciousness, as the necessary first step. As a result, his *Phenomenology of Spirit* acts as the precursor to his systematic philosophy. This dissertation aims to offer an exposition of Hegel's thought in terms of the developmental trajectory of subject-object dialectics that also includes Rousseau, Marx, and the Frankfurt School. As such,

the *Phenomenology* — that work which explores most in-depth the contours of human subjectivity — would seem like a logical place to begin. However, to highlight the important continuities between Hegel and Rousseau, the present analysis will begin with Hegel's political work, the *Philosophy of Right*. It is here that it is most obvious that Hegel was grappling with many of the same political and ethical problems as Rousseau. Most central is the challenge of finding a sense of community in the context of a modern society that stresses individuality above all else. Along with demonstrating the affinities with Rousseau, the *Philosophy of Right* also offers an accessible presentation of Hegel's subject-object dialectic. In short, this may be described as a primary and simple immediacy of subject and object, which is then broken apart into alienated subjectivities in modernity. Hegel effects a preservative sublation that conserves individuality while also recreating a sense of community and wholeness. In this movement we also discern Hegel's dialectical method of thesis-negation-synthesis.

Only then does the analysis approach Hegel's *Phenomenology of Spirit*. This seminal work has been called a 'phenomenological anthropology,' as it charts the development of the human faculty of self-consciousness from it most basic — and necessarily speculative — beginnings. Hegel's aim here is to give an account of the nature of human consciousness. I will begin the analysis with those parts of Hegel's thought that highlight the *self-negational* character of human thinking — that is, the ability of human consciousness to conceive of itself as both subject and object. As well, attention will be given to those sections of the *Phenomenology* that describe the place of this self-negational consciousness within the objective world. While the *Phenomenology of Spirit* offers some substantial evidence for the 'specialness' of human

consciousness, Hegel's *Encyclopaedia Logic* provides an excellent entry into explorations of the identity of subject and object. Most importantly, in this work he makes the case that the categories of knowing are identical to the categories of being. In other words, the categories that we — subjectively — use to understand the world are the same as those that actually order the objective world. 'Absolute Knowing,' as Hegel calls it, is thereby made possible. In a later chapter, I will discuss Adorno's assertion that Hegel collapses entirely the distinction between subject and object — and how this move may be detrimental to epistemology as well as human ecology. At this point, the important notion that can be gleaned from Hegel is that important elements of the inwardness of self-consciousness, that most human characteristic, find important continuities in the objective world, and the ecological world in particular.

A final consideration before turning to the texts concerns the notion of 'dialectics.' Although this has been a tired, formulaic, explanatory catch-all abused by Marxists of all stripes for decades, the concept of dialectical thinking can nonetheless still be incredibly useful for contemporary ecological theory. But it must be more than a simplistic *a priori* formula imposed on historical events to dogmatically confirm grand unscientific theories. Friedrich Engels did dialectical methodologies no favours by formalizing the notions of 'negation of the negation,' 'identity of opposites,' and the 'law of the transformation of quantity into quality and vice versa.' Even in Hegel, the 'negation of the negation,' or 'thesis-antithesis-synthesis' triad often appears as formula applied to the facts before adequate empirical consideration. This aside, the endeavour to understand the world dialectically is still a fruitful one. What, then, does this mean? The dialectical method, properly conceived, appeals to the fact that all one-sided determinations

call forth their opposites and demonstrate the two-sidedness of thinking and being. It is Plato, not Hegel, who is the originator of this type of thinking, a detail openly acknowledged by the latter (Hegel 1991, §81). Just as Plato overcame Parmenidean and Heraclitean metaphysics to show that being is both change *and* continuity, Hegel brings together several categories, including identity and difference. The argument defended in this dissertation pivots on this possibility. What is special about human being, it is argued, is its simultaneous *identity with* and *difference from* the rest of nature. Such opposite determinations can only inhere in a single subject — humanity — if we accept a dialectical understanding. It is in this matter, it will be argued below, that Hegel has much to offer contemporary ecological theory.

Perhaps the best way to delve into Hegel's thought, and his *Philosophy of Right* in particular, is to pinpoint the political and sociological problem he was trying to work out. Hegel was trying to understand the nature of modern society and its pathologies. A great admirer of the Ancient philosophers, Hegel was also interested in the Greek world and its worldview. The Ancient Greek world was definitely not the modern world. But why? Greek society was 'compact,' in that there was a unity between the individual and the polis. Needless to say, the reality is much more complicated than this (see, for example, Wallach 1994). Still, for Hegel, in the ancient world individual subjectivities were inseparable from the objective whole of the political community. This fostered a deep sense of at-home-ness in the world. For Hegel, the Athenians were justified in their execution of Socrates because he represented a moment of radical subjectivity that was antithetical to the nature of their society. Hegel saw that it is also precisely this sense of radical subjectivity that characterizes modern society. This may ultimately

represent a loss, but like Rousseau, Hegel realizes that there is no going back — not to the simplicity of the state of nature, nor to the sense of deep integration offered by non-modern societies. However, also like Rousseau, Hegel envisions an alternative to the alienation that pervades modern sociality, a way of recapturing some of the at-home-ness that non-modern societies offer. For Rousseau, the movement from simple unity, to alienation, to political compromise maps easily onto the progression from state of nature, modern society, and finally the social contract. For Hegel, however, the triadic movement takes place in many stages, and even occurs within these stages. For the sake a simplicity and clarity, the analysis here makes use of only one of these movements as it appears in the *Philosophy of Right*. In the third and final section of the book, called 'Ethical Life,' the family and 'civil society' reach a higher unity — but are not eliminated — in the state. While this political philosophy has no intentional ecological meaning, it does offer key insights into Hegel's historical-dialectical approach to subject-object relations. It is therefore a necessary stepping stone in developing Hegel's human ecology.

'Ethical life' is for Hegel the solution to the problem of 'recht' or 'right' in modern society. In its preceding moments, 'abstract right,' and 'morality,' right is an objective and subjective phenomenon, respectively. In 'ethical life' the immediate at-home-ness of non-modern society is reconciled with the modern/Socratic moment of individuality. What is 'right' is concretized in institutions, and is objectified yet also the expression of free subjective wills. It is the moment in which freedom, the true nature of human being, is concretely actualized. As Hegel describes it:

> Ethical life is the *Idea of freedom* in that, on the one hand, it is the living good —
> the good endowed in self-consciousness with knowing and willing and actualized
> by self-conscious action — while, on the other hand, self-consciousness has in the
> ethical realm its foundation in and for itself and its motivating end. Thus ethical
> life is the concept of freedom *developed into the existing world and the nature of
> self-consciousness*.[13]

Ethical life is an order that is made concrete by the objectification of subjective wills (Hegel 2008, §144). While it is the unity of 'abstract right' and 'morality,' 'ethical life' also contains within itself two incomplete moments — the family and civil society — that come together in a higher synthesis: the state.

The family, then, represents a moment of immediate unity. It is a distinctly *natural* relationship, in which its members feel perfectly at home. Hegel writes:

> The family, as the *immediate substantiality* of spirit, is specifically characterized
> by *love*, which is spirit's feeling of its own unity. Hence in a family, one's
> disposition os to have self-consciousness of one's individuality within this unity
> as the essentiality that has being in and for itself, with the result that one is in it
> not as an independent person but as a *member*.[14]

The family is a natural relationship because it is held together by feelings of love and trust. Although it exists for the natural reproduction of the species, it is not — contra Kant — merely a sexual contract. In his description of the family, Hegel clearly is concerned with 'nature' in only the most general sense and obviously not in the specific sense of ecological relations. What, then, does it have to offer to an exploration of human ecology? In Rousseau we can discern a three stage movement from immediate unity, to alienation, to a reconciliation that preserves identity and difference. With more philosophical sophistication, this movement is described in various

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[13] Hegel 2008, §142.

[14] Hegel 2008, §158.

ways and on various levels in Hegel. By describing Hegel's general *approach*, we can deepen

our understanding of the simultaneous identity and non-identity of humans and the rest of the

ecological world.

The key first moment, then, is of immediacy and at-home-ness — the family. In the next

step, however, the closeness of the family is broken apart and individual subjects are merely that,

individual subjects. This stage is called 'civil society' and represents the sphere of economic

activity. The concept of 'civil society' marks Hegel's most important contribution to political

theory. He here makes the observation that in capitalist modernity an individual's economic

relationship to the rest of society is not directly connected to, nor is it determined by, their

political status. In other words, one's political status and their economic status are independent.

This was certainly not the case in feudal or slave-owning societies. The key aspect of this level

of relationships between individuals is that Hegel refers to it as 'gesellschaft,' rather than

'gemeinschaft,' meaning society rather than community (see Hegel 1971 §523). As he notes in

the *Philosophy of Right*, the individual is the first principle of civil society. He writes, "In civil

society each individual is his own end, everything else is nothing to him" (Hegel 2008, §182).

Individuals are not bound together by any sense of natural connection or common interest. To be

sure, individuals are *interdependent*, because of the division of labour. In this sense, Hegel argues

that each particularity moves towards universality (Hegel 2008, §183). But they are ultimately, at

the level of civil society, self-concerned agents maximizing their own interests. Civil society, just

like the family and the state, represents a 'moment,' that is, a stage that is at more logical than

chronological. He writes that "its formation follows later in time than that of the state… (Hegel

2008, §182). But it is a necessary logical step in the completion of 'ethical life' because it captures individuality. At this stage individuality and subjectivity are the primary factors. The individual subject is radically alienated from other subjects as well as from any sense of community or at-home-ness in the world.

Like Rousseau, Hegel is seeking some way of moving beyond the pervasive sense of alienation that characterizes the human experience in modern/civil society. In the third and final stage of ethical life — the state — the two prior elements come together in a higher unity (Hegel 1971, §535). The familial relationship is rooted in feelings of closeness. However, such feelings can only extend so far. On the other hand, the freedom of individual subjectivity is a good and necessary development, but as the principle governing civil society results in conflict between individuals. The challenge, then, is to preserve individuality while creating a sense of being at home in the world. For Rousseau, this is more straightforwardly accomplished as individuals freely consent to be governed by the general will. Hegel recognizes that it is not feasible to obtain this type of universal consent. However, he sees, like Rousseau, that it is important that the law be an expression of the ethical substance of the community. Hegel holds that the law emerges from the activities of the collective and evolves to express those activities. It is, as such, the expression of the freedom of individuals acting collectively. Although in this moment individuals do not experience the *immediate* at-home-ness of the family, they nonetheless confront political life, in the form of the state and its laws, as something that is the expression of themselves — that is, they do not experience it as something fundamentally 'other.'

Thus far the emphasis has been placed on the general similarities between Hegel and Rousseau. They each propose, to put it in the roughest terms, a three-stage movement from immediacy, to alienation, to reconciliation. This broad correspondence should not serve to elide the differences between the two thinkers, who have innumerable important divergences. Of particular consequence is that Hegel's categories are sometimes vaguely historical, but mostly logical, while Rousseau's stages are more explicitly chronological. For Hegel, the problem of immediacy and alienation is mirrored by the issue of identity and difference. For example, the human identity with nature is contrasted with human difference from it. The foregoing exposition of his *Philosophy of Right* suggests that there is a compromise between immediacy and alienation in the higher unity of family and civil society in the state. Might there also be a higher unity of the human identity with nature and difference from it? This central question will next be explored through a discussion of the key element of human difference from nature: self-consciousness, in particular as it is described in the *Phenomenology of Spirit*.

The *Phenomenology* occupies a somewhat awkward position in Hegel's oeuvre. It is not properly part of Hegel's 'system,' or his systematic philosophy, as described in the *Logic*. It describes the ascent of natural consciousness to the standpoint of absolute knowing — a necessary condition for his philosophy proper. Stephen Houlgate writes, "The role of the *Phenomenology*… is not to set out Hegel's own philosophy, but to lead natural consciousness from its own certainties to the perspective of philosophy, and to *justify* such philosophy in the eyes of consciousness" (Houlgate 2013, 8). The *Phenomenology*, which was written early in Hegel's career, has sometimes been regarded as the necessary frontispiece to his 'system,' but

one that can be discarded upon its completion. However, H.S. Harris holds that Hegel's

phenomenological study forms a necessary component of the system: "the *Phenomenology*

always continued to be essential to Hegel's system as a whole. It closes the circle of the system

as a theory of *human* experience and cognition" (Harris 1995, viii). Let it suffice to say that

while it may be a preface to Hegel's system, it is nonetheless one that is integral and logically

necessary. The *Phenomenology* is perhaps best described as a 'phenomenological anthropology,'

that is, a necessarily speculative — yet logical — account the development of human cognition.

Hegel's purpose is to describe the development of mere 'sense-certainty' through a series of

stages into the standpoint of philosophical consciousness, or absolute knowing. The present

analysis will focus on only a few of these transitions: those leading from the immediacy of

simple natural consciousness, to the moment when thought becomes aware of itself — self-

consciousness. It is this moment, I hold, that marks the key moment of human separation from

the rest of the natural world.

It is important to understand that unlike later phenomenologists who took fully developed

human (self-)consciousness as their point of departure, Hegel begins with the simplest and most

natural moment of consciousness (Houlgate 2013, 30). This he calls 'sense-certainty' and

represents the simplest and most immediate form of cognition. It is only aware of its immediate

object and in terms that are not in any way conceptual. Hegel describes sense-certainty as

follows: "All that it says about what it knows is just that it *is*: and its truth contains nothing but

the sheer *being* of the thing [*Sache*]. Consciousness, for its part, is in this certainty only as a pure

'I'; or I am in it only as a pure 'This', and the object similarly only as a pure 'This'" (Hegel

1977, §91). It would be incorrect to equate this moment of consciousness with a primordial state of immediacy in which subject and object have not been separated. Clearly there is a subject and an object, but consciousness has yet to become aware of anything outside of its immediate experience. Harris writes, "Sense-experience is infinitely *rich*, both in the sense that we keep on extending its range and in the sense that we can go farther and deeper into something that we have experienced already. But all we can ever *say* at the level of immediate awareness is: 'This *is*' and 'This is what *I* am aware of'" (Harris 1995, 23). Through a series of logical steps — a detailed account of which falls outside the purview of this dissertation — Hegel shows sense-certainty to be inadequate. Put simply, with immediacy as its sole concern, sense-certainty eventually is confined to sheer indeterminacy, unable to grasp the determinate qualities of the world (Houlgate 2013, 34).

In the next moment, 'perception,' consciousness no longer is interested in individual 'things,' but in what it means to be a 'type of thing.' That is, is becomes interested in the properties of things (Hegel 1977, §113; Harris 1995, 25). Consciousness is now well on its way to conceptual thinking. Importantly, the introduction of general properties of things means that things are now understood as a combination of being and not-being. Houlgate writes, "the simple, immediate *this* proved *not* just to be simple and immediate — *not* just to be *this* — but to be the unity of being and not-being. For perception, therefore, the object explicitly combines *being* this with *not* just being this" (Houlgate 2013, 46). The subjective and objective parts of consciousness are now clearly differentiated (Harris 1995, 25). It is more than likely that it is this

cognitive development that separates human consciousness from that of all other higher animals. It is an important movement toward conceptual thinking.

However, for Hegel, perception is inadequate because although it grasps concepts, it sees them as one-sided and abstract (Houlgate 2013, 56). The 'understanding' comes into effect as a way to bring opposite determinations together and show that contradiction is intrinsic to truth (Harris 1995, 28; Houlgate 2013, 56). The understanding begins to grasp the 'inner being of things,' but still only in the form of 'picture thinking.' It cannot properly comprehend the real relationship between essence and appearance. Houlgate holds that Hegel "is drawing attention to a fundamental ambiguity in the understanding's conception of inner being: that being is the truth *in contrast* to appearance and also appearance *itself* as it is in truth" (Houlgate 2013, 67). The understanding has not yet reached the level at which it reflects back upon itself. This starts to change, however, when the understanding takes the 'infinite' as its object. Hegel explains, "Since this Notion of infinity is an object for consciousness, the latter is consciousness of a difference that is no less *immediately* cancelled; consciousness is for its own self, it is a distinguishing of that which contains no difference…" (Hegel 1977, §164).

This is a key transition and marks an entry into the "native realm of truth" (Hegel 1977, §167). Here, consciousness transcends sense and perception and goes outside of itself to comprehend itself, but then returns into itself. Hegel writes, "self-consciousness is the reflection out of the being of the world of sense and perception, and is essentially the return from *otherness*" (Hegel 1977, §167). Here, consciousness is sophisticated enough to understand itself

as *both* the subject and the object of its cognition. If the progress towards conceptual thinking in perception seemed impressive, this is truly amazing. Hegel writes:

> Consciousness, as self-consciousness, henceforth has a double object: one is the immediate object, that of sense-certainty and perception, which however *for self-consciousness* has the character of a *negative*; and the second, viz. *itself*, which is the true *essence*, and is present in the first instance only as opposed to the first object. In this sphere, self-consciousness exhibits itself as the movement in which the antithesis is removed, and the identity of itself with itself becomes explicit for it.[15]

This development occurs relatively early in Hegel's *Phenomenology*. It is still a long road to the attainment of absolute knowing. Even here, though, Hegel hints at a certain identity between subject and object, which will characterize the culmination of his phenomenological exploration. More to the point, however, this self-reflexive moment of consciousness decisively establishes the cognition of human beings as distinct from that of all other known organic entities. It is thinking that is aware of itself as such. There is no evidence that even the most intelligent and complex of non-human animals are able to conceive of themselves as both subject and object of their own consciousness. In the *Encyclopaedia Logic*, Hegel writes, "it is his identity as consciousness of himself that distinguishes man from nature in general, and particularly from animals, which do not achieve a grasp of themselves as 'I,' i.e., as their pure self-unity" (Hegel 1991, 181). This capacity is the foundation of what makes humans distinct from non-human nature. It also offers the opportunity to contemplate the specialness of human cognition, to be amazed by the sophistication of our consciousness.

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[15] Hegel 1977, §167.

Just as self-consciousness distinguishes humans from nature, it also allows them to

further distinguish themselves through their labour. Self-consciousness eventually achieves

mutual recognition in the self-consciousness of another human. This leads to what Hegel calls a

'life and death struggle.' At this point self-consciousness tries to deny its need for an 'other.' The

two selves struggle to show that they are pure freedom and have no attachments whatsoever. This

is not, Houlgate notes, a struggle to stay alive, but an effort to show "just how little life matters

to them" (Houlgate 2013, 94). Although only one of the selves can win this struggle, it lets the

other self continue to live as its bondsperson. This stage is the 'master-slave' dialectic and is the

subject of a great deal of Hegel scholarship, particularly Marxist. Indeed, it represents a key

phase in subject-object dialectics, and by extension, human-ecological dialectics. Of particular

interest for the present exposition is Hegel's introduction of the category of labour. Although the

slave is imprisoned, this self comes to enjoy greater freedom than the master (Hegel 1977,

§193-194). The slave, as labouring craftsperson, comes to see its own *negativity* and freedom in

the form of its objectified work. Hegel writes,

> For, in fashioning the thing, the bondsman's own negativity, his being-for-self,
> becomes an object for him only through his setting at nought the existing *shape*
> confronting him. But this objective *negative* moment is none other than the alien
> being before which it has trembled. Now, however, he destroys this alien negative
> moment, posits *himself* as a negative in the permanent order of things, and thereby
> becomes *for himself*, someone existing on his own account.[16]

In short, human consciousness comes to see its own independence and essential freedom only

through the labour process (Hegel 1977, §195-197).

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[16] Hegel 1977, §196.

This development, and its human-ecological implications, require some unpacking. To put the issue in more straightforward terms, human beings consciously and deliberately transform elements of the natural, objective world — this is called labour. Their subjectivities enter the objective world, and change it, making it their own. In the things that they produce, human see not only the products of their own labour, but they see *themselves* objectified. Furthermore, they also hereby come to understand their essential freedom. This moment conveys some important facts about the human relationship to (and place within) nature. First, human subjectivity is able to self-consciously distinguish itself from its object, and therefore, from nature. This negative moment, in which the human self posits itself as both in the object of its labour and as radically free from it, is the province of no other animal. It is a uniquely human faculty. Interestingly, Hegel notes that this moment of the self-realization of human freedom requires that consciousness be *both* in its object and outside of it. By extension, it can be argued that humans are both inside, or a part of, nature, but also fundamentally separate from it — simultaneously. Second, although radical freedom is one side of human freedom, it can only be fully realized in connection with objectivity. The natural object is an essential condition for the recognition of our own creative, subjective capacities. As a *negative* moment, consciousness must posit itself as *not* something — nature — to realize that it is truly free. As such, the objectivity of the natural world provides the necessary ground for human being, and for the fulfillment of human freedom.

In the foregoing the category of 'nature' is largely undefined. It is probably best understood in its most general sense as the entire objective world that includes both humanity

and all that is non-human. However, the purpose of this dissertation is to explore the human

relationship to those parts of nature that are biological and ecological — the *life* that is in nature.

Hegel's attention to this aspect of nature is most evident in his discussion of the 'observation of

nature' stage. Here, consciousness has progressed further toward absolute knowing and is called

'Reason.' It is no longer focused on its difference from the world — as in self-consciousness —

but now sees itself return into the world. Hegel writes, "Now that self-consciousness is Reason,

its hitherto negative relation to otherness turns around into a positive relation" (Hegel 1977,

§232). Reason, now seeing itself as part of the world, seeks to go out into and observe the world:

"Reason now has… a *universal* interest in the world, because it is certain of its presence in the

world, or that the world present to it is rational. It seeks its 'other', knowing that therein it

possesses nothing else but itself: it seeks only its own infinitude" (Hegel 1977, §240).

   A key element of Reason's observation of the world is its observation of nature. It is clear

that nature — broadly conceived — provides the necessary grounding for the development of

human consciousness, when it is taken up through labouring activity. However, Harris holds that

at the level of observing Reason, when consciousness observes nature Hegel's concern is

specifically ecological. Harris writes that Reason "observes 'Nature'… as a living system, not as

a mechanical/chemistic system of forces…" (Harris 1995, 49). Furthermore, understanding that

Hegel has in mind specifically what is alive about nature aids greatly in understanding the

development of Reason. Harris writes, "But if we keep a tight hold on the fact that it is the 'life'

of Nature as a whole that is the *object* of Rational Observation, we shall be able to understand

what happens" (Harris 1995, 49). This is of crucial importance because it is not simply 'nature,'

broadly conceived, that acts as a critical stepping stone in the development of human consciousness. Rather, it is nature as an ecological totality — nature as a system of living, interconnected, biological entities. In other words, Hegel argues that the development of Reason requires more than exposure to nature as mere objectivity; it must observe nature as ecology.

After passing through two more principal stages, Spirit and Religion, each of which has many sub-transitions, conscious reaches the culmination of its phenomenological development — Absolute Knowing. Human consciousness has now developed to the properly scientific standpoint, from which Hegel's philosophy proper commences. Consciousness can now enter the realm of philosophical science because it understands its own categories to be the same as those of the objective world. Houlgate writes, "Absolute knowing… understands there to be an essential *identity* between human self-consciousness and absolute being" (Houlgate 2013, 186). Likewise, David Bedford holds, "Hegel tried to solve the Cartesian problem of how thought and extension are commensurate by a historical phenomenology of consciousness" (Bedford 1991, 371). Hegel's *Phenomenology* accomplishes precisely this through a phenomenological anthropology — a description of the historical development of human consciousness. In the final stage of this development, Absolute Knowing, consciousness reaches the level of philosophical science, and the concepts of thought are true to their objects. It is not the case, as is commonly asserted, that Hegel collapses the difference between subject and object, reducing them to an undifferentiated unity. His point, rather, is that subject and object share a fundamental identity. Hegel writes:

In this knowing, then, Spirit has concluded the movement in which it has shaped itself, in so far as this shaping was burdened with the difference of consciousness… a difference now overcome. Spirit has won the pure element of its existence, the Notion. The content, in accordance with the *freedom* of its *being*, is the self-alienating Self, or the immediate unity of self-knowledge. The pure movement of this alienation, considered in connection with the content, constitutes the *necessity* of the content.[17]

The standpoint of Absolute Knowing is possible only through a partial transcendence of the alienation of thinking from the rest of nature. Bedford explains, "Hegel's thought is a historicizing of Spinoza's pantheism. As attributes of God-nature, thought and extension are ontologically similar and their commensurability is guaranteed by this fact. This unity provides the ground for philosophic thought and for practical human existence" (Bedford 1994, 372). In this view, Hegel's phenomenology preserves both the freedom of the subject as described by Rousseau, and the objective totality of Greek cosmology.

This picture is complicated by Hegel's recognition that the subject is always mediated from its object; his view does not posit a simple *unmediated* unity. Absolute knowing is made possible because thought and being are, as Bedford notes, ontologically similar; but, more specifically, the two poles contain identical categories. Stated differently, the categories of knowing are identical to the categories of being. But the mediation of subject and object is still necessary because they are also different. Thus, in his *Encyclopaedia Logic* Hegel writes, "If… we say that 'the Absolute is the unity of the subjective and the objective,' that is certainly correct; but it is still one-sided, in that it expresses only the aspect of *unity*… whereas in fact… the subjective and objective are not only identical but also distinct" (Hegel 1991, §82). This notion,

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[17] Hegel 1977, §805.

an early echo of Adorno, is extremely illuminating for any theory of human ecology. Hegel is

asserting the simultaneous identity of subject and object, while also avoiding the mistake of

turning them into a single entity. They are separate things, that share an important equivalence.

The same can be said of the relationship of humans to non-human nature: we are distinct from it,

yet we share a fundamental identity with it.

It is one of Hegel's great strengths that he refuses to keep opposite categories too far

apart. This has been shown in the foregoing with respect to the identity and distinction of subject

and object. In a related sense, Hegel also posits a concurrence of mediation and immediacy. The

Doctrine of Essence, as described in the *Encyclopaedia Logic*, proposes, in Hegel's words, "the

essential self-positing unity of immediacy and mediation" (Hegel 1991, §65). We may

extrapolate from this that human being shares an immediacy with the natural world, but is also

mediated from it. This eventually shows itself, once again, to be a synchronicity of identity and

difference. Hegel writes:

> It is of great importance to reach an adequate understanding of the true
> significance of identity, and this means above all that it must not be interpreted
> merely as abstract identity, i.e., as identity that excludes distinction. This is the
> point that distinguishes all bad philosophy from what alone deserves the name of
> philosophy.[18]

What Hegel calls 'abstract identity' refers to the notion of a simple unity of subject and object,

thought and being, or humanity and nature. He is warning against adopting this point of view

because the two sides are always distinct even if they have fundamental similarities. Here, Hegel

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[18] Hegel 1991, §115.

offers a valuable theoretical apparatus for understanding the complicated — even contradictory — relationship that humans share with the ecological world.

His importance for ecological politics has been understudied because Hegel does not deal explicitly with the ecology, nor does he even seem — in his most widely read works — to be particularly concerned with the broader category of nature. For example, a superficial reading of the first pages of his *Encyclopaedia Logic* reveals an explicit anthropocentric prejudice. Here Hegel writes:

> To begin with, philosophy can be determined in general terms as a *thinking consideration* of ob-jects. But if it is correct (as indeed it is), that the *human being* distinguishes itself from the *animals* by thinking, then everything human is human because it is brought about through thinking, and for that reason alone.[19]

Furthermore, Hegel's work has been read as arrogating all meaning to the subject. More specifically, this refers to Theodor Adorno's accusation that Hegel posits a 'primacy of the subject,' in which it is the thinking subject is the locus of all meaning and truth. This notion will be considered in more detail in a later chapter on Adorno. Despite these possible shortcomings, Hegel does, I hold, offer several important contributions to an adequate theory of human ecology.

First, Hegel gives a very good foundation for appreciating the 'specialness' of human self-consciousness. Human cognition reaches heights to which no other natural entity may hope. Most importantly, human consciousness becomes aware of itself as both the subject and the object of its thinking. The subject infuses its own particularity and creativity into the objective world through its labour, and thereby develops itself — both at the level of the individual and the

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[19] Hegel 1991, §2.

species — much like Rousseau's conception of perfectibility. Second, Hegel shows that one of

the necessary conditions of human self-consciousness — and therefore of human specialness —

is nature. This is not only the general category of objective nature, as is required for the

labouring process. It is also the specifically *living*, or ecological, aspects of nature, which Hegel

says are necessary for the development of reason. Third, it has been argued that by positing a

fundamental identity between subject and object, Hegel encourages us to see nature as more than

just the mere stuff by which we fashion ourselves. Harris writes:

> The threat to our living environment posed by the great increase in human
> technological power has necessitated a radical inversion of the traditional view of
> Nature as the stable backdrop of our lives. For the future, we must conceive our
> place in Nature as practical (i.e., morally responsible) terms, but it is still the
> 'identity theory' of objective idealism that we require for the practical Philosophy
> of Nature that we must now construct. That "Concept" is articulated better in
> Hegel's *Phenomenology* and *Logic* than anywhere else.[20]

In other words, Hegel helps us to see that nature is not merely the 'backdrop of our lives,' but

something with which we share an essential similarity and is therefore worth conserving.

Finally, and perhaps most importantly, there is a key lesson about the human relationship

with nature that is contained in the general movement of Hegel's subject-object dialectics. As

evidenced by his *Philosophy of Right*, there is a dialectical movement from immediacy, to

alienation, to reconciliation. Rousseau shows, and Hegel does not disagree, that a return to pure

immediacy is impossible. Humans cannot return to nature. However, it is currently the case that

we are severely alienated from nature. 'Nature' in the most general sense is not a useful term

here, because we are never more or less alienated from the objective world. Still, we are

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[20] Harris 1995, 102.

undeniably alienated from the 'ecology,' with its myriad biological and ecological processes. In other words, it is the *life* in nature from which we are estranged. Hegel's dialectical method suggests that by realizing our identity with the *living* parts of nature we can achieve some form of reconciliation. It is also the case that we will only fully appreciate the enchantment of the ecological world, and of our special place within it, when we understand this fundamental — but not abstract — identity.

Karl Marx

Despite his own insistence that identity not be 'abstract,' or one-sided, Hegel is frequently accused of favouring abstraction at the expense of the concrete, or of preferring the ideational to the material. Chief among his accusers is Karl Marx. A confused binary is often cited in relation to Hegel and Marx, in which the former is an idealist, the latter a materialist. Just as frequently, it is asserted 'Marx stood Hegel's dialectic on its head,' by making the method materialist rather than idealist. The foregoing examination of Hegel's subject-object theory has shown this simplistic characterization to be false. Hegel did devote considerable attention to objective nature, and especially its real, concrete, *living*, elements. However, on the whole in his social and political philosophy Marx does pay considerably more attention to historical specificities and the real conditions under which individuals live. Just as in Rousseau and Hegel, one of the key concepts in Marx's thought is free, self-directed labour.

Marx's oeuvre is extensive, as is his influence on social and political thought. Accordingly, there is a vast secondary literature devoted to his work. More so than Rousseau and

Hegel, Marx's work in many cases speaks directly to contemporary ecological issues. Ecological

Marxism has become, since its inception in the 1980's, an important subfield of Marxist

scholarship. Writers such as James O'Connor, Ted Benton, and more recently John Bellamy

Foster, have offered highly developed and sophisticated studies on all aspects of the ecological

consequence of Marx's work. A thorough analysis of all of the ecological implications of Marx's

thought, or even an overview of the field of ecological Marxism would be far outside the scope

of this dissertation. Instead, the exposition focusses on three of Marx's 'early' works: The

Economic and Philosophic Manuscripts of 1844, the *Theses on Feuerbach*, and *The German

Ideology*. These works are of particular significance because in them Marx deals with the

subject-object relationship, and often conceptualizes this relation explicitly as one between

humanity and nature.

Like Rousseau, Marx recognizes that the transformation of nature that engenders the

historical process is both a natural and social phenomenon. It is a process that can only take place

if active, conscious, human beings interact with an objective natural world. Marx's contribution

is to focus on the specifically material and concrete elements of that relationship. Marx

recognizes the necessity of the natural world. However, his thought is humanist in a strict sense,

because he restricts the creation of meaning to the human labouring process. Marx is critically

important because he continues to develop the subject-object/human-nature dialectic described

by Rousseau and Hegel. The embeddedness of human consciousness and labour within natural,

ecological processes is a central part of this relationship. Marx's early writings also offer a very

convincing description of what makes humans qualitatively different from all other animals, and

thereby special, or even 'enchanted.' Where Marx falls short, it will be argued, is in his refusal to acknowledge the meaning or value that is to be found in those parts of nature that have not been manipulated by human labour.

A final note concerns the status of Marx's early works. Marx's early writings, especially the *1844 Manuscripts*, are often not taken seriously by Marxist scholars. There are, of course, notable exceptions. For example, Maximilien Rubel, argues in his essay "Socialism and Ethics" for the consistency of the early and later works, and the importance of Marx's ethical outlook in his youthful writings (Rubel 1981). Bertell Ollman holds that the theory of alienation that grounds Marx's early work is a central facet of his indictment of the degradation to which capitalism submits the labourer (Ollman 1973, 131). By and large however, Marxists insist that these works are part of an 'immature' phase in Marx's philosophical development, and are 'idealist,' or 'pragmatist' (Lee 1980, 4). Thankfully, 'Marxological' debates are neither interesting nor important. The congruence, or lack thereof, of the early writings with Marx's later, 'mature,' 'scientific,' works, i.e. *Captial*, is of importance only to those who seek the word of God in the writing of the German philosopher. The uniquely humanist outlook presented in Marx's early compositions is convincing in its own right, and is worth taking seriously whether or not it is entirely consistent with his later work. Donald C. Lee holds that this humanist side of Marx must be appreciated to bring forth his ecological insights. Lee writes, "the 'orthodox' Marxists have been extremely critical of the Marxist 'humanists' (such as Sartre, Garaudy and Marcuse) who have incorporated those early humanist works into their Marxism world view. My… position is that both Marxism and capitalism are greedy, violent, and destructive of nature

unless they are ameliorated by that humanistic view" (Lee 1980, 4). As always, the significance of any theoretical work must be judged on its explanatory potential as well as its logical and empirical validity, not whether it represents what Marx, or any other thinker, 'actually thought.'

The Paris Manuscripts are centrally important to the view offered by this dissertation because they establish a strong humanism, but one that sees our relationship to nature as being the essential facet of human being-in-the-world. That is, what makes humans special, unique amongst the higher animals, is the character of our interaction with nature. Before elaborating on this point, it is useful to begin with Marx's description of humanity as embedded within the ecological world. In *The German Ideology*, Marx, with co-author Friedrich Engels, writes, "The production of life, both of one's own labour and of fresh life in procreation, now appears as a twofold relation: on the one hand as a natural, on the other as a social relation…" (Marx and Engels 1998, 48-49). In this text, the notion of a relationship with nature is essential to Marx's development of a materialist conception of history. The basic condition for the study of all history, hold Marx and Engels, is the relationship with non-human nature. They write, "Thus the first fact to be established is the physical organization of [human] individuals and their consequent relation to the rest of nature…. All historical writing must set out from these natural bases and their modification in the course of history through the action of men" (Marx and Engels 1998, 37). Physical nature, then, is both the primary basis and first determinant in the development of history. In other words, history unfolds as humans produce and reproduce their means of existence, but those means are in the first place determined by natural conditions. In the

Paris Manuscripts, Marx also describes natural material as a necessary condition for the reproduction of human existence:

> The worker can create nothing without *nature*, without the *sensuous external world*. It is the material in which his labour realizes itself, in which it is active and from which and by means of which it produces. But just as nature provides labour with the *means of life* in the sense that labour cannot *live* without objects on which to exercise itself, so also it provides the *means of life* in the narrower sense, namely the means of physical subsistence of the *worker*.[21]

So Marx begins from the point of natural necessity. He has already introduced the category of labour, and made it clear that labour cannot occur without nature. Even more elementary than its role as the canvas of human labour, nature provides the actual physical basis for human existence. This is an obvious point: humans cannot live without nature.

The dependence on physical nature is a character that humans share with all other non-human species. What makes humans different from all other species, according to Marx, is that we are a 'species-being,' which means that we produce consciously and freely. Marx writes, "The whole character of a species, its species-character, resides in the nature of its life activity, and free conscious activity constitutes the species-character of man" (Marx 1992, 328). What Marx means by free, conscious activity is best understood by comparison to animals that do not possess this capacity: "The animal is immediately one with its life activity. It is not distinct from that activity; it *is* that activity" (Marx 1992, 328). In other words, the (non-human) animal is defined by how it interacts with nature. To be sure, many higher animals, particularly omnivores, interact with nature in a variety of ways. Still, such interaction is always governed by necessity.

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[21] Marx 1992, 325.

In contrast, humans interact with nature consciously and freely. As Marx describes it, "Man makes his life activity itself an object of his will and consciousness. He has conscious life activity" (Marx 1992, 328). This is a difficult point with which to disagree, and establishes a special place for human being in the ecological world.

The outcome of the ability to interact with nature freely and to produce consciously is that humans produce universally. They are not limited to one type of interaction with nature. Animals, holds Marx,

> produce one-sidedly, while man produces universally; they produce only when immediate physical need compels them to do so, while man produces even when he is free from physical need and truly produces only in freedom from such need; they produce only themselves, while man reproduces the whole of nature; their products belong immediately to their physical bodies, while man freely confronts his own product.[22]

There is a basic commonality here with the ontologies of Rousseau and Hegel. Marx sees that humans hold the special capacity of self-consciousness. For Rousseau, this ability allowed humans to deny the call of nature, which is binding on all other animals. Marx has a much more specifically ecological and materialist angle; free, conscious labour allows humans to *choose* how the interact with nature, and therefore how they produce and reproduce themselves.

For Hegel, labour is the process through which an individual subjectivity externalizes itself, or puts itself into the objective world. Marx borrows heavily from this conception of labour. He argues that through labouring activity, humans make nature their 'inorganic' bodies,

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[22] Marx 1992, 329.

or an extension of their own bodies. This arises directly from the fact that humans can labour

universally. Marx explains:

> The universality of man manifests itself in practice in that universality which
> makes the whole of nature his *inorganic* body, (1) as a direct means of life and (2)
> as the matter, the object and the tool of his life activity. Nature is man's *inorganic*
> *body*, that is to say nature in so far as it is not the human body. Man *lives* from
> nature, i.e. nature is his *body*, and he must maintain a continuing dialogue with it
> if he is not to die. To say that man's physical and mental life in linked to nature
> simply means that nature is linked to itself, for man is a part of nature.[23]

This passage is instructive because it describes, and brings together, both the deep embeddedness

of humans within the ecology and their special place in it as universal, free, conscious, creative

producers. That is, it is not a problem for Marx that humans beings are deeply physically linked

to nature, but are also endowed with unique powers that distinguish them from all other species.

However, it is crucial that we *recognize* this fact of our being, that we understand nature as our

'inorganic body.' Lee holds, "This recognition of nature as our *body* will constitute the

overcoming of the alienation of ourselves from nature, manifested in subject-object dualism.

Thus, the *identity* between supposedly external nature and human nature will be established. To

act upon nature will be correctly seen as acting upon ourselves" (Lee 1980, 8). Of course, for a

variety of reasons, we are collectively unable to make this recognition, and continue to see nature

as essentially 'other.'

Like Rousseau, Marx takes issue with the social reality with which he is confronted.

Rousseau's target was modernity, while Marx is more specifically critical of capitalism. In his

earlier writings there is a strong sense of the difference between fact and truth — between the

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[23] Marx 1992, 328.

facts of actually existing social conditions and the truth of human being in the world. The truth of

human being, the essence of what it means to be human, is for Marx the capacity to freely and

consciously interact with nature. The fact is that capitalist labour — because it is highly divided,

both socially and technically — alienates humans from the truth of their being. He writes, "In

tearing away the object of his production from man, estranged labour therefore tears away from

him his *species-life*, his true species-objectivity, and transforms his advantage over animals into

the disadvantage that his inorganic body, nature, is taken away from him" (Marx 1992, 329). For

Rousseau the unique human capacity of perfectibility is the root of unequal and immoral social

relations. It is also the only hope for restoring or recovering something free and authentic to

human life. The same is true for Marx. Unjust social relations, and our alienation from our

human essence, are possible only if humans are in someway radically separate from nature, if we

enter the realm of history and are no longer bound by the laws of nature. The capacity to freely

and consciously transform both nature and ourselves is the only hope for regaining control over

our own destiny as a species. There is nothing *natural* or necessary about particular social

relations, and they are therefore entirely changeable. Of course, as Marx reminds us in the

"Eighteenth Brumaire of Louis Bonaparte" that history does "weigh on the brain of the

living" (Marx 1973b, 398). Non-alienating labour, possible only in a post-capitalist society,

would do away not only with deleterious social relations, but also allow humans to reconnect

with their unique creative capacities. Indeed, it is a necessary condition for true human

emancipation. Ted Benton writes, "The view of communism which structures the whole of the

Manuscripts gives a central place to a proper ethical, aesthetic and cognitive relationship to nature as inseparable to true human fulfilment" (Benton 1988, 4).

For Marx, then, nature clearly has a central place in the material and social life of humans. However, it does not seem that it is the case for Marx that nature itself is alive, or permeated by activity. In the "Paris Manuscripts," the noun 'nature' is frequently preceded by the adjective 'inorganic,' signifying an absence of life. To be sure, animals are described as active beings, but they too interact with "inorganic nature." In Marx's most explicit treatment of 'the active side,' in his "Theses on Feuerbach," he derides materialist philosophy for failing to account for activity. He writes, "The chief defect of all hitherto existing materialism… is that the thing, reality, sensuousness, is conceived only in the form of the object or of contemplation, but not as human sensuous activity, practice, not subjectively" (Marx 1973a, 13). This has not been a problem, holds Marx, for idealist philosophy, which the above analysis of Hegel shows to be true. Nonetheless, idealism does not properly grasp human labouring activity. It is Marx's aim in the theses to ground the active side of human being in material practice — labour. But 'activity,' the truly alive component, is ultimately confined to human consciousness for Marx. True, conscious labour may be a social activity, shared amongst multiple individuals. Still, the thinking side of substance is never extended beyond this form of activity into the rest of nature.

Conclusion

Building on Rousseau's key insights, Hegel and Marx each present differing ways to conceptualize the subject-object relationship, as well as that between humans and nature. There

are divergences between the three thinkers, yet in many cases they are differences of emphasis and nuance. In all three cases, the category of self-conscious human labour is central. Each of these philosophers see humans as special animals, capable of transforming themselves through the historical process. This unique feature sets humans apart from all other species, which undergo only biological, evolutionary change. To be sure, this does not mean that humans do not need nature. Quite the opposite. Rousseau argues that we can never abandon biological foundations. Hegel sees nature as the necessary basis for the development of human consciousness. Marx argues that nature provides not only the bases for physical life, but the raw material with which humans can labour and generate meaning. Humans are in and of nature, yet they can go beyond it, transcend its laws, in important ways. The central theme developed in this chapter is that such powers arise from humans' faculty of self-consciousness, which allows them to interact with nature consciously, freely, creatively, and universally. On this matter, it might be observed that Hegel and Marx differ from Rousseau in one key way. While the latter saw human reason as largely disenchanting, the Germans often seem to succumb to a certain 'enchantment of reason.' With this comes a faith in progress and a dedication to the mastery of nature that Rousseau would have found distressing. As Donald C. Lee has noted, however, because we are conscious of our relationship with nature, we are also responsible for it. In the present conjuncture, in which our treatment of nature is remarkably destructive, we ought to think more about our responsibilities. While they do not give specific answers, these philosophers in the 'historical-dialectical' tradition do encourage such a sense of responsibility by increasing our

understanding of our place in nature. This line of thinking will be carried even further by Adorno

and Marcuse, the subjects of the following chapter.

Chapter 4: Adorno, Marcuse, and Human Ecology

Introduction

To this point the analysis has focused on the subject-object problem to discuss the ways in which humans are both identical to and different from the rest of nature. Rousseau, Hegel, and Marx each look at the issue from a slightly different angle, and with differing emphasis. This chapter turns to some of the great 20th century inheritors of the historical-dialectical tradition: the Frankfurt School thinkers, specifically Theodor Adorno and Herbert Marcuse. While they largely employ the same framework as the three thinkers discussed in the previous chapter, Adorno and Marcuse bring new ideas to the table. Adorno directly confronts the identity of subject (concept) and object, criticizing what he sees as a totalizing solution offered by Hegel. In his critique of Hegel, Adorno has much to offer human ecology. His concept of the 'residue of the object' points to something fundamentally 'other' in the non-human world, that which can never be fully covered under (human) conceptual categories. At the same time, the 'distinct' can 'participate in one another,' suggesting forms of reconciliation between humans and nature. Meanwhile, Marcuse offers the theory that human separation from nature actually exists in degrees, determined in large part by the prevailing socio-economic system. Finally, I will discuss Marcuse's work on art and aesthetics, particularly the notion that the work of art has revolutionary, emancipatory potential. Changing the analytical direction slightly, I show that the aesthetic experience of nature offers similar possibilities.

Adorno: The Preponderance of the Object

Adorno, like Rousseau, Hegel and Marx, takes on the issue left by Descartes: the relationship of subjectivity to the objective world. Adorno's method borrows substantially from Immanuel Kant and Hegel. In many ways his position occupies a sort of middle ground between the two greats of German idealism. Still, it will be obvious that Adorno comes to a position that is very much his own. While the analysis of the subject-object question has thus far used precisely that terminology — subject and object — Adorno is primarily interested in the relationship of *concepts* to their objects. To be sure, concepts are subjective categories and Adorno's work therefore clearly falls into the class of subject-object dialectics. However, this terminological nuance indicates that in many ways Adorno's concern is epistemological rather than ontological. Fortunately, this in no way diminishes Adorno's importance for understanding the human relationship with nature. Adorno's exploration of the relationship between subjectivity/concepts and objects yields two central theoretical formulations. First, the notion of the preponderance of the object means that objectivity, here conceived as nature, always comes before subjectivity and the categories of knowing.[24] Concepts may begin to describe their objects, but they are never *adequate* to them. There is always something about the object that defies classification, that we cannot subsume under a concept. So, the natural/ecological world precedes human subjectivity epistemologically and ontologically. Furthermore, there are some

[24] This leaves open the difficult question of the priority of 'social' or 'historical' objectivity. For example Marx emphasizes the weight of the (historical) past on the present social reality, and Weber advances the idea of 'developmental tendencies,' whereby historical formations or institutions assume a kind of social 'objectivity.'

things about nature that we can never grasp with our conceptual thinking. There is something

beyond us, a part of nature that we must understand as fundamentally 'other,' if not enchanted.

Second, in his essay "Subject and Object" Adorno introduces the notion of "the distinct

participating in each other" (Adorno 1982a, 500). This means that, contra George Lukács's

argument in *History and Class Consciousness*, subject and object never fully merge. They

remain distinct, but mutually influence one another, just as do humans and the ecology.

From the opening pages of their *Dialectic of Enlightenment* it is clear that the concept of

nature is a key category for Horkheimer and Adorno. Looking back to Bacon, they show that

enlightenment and scientific rationality have 'disenchanted' nature in their effort to control it

(Adorno and Horkheimer 2002, 2). They write, "The disenchantment of the world means the

extirpation of animism" (Adorno and Horkheimer 2002, 2). This means not only that nature is

increasingly understood as the mere 'stuff' of experience, as inert lifeless matter, but also that

humans progressively distance themselves from it (Horkheimer and Adorno 2002, 2-7). In sum,

for Horkheimer and Adorno the capacity for reason is responsible for the estrangement of

humans from nature, and the goal of philosophy and politics should be some form of

reconciliation. In her analysis of *Dialectic of Enlightenment* Deborah Cook emphasizes the

phylogenetic importance of the capacity for reason. She holds that for Horkheimer and Adorno

humans are never truly outside of nature, but they can assert themselves against it using reason

(Cook 2011, 65; c.f. Horkheimer and Adorno 2002, 42). The use of concepts is central both to

understanding the world and dominating it (Cook 2011, 66-7). Concepts are human creations,

and are therefore essentially 'of nature,' like humans. However, also like humans, they may have

an alienated, or reified existence. Adorno calls this 'hypostasization' (Adorno 2007, 140). Cook's

account evokes Rousseau's description of the phylogenesis of the human species (Rousseau

1987, 48-51; c.f. Horowitz 1987, 76). However, Cook remarks that in Horkheimer and Adorno's

analysis, there is a Freudian element that suggests that reason can also participate in the

repression of *internal* nature, specifically instincts (Cook 2011, 66-7). Yet it is also this capacity

that allows the domination of external nature and the development of civilization. The crucial

point is that there is something that is fundamentally different about humans — the capacity for

reason — that sets them against nature. Of course, Cook notes that for Adorno this special

capacity does not mean that nature is ever left behind. Following Marx, Adorno argued for the

entwinement of nature and history (Cook 2011, 10-24). Humans are, then, both inside and

outside of nature. For Adorno, though, the extent of the human continuity with the ecology is

derived from his materialism. That is, humans are continuous with nature because they are

materially embedded within it. However, humans are more than material beings — they are

spiritual beings as well. Without a more robust metaphysics, Adorno's strongest claim about

subject and object, and hence humans and their ecology, is that "Peace is the state of distinctness

without domination, with the distinct participating in each other" (Adorno 1982a, 500). If the

other, the object, is to actively participate in the subject, then it must be thoroughly 're-

enchanted,' to use the terminology of *Dialectic of Enlightenment*. Unfortunately, Adorno does

not describe such a re-enchantment.

For Adorno the central ontological and epistemological problems are constitutive

subjectivity (Kant) and identity thinking (Hegel). In the case of the former all meaning is

arrogated to the transcendental subject, which imposes its own categories on the objective world. This perspective necessarily descends into a form of relativism. Identity philosophy, on the other hand, attempts to subsume all objects under universal concepts, forgetting what is particular and unique about each individual. This, Adorno says, leads to totalizing thinking and totalitarian politics. Adorno's alternative is contained in his conceptions of preponderance of the object and non-identity philosophy. This approach seeks to avoid both the skepticism that characterizes Kant's epistemology, and the absolute certainly at which Hegel arrives. To be sure, Adorno proposes not merely a middle ground, but a proper synthesis of the two poles (Adorno 2007, 35). Importantly, this means a balancing of the identity and non-identity of subject and object. More specifically, Adorno's thinking helps to bring together the categories mediation and immediacy.

If such a compromise or synthesis characterizes Adorno's epistemological views, the same is true of his thinking on the possibility of normative claims. On the one hand, the terror of Auschwitz represents the pinnacle of identity thinking, of absolutism, for Adorno. But on the other hand, he wishes at all costs to avoid relativism. Adorno is often dismissed by today's radical left as being ultimately pessimistic about the prospects of progressive political transformation. However, the present analysis argues that his final claim concerning subject and object — namely, that "Peace is the state of distinctness without domination, with the distinct participating in each other" (Adorno 1982a, 500) — represents his commitment to a truly radical and progressive political project. This claim is substantiated with reference to some of Adorno's more directly political works, in particular the posthumously released *Towards a New Manifesto*, which present a series of his political conversations with Max Horkheimer (Adorno and Horkheimer 2001). As

it concerns the present analysis, this means that like the thinkers discussed in the previous chapter, Adorno brings together the sameness of subject and object, while also acknowledging that they are distinct. However, Adorno offers new and important insights. It will be shown that his notion of the distinct participating in one another is a useful way to conceptualize human ecology and to think about ecological politics.

This exposition here proceeds with a discussion of the problems as they are diagnosed by Adorno: the fallacy of constitutive subjectivity and identity thinking. It then moves to Adorno's treatment of Kant and Hegel, with particular attention to the inadequacies he finds in each thinker's system. Adorno's two interrelated correctives — preponderance of the object and non-identity thinking — are then discussed. Then, an important interpretive point is offered concerning the representation of Hegel by Adorno. In short, it is shown that Hegel does not simply collapse subject and object, as Adorno sometimes seems to argue. Rather, Hegel shows that through a dialectical progression the content of subject and object becomes identical. This corrective provides an extra layer through which to interpret Adorno's philosophical commitments and sheds lights on his politics, which are subsequently examined. Adorno's approach to the problem of truth — and thereby to the possible correspondence of subject and object — is difficult because he wants to simultaneously avoid both absolutism and relativism. Thus, he holds that the "form giving constitutive elements have social sources, but on the other hand… they are objectively valid" (Adorno 1982a, 510). Similarly, he writes, "To predicate them [form-giving elements] as absolute would absolutize the cognitive function, the subject; to relativize them would be a dogmatic retraction of the cognitive function" (Adorno 1982a, 510).

The course that Adorno navigates between these two oppositional errors will be revealed in the course of this section. The analysis begins with Adorno's critique of the fallacy of constitutive subjectivity.

A subject that alone constitutes, or organizes, the content of experience must be transcendental, holds Adorno. Although idealist philosophy in general is guilty of adhering to a conception of the transcendental subject, it is Kant in particular whom Adorno targets. In his lectures on Kant's *Critique of Pure Reason*, Adorno writes, "a transcendental enquiry is an enquiry of mind or consciousness from the standpoint of how far it is possible for this mind to posit valid synthetic *a priori* judgements, that is, judgements that are independent of experience" (Adorno 1995, 19). For Adorno, there is a strong element in Kant that rejects the possible inherent truth content of objective experience. Insofar, however, as inquiry and the transcendental subject descend to the realm of empirical experience, meaning is always located in the activities of the subject. Adorno writes, "According to idealist doctrine, it will either construct the objective world with raw material along Kantian lines or, since Fichte, engender that world itself" (Adorno 1982a, 500).

For Adorno, however, the transcendental/constitutive subject is neither a possible nor desirable solution to the constitution problem. The first problem, he holds, is that the transcendental subject presupposes precisely what it aims to explain, namely empirical subjects; the theory of the transcendental subject abstracts from real, living, concrete human beings. Adorno writes:

> [T]his transcendental subject constituting the substance of experience was abstracted from living individuals. It is evident that the abstract concept of the transcendental subject — its thought forms, their unity, and the original productivity of consciousness — presupposes what it aims to bring about: live individuals.[25]

Kant's efforts to manage the tension between the transcendental and empirical sides of subjectivity, along with similar attempts by Hegel, Fichte and Schopenhauer, are inadequate, holds Adorno. Their mistake is to posit the constituting subject as unconditional and primary, when in fact it is very much conditional (Adorno 1982a, 500-2). The analogous mistake in human ecology is to assume that humanity has entirely transcended objective nature and no longer needs an objective, ecological basis. The truth of the subject's status is revealed in its relationship with the object. Against the tradition of idealism, Adorno argues that even if subject and object are dialectically intertwined, the former has no primacy over the latter. Adorno goes so far as to assert that "Potentially, even if not actually, objectivity can be conceived without a subject; not so subjectivity without an object" (Adorno 1982a, 502). Today, the idea of materiality that exists independently of human subjectivity is the focus of renewed interest from the school of thought known as 'new materialism' (see, for example, Coole and Frost, 2010). Adorno's position on this matter, the primacy or preponderance of the object, will be discussed below. At this point, the key idea is that for Adorno the subject absolutely depends on the object in a way that is totally overlooked by the tradition of German idealism (Adorno 1982a, 502). Moreover, he believes that this philosophical error has a clear ideological component.

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[25] Adorno 1982a, 500.

It is only within the context of a set of social relations in which the individual is dehumanized that the notion of a transcendental subject is necessary. "The more individuals are really degraded to functions of the social totality as it becomes more systematized, the more will man… be consoled by the exaltation of the mind," writes Adorno (Adorno 1982a, 500; c.f. Adorno 2007, 180). Here, Adorno's materialism is evident. When the real material, physical conditions of existence — which have an importance for Adorno that he thinks is overlooked by idealism — are such that individuals, as empirical subjects, are immiserated, idealism's solution is to falsely aggrandize the mind. In other words, the ideational realm is held as absolute and primary to compensate for the material impoverishment of individuals. Furthermore, the abstraction from material reality that is committed by idealism in the form of transcendental subjectivity mirrors the abstraction necessitated by exchange relations in capitalist society. Adorno writes:

> What shows up faithfully in the doctrine of the transcendental subject is the priority of relations — abstractly rational ones, detached from the human individuals and their relationships — that have their model in exchange. If the exchange form is the standard social structure, its rationality constitutes people; what they are for themselves, what they seem to be to themselves, is secondary. They are deformed beforehand by the mechanism that has been philosophically transfigured as transcendental.[26]

By this Adorno demonstrates the extent to which the seemingly abstract postulations of philosophy have a concrete political, social, and historical character. Indeed, he asserts, "Social critique is a critique of knowledge, and vice versa" (Adorno 1982a, 503). More specifically, Adorno is here inviting his readers to see that the 'exaltation' of the mind, or of transcendental

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[26] Adorno 1982a, 501.

subjectivity, is an immanent necessity of capitalist exchange relations. Further, over and above its

ideological function, the principle of constitutive subjectivity is simply wrong because it fails to

account for the independence — and even primacy — of the object. That this represents

Adorno's fundamentally materialist objection to idealism is clear; its latent realism will be

explicated below.

If Adorno is critical of the fetishization of the subjective moment in its self-reflection and

constitutive possibilities, he is no less suspect about the adequacy of the (subjective) concepts

that are used to classify external objects. The impulse towards total identity, to make any given

object completely identical with the concept under which it falls, is rampant in the history of

western philosophy, holds Adorno. This tendency, named the 'principle of immanence' in

Horkheimer and Adorno's *Dialectic of Enlightenment* and later referred to as identity thinking by

Adorno, holds that an object can be known only when it is classified and subsumed under a

concept (Cook 2011, 69). His critique is that this predilection not only does injustice to the

objects of experience, but it also represents the attempts of scientific rationality to completely

dominate nature.

To be sure, Adorno recognizes that the activity of thinking itself involves conceptual

identification: "To think is to identify" (Adorno 2007, 5). But conceptual thinking, or identity

thinking, looks past what is unique about each object. For Adorno, such a philosophy can never

be adequate because there is always a remnant of particularity in each object: a characteristic that

does not conform to the concept. Alison Stone explains the limits of identity thinking as follows:

"conceptual thinking gives me no knowledge about what is unique in a thing, for example, what

is special about *this* dog, as distinct from all other dogs. Having no access to what is unique, conceptual thinking sees it *only* as an instance of a kind" (Stone 2008, 54). The impulse to identify — akin to Nietzsche's 'will to power' — is very much connected to the scientific enterprise of arranging all of nature according to conceptual and explanatory frameworks. But Adorno suggests that the objects, the particulars of cognition, always contain more than, as well as something that is other than, their concepts (Cook 2011, 70). As such, concepts can never fully describe objects, and ultimately this means that an identity of subject and object remains illusory (Adorno 2007, 12). Accordingly, so too is the Promethean promise of complete knowledge and mastery of nature.

For Adorno, the philosophical critique of identity thinking is carried out alongside a social critique of domination. In other words, identitarian philosophy is about domination. According to Stone, "when we conceptualize things, we dominate them in thought" (Stone 2008, 55). Each particular object is subsumed under a universal category, and each universal category can be understood as a concept. Therefore, holds Stone, identity thought insinuates that the objects themselves can be entirely reduced to the portions of them that we can understand (Stone 2008, 55). The project of conceptually mastering objects in thought is driven by the desire to control and manipulate nature (Stone 2008, 55). That is, conceptual domination is the means for practical domination. As Deborah Cook writes, "Subsuming objects under concepts, identity thinking orders, organizes and arranges these concepts in systems that describe objects in terms of those features that make them controllable and amenable to manipulation" (Cook 2011, 69).

Because concepts can never be fully adequate to their objects, Adorno believes that scientific rationality's quest to dominate nature is misguided and ill-fated. In *Dialectic of Enlightenment* Adorno and Horkheimer express a deep skepticism about the scientific project and its impulse to dominate nature. Adorno, in his *Negative Dialectics*, directly implicates identity thinking in the terror of the Holocaust. He writes, "Auschwitz confirmed the philosopheme of pure identity as death" (Adorno 2007, 362). Mass murder on the scale of Auschwitz required that all the individual victims be stripped of their particularity, that they be made into concepts. Adorno writes, "in the concentration camps it was no longer an individual who died, but a specimen…" (Adorno 2007, 362). For Adorno, then, there is no salvaging a philosophy of absolute identity after Auschwitz. Before turning to an analysis of his alternatives, it is instructive to consider Adorno's treatment of both Kant and Hegel.

Adorno makes it clear that the philosophical errors of constitutive subjectivity and identity thought are by no means restricted to Kant and Hegel, nor even to idealism. Nonetheless, it is in his engagement with these two thinkers that Adorno most fully develops his critique of the transcendental subject and of identity philosophy, as well as his own distinctive approach. To be sure, Adorno believes that Kant and Hegel each commit both the fallacy of constitutive subjectivity and identity thinking. However, Kant's transcendental philosophy, with its emphasis on the subjective categories of apperception, is a better target for Adorno's critique of constitutive subjectivity. Meanwhile, Hegel's absolute idealism, which posits the identity of the subjective categories of knowing with the objective categories of being, is an archetypical form of identity philosophy. Drawing on Adorno's lectures on Kant's *Critique of Pure Reason*, as well

as the essays in *Hegel: Three Studies*, this section explores Adorno's readings of these thinkers. While he is critical of them both, his reverence for the doyens of German idealism is clear.

Adorno remarks that for Kant unified experience is possible only on the basis of a set of categories that transcend experience. He writes, "the transcendental in Kant represents the transcendent nature of our minds in the sense that it supplies the conditions that make something like experience possible, and in that sense may be said to go beyond experience…" (Adorno 1995, 21). However, it is only insofar as they relate to experience that such conditions can be said to be valid. The categories, then, transcend experience, but are immanent to the human mind. Indeed, they are what Adorno calls a "principle of mind and an attribute of human consciousness…" (Adorno 1995, 21). More to the point, Kant himself explains the situation as follows: "But though all our knowledge begins *with* experience, it does not follow that it arises *out of* experience" (Kant 1928, 41). This is precisely the point that Adorno makes regarding the idea of constitutive subjectivity: for Kant knowledge itself may start from real experience, but it is ultimately formed by the transcendental subject, by means of the categories of apperception (Adorno 1995, 33).

According to Adorno, this leads us to an important nuance in Kant's system. Kant tries simultaneously to preserve a sense of the absolute, but also refuses to allow access to things as they really are. Adorno writes:

> So, on the one hand, he wishes to salvage the timeless, absolutely valid experience of independent truth…. But on the other hand, despite this rescue attempt his analysis does extend ultimately into the realm of concrete consciousness and therefore also assumes an element of experience. And he

cannot uphold these propositions because they can never be free of some substantive elements or other.[27]

In several instances, Adorno refers to Kant's epistemological project as a salvage operation (Adorno 1995, 31, 85). In Adorno's words, Kant "wishes to salvage specific fundamental spiritual realties that can be said to be valid for all time…" (Adorno 1995, 85). While it may be possible to have unconditional knowledge of those transcendent elements that make experience possible, the objects of cognition themselves remain beyond our grasp. Indeed, according to Adorno, for Kant we are able to perceive merely appearances, and the things as they are in themselves is impossible (Adorno 1995, 103). Ultimately, all objectivity — and Kant does not deny that the objective world 'really is' there (Adorno 1995, 101) — passes through subjectivity in the formation of knowledge (Adorno 1995, 33). It is in this sense, then, that Kant's transcendental subject can be said to constitute the objects of experience. Or that, in the human experience of nature, all meaning is arrogated to the thinking subject, rather than also being located in ecological processes.

Kant held separate the spiritual elements that constitute experience from the objects of experience, and also, therefore, form from matter. Hegel, writes Adorno, wanted to do away with these rigid dichotomies. He thus posited that every existing object is at the same time spiritual, and that form and content are mediated by one another (Adorno 1993, 57, 66). Resisting Kant's insistence on the impossibility of knowing the thing-in-itself, Hegel described his own system of absolute idealism that would allow truly valid knowledge of the objects of experience (Adorno

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[27] Adorno 1995, 31.

1993, 64). This idealism is 'absolute' because it overcomes the tension between subjective and objective idealism. Adorno describes this process as follows:

> If, as in Hegel, in the totality everything ultimately collapses into the subject as absolute spirit, idealism thereby cancels itself out, because no difference remains through which the subject would be identified as something distinct, as subject. Once the object has become subject in the absolute, the object is no longer inferior vis-à-vis the subject.[28]

In other words, "the difference between subject and object disappears" (Adorno 1993, 72).

Unfortunately, several nuances are lost in this rather blunt interpretation of Hegel. Elsewhere Adorno takes aim at Lukács for his Hegelianism, or more specifically for completely collapsing subject and object in the proletariat (e.g. Adorno 1982a). But this amalgamation may not be as Hegelian as Adorno believes. True, Hegel was influenced by the 19th century idea, or ideology, of progress and its teleological implications. He asserts that "The Idea is... *the absolute unity of Concept and objectivity*" (Hegel 1991, § 213). But this absolute unity does not mean that concept and object return to the stage of undifferentiated unity. Instead, it means that their content is identical and that they pass into one another: "truth in the deeper sense means that objectivity is identical with the Concept" (Hegel 1991, add. to § 213). In true dialectical unity, subject and object are both identical and non-identical, immediate and mediated. Contrary to the above-quoted passage, Adorno does seem to understand this nuance. In *Hegel: Three Studies* he writes that Hegel "does not set up an irrational unity of subject and object… but instead preserves the distinct moments of the subjective and the objective while grasping them as mediated by one another" (Adorno 1993, 7). It is unclear, then, why in most other instances he

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[28] Adorno 1993, 68-9.

adopts the more vulgar Lukácsian interpretation. Ultimately, the epistemological significance is that for Hegel the identity of subject and object means that the categories of knowing are the same as the categories of being. Thus, concepts are truly adequate to their objects and the things can be known in themselves.

It is clear from Adorno's critique of identity philosophy that he regards Hegel's confident conclusion as hubristic. Moreover, on ideological grounds, Adorno takes Hegel to task for the inherent positivity of his thinking. That is to say, a dialectic of subject and object that culminates in absolute identity will necessarily lose its negative and critical force. Adorno writes, "In Hegel there was coincidence of identity and positivity; the inclusion of all nonidentical and objective things in a subjectivity expanded and exalted into an absolute spirit was to effect the reconcilement" (Adorno 2007, 141-2). Stone notes that the positivity of Hegel's dialectics lies in the demonstration that a second item or determination is fundamentally the same as a first, and that the two depend equally on one another (Stone 2008, 53). The problem, for Adorno, is that in this reconcilement anything that is 'other,' as well as any contradiction at a higher level, is eliminated. Hegel, of course, does allow for contradiction, but his faith in progress and reason always leads him to resolve such contradiction at the higher stages. Non-contradiction is 'hypostasized,' to use Adorno's terminology (Adorno 2007, 140). However, contradiction and non-identity can never truly be eradicated (Adorno 2007, 160). What happens instead is that Hegel's philosophy must do violence against them. According to Adorno, "It is precisely the insatiable identity principle that perpetuates antagonism by suppressing contradiction. What tolerates nothing that is not like itself thwarts the reconcilement for which it mistakes

itself" (Adorno 2007, 143). The other possibility, which Adorno explores, is to preserve — even emphasize — the non-identical.

Just as Adorno's conceptions of constitutive subjectivity and identity philosophy are intertwined, as well as his critique of each mode of thinking, so too do his alternative approaches — non-identity thinking and preponderance of the object — go hand in hand. Here, I explore these two philosophical ideas and show their interconnection and mutual support, commencing with non-identity thought. Non-identity philosophy begins from the premise that concepts are not adequate to objects, or that thought and things can never fully correspond. In *Negative Dialectics*, Adorno describes this as follows:

> The task of dialectical cognition is not, as its adversaries like to charge, to construe contradictions from above and to progress by resolving them — although Hegel's logic, now and then, proceeds in this fashion. Instead, it is up to dialectical cognition to pursue the inadequacy of thought and thing, to experience it in the thing.[29]

Whereas in Hegel concepts eventually become fully adequate to their objects, this point is never reached for Adorno. For Adorno, this is what makes his own dialectics negative, while Hegel's is positive (Stone 2008, 53-4). The possibility of a full identity of concept and object suggests a full resolution that would be positive, but Adorno maintains that the drive to achieve complete identity actually distorts the human capacity to generate useful or valid knowledge (Cook 2011, 67).

Never abandoning the goal of establishing truth claims, Adorno's dialectics, or his non-identity philosophy are at their most basic a materialist turn towards non-conceptuality (Cook

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[29] Adorno 2007, 153.

2011, 74). In other words, he holds that there is an element of non-conceptuality that inheres in each concept (Adorno 2007, 137). Obviously this does not mean that Adorno wants to move beyond conceptuality. Instead, there comes to be a different role for both concepts and objects in their dialectical relationship. Cook argues that there are two sides to this. First, concepts fundamentally depend on the material, non-conceptual particulars. The non-conceptual provides the content that concepts use to name objects (Cook 2011, 75). Second, because they are abstract universals, concepts transcend objects. This transcendence is not complete subsumption, as in identity thought, but is in fact more constructive (Cook 2011, 75). For Cook, this constructive character arises from the *possibility* that concepts can match objects, but never the certainty. She writes, "Adorno alludes to this positive sense of transcendence when he writes… that negative dialectics grasps its object by means of possibility" (Cook 2011, 75; c.f. Adorno 2007, 52-3).

Indeed, the notion of mere possibility plays a large role in Adorno's dialectics. Stone remarks that this is another key difference between Hegel and Adorno: for Hegel the reconciliation is actual, while Adorno only hints at the possibility of an identity of concept and object (Stone 2008, 53). However, while Adorno is willing to abandon the certainty that is the ultimate conclusion of Hegel's *actual* reconciliation, he will not let go of the general formula from which it arises. In fact, although Adorno consistently labels his philosophical paradigm 'non-identity' thinking, he nonetheless holds firmly to the goal of identity: "the ideal of identity must not simply be discarded" (Adorno 2007, 149). As noted above, for Adorno, the activity of thinking itself is a process of identification (Adorno 2007, 149). More specifically, Adorno looks to the act of definition, which in his non-identity philosophy is a plane of more equal interaction

between the subjective and objective sides. He writes, "in placing its mark on the object, definition seeks to be marked by the object" (Adorno 2007, 149). In other words, the distinct participate in each other (c.f. Adorno 1982a, 500). Still, even though the concept and object may participate in one another, the concept still seeks to declare what the object 'really is.' However, Adorno insists that this is not the same as identity philosophy. He holds, "This [non-identity] cognition seeks to say what something is, while identitarian thinking says what something comes under… and what, accordingly, it is not itself. The more relentlessly our identitarian thinking besets its object, the farther it will take us from the identity of the object" (Adorno 2007, 149). Adorno is here arguing that non-identity philosophy can actually go further — in its definitional power — than identity philosophy, because the former does not ignore the non-conceptual, what 'is not itself.' Still, he is very clear that the type of absolute knowing espoused by Hegel is an impossibility.

Just as constitutive subjectivity arrogates all meaning to the subject, thus calling forth the object, so too does identitarian philosophy, which is always inherently subjectivistic according to Adorno (Adorno 2007, 183). Indeed, the preponderance of the object is the logical conclusion of the critiques of both identity philosophy and constitutive subjectivity. Non-identity philosophy suggests the importance of the non-conceptual within every concept. Preponderance of the object, however, takes the analysis a step further. Adorno's epistemological assertions about the role of non-conceptuality/objectivity in conceptual thinking are followed out to ontological claims about the primacy of objects. In short, this means that although subject and object may be

dialectically intertwined, the latter does not require the former for its existence. In *Negative*

Dialectics Adorno explains:

> Due to the inequality inherent in the concept of mediation, the subject enters into
> the object altogether differently from the way the object enters into the subject.
> An object can be conceived only by a subject but always remains something other
> than the subject, whereas a subject by its very nature is from the outset an object
> as well. Not even as an idea can we conceive a subject that is not an object; but
> we can conceive an object that is not a subject. To be an object also is part of the
> meaning of subjectivity; but it is not equally part of the meaning of objectivity to
> be a subject.[30]

More to the point, Adorno means that the object is ontologically prior to the subject. The subject

requires an object, but the inverse is not true. The assertion that the object does not require a

subject may at first seem to have radical implications — for instance, that humans ought to leave

nature completely alone. In fact this is not Adorno's aim, and it would, of course, be practically

impossible. Rather, Adorno is here constructing a materialist grounding of consciousness; he

wishes to demonstrate that subjectivity is embedded in objective, material circumstances. As

well, however, the notion of objective preponderance expresses a latent realism: the sovereignty

of the object hints at a mind-independent reality. In "Subject and Object," Adorno is more

explicit about the object's independence. Here, he writes, "objectivity can be conceived without a

subject…" (Adorno 1982a, 502). However, once again, this is an assertion of possibility, not

actuality (Adorno 1982a, 502). In actuality, the object — *qua* object of experience — always has

subjective properties and cannot exist without the subject (Adorno 1982a, 502-9). The end result

is that Adorno seems to hold to a theory of a mind-independent reality, but he also believes that

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[30] Adorno 2007, 183.

knowledge of the objects contained in this sphere are always mediated through the subject. A resulting and interesting question concerns the degree and quality of mediation. That humans have some control — socially and individually — over such mediation suggests the possibility of different ways of knowing. Broadening the scope beyond the relation between 'concept and object' to 'subject and object,' it also indicates different exchange and social relations beyond those of capitalist modernity, along with altered human relations with the ecology.

Adorno is ultimately skeptical about the adequacy of subjective concepts to describe these objects. This leaves him in a place somewhere in between Kant's skepticism and Hegel's absolutism. Auschwitz was born out of a type of thinking that was completely certain that its concepts were adequate to its objects. The reformulated categorical imperative of *Negative Dialectics* is that Auschwitz may never occur again (Adorno 2007, 365). Accordingly, thinking that aims at the total identity of concepts and objects must be banished. On the other hand, Adorno is also deeply critical of modes of thinking that relegate the organization of truth and meaning to the subject. This results in epistemological skepticism and social disintegration. If Adorno ultimately agrees with Kant that all objectivity is filtered through subjectivity, he goes a decisive step further in according to objectivity a primacy over subjectivity. Furthermore, Adorno would also presumably argue that the realm of valid knowledge extends beyond the synthetic *a priori*. What he is searching for, then, is a solid and practical foundation for truth claims, which does not result in the timeless certainly of identity thinking. Unfortunately, Adorno is remarkably opaque in his descriptions of what such a compromise might entail. However, his suggestion that "the form-giving constitutive elements have social sources" is instructive (Adorno 2007, 510).

He is pointing towards a theory of truth that is historically contingent and socially embedded.

Cook writes that for Adorno "our concepts are intersubjectively sustained constructs with

socially conditioned and sedimented histories…" (Cook 2011, 91). In other words, truth is

intersubjectively constituted. The complicated relation that this theory of truth has to Adorno's

politics will be discussed below.

Analysing the content of Adorno's politics is difficult because, disappointed by virtually

every existing political project, he was extremely wary of making any positive and substantive

programmatic claims. Still, the categories of class, freedom, education, individuality, and the

state do animate his political discussions (Tettlebaum 2008, 131-46). Perhaps Adorno's most

famous directly political claim is that Auschwitz should never be allowed to occur again (Adorno

2007, 365). This 'new categorical imperative' is related to Adorno's analyses of both freedom

and identity philosophy. Marianne Tettlebaum notes that for Adorno if the conditions that

allowed Auschwitz to occur exist, human society is essentially unfree (Tettlebaum 2008, 133).

This profound unfreedom is made possible, according to Adorno, by that mode of thinking that

subsumes individuals under types and makes them abstract and exchangeable. He writes, "Even

in his formal freedom, the individual is as fungible and replaceable as he will be under the

liquidators' boots" (Adorno 2007, 362). It is clear that freedom is important to Adorno in a

positive and substantial sense. However, the imperative here is decidedly negative — namely,

that Auschwitz cannot be allowed to happen again. This is, certainly, not an imperative against

which one would wish to argue. It presents a difficulty within Adorno's system, however,

because it is a *categorical* imperative. In other words, Adorno is making an absolute and

unconditional claim. The difficulty, or contradiction, then, is that Adorno has gone to great lengths to make the case that this type of absolute statement is not the desirable goal of political and philosophical thought. On the one hand, the whole project of *Negative Dialectics* is aimed at making this categorical imperative. On the other hand, the purpose of non-identity philosophy is to reject this type of normative claim.

While Adorno was both tentative and vague in the vast majority of his political writings, the transcript of a series of conversations he had with Max Horkheimer in 1956 reveals a much more animated — and radical — political agenda. The two founders of Critical Theory met several times in the spring of that year to discuss the writing of a new and updated *Communist Manifesto*. That such a type of discussion even took place should indicate the degree to which Adorno adhered to a truly radical politics. Even more surprising is the degree to which Adorno's radicalism eclipses Horkheimer's. For example, at one point Adorno says, "If people want to persuade us that the conditional nature of man sets limits to utopia, that is simply untrue. The possibility of a completely unshackled reality remains valid" (Adorno and Horkheimer 2001, 20-1). To this, Horkheimer responds, "In the long run things cannot change. The possibility of regression is always there. […] We can expect nothing more from mankind than a more or less worn-out version of the American system" (Adorno and Horkheimer 2001, 21). Given Horkheimer's attitude, it is unclear why he would want to participate in the composition of a new *Communist Manifesto*. More importantly for the present analysis, however, these conversations show Adorno's commitment to a genuinely socialist politics. Indeed, he announces that the new manifesto should be "strictly Leninist" (Adorno and Horkheimer 2001, 94). More specifically,

Adorno wants to write a new manifesto that would include an analysis of culture and avoid all hypostatization, while staying true to the spirit of socialist revolution. He writes, "Thinking in their [the Russians'] writings is more reified than in the most advanced bourgeois thought. I have always wanted to rectify that and develop a theory that remains faithful to Marx, Engels and Lenin, while keeping up with culture at its most advanced" (Adorno and Horkheimer 2001, 103). It is clear, then, that Adorno does have strong political commitments. An extended exploration of the relationship between his socialism and his philosophical foundations are outside the scope of this chapter. It is important to note, however, that although there is a tentative political and philosophical tone in much of Adorno's works, he remained dedicated to a genuinely radical political program.

The foregoing has sought to explore the broad contours of Adorno's system of thought, with particular attention to the formation of his concepts of non-identity philosophy and preponderance of the object. The analysis now turns to an evaluation of the merits and shortcomings of Adorno's positions. First, the notion of preponderance of the object, or that the object does not depend on the subject for its existence, points toward a realism that is essential to a sufficient philosophy of science. Bertell Ollman hints at this in his assertion that determination in dialectical relationships may not be symmetrical (Ollman 2003, 71). However, Roy Bhaskar takes the analysis further. Bhaskar is the founder of the post-positivist school of philosophy of science known as Critical Realism, the subject of the final substantive chapter of this dissertation. He proposes a 'depth ontology,' in which there are domains of the Real (generative mechanisms), Actual (events), and Empirical (experiences) (Bhaskar 2008a 56). For Bhaskar, the

generative mechanisms that structure our experience are really existing, and are

epistemologically discoverable to a certain degree. He writes:

> Any adequate philosophy of science must find a way of grappling with this
> central paradox of science: that men in their social activity produce knowledge
> which is a social product much like any other, which is no more independent of its
> production and the men who produce it than motor cars, armchairs or books….
> This is one side of 'knowledge'. The other is that knowledge is '*of*' things which
> are not produced by men at all: the specific gravity of mercury, the process of
> electrolysis, the mechanism of light propagation. None of these 'objects of
> knowledge' depend upon human activity.[31]

In "Subject and Object" and in the section of *Negative Dialectics* titled "The Object's

Preponderance" (Adorno 2007, 183-6) Adorno is confronting this very problem, albeit from a

different angle. Adorno's approach may not be strictly 'realist,' because it does not directly posit

a mind-independent reality. Instead, he suggests a subject-independent object. Implicit in this is a

theory of the primacy of the material over consciousness. While Adorno recognizes both the

independence of objects of knowledge as well as the socially mediated character of knowledge,

he is far less optimistic than Bhaskar about the possibilities of truly knowing these objects. As

has been argued above, Adorno ultimately rejects the idea that things can be known in

themselves.

This leads to the true shortcoming of Adorno's thought: concepts are, for him, never

adequate to their objects. While his objections to the complete subsumption of objects under their

concepts, as in identity philosophy, are noteworthy, the fundamental inadequacy of concepts

places all knowledge on unstable ground. To be sure, the notion that there is always particularity

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[31] Bhaskar 2008a, 21.

within universality, and that there is something unique about each individual is important. However, Adorno does not need to abolish the identity of concept and object to preserve individuality. Indeed, Hegel himself offered a theory of uniqueness that would accomplish exactly that. Stone writes that Hegel's theory "states that a thing's uniqueness consists in its distinctive way of instantiating a universal kind. A thing cannot instantiate a universal unless it does so in some particular way, and this way of instantiating a universal is what makes each thing a 'singular individual'" (Stone 2008, 55). The particularity of an object, or how it represents a universal cannot be apprehended simply by reference to the universal (Stone 2008, 55). In broad terms, Hegel manages the tension between particular and universal while maintaining a commitment to the absolute. Like Hegel, Adorno wishes to preserve the particular, but in the end he denies the identity of concept and object. The present analysis has argued that this epistemological uncertainty is connected to a deep hesitancy and irresolution in Adorno's politics.

A final critique concerns the practicality of Adorno's reconciliation of subject and object. Where Adorno does hint at such a possible reunion, it often takes the form of mere realization. In other words, an acknowledgement in thought ostensibly results in a reconciliation in practice. For example, Cook holds that for Adorno the subject's self-realization that it is dependent on nature (the object) can lead to reconciliation. She writes, "reflection on the self as a part of nature may enable us to reconcile ourselves with, and accommodate ourselves to, our underground instinctual life" (Cook 2011, 108; c.f. Stone 2008, 56-57). A materialist critique of this view challenges the extent to which a revelation in the sphere of thought and reflection can precipitate

substantial change in what is a fundamentally material relationship. As he was tentative about making strong political statements — the exception of his conversations with Horkheimer notwithstanding — this emphasis on reflection over action is perhaps not surprising. In fact, in his lectures on moral philosophy, Adorno explicitly states that there are times in which theory must take precedence over practice (Adorno 2001, 4; c.f. Tettlebaum 2008, 140-1). This is ironic considering Adorno's strong materialism, as evidenced by his insistence on the primacy of the object. Still, the idea that real change can begin with, or is ultimately located in, the movement of thoughts, recalls Marx's criticism of idealism in *The German Ideology*. Here, Marx admonishes Hegel and his followers for forgetting the connection between philosophy and reality (Marx and Engels 1998, 33-6). In fact, Adorno would most likely agree with Marx that "The premises from which we begin are not arbitrary ones, but real premises…. They are real individuals, their activity and the material conditions of their life, both those which they find already existing and those produced by their activity" (Marx and Engels 1998, 36-7). If this is the case, however, Adorno's privileging of reflection over practice certainly sits at odds with his materialism.

In this section I have sought to describe the essential components of Adorno's ontology and epistemology. It has been shown that Adorno develops his own position in the course of his engagements with both Kant and Hegel. Adorno rejects Kant's transcendental subject as bourgeois ideology — a theory that relegates the formation of all meaning to the individual subject. However, he also cannot accept Hegel's absolute idealism, by which concepts come to be identical to their objects. In the end, Adorno falls somewhere in between Kant and Hegel. He agrees with the former that objects cannot really be known in themselves. However, he also

argues that concepts can potentially say what an object 'really is,' even if they can never be fully adequate to the object. Adorno's position is robust and tightly argued. However, from the perspective of moral and political philosophy, Adorno fails to provide a strong enough foundation for *explicit* positive and substantial normative claims. For this reason there are several awkward and problematic incongruences in his political writings. Nevertheless, it is clear that Adorno does adhere to a genuinely radical and progressive political agenda, although his critique of identity philosophy prevents him from making strong political claims. In addition, his conception of the primacy of the object is an important contribution to materialist thinking and contains a latent realism that adds depth and nuance to Adorno's philosophy.

Despite certain difficulties, it is useful to examine Adorno conception of the human relationship with nature, which has direct lines to his ontological foundations. If it was clear to Adorno during his lifetime that in modernity the human relationship with nature takes very destructive forms, the point is even more obvious today. Cook shows that for Adorno the organization of a more rational society includes developing a different relationship with nature (Cook 2011, 113-20). Adorno holds that approaches that seek to unconditionally dominate nature are bound up with identity thinking (Adorno 2007, 11). If he is critical of the wholesale domination and destruction of nature, Adorno wants to avoid the opposite mistake of vulgar naturalism. In other words, Adorno recognizes, like Rousseau and many others, that there is no going 'back to nature' (Adorno 2007, 147; c.f. Cook 2011, 87). Instead of arguing that that nature and society are ultimately identical, Adorno holds that they are intertwined, deeply connected, and yet also distinct (Cook 2011, 17).

Cook argues that just as the state of peace between subject and object is that of the distinct participating in one another, the same is true of human subjects with objective nature (Cook 2011, 119). In a society built upon more rational lines, this would mean several things. First, humans would recognize that nature predominates over them (primacy of the object) and that they are dependent on nature for their survival. At the same time, instead of instrumentally dominating nature, society would respect its "independent purposiveness" (Cook 2011, 110). In addition, Cook notes that for Adorno when this state of non-domination is reached and labour is reduced to a minimum, the possibilities for greater aesthetic experiences of nature will be vastly expanded (Cook 2011, 110).

Thus, it is clear that the implications of Adorno's philosophy for ecological politics and radical ecology are immense. The category of aesthetic experience will be revisited, in more detail and in relation to Marcuse, later in this chapter. At this point, I want to focus on the human ecological importance of the notion of the preponderance of the object. The idea of the primacy of the object reminds us that the object comes before the subject, ontologically. Nature, likewise, precedes humanity. Furthermore, the subject is itself an object: humans are themselves nature. Even more importantly, there is always a part of the object that cannot be covered by subjective concepts. In other words, there are elements of nature that cannot be covered by conceptual thinking. This does not imply supernatural causation, or that scientific inquiry is unneeded. But it does encourage us to ponder those elements of the ecology that are not easily understood, and do not easily come under human control. Of course, even those parts of the object that can be covered by concepts can inspire a sense of enchantment. On the other hand, we must also

appreciate what Adorno call the 'residue of the object,' what is left over when our concepts and our scientific understanding is exhausted. This helps extend our feeling of amazement of and reverence for nature, and reminds us of the individuality of each organism, each ecological relationship and process, each ecosystem.

Marcuse: Basic and Excess Denaturation

With Rousseau, Hegel, Marx and Adorno we saw that while humans are fundamentally a part of nature, they are also separated from it in important ways. Marcuse, we will see, expands on that basic insight to show that the separation from nature that we experience exists in degrees. What he gives us is a theory of "basic" and "surplus" alienation from nature. As is typical of Critical Theory, Marcuse combines elements of psychoanalytic theory, Marxism, and German idealism. It is the former that provides the initial inspiration for Marcuse's theory of basic and excess denaturation. As such this section commences with a broad look at Marcuse's interpretation of Freud's theory of repression. The analysis then turns to one of Marcuse's main ecological interpreters, Andrew Biro, who draws out the full environmental implications of Marcuse's theory. Biro argues convincingly that Marcuse provides a strong theory of human ecology, and one that is indispensable to contemporary ecological politics. To wrap up the discussion of basic and excess alienation, and by way of transition to the next section on aesthetics, I provide some thoughts on what Marcuse's theory tell us about the enchantment of humans and nature.

The discussion of alienation, denaturation, and ecology — as they pertain to Marcuse — must commence with the concept of repression. In his seminal work on Freud and psychoanalysis, *Eros and Civilization*, Marcuse says the following about the repression of the instincts as a precondition of civilization: "Sigmund Freud's proposition that civilization is based on the permanent subjugation of the human instincts has been taken for granted" (Marcuse 1955, 3). In essence, the idea is that for humans to live together in complex communities, with high degrees of social, political and economic organization, we must renounce the instant, instinctual gratification of our needs. The 'pleasure principle' (immediate satisfaction, pleasure, joy, receptiveness, absence of repression) has been replaced by the 'reality principle' (delayed satisfaction, restraint of pleasure, toil, productiveness, security) (Marcuse 1955, 12). Repression has allowed a great amount of technical progress, domination of nature, and production of material goods. Marcuse argues, however, that this progress has come at the price of ever increasing unfreedom. He writes:

> Throughout the world of industrial civilization, the domination of man by man is growing in scope and efficiency. Nor does this trend appear to be an incidental, transitory regression on the road to progress. Concentration camps, mass exterminations, world wars, and atom bombs are no 'relapse into barbarism,' but the unrepressed implementation of the achievements of modern science technology and domination.[32]

Rather than delve into the interstices of Freud's theory of repression and civilization, Marcuse aims to use Freud's though to ask whether a less repressive form of civilization is possible. Freud believes firmly that it is not (Marcuse 1955, 17). But Marcuse questions whether the conflict

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[32] Marcuse 1955, 4.

between the pleasure principle and the reality principle is so extensive that the entire 'instinctual structure' of human beings must be repressed. Perhaps, if the prevailing reality principle (the 'performance principle') is not the necessary one, the only possible one, a different reality is possible. Marcuse posits a 'non-repressive civilization, based on a fundamentally different experience of being, a fundamentally different relation between man and nature, and fundamentally different existential relations…" (Marcuse 1955, 5).

This is Marcuse's larger project in *Eros and Civilization*. Along the way he introduces a key concept that will be the focus of the present analysis: the distinction between basic and surplus repression. 'Basic repression,' in Marcuse's words, constitutes "the 'modifications' of the instincts necessary for the perpetuation of the human race in civilization" (Marcuse 1955, 35). In other words, there is a basic level of repression that must take place for us to live together in civilized society. The unrestrained satisfaction of every libidinal instinct is simply not compatible with sustained social harmony. On the other hand, Marcuse holds that there is also 'surplus repression': "the restrictions necessitated by social domination" (Marcuse 1955, 35). This means that in some social formations — he is especially interested in advanced capitalist society — repression extends beyond the basic level necessary for civilization. This is unnecessary repression and represents superfluous restriction of human instincts and desires. The important point is that basic repression is common to all societies, while surplus repression varies in quality and magnitude within various socio-economic formations.

Showing his Marxist influence, Marcuse proceeds to incorporate the concept of alienation. Describing capitalist labour, he writes:

> For the vast majority of the population, the scope and mode of satisfaction are determined by their own labour; but their labour is work for an apparatus which they do not control, which operates as an independent power to which individuals must submit if they want to live. And it becomes the more alien the more specialized the division of labour becomes. Men do not live their own lives but perform pre-established functions. While they work, they do not fulfill their own needs and faculties, but work in *alienation*. Work has now become *general*, and so have the restrictions placed upon the libido: labor time, which is the largest part of the individual's life time, is painful time, for alienated labor is absence of gratification, negation of the pleasure principle. Libido is diverted for socially useful performances in which the individual works for himself only insofar as he works for the apparatus, engaged in activities that mostly do not coincide with his own faculties and desires.[33]

Here Freudian concepts — repression, gratification, libido, instinct — come together with Marxist one such as labour and alienation. Marcuse sees capitalist labour, alienated labour, as a historically specific form of Freudian repression. But it is not a necessary repression; alienated labour is an example of surplus repression, over and above the amount which is required for social organization. As such, Marcuse sees this form of repression as unwarranted and undesirable.

To this point, the distinction between basic and surplus repression has been applied to psychological repression. Even capitalist labour, in Marcuse's analysis, is a form of repression, as it modifies our core instinctual structure. Following Andrew Biro, we can now begin to use the distinction between basic (necessary for human existence) and surplus (excess and specific to historical situations) to understand alienation from nature (Biro 2005, 160). For example, repression, which is a restriction of our fundamental instincts, can been seen as a form of

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[33] Marcuse 1955, 45.

alienation from our *internal* nature. But the analysis can be enlarged to include alienation from *external* nature, or the ecology, as well.

As Biro describes it, "We can thus extend Marcuse's distinction between basic and surplus repression to include a distinction between alienation from nature that is biologically necessary for human life and alienation from nature that is only made necessary by particular forms of social organization" (Biro 2005, 168). Biro notes astutely that Marcuse's distinction is closely based on Marx's differentiation between objectification (labour) and alienation (alienated labour). The former is the basic subject-object separation that allows us to labour freely on objective nature. The latter is estranged, alienated, unfree labour, specific to historical conditions. According to Biro, Marcuse takes the analysis further than Marx by giving the basic/surplus trope a biological underpinning with the injection of psychoanalytic theory (Brio 2005, 168-69).

It is worth taking a step back at this point and summing up what Marx, Freud, Marcuse and Biro give us on humans, nature, and alienation — that is, a theory of basic and excess denaturation. The concept of basic denaturation suggests, as we have seen in Rousseau, that there is a separation from nature that is constitutive to human being. There is no 'going back' to a state of perfect harmony with the natural world. Without the subject-object division there would be no humanity as such. This fundamental — although not total — alienation from nature is true of all humans, in all places, and at all times. But this does not mean that the relationship we have to nature in modern capitalism is at all necessary. The concept of excess denaturation shows that human alienation from nature takes diverse forms, and exists to varying degrees, in different socio-historical situations. In other words, the quality and quantity of excess denaturation is

largely socially determined. This has important consequences for contemporary ecological politics.

First, Marcuse's schema gives us a way out of what Biro call "the antinomies of ecocentrism and postmodernism" (Biro 2005, 161). This requires a bit of unpacking. Ecocentrism, or biocentrism, simply put, is the notion that there are no major ontological or moral differences between humans and the rest of nature. It is a naturalist position, meaning that it takes all entities to be natural, or wholly part of nature. In this view, humans occupy no special strata in the ontological order. Biro writes, "For ecocentrists, the fact that there are no 'absolute dividing lines' in the (natural) world, or, in other words, that any such dividing lines are inventions — that they are the product of culture or language — suggests that such lines are ethically indefensible…" (Biro 2005, 17). Ecocentrist arguments are often employed in the defence of nature, calls for the protection of natural spaces and ecological systems. This is not inherently problematic. However, the underlying assumption is troublesome. If everything is natural, then so too are humans and their social processes. Naturalizing social phenomena undermines the basis for social critique, as "nature" is often taken as beyond judgement. In addition, the supposed moral equality of all species suggests the frightening conclusion that the interests of even lower, more simple organisms is equal to that of human beings. Thankfully, Biro shows that there is, in fact, an 'absolute dividing line' between human and other natural species. Marcuse's notion of basic denaturation demonstrates an essential separation from nature, made possible by instinctual repression (Biro 2005, 30). This repression in turn allows for the capacity to freely and self-consciously manipulate nature, a capacity no other higher animal is

known to possess. We have already seen this basic alienation expressed in various ways in the works of Rousseau, Hegel, Marx and Adorno. Through Marcuse, Biro emphasizes that human existence is fundamentally historical and therefore cannot be analyzed with the reductionist lens of naturalism.

On the other hand, there is postmodernism. This outlook sees the world — or at least our experience of it — as discursively or socially constructed. Even nature, postmodernists often argue, is merely a cultural construction. In this "postmodern condition," Biro holds, there is no longer any "permanent ground" for definitions (Biro 2005, 34). Worse still, postmodernism has progressively eroded the bases for truth, normativity, and judgement, effectively destabilizing the ontological foundation of any political action. As it concerns the present investigation, the danger of postmodernism is that it socializes the natural, essentially criticizing away the biological, material, and other natural bases of human life. This move is anti-scientific and irrationalist. To be sure, we are separate from nature, and our experience of the natural world will always be socially mediated to some degree (as per the theory of basic alienation). But it is absurd to deny both the non-social existence of nature itself as well as the natural bases of human being (see Antonio 2000, 52-55). Thankfully, the notion of surplus denaturation allows us to keep both sides of the argument in play. That is, it preserves the concept of nature, even as a regulative ideal, but also allows for the variation of human mediation/alienation from nature in differing historical circumstances. Marcuse sees alienation/repression/denaturation as normatively problematic. They should be alleviated to the greatest possible degree to allow for human happiness and

flourishing. The theory of basic and excess denaturation allows Marcuse to make such prescriptive claims without de-historicizing the human condition.

Marcuse's theory has much to offer the study of human ecology. Without abstracting from the real embeddedness of humans within nature, Marcuse's concept of basic denaturation shows that instinctual repression and the faculty of self-consciousness create an important dividing line between humans and non-human nature. This accords well with the observations of Rousseau, Hegel, Marx and Adorno. Even more importantly, Marcuse contributes the idea that there is another category of unnecessary, excess alienation from nature. This denaturation is contingent on social and historical conditions. Therefore, humans as a species both create and determine this type of alienation. Furthermore, it is also in our capacity to alleviate unnecessary denaturation. This is important because while the reality of basic alienation precludes any 'return to nature,' along with the theorizing or institution of any 'perfect' or 'natural' state of human being, the concept of excess denaturation allows the possibility of a critical stance toward the existing state of affairs. That is, we can locate those forms of alienation or denaturation that are not necessary and which cause unneeded repression and human suffering. More to the point of human ecology, Marcuse's theory suggests that while the human condition will never be one of immediate unity with the ecology, some of the separation from nature that we experience in modern capitalist society could be palliated. If we cannot 'go back to nature, then we might at least get closer to it; we can and should modify the quantity and quality of our mediation from nature. Getting closer to nature can mean many different things, including rethinking the amount of technological intensity that mediates our relationship to the ecological world. As well, it

would require making room in everyday life for appreciating the wildness, complexity, and enchantment of the natural world. This appreciation is the main focus of the next section.

The Aesthetic Dimension: Nature and Meaning

To this point, the discussion has largely centred around the related problematics of subject-object, identity-non-identity, as well as alienation. Now, I want to switch gears a little bit to discuss the human-ecological relationship as an aesthetic one. This shift from ontology to aesthetics supports the overall goal of this dissertation, that is, a reevaluation of the human relationship with nature. Here I want to suggest, against the dominant tradition in western philosophy, that meaning can be produced in the aesthetic *reception* of nature, rather than solely in its transformation by human labour. To do so, I draw heavily on Herbert Marcuse's writing on art, particularly in his book *The Aesthetic Dimension: Toward a Critique of Marxist Aesthetics*, which was written in 1977, close to the end of his career and life. Contra didactic Marxist realism, Marcuse argues that the proper aesthetic moment is to be found in the unity of the art form and its content, not merely in the latter. Marcuse's intervention occurs in the context of many longstanding aesthetic debates in Critical Theory (see, for example, Adorno 1977; Adorno 1982b; Benjamin 2008; Brecht 1977). Marcuse's contribution is to the effect that art can be revolutionary because by its nature it posits a different way of being, and points to the possible transcendence of capitalist social relations. The aesthetic experience of nature differs from the art form in that it is a more passive reception, rather than a deliberate transformation of nature. Nonetheless, I will argue here that much of what Marcuse asserts concerning the experience of

art can be extended to an analysis of exposure to the ecological world. They are both important aesthetic experiences. Just as the work of art points to a better social reality, the reception of nature can point towards a better ecological reality.

Marcuse's point of departure, in *The Aesthetic Dimension*, is a critique of traditional realist Marxist aesthetics. This view, exemplified by Lukacs, concentrates on the content of artistic works. In Marcuse's words, this approach is characterized by the insistence that "The only authentic, true, progressive art is the art of an ascending class" (Marcuse 1978, 2). Consequently, "The writer has an obligation to articulate and express the interests and needs of the ascending class" (Marcuse 1978, 2). Marcuse disagrees with the view that artwork must be made by the working class, represent the working class experience, and instruct the working class how to act. To be sure, he acknowledges that all works of art arise from a certain historical situation, and that they can and should have revolutionary potential (Marcuse 1978, ix). It is the didacticism of Marxist realism with which he takes issue. In a very real way, this type of edifying and over-simplistic artwork condescends to the working class, and obscures as much as it reveals. As opposed to the prevailing Marxist orthodoxy, Marcuse holds that it is the art form itself, the aesthetic form, that gives works of art their political and revolutionary power (Marcuse 1978, ix). He also takes issue with the vulgar reflection theory of traditional Marxist aesthetics, which sees the content of art as being conditioned more or less directly by the prevailing social relations. In contrast, Marcuse argues that aesthetic expression enjoys a relative autonomy from existing social conditions (Marcuse 1978, ix). It is this comparative sovereignty, we will see, that allows artwork to transcend the existing reality and posit a different way of being.

Rather than being entirely determined by prevailing social conditions, Marcuse argues,

art has the capability of breaking free of historical determination. It is in this breaking free, this

transcendence, that art finds its revolutionary potential. In his own words:

> [T]he radical qualities of art, that is to say, its indictment of the established reality
> and its invocation of the beautiful image (*schöner Schein*) of liberation are
> grounded precisely in the dimensions where art *transcends* its social
> determination and emancipates itself from the given universe of discourse and
> behavior while preserving its overwhelming presence.[34]

The Marxist, realist conception of aesthetics — in which there is 'right' and 'wrong' art —

misses this truly revolutionary aspect of art because it focusses too narrowly on the content, and

the message, of the work of art. Against this orthodoxy, Marcuse shows that by its very nature,

its very *form*, art is able to rise above the existing conditions and point toward a possible better

future. He writes, "art creates the realm in which the subversion of experience proper to art

becomes possible: the world formed by art is recognized as a reality which is suppressed and

distorted in the given reality" (Marcuse 1978, 6). The work of art, by its very nature, shows that

the existing reality principle is not the *only* or *necessary* one and that any number of other

realities are possible (Marcuse 1978, 7). By demonstrating the possibility of another reality

principle, art implicitly contradicts the existing principle. Marcuse holds, "The world of art is

that of another *Reality Principle*, of estrangement — and only as estrangement does art fulfill a

cognitive function: it communicates truths not communicable in any other language; it

contradicts" (Marcuse 1978, 10).

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[34] Marcuse 1978, 6.

Thus, by creating another world, or reminding us that another world is possible, art calls into question the truth of the existing state of affairs. But what is the other world represented in art? And how does it effectively problematize the prevailing reality principle? According to Marcuse, the work of art is politically effectual because it invokes a remembrance of life past. He writes, "The revolution finds its limits and residue in the permanence which is preserved in art… as a remembrance of life past: remembrance of a life between illusion and reality, falsehood and truth, joy and death" (Marcuse 1978, 23). In other words, art can bring to mind former ways of social organization, and of interaction with nature. Marcuse notes that these images are between reality and illusion. He thus implicitly suggests that the strict, realist, empirical truth of these images is not centrally important. They have revolutionary potential because they rise above the particular, historical, social conditions to reveal the universality that inheres in the living, feeling human subject. "Dostoyevsky's *The Humiliated and the Offended*, Victor Hugo's *Les Misérables*," writes Marcuse, "suffer not only the injustice of a particular class society, they suffer the inhumanity of all times; they stand for humanity as such. The universal that appears in their fate is beyond that of class society" (Marcuse 1978, 23-4). Unlike realism, which argues that it is the content of the work of art that makes it true or untrue, Marcuse shows that the truth contained in art lies in its portrayal of what is universal about human life.

In portraying this partly-illusory image, or representation, of past ways of being, art offers a certain 'unreality.' It is an unreality in the sense that it is different from and opposed to the prevailing reality. But Marcuse holds that this image is actually *more true* than the existing conditions. In a brilliant passage, he argues that:

The world intended in art is never and nowhere merely the given world of everyday reality, but neither is it a world of mere fantasy, illusion, and so on. It contains nothing that does not also exist in the given reality… Nevertheless, the world of a work of art is "unreal" in the ordinary sense of this word: it is a fictitious reality. But it is "unreal" not because it is less, but because it is more as well and qualitatively "other" than the established reality. As fictitious world, as illusion (*Schein*), it contains more truth than does everyday reality. For the latter is mystified in its institutions and relationships… Only in the "illusory world" do things appear as what they are and what they can be. By virtue of this truth (which art alone can express in sensuous representation) the world is inverted — it is the given reality, the ordinary world which now appears as untrue, as false, as deceptive reality.[35]

Marcuse is able to offer this reasoning because he holds to the traditional distinction between appearance and reality, fact and truth. In his case, the appearance, the bare facts of social existence take the form of capitalist one-dimensional society. In his famous *One-Dimensional Man*, Marcuse makes the argument that modern capitalist society effects a sort of 'levelling' of the world of discourse and experience. This one-dimensional world permits no alternative, negative, or critical side (Marcuse 1964). Obscured by these social relations is a truth to what it means to be human and how we ought to live — a 'real' reality. Interestingly, however, Marcuse breaks with tradition by arguing that it is art, the aesthetic form — not philosophy — that offers the clearest view into the truth of our social being. His argument might be supplemented by the observation that philosophy and science strive to uncover specific, and also universal, truths. As such, they can describe the conditions upon which meaning and human freedom are founded. But the truth of meaning and freedom is that they are universal, essentially outward-looking. The aesthetic form, which is also fundamentally outward-looking, is adequate to the task of

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[35] Marcuse 1978, 54.

illustrating the full truth of human experience and potential. All this begs the question: for whom? That is, can all members of society — even those from marginalized classes that are barred access to aesthetic training or acculturation — have this experience of art? It is an interesting question because whereas the realist art proposed by Lukacs is didactic and easily understood, the implications of Marcuse's *schöner Schein* may be less readily intelligible. Marcuse offers no clear answer to this question. Perhaps, Marcuse's ideal type of artwork is not so opaque that lay interpreters, especially in the social activity of aesthetic reception, could not uncover its universal meaning. However, it may be that there is a certain elitism at work in Marcuse's aesthetic theory. The full reception of art may not be a door open to everyone. The aesthetic appreciation of nature, I will argue below, can be more democratic.

Like Adorno, Marcuse is skeptical of claims about the complete identity of concept and object. He is sure that the truth exists and that we must endeavour to bring light to it. But our access to the truth is always partial, not complete. Nonetheless, he is quite clear the goal of revolutionary political activity is to make real the truth, to bring the facts of existence as close as possible to the underlying truth of being. As such, the beautiful image created by art must serve as a regulative ideal, toward which politics ought to move (Marcuse 1978, 69). This begs the question of an implicit, or 'hidden,' teleology in Marcuse's philosophy. He writes, "Against all fetishism… art represents the ultimate goal of all revolutions: the freedom and happiness of the individual" (Marcuse 1978, 69). In representing and striving for freedom and happiness, art not only describes the truth of our being, it also opens the path to different forms of existence. It points beyond the singular plane of one-dimensional society, towards other ways of being.

Marcuse writes, "Art breaks open a dimension inaccessible to other experience, a dimension in which human beings, nature, and things no longer stand under the law of the established reality principle" (Marcuse 1978, 72).

It is my intention here to show that nature can do precisely the same thing: open another dimension of experience and offer the possibility of another reality. To be sure, the aesthetic moment of experiencing nature differs quite significantly from the work of art. The former is often passive reception, and can potentially be more democratic. The latter is the outcome of deliberate manipulation of raw materials. It is a product of creative human labour. It may reference or invoke non-social elements, but it is a social product through and through. Experiencing nature — hiking in the deep woods, enjoying a park, even watching birds in one's backyard — is meaningful because of the components that are *non*-social. Of course, our experience of nature is always socially affected to some extent; we bring our social history and determination with us everywhere. As well, almost all contemporary ecosystems have been impacted in some way by human activity, imbuing them with sociality and calling into question the concept of 'pristine nature.' But we lose much nuance in adopting such an all-or-nothing outlook. A much more interesting way to understand the problem is to see that naturalness and sociality both exist in degrees, on a spectrum. The downtown core of a major city might fall on one end of the scale, and a remote, largely untouched wilderness lake on the other. The issue at hand is the degree to which transformative human labour has penetrated these spaces. By and large, the less that it has, the more intact are its ecological processes. It is these ecological processes that offer the type of aesthetic moment I wish to here describe. These processes carry

on with and without human involvement, creating complexity and beauty, and sustaining life. They are self-directional and command moral value independent of that assigned by humans for instrumental purposes. Our aesthetic exposure to ecological systems is passive, because it does not require the infusion of transformative labour. Of course, we must immerse ourselves in nature for this to take place, but the meaning that we derive from such experiences is possible because of what we do *not* do to these spaces. The human experience of nature is significantly different, then, from the creation and reception of artwork. They are both, however, *aesthetic* moments. Marcuse's work on aesthetics explicitly describes the political potential of artwork, but it is my argument here that much of his analysis also applies to the aesthetic experience of nature. Most importantly, nature offers a beautiful image (*schöner Schein*) that invokes and suggests new and different possibilities.

To begin, it has been noted that Marcuse brings to our attention the fact that artwork is not entirely socially determined. Of course, works of art arise from particular social formations. But they also contain something other than the social situation — something that is not determined by the social forces. This is true of all facets of human life. Otherwise we would be faced with utter determination, and left with no hope of revolutionary change. So, there is an autonomous element to art. Likewise, I hold that the prevailing social reality does not entirely determine our reception of the ecological world. To be sure, the instrumental rationality of modern capitalism does in many ways cause us to see and experience nature as something that is 'other' — formless, valueless 'stuff' that has been furnished solely for the attainment of human

ends. But it is also always possible to see elements of the ecological world as having value, beauty, and meaning that is independent of human ends.

Marcuse argues that art invokes a memory of past ways of being. In *The Aesthetic Dimension* he is largely referring to modes of social being. Here, I propose that the aesthetic experience of nature can inspire a remembrance of past ways of *ecological being*. It only when we access those natural places that have suffered less human intervention that we also access the truth about the beauty and complexity of the ecological world. In One-Dimensional society, the prevailing principle of human ecology is that nature is simply the stuff for instrumental exploitation. There is an overwhelming sense of this, perhaps not in the mind of every individual, but certainly in the general outlook and economic activities of one-dimensional society as a whole. But in the aesthetic reception of minimally damaged ecological processes, we see that there is much more to nature than mere substrate. We remember that nature has not always been so manipulated, controlled and damaged by human activity, that there have been other ways of being in, and interacting with the ecological world. This does not mean romanticizing former ways of life, but realizing that the way we currently live is not the *only* way. In fact, there is a deep untruth to the prevailing conditions. Marcuse saw this in relation to social conditions. But it is equally true of human-ecological relations. By simply dominating nature, exploiting it endlessly, we obscure the truth of its many wonders. As such, we deny ourselves the possibility of meaningful activity, and a sense of integration and connection with the natural world. When we immerse ourselves in natural spaces and experience their aesthetic possibilities, we are able to ponder the untruth of our dominant way of interacting with the ecology.

Finally, just like art, the reception of nature can break open a new dimension of experience. In this moment, we realize that our relationship with nature as it exists presently is not necessary or transhistorical. We can and must interact with and understand nature differently, and this experience can take many forms. Just as Marcuse would not argue that there is a single perfect social formation, I hold that there is no single *true* or *right* way to interact with or experience the ecological world. What is important is that we recognize that other dimensions of experience are possible.

Conclusion

Today the Frankfurt School is the subject of a growing and compelling ecological literature. The last true "Renaissance" thinkers — in that they were proficient in a variety of fields — the Critical Theorists were experts in and published on a wide range of topics. The foregoing discussion has focussed on only a narrow selection of the works of Adorno and Marcuse: their positions on subject-object dialectics, alienation, and aesthetics. While it is clear from the outset that Adorno and Marcuse inherit the 'historical-dialectical' tradition passed on by Rousseau, Hegel, Marx, and others, they also take the analysis in new and interesting directions. Adorno argues that there is something fundamental about the object. That is, it is ontologically prior to the subject — just as nature is the ontological precursor of humanity. Relatedly, objects can never be fully subsumed by subjective concepts, never totally described by human cognition. Obviously, then, this means that the ecology cannot be fully brought under human concepts. This leaves an element of 'enchantedness,' something essentially 'other,' and unknowable about the

ecological world. While Adorno never entertains the possibility of a reconciliation of subject and object, he describes their association as 'the distinct participating in each other.' This is a relationship of mutual determination and involvement. It is also a compelling way to think about the human relationship with nature. The Marcusuean angle emphasized here is a little bit different. Marcuse does not seem to disagree substantially with any of Adorno's positions. However, while Adorno uses the categories of identity and non-identity, Marcuse takes the analysis further by introducing the possibility that identity and non-identity exist to varying degrees. Thereby, human alienation from nature exists also by degree and some forms of alienation are non-necessary. This formulation opens the possibility of some form of reconciliation between subject and object (humanity and nature), or at least a measure of disalienation. Presumably such an alienation would allow the distinct to better participate in one another. Of course, Marcuse is sure to assert a level of basic or fundamental alienation from nature, putting an end to any sort of 'going back to nature.' It is this fundamental alienation from nature that marks our *species differentia*: self-consciousness, objectification (in Hegel's sense), and the capacity to labour freely. Along with this capacity comes the create art and appreciate beauty. Marcuse's aesthetic theory points to the work of art as having important revolutionary potential as it reminds us of other dimensions of experience and ways of being. I have here argued that the aesthetic appreciation of natural beauty and complexity provides similar potential.

There are several things in Marcuse and Adorno that bring the 'enchantment' of human ecology to a new level. First, they both elaborate on the special quality of human beings, the

uniqueness of our species within the ecological world. This is largely, of course, self-consciousness. But with this faculty come many others. Marcuse's emphasis on art and aesthetic appreciation remind us that humans are special in their creation and awareness of beauty. With his notion of the distinct participating in each other, Adorno creates a dialectic in which both poles are active and capable of determining the other. Subject and object, humans and nature, co-determine one another. Additionally, Adorno tells us that there is always an element of objective nature that will elude us. The residue of the object cannot be brought under our conceptual knowledge. That is not to say that it is supernatural or theoretically unknowable. But there are simply parts of nature that cannot be made to conform to our concepts. Their otherness remains and it is herein that we find their enchantment.

Chapter 5: Process Metaphysics and the Enchantment of Complexity

<u>Introduction</u>

The foregoing has shown that the 'historical-dialectical' understanding of the human-nature relationship is correct in its positing of humans as simultaneously part of and distinct from nature. The difficulty with this approach is that the qualitative assertion is made without specifying the real content of the identity and non-identity. This chapter seeks to provide a more solid foundation for the qualitative distinction between humans and the rest of nature by means of a quantitative measure. It will be argued that the fundamental human difference from non-human nature arises from their vastly greater degree of internal sensitivity. Natural entities have internal process that are complex to varying degrees, and are therefore sensitive to varying degrees. It is here argued that the quantitatively greater magnitude of sensitivity possessed by humans as essence-bearing entities passes over into qualitative distinction. However, this process view also provides the basis for a more complete conception of the identity of humans with nature. That is, although humans are more sensitive, all natural entities are sensitive to some degree. Thus, when human consciousness recognizes sensitivity in other entities, it sees a metaphysical identity. This approach adds important nuance to the picture of the human-nature relationship sketched in the foregoing chapters. The present analysis uses the work of Charles Hartshorne to articulate this process-oriented method.

Process philosophy is significantly different from the other schools of thought I have considered thus far. The issue of processual complexity appears to play no significant role in the

thinking of Rousseau, Hegel, Marx or the Frankfurt School. It is unclear, and unlikely, if any of them would accept process philosophy's fundamental commitment to process as ontology. Nevertheless, it seems that the intersection of 'historical-dialectical' thinking and process thought is fertile theoretical ground for the philosophy of human ecology. This chapter seeks to engage process thinking in discussion with ecological political theory as well as Critical Theory, in a way that enriches all these approaches to human ecology. Process philosophy brings important questions to light, and bolsters the claims for both the identity and difference of humans and nature. While the preceding three chapters have laid out the uniqueness of humans and self-consciousness — while also maintaining the dependence and rootedness of human within nature — process philosophy can begin to answer important questions about origins. For example: how does self-consciousness originate from biology? The concepts of process and internal complexity have much to offer this inquiry. Rather than give an 'alternative view,' process thought enters into discussion with the 'historical-dialectical' outlook and deepens its understanding of human ecology.

This chapter begins by introducing the central ideas and concepts that characterize the process-oriented approach. With this foundation set, the exposition then turns to Hartshorne's critiques of both humanism and supernaturalism. His alternative, a form of panpsychism called 'surrelativism,' is then analysed. Next, process-inspired ethical writings are explicated, and shown to be superior to the dichotomous views of anthropocentrism and ecocentrism. Some brief concluding remarks explain the significance of the process view for understanding the place of humanity within nature, as well as its contributions to the enchantment of human ecology.

Process Metaphysics: Process and Complexity

In contemporary academic discourse, the term 'process philosophy' is overwhelmingly associated with one figure: the 20th century British philosopher Alfred North Whitehead. Nicholas Rescher argues, however, that there is much more to this outlook than Whitehead's work. Rescher holds that in fact, Heraclitus is the true originator of process thinking, and that there are many other important contributors before Whitehead. These include Leibniz, Hegel, William James, Henri Bergson, as well as John Dewey (Rescher 1996, 1-20). Whitehead's writings are rich, yet dense and technical, with highly specific terminology and many neologisms. This would make the task of explaining his significance for contemporary ecological political theory difficult work. Thankfully, as Rescher notes, process philosophy is not the doctrine of a single philosopher, but a general outlook. In the next section, the analysis will shift to focus more specifically on the works of a single philosopher: Charles Hartshorne, who was strongly influenced by Whitehead. Hartshorne's writings speak more directly to the ecological concerns of this dissertation. First, however, it is necessary to outline the general standpoint that characterizes process philosophy.

Rescher holds that process philosophy, at its core, is a conventional exercise in metaphysics. That is, it is a "general theory of reality," an account of what exists, and a theory of how it can best be explained (Rescher 1996, 7). The bulk of traditional metaphysics since Aristotle has been primarily concerned with substances and things (Rescher 1996, 29). This is not so with process metaphysics; as its name suggests, process thinking is concerned with processes. Rescher writes that while traditional metaphysics has been preoccupied with

substance, product, persistence and continuity, process thinking prefers the categories of activity, process, change and novelty. This is not to say that process philosophers deny the existence of substances or things. As Rescher notes, it is often a matter of emphasis (Rescher 1996, 31). Processists hold to the idea that processes are more analytically important than things for two reasons. First, "In a dynamic world, *things* cannot do without *processes*. Since substantial things change, their nature must encompass some impetus to internal development" (Rescher 1996, 28). Second, "Since substantial things emerge in and from the world's course of changes, processes have priority over things" (Rescher 1996, 28). So, what sets apart process thinkers is their contention that processes are analytically primary — both ontologically and epistemologically. Rescher writes that the process thinker is "one who holds that what exists in nature is not just originated and sustained by process, but is in fact ongoingly and inexorably *characterized* by them. On such a view, process is both pervasive in nature and fundamental for its understanding" (Rescher 1996, 8). Instead of trying to pin down fixed, stable entities, process thinkers see dynamism and perpetual change.

Already process metaphysics offers this dissertation a picture of the ecology, and all its constituent parts, that are alive, energetic and constantly moving. Of course, the myriad processes that make up the intelligible world are not unconnected. This introduces another key component of process thought: interconnectedness. In other words, the world in which we live is one that is deeply *integrated*. The various processes that compose the physical and organic world, including human consciousness, exist in complex and intertwined relationships. These

components do not, and could not, exist independently of one another. C. Robert Mesle describes

this view as follows:

> Process philosophy is an effort to think clearly and deeply about the obvious truth
> that our world and our lives are dynamic, interrelated processes and to challenge
> the apparently obvious, but fundamentally mistaken, idea that the world
> (including ourselves) is made of *things* that exist independently of such
> relationships and that seem to endure unchanged through all the processes of
> change.[36]

This outlook concerns all natural relationships, including that between humans and the rest of

nature. The challenge, as it has been all along, is to see humanity — especially human

consciousness — as integrated into the ecological world, without collapsing the qualitative

distinction between humans and nature. Of course, with humanity as a component, there is also

the introjection of historical factors as well as unintended consequences with in turn shape

natural processes. With its focus on dynamism and continual change, process thinking easily

accounts for this factor. At this point, then, it is useful to draw out how process philosophy treats

both nature and humanity.

Process metaphysics sees the whole of nature as a vast, interconnected system. According

to Rescher, the entire world is one "unified macroprocess" (Rescher 1996, 84). That is, nature is

a single, unified, dynamic system. This is not to say that it is undifferentiated; the macroprocess

is composed of "duly coordinated subordinate microprocesses" (Rescher 1996, 84). In other

words, nature is an ordered, hierarchical series of processes that together form a grand totalizing

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[36] Mesle 2008, 8.

'macroprocess.' Importantly, Rescher holds that these processes are largely self-organizing and

are therefore easily understood as organic. He writes:

> Natural processes this organize one another into larger interconnected clusters —
> process organisms of sorts. Accordingly, process metaphysicians are given to
> conceptualizing nature in general — and physical nature in particular — in
> organic terms, owing to the tendency at work everywhere in nature, for processes
> to cluster together in self-perpetuating systemic wholes. The world's processes are
> thus interconnected.[37]

Like the Ancients, process thought sees the world as hierarchically ordered. But in the process

view, there does not exist the same form of teleology. Importantly, process philosophy in no way

attempt to justify the domination of humans by humans in natural terms. In this way, its outlook

is compatible with the Critical Theorists, who were strongly suspicious of rationalizations for

domination. As will be shown below, process thinking also places limits on the domination of

nature by humans, attempting to restrict it to reasonable amounts. Another important point is that

process philosophy sees nature as fundamentally alive. Its activities are self-directed and self-

organizing. In no way is it simply 'inert matter.' Nature itself in constantly in motion, and so too

are its organizing principles. The process idea of nature owes a great deal to Darwin's theory of

evolution by natural selection. No longer are species — or the processes that constitute species

— fixed and unmoving. "Not only do the world's phenomena change but so do the natural laws

that govern their modus operandi," holds Rescher (1996, 91). Nature is alive, moving, changing,

dynamic at every level.

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[37] Rescher 1996, 86.

Like the previously discussed thinkers, process philosophy is also interested in the place

of human persons — specifically self-hood, or the ego — in the natural order. Rescher maintains

that despite its best efforts, traditional metaphysics has failed to understand adequately the

human self. The ego — and with it those unique human capacities, such as self-consciousness —

resists the framework of substance metaphysics and therefore presents a distinct "stumbling

block" (Rescher 1996, 105). This is because, Rescher maintains, human experience is essentially

dynamic: "a static thing-oriented perspective is naturally distasteful to us, seeing that its stolid

substantiality makes for a fixity that simply does not square with the character of our experience"

(Rescher 1996, 107). In other words, the flux of experience is not easily contained in an ontology

that prioritizes substance and fixity over process and dynamism. To be fair, this is not necessarily

a completely even-handed critique to mount against the philosophers discussed in the foregoing

chapters. From Rousseau to Marcuse, there is an unmistakable appreciation for the dynamism of

human experience as well as the historicity of the human location in the natural world. Still, there

is clearly something to be gained by taking seriously the process method. While the 'historical-

dialectical' thinkers and the Critical Theorists do acknowledge the dynamic nature of human

being-in-the-world, the physical and non-physical elements of human existence do sometimes

appear as distinct categories. That is, while it is permitted that mind and matter co-exist, they are

often ultimately understood as two fundamentally difference entities. Process thinking abandons

the terminology of Western philosophy, and does away with the emphasis on matter and mind,

substance and consciousness. The human self thereby becomes "simply a megaprocess, a

structured system of processes, a cohesive and (relatively) stable center of activity

agency" (Rescher 1996, 108). In other words, self-hood is neither a substance nor a thing. It is, rather, a life process (Rescher 1996, 116).

This view effectively illustrates the integration of humans within other complex processes and therefore within the ecology as a whole. That is, human being is identical to the ecology insofar as it is fundamentally processual. Mesle writes, "The world is like us because we are like the world, part of the world, reflecting the same basic principles and rules as the world" (Mesle 2008, 24). Not only are we the same as these ecological processes, we are interconnected with them, dependent on them. This is a very powerful way to think about the human place in nature. We need to think more carefully about our unity with nature. Only thus might we begin to treat the ecological world with the respect that it deserves and secure the continued conditions for our own existence. However, this type of thinking can go too far, erasing the qualitative divergence that separates humanity from nature. As Mesle has it, "We are unique in some ways, but not in others, and our uniqueness is a matter of degree rather than of kind" (Mesle 2008, 24). The principal aim of this dissertation is to articulate a theory of human ecology in which human beings are simultaneously embedded in nature *and* qualitatively different from it. To this effect, the analysis now turns to Charles Hartshorne, whose (much more sophisticated) approach helps to develop the present account of human ecology.

Charles Hartshorne: Surrelativism and Human Ecology

In *Beyond Humanism: Essays in the New Philosophy of Nature*, published in 1937, Hartshorne expounds a theory of 'theistic naturalism,' whereby the divine is understood as nature

itself. One need not adopt Hartshorne's theological perspective to find useful the notion that what

is absolute is found in nature as a whole. A necessary corollary to this view is that humanity is

displaced from its position as the supreme form of entity. Meanwhile, Hartshorne also rejects any

form of supernaturalism, which he argues posits a divine entity wholly outside of nature. In

Hartshorne's words:

> Supernaturalism and humanism are, I hold, two aspects of the same error, the
> mistaken notion that nature, in her non-human portions and characters, is wholly
> subhuman. Not finding the superhuman in nature, the supernaturalist seeks it
> "beyond" nature; the humanist, in the unrealized potentialities of man. Could both
> perceive the living divinity which in a sense *is* nature, the one would cease to
> locate the object of his worship in a vacuum, and the other would cease to deify
> man and romantically to exaggerate the good and underestimate the evil in man.[38]

The present analysis will make use of Hartshorne's critique of humanism as 'disintegration.' In

arguing for a holistic naturalism, though, the metaphysical difference of humans from nature is

not meant to be downplayed. Instead, Hartshorne's pantheistic naturalism is understood as

compatible with the ontological continuity *and* discontinuity of humans and nature.

Hartshorne's term 'surrelativism' is an amalgam of the words 'supreme' and

'relative' (Hartshorne 1948, ix). It is his contention that the absolute can be understood as what is

'supremely relative.' In the discussion that follows, each side of Hartshorne's supreme relativity

will be explored. With regards to what is supreme, Hartshorne argues that this is nature as a

whole. Such a conception rejects a supernatural theory of what is absolute, while maintaining the

necessity of a being that is supreme or divine (Hartshorne 1937, 57). Nature, taken as an

integrated whole, is that supreme individual, or 'maximal being.' This conception of nature

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[38] Hartshorne 1937, 3.

accomplishes two things. First, it displaces humans from the centre of analysis. For Hartshorne

the human species is at best transitory (Hartshorne 1937, 12). Doomed to eventual extinction, the

human race cannot match nature in its timelessness and inclusivity. Indeed, Hartshorne writes

that nature is "supreme in temporal endurance and in power to embrace within itself the content

and value of other beings" (Hartshorne 1937, 57). Of course, nature cannot do so consciously.

Humanity, meanwhile, is — or can be — conscious of its place in nature, and intervenes in the

natural order, often with far-reaching consequences. Second, it opens the possibility of

considering nature as an active entity — a sort of supra-human agency — that commands ethical

respect and is the source of great beauty and wonder (Hartshorne 1937, 56).

Hartshorne does not want to place humans outside of nature, but nor does he pretend that

the individual entities within nature are all of equal status. He writes, "As man looks out upon

the world, he sees entities which he regards as 'below' but akin to himself…" (Hartshorne 1937,

111). Here develops the side of his analysis that takes into account the relativity of

'surrelativism.' Hartshorne arrives at the assumption that all the entities of being could be

organized on a scale: "it is a reasonable view that all things, so far as they are individuals rather

than aggregates, fall upon a single scale… running from the least particle of inorganic matter to

the great universe itself" (Hartshorne 1937, 112). Hartshorne's main concern is with the qualities

of the variables on this scale. He first claims that such variables can be both 'local' — applying

to certain parts the of scale and not others — and 'cosmic' — applying to the entire scale of

being. He is much more interested in the cosmic variables because he is concerned with a

quantitative comparison of all being. He writes:

> The idea that quality need not be comparative is really the idea that it may be an absolutely private, local affair. But the fact that in a given locale of the cosmos there is a given quality is a public and cosmic fact, not a merely private one. Fact is by definition public, hence whatever can be a fact is comparative, and the cosmic variables are the measures of all fact, the definition of "being."[39]

The broadest and most obvious of these cosmic variables is what Hartshorne refers to as "complexity of spatio-temporal structure" (Hartshorne 1937, 115). Simply put, some entities are more complex than others.

It is clear, then, that the issue of quantity — quantity of complexity — plays a key role in Hartshorne's view. In contrast to other theorists who tackle the relationship of nature, science and quantification, Hartshorne does not see the latter as necessarily dis-enchanting. This is in sharp contrast to Weber. In his famous 1917 lecture "Science as a Vocation," Weber asserts that modern science's incredible capacity for calculation, which implies quantification,' thoroughly disenchants the world. He writes that 'intellectualization' means that "we can in principle *control everything by means of calculation*. That in turn means the disenchantment of the world" (Weber 2004, 13). Here, again, the process of disenchantment is connected to the domination of nature. In his *One-Dimensional Man*, Marcuse makes a very similar point about the modernizing project. He holds, "universal quantifiability is the prerequisite for the *domination* of nature. Individual, non-quantifiable qualities stand in the way of an organization of men and things in accordance with the measurable power to be extracted from them" (Marcuse 1964, 164). Thom Workman describes this brilliantly: "Marcuse stresses that the modern scientific carving up of matter elevates secondary qualities — especially measurable ones — to primary

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[39] Hartshorne 1937, 113.

qualities" (Workman 2017, 31). Thus, Marcuse draws out another important possibility: that in the quest for quantifiability, quality is forgotten. Hartshorne is very much focussed on quantity, specifically the degree of complexity. However, for Hartshorne the issue of quality is never forgotten. Furthermore, the careful examination of quantifiable variables becomes the window into an enchantment of nature, rather than a repudiation of it. For Weber and Marcuse, disenchantment occurs as an inevitable result of scientific progress. For Hartshorne, our sense of the enchantment of nature happens only through scientific discovery.

Hartshorne posits that at some point along the scale of being, the issue of psychological complexity arises. This means "complexity of feeling, volition, and thought" (Hartshorne 1937, 116). Eventually, of course, this means consciousness, and self-consciousness. According to Hartshorne, the values of the variables of physiological complexity are infinite in range. That is, the quality of psychological sensitivity can be perceived in everything from the "subanimal elements" to the "superhuman segments" (Hartshorne 1937, 116). Naturally, though, the quantity of sensitivity varies widely. Hartshorne writes, "The 'psychic' variables, in short, are simply all the variables with an unlimited range, the concepts with supreme flexibility or breadth" (Hartshorne 1937, 121). For ecological thinking, there are two important notions that can be derived from Hartshorne's theory of psychical variables. First, he holds that from the finite position of human consciousness, it is possible to imagine an infinite being. He writes, "we can conceive in principal an indefinite extension of the consciousness which in us is finite. […] The infinite possibilities of experience are derived from the infinite power of God, in whom are realized the supreme values of the cosmic variables" (Hartshorne 1937, 122). For a more secular

reading it is important to keep in mind that for Hartshorne nature as a whole can stand in for

God. The key point here, then, is that the 'supreme values' of the cosmic and psychic variables

are manifested in nature as a whole. Nature — or, for the present analysis, the ecology — is the

most complex and sensitive entity. Second, Hartshorne's scale of psychic values is one in which

there is a distinct hierarchy. However, this hierarchy, or order of being, is characterized by

radical inclusivity, rather than exclusivity. He explains:

> [S]uperiority in the scale of beings implies inclusiveness, not exclusiveness, of individuals of lower levels, *the latter not sacrificing all of their independence* in being so included (e.g., electrons in a cell, cells in a vertebrate). The higher include lower individuals *as such* — i.e., without reducing them to the role of mere "matter" for the higher "form," as Aristotle would have thought….[40]

This notion of a scale of being opens the possibility of a more specific account of the human

identity with the ecology. If nature as a whole is the most sensitive entity, all those entities that

are part of nature are also sensitive to some degree. In other words, as part of the supreme entity,

all individual entities are in some way supreme in themselves. Thus, as this analysis concerns

human ecology, individual humans are identical with all of nature to the extent that their being is

sensitive.

It could also be argued that humans differ from the non-human parts of nature insofar as

their internal complexity is of far greater magnitude than, for example, even the most intelligent

animals. This would be one approach to making the argument of human difference from the

ecology. However, this is still a non-ontological, and merely quantitative, argument. In his

interpretation of Hartshorne, David Bedford seeks to advance a form of pantheism, while making

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[40] Hartshorne 1937, 122-3.

the case that what is human and what is divine or supreme do differ ontologically (Bedford 1994, 373). The question then is: "Can we accept the pantheistic idea of unity of all beings in the divine being but keep separate the differing ontological statuses of divine and human, animate and inanimate?" (Bedford 1994, 373). According to Bedford, St. Augustine, Descartes, Leibniz and Berkeley all approach this problem by ascribing to the divine a separate order of being (Bedford 1994, 373). However, a pantheistic — or more generally, a naturalistic — view would reject the supernaturalism inherent in the notion of distinct orders of being. Bedford solves the issue by making the argument that the single order of being exists, but in different degrees within different entities. Aristotelian and modern logic, as well as the majority of western thought, are based on the idea that being simply is or is not. However, Bedford writes, "If the divine and the human are the same *and* different ontologically, as Hartshorne's relativity argument implies, then they must be of the same ontological order yet different in degree" (Bedford 1994, 373).

Taking the argument even further, Bedford applies the notion of differing 'degrees of being' to the individuation and essence-bearing characteristics of specific entities (Bedford 1994, 374). Individual entities can have more or less defined insides and outsides. Entities that are more individuated have more clearly defined boundaries between their insides and outsides. As well, entities — individuals or systems — that present more internal complexity are ontologically superior (Bedford 1994, 374). Bedford writes:

> [I]ndividuation and essence-bearing can be more or less. Some entities which are, are more individual and have more complex, defined essences than others. The highest being, the most real, will have these properties more than any other. That

which is most fully real, is most sensitive and responsive. The existential formula
is, "to be is to be sensitive."[41]

Insofar as the present analysis is concerned with uncovering a specific foundation for the human

difference from the rest of nature, Bedford's explication of the intersection of processual

sensitivity and essence-bearing characteristics is incredibly helpful. It can be adapted to show

that human beings are metaphysically distinct from other natural entities by virtue of their greater

sensitivity. The difference is not merely quantitative; instead, the *essential qualities* of human

being can be argued to have a quantitative underpinning. Put succinctly, humans have 'being,' or

are 'real,' to an ontologically different degree than both nature as a totality (the supreme) as well

as the individual sub-human parts of nature. All the while, what is essentially the same about

humans and nature (both as a whole and its parts) never leaves the analysis: in their sensitivity

humans are fundamentally identical to all being.

Process Metaphysics and Ecological Ethics

Shifting focus slightly, it is now useful to consider ecological ethics that draw on

panpsychism and process philosophy. Ecological, or environmental, ethics is a relatively new

subfield, born in the 20th century out of a recognition of the increasing human impact on the

ecological world. It is centred on the question of reasonable human use of natural resources.

Ecological ethics asks how, and to what degree, humans may interfere with nature for their own

ends. Process thinkers have been involved in these academic debates since their inception. For

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[41]Bedford 1994, 374.

example, Hartshorne himself contributed an article to the founding issue of the *Environmental Ethics* journal in 1979. In his piece, "The Rights of the Subhuman World," Hartshorne challenges the anthropocentric notion that only rationality confers ethical value. Kant holds "that only a rational will that acts according to its rationality is intrinsically or unqualifiedly good," writes Hartshorne (Hartshorne 1979, 50). Although Kant admits that even humans exercise rationality only imperfectly, this notion is one that has inspired many ethical theories. On this outlook, Hartshorne warns, the value of a human infant is "purely potential or instrumental" (Hartshorne 1979, 51). In other words, this ethical theory is at odds with how most people see the world and act in it.

While he does not deny that humans are supreme amongst natural species, Hartshorne builds his ethical perspective on the identity that humans share with the rest of nature, rather than what sets them apart from it. What results is a type of anthropocentrism, but a highly nuanced one, "which attributes to other creatures neither the duplication, nor the total absence, but lesser degrees and more primitive forms, of those properties exhibited in high degree, and more refined or complex forms, of those in us…" (Hartshorne 1979, 52). Becoming more specific, Hartshorne holds that humans share a significant identity with other higher animals — primates, whales, and even wolves, horses and elephants — in terms of neural structure (Hartshorne 1979, 51). It is easy to understand that such animals are similar to human beings with their complex neurological systems; they are sentient in many of the same ways that we are. But even one-celled plants, believes Hartshorne, share important similarities with all of nature, including human beings. How can this be? The answer is process. Even tiny one-celled organisms contain

some level of processual complexity. Hartshorne holds that all process is aware to some degree, and with sentience — even non-conscious sentience — comes memory and expectation. This in turn confers moral value: "I hold… that where there is feeling there is value in a more than instrumental sense" (Hartshorne 1979, 54). Susan Armstrong-Buck holds that in the Western tradition the denial of the value of non-human nature goes hand in hand with the denial of its experience. She writes, "Our Western culture does not accord intrinsic value to natural entities because it does not believe they experience anything; they have value only *for* us, for our purposes; we think of them as means only, as resources" (Armstrong-Buck 1986, 245). Affirming the 'experience' or 'feeling' of non-human entities extends ethical rights into the ecological world. However, it seems to do so at the expense of adopting a nonsensical view. That is, it has the appearance of holding to the notion that all natural entities are sentient, have experience, and possess memories in the same way that humans do. Hartshorne affirms that this is not the case: "we need not give up the common-sense view that vegetables, rivers, mountains, and other visible objects other than animals are insentient. It is only their invisibly small constituents that are to be understood finally through a remote analogy to our own inner life and activity" (Hartshorne 1979, 54). Although 'sentience' is granted, in this view, only by analogy, Hartshorne maintains that living entities all have feeling to some degree, and this is rooted in their being composed of processes. There are two important points that can follow from this. First, human beings have an identity with non-human nature insofar as they share a common root in process. Second, entities are endowed with moral value to the degree to which they display

processual complexity. Human beings remain the most important natural species, but they do not hold the monopoly on moral value.

Further developing this line of thought is Frederick Ferré. Interjecting more explicitly into existing debates in ecological ethics, Ferré sets himself against both Aldo Leopold and Holmes Rolston. Leopold argues, in his *Sand Country Almanac*, a classic text in the environmental movement, that social ethics ought to be extended to the entire biotic sphere. Conversely, Holmes advocates a rigid distinction between ecological and social ethics (Ferré 157). The former sees the biological sphere as a single unity, while the latter posits a strict demarcation between humans and the rest of nature. Using a process oriented approach, Ferré maintains that what is natural and what is artificial must be understood in degrees. He writes, "An apple orchard is more artificial than a forest, but a plastic apple is more artificial yet. 'Natural,' by inversion, is also a relative term — and nature, containing many degrees of naturalness, from penguins to people, and even plastics, is none the less still natural…" (Ferré 159). Adopting an 'architecture' — similar to that found in Hartshorne and Bedford — in which entities have insides and outsides, Ferré also applies the argument to a grand scale of being. According to him, this scale extends along lines of internal complexity and also corresponds to a spectrum of intrinsic and instrumental values (160). This implies that organisms that are minimally complex generally command less intrinsic and more instrumental value, while the relation is reversed in increasingly complex entities. Additionally, Ferré is careful to note that all of nature commands some form of value:

[W]here intrinsic values become negligible, if they do, our inorganic environment can and should still be cherished for its wondrous instrumental values: not just for its abilities to sustain a huge community of valuers who constitute our interconnected biosphere, but also for its miraculous capacities to refresh and renew — both in us and, I believe, in myriad other centres of appreciation — the aesthetic delights we perpetually value in and for themselves.[42]

Ferré's is not a complete or ready-to-use ethics. However, it advances far beyond the impractical and hollow opposition between anthropocentrism and ecocentrism. While situating human beings within the ecology, it does not deny them instrumental use of other parts of nature for the satisfaction of their needs (material, aesthetic, and otherwise). Meanwhile, the total value of nature as a complete system is always in sight. More specifically, the ethical question becomes: what are the limits to the instrumental use of the lower orders of nature, and how can this usage be regulated so that it achieves a balance with the ecology, and does not become exploitative and destructive? In fact, Ferré's line of thought recalls Marcuse's distinction between basic and surplus. Marcuse describes a level of repression, or alienation from nature, that is basic, necessary for human being. However, he also notes that some forms of alienation are unnecessary, excessive, and injurious. We might extend this argument to ecological ethics, declaring that there are some uses of the natural world that are necessary for our survival and flourishing. On the other hand there are other uses that are surplus, which do not contribute to our growth, and are deleterious to us as well as the ecology.

At this point it is useful to explore, with some more specificity, the hierarchy of being — and therefore of ethics — that is proposed by the process ontology. Armstrong-Buck has

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[42] Ferré 2010, 160.

described this system in a convenient way, using Whitehead's terminology of 'actual occasions.'

To begin, Whitehead's actual occasions are "the final real things of which the world is made up… drops of experience, complex and interdependent" (Whitehead 1978, 18). Whitehead differs slightly from Hartshorne here, but the central ideas are substantially the same. Armstrong-Buck writes, "The world is not a collection of separate things or substances, but a process of fluent energy, a creative advance, constituted by the coming into being of actual occasions…" (Armstrong-Buck 1986, 243). Whitehead isolates the moments of processual change and makes them his ontological building blocks. The world is formed of these 'actual occasions,' organized in myriad ways and interacting at various levels. Complexity comes with the level of organization of the actual occasions. Inorganic matter represents the basic level of organizational complexity. Single living cells constitute a higher level because the actual occasions are organized to a greater degree. Plants represent the next level of intricacy, followed by animals, "in which there is at least one personally ordered society, made up of actual occasions inheriting from each other in serial order" (Armstrong-Buck 1986, 248). Of course humans occupy the highest end of this spectrum of entities. They have the highest level of organizational complexity, and the actual occasions of which they are composed reach the level of reflective experience and rationality. We are also capable of universality: "Human consciousness is able to grasp the universal nature of ideals and symbols, whereas animal consciousness is more closely tied to the physical pole" (Armstrong-Buck 1986, 248). This rather simple schematic of inorganic material, cells, plants, animals and humans, obscures much of the variety and complexity of the natural world. Still, it does offer an interesting way to think

about the differing quantities of processual complexity that make up the world in which we reside.

Interestingly, Armstrong-Buck acknowledges that the supreme quantity of complexity displayed by human beings is not wholly positive. Echoing some of the ideas proposed by the Frankfurt thinkers, she argues that the capacity for reason sets humans apart from nature in ways that are often destructive. She writes, "Yet this same capacity of abstraction from the actual world allows human beings to forget their rootedness in their bodies and the world, as well as their kinship with non-human life. This distinction results in the cruel and destructive behaviour which human beings sometimes exhibit" (Armstrong-Buck 1986, 248). In other words, we are often guilty of overstepping our bounds, because the same characteristics that grant us so much power over the world also lead us to misunderstand our place within it. Taking the analysis even further, Armstrong-Buck holds that there may be elements of non-human experience that are richer than human experience, even if they are less complex (Armstrong-Buck 1986, 249). She cites the following passage from Whitehead:

> Without doubt higher animals entertain notions, hopes, and fears. And yet they
> lack civilization by reason of the deficient generality of their mental functioning.
> Their love, their devotion, their beauty of performance, rightly claim our love and
> our tenderness in return. Civilization is more than all these; and in moral worth it
> can be less than all these.[43]

There is an interesting conclusion to be drawn from this. As entities humans are more complex and deserving of more moral consideration than higher animals. But in the context of civilization, not only can the richness of our experience become diminished, but those truly

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[43] Whitehead 1968, 4.

human qualities — those which entitle us to special moral worth — can also decline. This does not necessarily mean, for example, that a dog can hold more moral worth than a human. It does, however, call to our attention the moral qualities of higher animals. Moreover, it evokes the sense that in many of our behaviours and actions, especially as a species, we fail to meet a reasonable standard for beings with such complexity and capability for reflection.

Bringing the analysis back to Hartshorne, I would now like to draw some connections between process philosophy's emphasis on the complexity of nature and natural entities, the treatment of nature by humans, and the central thread in this dissertation, enchantment. Although Hartshorne has a theistic approach, he strives to make his perspective accord with modern natural science. A sense of enchantment, he maintains, does not need to be rooted in religious sentiment. Scientists, "if not religious," he writes, "will probably have some vague feeling for nature as a wondrous whole to the beauty of which every species makes its contribution, including humanity as… supreme but far from sole example" (Hartshorne 1979, 51). Of course, while this view is inspired by scientific understanding, it need not be limited to scientists. As I have argued in the Introduction, an appreciation of natural enchantment, and a firmer grasp of the human location within the natural world, can contribute to a widely held sense of the 'political,' and serve as a foundation for ecological politics and ethics. Returning to the ethical question of reasonable use, Hartshorne acknowledges that it is a difficult one. Human ends have ethical priority over non-human ones, and it is reasonable to instrumentalize nature to some degree. But Hartshorne, even in the late 1970's, saw that things had gone too far. Himself a great naturalist and a leading expert on birdsongs, Hartshorne asserts that simple human conveniences should

not take precedence over the preservation of natural beauty and the richness of its forms (Hartshorne 1979, 57-58). A change in outlook would require that "the tiny minority of adults who have the sense, shared between small children and adult nature lovers, of the fascination and beauty of all the forms of life… be turned into a majority" (Hartshorne 1979, 57). This change in popular attitude is not necessary merely for the conservation on natural complexity; it is also to our great benefit. By learning to preserve and appreciate natural beauty, we also make our own lives more rich. As Hartshorne notes, "We are the only animals capable of being interested in, finding some use for, taking some delight in, *all* the forms of life" (Hartshorne 1979, 59). As the most complex beings, we have the most to lose from the destruction of ecological richness: "If we are merely selfish towards our fellow creatures, we shall probably, like all merely selfish persons, not do justice even to our own selfish interest" (Hartshorne 1979, 59). This also means that we have to most to gain from its conservation.

Conclusion

      The overarching theme of this dissertation is the enchantment of nature, humans, and the human place in nature. From Rousseau to the Frankfurt thinkers, there developed a strong humanism, a sense of the specialness of human beings. This was not an entirely uncritical humanism. In various moments it challenges the supremacy of reason, and compels us to acknowledge our integration in the natural world. In the end, however, the specialness, the enchantment, begins with humanity and — in places — extends downward to other natural beings. On the other hand, with process metaphysics that specialness begins with nature — even

its inorganic components — and culminates in human beings. More so than the 'historical-dialectical' thinkers, process philosophy demands a recognition of the interconnectedness of the entire ecological world. As a result, we are obliged to acknowledge our own integration, as entities composed of processes, in the ecology. Most importantly, by emphasizing process, complexity, novelty, and creativity, rather than fixed stable objects, process metaphysics makes all of nature significant. It draws our attention to natural beauty at every level of complexity and the richness of the entire ecological world. Not only does this strengthen our understanding of our own place in nature, it also inspires an ethic of conservation of natural richness, which thereby enriches and illuminates our own lives and experience.

Chapter 6: Critical Realism, Stratification, and Emergence in Human Ecology

Introduction

In this final substantive chapter, I consider more carefully the moment in which quantity passes over into quality. That is, I investigate the point at which the increasing complexity of a biological organism turns into the qualitatively different level of self-consciousness that defines human being. As process philosophy has suggested, between organisms there are vast differences in the complexity of internal processes. In this paradigm the difference — for example, between a human and a rabbit — is expressed as one of degree. A human is more internally complex, contains more processes, than a rabbit. Here I will maintain the position that the difference is a matter of degree *and* of quality. To do so I will articulate a theory of reality that sees it as stratified — that is, composed of qualitatively different, yet interdependent, levels — and which displays at these various levels the character of emergent properties, attributes not reducible to those contained in lower, less complex levels. Emergentism and theories of stratification are relatively common in the philosophy of science, yet generally unknown in political and critical theory. There are many adherents to these positions. The analysis here will centre on the 'Critical Realist' approach offered by Roy Bhaskar. In addition to being a robust and defensible account of emergence and stratification, Bhaskar's writings are more likely to be familiar to those who also have an interest in Marxism, social theory, or Critical Theory. This chapter begins with a brief summary of the ontological problem as I see it, and an explanation as to why emergentism and stratification help to solve it. It then offers a brief introduction to Critical Realism. This is

followed by a discussion of Bhaskar's theory of stratification and emergence, with an explanation of how they elevate our understanding of the ecology and our place within in. Becoming more specific, the exploration then turns to Bhaskar's theory of mind, or 'synchronic emergent powers materialism.' The chapter finishes with some remarks on our deepened understanding of our place in nature, as well as the ways in which emergentist philosophy contributes to a sense of enchantment — of ourselves and of the natural world.

The Problem So Far

In the foregoing chapters I have tried to articulate a theory of human ecology in which (human) self-consciousness is understood as both inside and outside of nature, or rather, as simultaneously identical and non-identical with nature. To sum up briefly, what has been termed the 'historical dialectical' tradition, which extends from Rousseau to the Frankfurt School, emphasizes the interpenetration and interdependence of nature and history. The examples of Rousseau, Marx and Adorno are instructive. Rousseau recognizes that special human capacity of 'perfectibility,' which permits humans to disobey the 'laws of nature,' and therefore to create their own history through the self-conscious transformation of nature. However, Rousseau also sees that there are immutable biological necessities that are not historically surmountable (Horowitz 1987, 80). History, then, is the complex interpenetration of the natural and the social. Marx, using a more explicitly dialectical approach, locates the unity of mind and nature in practical sensuous human activity (Marx 1973, 13-15). In other words, the special 'power' of self-consciousness is located in the practical manipulation of nature for real human needs and

wants. Adorno, drawing extensively from both Rousseau and Marx, stresses the interpenetration

of nature and history: human history is (partially) natural history and the extra-human parts of

nature are always shaped by human interaction (Cook 2011, 1). Each in their own ways,

Rousseau, Hegel, Marx, and the first generation Frankfurt School theorists articulate a unity of

the identity and non-identity of history and nature, or of humanity and the ecology.

Notwithstanding this unity, the poles of the dialectic also retain theoretical — if not some degree

of practical — independence.

While the various 'historical dialectical' approaches help to articulate an adequate theory

of human ecology, they also present several aporia. First, without a sufficient account of the

common ontological ground between self-consciousness and nature, the former is often treated

simply as 'mind' and the latter as 'matter.' Second, the specific mechanisms or processes that

give rise to self-consciousness are under-theorized. It is the intention of this chapter to address

these absences. What is required, it seems, is a polyvalent ontological monism. That is, a

conception of a singular ontological sphere that contains multiple levels able to contain — at a

minimum — a differentiation between mind and matter. One approach to this issue is to be found

in process metaphysics. While there is considerable diversity within this tradition, a key theme is

the replacement of substance ontology with a process ontology. In other words, process is being.

On questions of ecology and biology, Charles Hartshorne is particularly useful. Hartshorne, as

has been articulated in the foregoing chapter, uses the concept of 'psychic' variables to order the

individuated entities of a unified being according to internal complexity. He also posits that at

some point along the scale of being, the issue of psychological complexity arises. This means

"complexity of feeling, volition, and thought" (Hartshorne 1937, 116). According to Hartshorne, the values of the variables of physiological complexity are infinite in range. That is, the quality of psychological sensitivity can be perceived in everything from the "subanimal elements" to the "superhuman segments" (Hartshorne 1937, 116). Naturally, though, the quantity of sensitivity varies widely. Hartshorne writes, "The 'psychic' variables, in short, are simply all the variables with an unlimited range, the concepts with supreme flexibility or breadth" (Hartshorne 1937, 121).

This notion of a scale of being opens the possibility of a more specific account of the human identity with the ecology. If nature as a whole is the most sensitive entity, all those entities that are part of nature are also sensitive to some degree. In other words, as part of the supreme entity, all individual entities are in some way supreme in themselves. Thus, as this analysis concerns human ecology, individual humans are identical with all of nature to the extent that their being is sensitive. It could also be argued that humans differ from the non-human parts of nature insofar as their internal complexity is of far greater magnitude than, for example, even the most intelligent animals. This would be one approach to making the argument of human difference from the ecology. However, this is still ultimately a quantitative argument. What is needed is a way of demonstrating how the quantitative variances in sensitivity and complexity pass over into qualitative differences. In other words, what is needed is stratificationist and emergentist theory of human ecology. In this chapter, I draw on the Critical Realist philosophy of Roy Bhaskar to elucidate such a view.

A Brief Introduction to Critical Realism

The late Roy Bhaskar is an interesting and controversial figure in contemporary critical social thought and philosophy of science. Although he is the originator of the school of thought know as Critical Realism, it is a diverse paradigm with a variety of important contributors. The assessment of Bhaskar's legacy is made difficult by an unfortunate trajectory taken by his work over the course of his career. His early works, especially *A Realist Theory of Science* and *The Possibility of Naturalism* are examples of clear, effective, and logical, if not difficult, composition. Sadly, his later works became increasingly dense, incomprehensible, and rife with awkward mysticism. This has been called Bhaskar's 'idealist' or 'spiritualist' turn. Some scholars of Critical Realism hold that Bhaskar is only useful up to this point (see Creaven 2007, 6). Luckily, Bhaskar's excellent conceptions of realism and naturalism — along with stratification and emergence — in the social and natural sciences are contained in his more readily understandable earlier works. His first major work, *A Realist Theory of Science*, was published in 1975 amid a flurry of activity in positivist and post-positivist philosophy of science (Bhaskar and Lawson 1998, 3). Bhaskar's intent was to find a solution to the problem that knowledge is of the real world, yet it is also socially produced. As he puts it:

> Any adequate philosophy of science must find a way of grappling with this
> central paradox of science: that men in their social activity produce knowledge
> which is a social product much like any other, which is no more independent of its
> production and the men who produce it than motor cars, armchairs or books,
> which has its own craftsmen, technicians, publicists, standards and skills and
> which is no less subject to change than any other commodity. This is one side of
> 'knowledge'. The other is that knowledge is '*of*' things which are not produced by
> men at all: the specific gravity of mercury, the process of electrolysis, the

mechanism of light propagation. None of these 'objects of knowledge' depend upon human activity.[44]

Bhaskar holds that this view calls forth a non-anthropocentric view of humanity's location in nature (Bhaskar and Lawson 1998, 3). We are not wholly within nature (or culture), as the deniers of science maintain, yet we are also not totally outside of it, as the positivist outlook requires.

According to Andrew Collier, one of Bhaskar's most important interpreters, the term Critical Realism is an amalgam of the names of the two main components of Bhaskar's early philosophy: 'transcendental realism' and 'critical naturalism' (Collier 1994, ix-xi). Transcendental realism is realist because, in short, it holds that the world 'really is' there and that is it, partially at least, scientifically discoverable. These positions represent ontological and epistemological realism, respectively. Transcendental realism is transcendental because it employs, following Kant, a transcendental deduction. Collier writes, "In such arguments, we ask 'what must be true in order for x to be possible?'… (Collier 1994, 20). In this case the question is: what must be true for science to be possible (for it to work)? Bhaskar answers that the world must be ordered for science to work. Given that science does work, the world must be ordered. But transcendental realism, unlike positivism, is also a form of 'depth' realism. Collier offers three main ways in which transcendental realism conveys depth. First, it upholds the principle of 'intransitivity,' which means a separation of the ontological and the epistemological. What Bhaskar call the 'epistemic fallacy' is the mistaken conflation of what is with what can be known

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[44] Bhaskar 2008a, 21.

(Bhaskar 2008a, 36). These must be distinguished. As Collier puts it: "The domain of the real is distinct from and greater than the domain of the empirical" (Collier 1998, xii). Second, and very much connected to the first point, transcendental realism maintains 'transfactuality.' This is the position that the laws of nature, or generative mechanisms, exist and operate independently of the systems that they condition (Collier 1998, xii-xiii). Third, this type of realism provides for depth because it sees the world as 'stratified,' into ordered, hierarchical and interdependent layers. The forms of knowing that correspond to these layers are also stratified (Collier 1998, xiii). I will return to this idea below.

In a recent intervention on Marcuse, Thom Workman has illuminated the importance of 'depth ontologies' in the philosophy of science as well as critical social science. Marcuse's seminal *One-Dimensional Man* was fiercely critical of modern scientific methodology. Workman notes, "Marcuse indicted science for its repressive ideological function, that is, for its complicity in flattening out culture and narrowing the universe of political and social discourse" (Workman 2017, 20). Using Critical Realism, Workman shows that science is not fundamentally one-dimensional. That is, it does not necessarily reduce reality to appearance, and constant conjunctions to generative mechanisms. In fact, it is only *positivist* science that does this. Buried in Marcuse's critique of positivism, Workman finds a vindication of realist science. Central to this excavation is the differentiation of 'nomothetic' and 'retroductive' visions of scientific explanation. The former is concerned merely with "correlative facts and causes, and… constant conjunctions or Humean laws that help to predict outcomes" (Workman 2017, 33). It is, in short, positivist science. Meanwhile, the retroductive model, of which Critical Realism is an example,

posits "an ontology of depth replete with judgments about a determinative and relatively impermeable core, sometimes regarded as the essence of the thing in question, an essence which then generates outward or phenomenal appearances. This is a model of scientific explanation which posits contestable claims about reality at the heart of its theoretical explanations" (Workman 2017, 33). Incisively, Workman exposes Marcuse's insistence on two-dimensionality, his dialectical refusal to elide reality into appearance, as a form of retroductive science.

'Critical naturalism' originates in Bhaskar's second major work, *The Possibility of Naturalism*. The aim of this work, and of 'critical naturalism,' is to overcome several persistent and problematic dichotomies in social science: positivism/hermeneutics, individualism/collectivism, voluntarism/reification, facts/values, reasons/causes, and mind/body (Collier 1998, xiii-xiv). The main pillar of Bhaskar's social ontology is called the 'Transformational Model of Social Activity,' or TMSA. Here, he places himself against Weberian, Durkheimian, and 'Dialectical,' or Marxist, conceptions of the relationship between individuals and society (Bhaskar 1998, 32). The TMSA maintains that individuals and the social whole occupy different ontological strata, but holds that they are nonetheless deeply interconnected, mutually determining one another. In his own words:

> The model of the society/person connection I am proposing could be summarized as follows: people do not create society. For it always pre-exists them and is a necessary condition of their activity. Rather, society must be regarded as an ensemble of structures, practices and conventions, which individuals reproduce or transform, but which would not exists unless they did so. Society does not exist

independently of social activity (the error of reification). But it is not the product of it (the error of voluntarism).[45]

This is the critical element of critical naturalism. The naturalist element advances the position that social science shares with the natural sciences a fundamental unity of method (Bhaskar 1998, 2). This is in contrast to a long standing counter view, first advanced by Weber, that the natural and social sciences must be sharply distinguished methodologically. Terry Maley writes, "Weber argued that the social sciences required a method of historical understanding that differentiated them from the natural sciences. He called this method… *deutendes Verstehen*… a method of interpretive understanding whereby the social scientist understands subjects empathetically and not in a disinterested, purely objective way" (Maley 2011, 154). Bhaskar recognizes that knowledge (even in the natural sciences) is produced in a social environment, subject to social determinants, and is therefore unable to claim total objectivity. He nonetheless proposes a heavily qualified form of naturalism. The difference hinges on his ontological commitments: Bhaskar understands that at the social and psychological levels there is far more complexity than at lower levels, such as physics or chemistry. This makes obtaining an experimental closure impossible, along with predictability. However, there are laws and generative mechanisms at work at these higher levels, and they are theoretically discoverable. It is in this way that Bhaskar deals with the 'break,' between the natural and the social: that is, by holding that they are both possible objects of scientific knowledge, but maintaining a methodological variation that corresponds to ontological stratification, discussed below.

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[45] Bhaskar 1998, 36.

Critical Realism on Stratification and Emergence

In what follows it will be argued that the concepts of stratification and emergence present the most adequate manner of theorizing the complex and differentiated unity that is the ecology (organic as well as inorganic nature). Whereas in Roy Bhaskar's earlier work, especially *A Realist Theory of Science*, part of the emphasis is on the *epistemological* stratification of the sciences, here the focus is mostly on the *ontological* stratification of reality.[46] Subsequently, the analysis shifts to Bhaskar's 'Synchronic Emergent Powers Materialism,' or SEPM, which is one specific yet important type of emergence. SEPM explains the emergence of thinking from matter and therefore offers precisely the polyvalent ontological monism sought by the present investigation.

In Critical Realism, stratification — or depth — occurs in three ways. First, between the transitive and intransitive dimensions of science. Second, between the empirical, the actual and the real, as levels of epistemological depth. And finally, at the real, between the various causal mechanisms that operate at that level (Collier 1994, 42-51). It is this third type of depth that interests us here. Most basically, the concept of a stratification of generative mechanisms suggests that being itself consists in multiple levels. These correspond roughly, although they do not match perfectly, to the different levels at which science investigates the world: physical, chemical, biological, psychological, sociological, etc. (Collier 1994, 107). In other words, a multiplicity of mechanisms necessitates a multiplicity of sciences.

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[46] Of course, in Bhaskar's transcendental analysis of scientific activity, the epistemological differentiation amongst the sciences results from the ontological stratification of reality (Bhaskar 2008a, 170).

At this point, the conception of a singular yet multi-layered reality accords well with the theory of human ecology sought in this paper. However, an unqualified stratificationism leaves itself open to two detrimental errors concerning the relationship between the strata: reductionism and pluralism. In the reductionist fallacy, mechanisms at higher strata are completely reduced to, and thus explained by, mechanisms at lower strata. For example, biology would be reducible to physics. On the other hand, pluralism asserts the complete independence of higher strata from lower. Sociological analysis, thereby, could have no biological foundations. From a human ecological point of view, reductionism completely and falsely abrogates what is special about life — at both the levels of ecological complexity and human consciousness — by explaining their existence in purely physicalist or vulgar materialist terms. Pluralism, in making human consciousness and its related faculties (self-reflection, conscious transformation of nature) totally independent of lower strata, denies the embeddedness of humanity within nature and the necessary material and biological underpinnings of individual and social life.

Rejecting both the reductionist and pluralist fallacies, Roy Bhaskar advances a stratificationist theory that is *emergentist:* the mechanisms and events occurring in higher strata are *emergent* from the lower strata. On this account, the relationship between strata is understood as one of rootedness and irreducibility. This means that higher strata are rooted in and dependent upon, yet cannot be reduced to, lower strata. Andrew Collier offers an instructive account of emergence theories:

> Emergence theories are those that, while recognizing that the more complex aspects of reality (e.g. life, mind) presuppose the less complex (e.g. matter), also insist that they have features which are irreducible, i.e. cannot be thought in

concepts appropriate to the less complex levels — and that not because of any subjective constraints on our thought, but because of the inherent nature of the emergent strata.[47]

Two points are important here. First, Collier's implication that higher level strata are more complex that lower level ones indicates a possible affinity with a process conception of the world, whereby the scale of being is ordered in terms of increasing complexity. Second, from the perspective of human ecology, emergence seems to balance the tension between the identity and non-identity of humans and nature. Clearly, human being (including mind) is rooted in, and fundamentally dependent on, lower levels of reality (biology, etc). But emergence does not necessitate a false naturalism: humanity is allowed to occupy its own unique strata, irreducible to the less complex levels in which it is rooted. This particular instance of emergence will be discussed in greater detail below, with reference to 'synchronic emergent powers materialism.'

Usefully, Collier delineates three specific types of relationship that may hold between strata. The first consists of what he calls 'ontological presupposition.' In short, some strata are not conceivable without others. In a basic sense, biology presupposes chemistry, which presupposes physics. In more complex cases, ontological presupposition is not necessarily chronological: two levels of being may come into existence at the same time, yet one may ontologically pre-suppose the other (Collier 1994, 131). The second type of relation is the epistemological corollary of the first: mechanisms at a lower (ontologically presupposed) stratum explain mechanisms at higher strata. This is called vertical explanation (Collier 1994, 131-132). Finally, relations between strata imply composition. The qualities of being at one stratum are

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[47] Collier 1994, 110-111.

composed of the qualities inherent in lower strata (Collier 1994, 132). For example, biological

life is made up of of chemical components. Thus we might argue that the psychological existence

of the individual ontologically presupposes and is composed of biological life, and can also be

(at least partially) explained by biology.

In *Dialectic: The Pulse of Freedom* Bhaskar explains that emergence signifies the

possibility of genuine novelty and irreducibility. He writes, "In emergence, generally, new beings

(entities, structures, totalities, concepts) are generated out of pre-existing material from which

they could have been neither induced nor deduced" (Bhaskar 2008b, 49). With its very specific

account of the relationship between levels of being emergence — as noted above — is able to do

away with the tension between reductionism, and pluralism (or dualism). It is therefore able to

explain real novelty without recourse to transcendent causes (Bhaskar 2008b, 49-50). In the

absence of such causes, however, what is required is a conception of matter as immanently

creative. Bhaskar holds that in emergence matter is conceived as "creative, as

autopoietic" (Bhaskar 2008b, 49). In other words, there is an 'active side,' or an element of self-

direction that exists as in inherent potentiality of matter. To put the issue in 'Adornian' terms, this

means that we ought to respect the primacy of the object. This power can give rise to life, and

even mind. This special property will be explored more fully in the next section, on emergent

powers materialism.

Before turning to the specific account of SEPM, however, it is useful to consider the

ways in which Bhaskar's 'autopoietic' account of matter and emergence helps to formulate an

adequate theory of the ecology. Indeed, the ecology is a stratified reality with emergent levels,

presenting genuine novelty. The Critical Realist account of emergence allows the ecology to be fundamentally scientifically discoverable, and yet does not reduce biological, ecological or even sociological complexity to vulgar mechanistic terms. Emergence and novelty are explained in immanent rather than transcendent terms. As well, stratification and emergence provide a (partial) answer to the constitutive ontological problem of identity and non-identity in a differentiated unity. As Sean Creaven notes, the levels are all identical insofar are they are part of the same ordered hierarchy, yet they are different in that they have a variety of properties and generative mechanisms that are not reducible to one another (Creaven 2007, 21).

Synchronic Emergent Powers Materialism and Human Ecology

In this section the philosophy of mind is brought to bear on the problem of human and ecology. While philosophy of mind is generally concerned with the relation of mind to matter, human ecology asks the broader (but directly related) question of the relationship of consciousness to nature. Here, Bhaskar's philosophy of mind, the "unpronounceable tetragrammaton" (Collier 1994, 156) 'synchronic emergent powers materialism' is described and critically assessed as to its utility for understanding the human relationship with nature.

Quite simply, 'synchronic emergent powers materialism' is the notion that mind emerges from matter. In *The Possibility of Naturalism*, where SEPM is first introduced, Bhaskar explains that it is an explicitly metaphysical position (Bhaskar 1998, 97). However, in *Dialectic: The Pulse of Freedom* SEPM receives a more comprehensive explanation:

> To comprehend human agency as a causally and taxonomically irreducible mode
> of matter is not to posit a distinct substance 'mind' endowed with reason for
> acting apart from the causal network, but to credit intentional embodied agency
> with distinct (emergent) causal powers from the biological matter out which
> agents were formed….[48]

As in his other work, Bhaskar is here striving to formulate a theory that resists both reductionism

and dualism. SEPM rejects dualism by insisting that it is from distinctly biological foundation

that mind emerges. On the other hand, contra reductionism, it asserts that consciousness cannot

be reduced to those biological bases (Bhaskar 2008b, 51). Here, Bhaskar is arguing specifically

against what he calls a 'rigorous' form of reductionism known as 'central state materialism,'

which posits the reducibility of people and their powers to matter (Bhaskar 1998, 97).

Still, as Collier notes, SEPM is a remarkably 'permissive' theory, in that it leaves open

the answers to several important questions (Collier 1994, 156). The first central equivocation in

SEPM concerns its synchronicity. According to Collier, in opting for a synchronic, rather than

diachronic, theory of mind, Bhaskar is 'bracketing off' a set of questions (Collier 1994, 157).

The first of these questions concerns, obviously, temporal priority. For Bhaskar different strata

may ontologically presuppose one another, and yet have come into existence simultaneously

(Collier 1994, 157). Another question that is left unanswered concerns the actual causes of

emergence. Bhaskar is essentially silent on this matter (Collier 1994, 157). Creaven is sharply

critical of these twin reticences, which he sees as interconnected. He writes,

> Bhaskar does not explain how this emergent structure [mind] arose from its root
> structure. For that we need evolutionary ('diachronic') theories of mind (which
> theorize the selective mechanisms and pressures and advantages behind cognitive

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[48] Bhaskar 2008b, 51.

development)…. Such naturalistic theories also need to be linked to theories of the socio-cultural evolution of archaic and early modern *Homo Sapiens*.[49]

In essence, by leaving out the categories of time and history, SEPM fails to supply an adequate explanation of the specific causes of the emergence of mind from matter.

Additionally, Bhaskar refuses to commit to any position on the ultimate nature of 'substance.' He writes that mind may be a complex arrangement of powers emergent from and dependent on a material substance, and yet irreducible to matter. However, he argues that mind may also be the powers of a hitherto undiscovered immaterial substance (Bhaskar 1998, 98). In this case it is left to Bhaskar's interpreter Collier to explain what is actually materialist about 'synchronic emergent powers *materialism*.' Collier writes, "SEPM is materialist only in the sense that, while it does not rule out mind as an immaterial substance, it would insist that any such substance ontologically presupposed material substances" (Collier 1994, 156). By refusing to make an ontological commitment on this matter, Bhaskar seems to be allowing the possibility of precisely the type of dualism he has worked so hard to dismiss. Further, while he insists in *The Possibility of Naturalism* that his aim is not to "comfort any sort of spiritualism…" (Bhaskar 1998, 97) this ontological ambiguity concerning an immaterial substance leaves the door open to just such a situation.

SEPM, despite these shortcomings, can still be useful for a human-ecological theory. In what follows, the 'historical dialectical' and process-oriented approaches are brought back into the dialogue, as necessary correctives to SEPM's ambiguities. In this creative encounter, Critical

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[49] Creaven 2007, 40.

Realism is strengthened and made adequate to human ecology. On the matter of diachrony, synchrony, history and explanation, Creaven is surely correct that theories of mind must take into consideration modern theories of cognitive development. Emergentist neuroscience presents important non-reductionist theories of mind that cannot be ignored (see, for example, Deacon 2012). Yet the imperative to consider history when studying the development of mind from matter, or humans from nature, long precedes modern science. Although he admitted that inquiries into our ultimate origins are necessarily conjectural, Rousseau described the emergence of humans from the ecology, as well as language, mind and society from individuals, as historical processes (Rousseau 1987, 39-60). Likewise, in Hegel's phenomenological anthropology the development of consciousness and eventually (self-negating) self-consciousness is a historical process (see Hegel 1977).

Bhaskar's reluctance to admit that ontological and temporal priority go together seems to stem from concerns that this would also entail causal priority. This is, fortunately, not the case. For example, although individuals are temporally and ontologically prior to society (and thus society is an emergent property of individuals), it is still entirely possible that society determines individuals to some degree. In fact, this is a central feature of Bhaskar's sociological theory: the transformational model of social activity (Bhaskar 1998, 31-37). In other emergentist literature this phenomenon is called "downward causation" and implies that the higher 'emergent' strata determine lower levels (Bedau 2008, 175). In this way, it is possible to have a historically sensitive, diachronic theory of emergence (and mind), which nonetheless admits of multiple directions of causation. Indeed, the example of human ecology is instructive. If one accepts the

findings of modern science and the theory of evolution, then nature must be understood as temporally and ontologically antecedent to humans, with their special powers of self-consciousness and praxical labour. Meanwhile, through these special emergent powers, humans exert causal influence downward, upon nature.

So much for Bhaskar's treatment of emergence and temporality. His ambiguities concerning substance and matter are not so easily reformed. By leaving open the potential for an as yet undiscovered immaterial substance Bhaskar enters the dangerous territory of ontological dualism. Here it will be argued that there are two, perhaps not mutually contradictory, solutions to this problem. The first consists of a stronger, yet still non-reductive, materialism. John Searle suggests that there are two types of emergence. In 'emergence1' the emergent features of a system are explainable in terms of the causal interactions between its constituent features. Searle favours this type of emergence to explain mind (Searle 2008, 69-70). Ultimately, this approach is still reductionist, as ultimately mind is causally (although not ontologically) reducible to brain states, and so on down to the atomic level. However, in 'emergence2,' which Searle rejects as fanciful, emergent properties are understood to have causal powers that cannot be deduced from or explained by the interaction of the causal powers of their components (Searle 2008, 70). Despite his own reductionist tendencies, Searle's 'emergence2' provides a theory of emergence, and of the genesis of consciousness, that seem to satisfy the criteria of a polyvalent ontological monism. The special status of the emergent causal powers of human consciousness are affirmed without recourse to ontological dualism. Instead, the metaphysical difference between strata is attributed to the emergence of causally irreducible causal powers.

The second option, suggested by process philosophy, is to simply move beyond a substance ontology, towards one focussed on process, complexity and sensitivity. Because Critical Realism is not ultimately materialist — the real, for Bhaskar, consists in transfactually active, supramaterial causal mechanisms — it may indeed be compatible with a process ontology. On this view being exists in degrees and an entity has being to the extent that it is internally complex and therefore externally sensitive. However, something akin to Hartshorne's scale of being might usefully be applied to understand stratification and the emergence of novelty. Of course, this is not to deny that there is a fundamental material substrate. But considering the failure — impossibility — to perform an ontological or causal reduction of mind, or even biology, to matter, the irreducibility of complexity and process at higher levels ought to be taken seriously. Bedford has already argued that a process conception allows us to see the world in such a way that being is unified, yet differentiated; to the extent that they are complex entities *have being* to ontologically different degrees (Bedford 1994, 372-374). The question remains, though, as to what gives rise to such differentiation. What is the moment of origin? Here, emergence and process metaphysics can come together: emergent phenomena are so because their process are causally and ontologically irreducible to the processes of the levels which constitute them. Complexity is what exists, in varying degrees, at both the levels of concrete experience and generative mechanisms (the real).

Conclusion

What, then, does this mean for human ecology? To begin, it is now clear that the emergentist philosophy of mind proposed here reaches deep into the origination of mind. The stratified ontology that has been demonstrated shows that the foundations of mind are more than simply material: they are simultaneously biological, neurophysiological and ecological. Dewey hints that this type of differentiation in his sequence of interactions between qualitative relations: physical, psycho-physical, and mental. For Dewey the relationship is of increasing complexity and intimacy of interaction among natural events (Dallmayr 2002, 92-93). In his stratified model of the self, Bhaskar suggests a similar hierarchy, ranging from the biological foundations, to the unconscious, preconscious and eventually consciousness and self-consciousness (Bhaskar 2008b, 149). What is clear is that the special human power of self-consciousness does not arise directly out of matter. Nor can the foundations of mind be reduced to matter. In the hierarchy of being mind finds itself emerging from many layers, each one rooted in the ones below it, and yet irreducible to them. They are irreducible because their quantitative increases in complexity pass over into qualitative — metaphysical — differences, which are manifested in the emergence of novel and causally irreducible powers. So, we have a theory whereby humans are ontologically continuous with nature, and with the ecology specifically. But within the order of being, we also have a special strata for what is human, or more specifically for the special power self consciousness, which permits downward causation upon the rest of nature. Most importantly, this power is rooted in and composed of the interactions causal mechanisms and process at lower levels, yet cannot be causally reduced from our knowledge of their structure.

Like process philosophy and the more attuned historical-dialectical thinkers, emergentism reserves a unique and privileged place for human beings, without separating them too much from the rest of the ecological world. For the emergentist, humans occupy their special strata because their unique powers — self consciousness, free labour, etc. — are causally irreducible to their biological and physiological foundations. We are, ultimately, rooted in natural processes. Yet human activity, individual as well as social, cannot be fully explained with reference to the causal mechanisms at work in the compositional levels. We 'emerge' from the natural world, and are conditioned by laws that the ecological world is not. Events at this strata are partially explainable by modern science. But the incredible levels of processual complexity along with causal irreducibility inspire a genuine sense of awe. So too for other ecological organisms and processes. While they do not inhabit the ultimate ontological layer along with humans, they do display many attributes of self-organizing complexity and causal irreducibility.

Now, out of the discussion of Process and Emergentist thinking, a certain tension arises with the Frankfurt theorists covered in the third chapter. For Adorno in particular 'enchantment' is largely a pre-rational phenomenon. Modern scientific enquiry disenchants the world through its mechanistic reduction of quality to quantity, and its preoccupation with concepts. Enchantment is more aesthetic than rational. On the other hand, the process and emergentist outlooks do not hold that scientific enquiry necessarily disenchants the world. In fact, these two schools derive their sense of enchantment *from* the process of scientific discovery. These are indeed two very different ways of looking at the enchantment of nature. They appear on the surface to be incompatible. Workman's excellent differentiation between positivist and

'retroductive' models of science points the way toward reconciliation. The Frankfurt theorists were critical of positivist, 'nomothetic' science. But Workman shows that Critical Realism — along with Process Philosophy, I hold — are not this type of science. They are 'retroductive,' in that they aim to discover the essence of things. They do not aim to mechanize, reduce, or disenchant nature they way that positivism does. In this way they share with Critical Theory a fundamental interest in discovering the inner truth of things. The divergence in outlook, then, comes down to a different matter. I have noted that for the Frankfurt thinkers, especially Marcuse, the moment of enchantment is the aesthetic one. It is ultimately a matter of passive reception. By contrast, the enchantment of nature is discoverable to the emergentist through the activity of scientific discovery. For the process thinkers, it seems to be some combination of both moments. All these ways of looking at science, human ecology, and the enchantment of nature have their virtues, and all contribute to the intellectual project proposed by this dissertation.

Chapter 7: Conclusion

From Plato to Bhaskar, this dissertation has covered a great deal of material, along with essentially the entire timespan of Western philosophy. Some of the key thinkers are often considered together by critical social theorists and scientists: Hegel, Marx, Adorno, and Marcuse. Meanwhile, Rousseau, Hegel, and Marx are all well known to students of the history of political thought. However, likely less familiar are the process philosophers and Critical Realists. It has been one of the underlying intentions of this dissertation to bring these diverse schools of thought together into a productive dialogue — a sort of creative synthesis. Each approach, I have shown, has something important to teach us about the human place in nature, or human ecology. Each, in their own way, can contribute to a sense of 'secular enchantment' of ourselves, nature, and our relationship to it. Of course, at this point it is clear that this is not a pre-philosophical or anti-scientific form of enchantment. The illogic, as well as the social and political dangers of an unqualified 're-enchantment' are clear (see, for example, Antonio 2000, 57). The form of re-enchantment described here does not refer to any sort of magical, or supernatural force that inheres in the world. Rather, it is the sense that we get when we are able to fully contemplate the complexity and wonder of the ecological world, and along with it our own incredible capacity of self-consciousness. This form of enchantment may ultimately be a subjective phenomenon; in the end, it is in our minds, and is not a property of the physical world. However, it is evident that it does require an object, and not any object — an ecological one. Furthermore, it is important to restate that this is a form of enchantment that occurs *because of* modern science. While Weber,

the Frankfurt thinkers, and others rightly saw that science could thoroughly disenchant the natural world, its methods also bring light to all the breathtaking miracles of the ecological world — from the replication of DNA within the cell, to the innumerable relationships and process that make up any given ecosystem, to our own ability to conceive of ourselves as both subject and object. These are marvellous phenomena that can be explained — at least in part — by a scientific framework, and should also engender a sense of enchantment.

In this concluding section, I will bring together some of the main theoretical ideas that have animated this dissertation, and comment on their significance. The central analytical thread — the situation of self-consciousness in the larger ecological order — makes the project fundamentally an ontological one. But its contribution is not merely philosophical. As noted in the introduction, another key element is the 'political.' Not only does a more complete knowledge of our place in nature inform ecological politics, it also can be the foundation for a sense of the 'political' — a moment of commonality in which are laid political foundations. As highlighted in the chapter on process philosophy, the ontological discussion of human ecology also contributes to discussions of reasonable use of natural resources, and appropriate human infringement on the ecological world. However, it is not only process philosophy that describes such an ethic of responsibility; it can be derived from all the thinkers considered here. As well, a new and important analytical thread that was uncovered during the course of this research was that of aesthetic appreciation of nature. This appeared first in the section on Marcuse, but its full significance only comes to light when taking into account the analysis as a whole.

<u>The Ontological</u>

Although the discussion has taken many forms, the core theoretical issue in this dissertation is the relationship of subject to object. Here, the main focus is the place of human/ self-consciousness/subjectivity within nature/objectivity. I should reiterate here that the term 'nature' has here been used to refer specifically to the biological, ecological world. Ultimately, the picture that has been created is of a 'polyvalent ontological monism,' in which subjectivity occupies one — highly advanced — level. From Rousseau to Bhaskar, it has been clear that the subject shares many important identities with the object, while diverging from it in key ways as well. I have worked to show that this way of conceptualizing subject/object relations is also useful for understanding human ecology. While humans — and particularly their *species differentia*, self-consciousness — are embedded in and identical to nature, or the ecology, they are also, in Rousseau's terms, not bound by (all of) its laws, and are therefore non-identical to it. Self-consciousness makes humans special — even enchanted. The notion that this makes humans unique, historical, labouring, and self-transforming beings is a key theme in the work of Rousseau, Hegel, Marx, Adorno, and Marcuse. But these thinkers were selected because they do not make the mistake of imagining humans to be completely outside of nature, or free of its determination. To the contrary, they all emphasize our dependence on the object/nature. History, then, is the story of our self-transformation in the context of a mutually determining relationship with the natural world. The relation is neither pure immediacy nor total detachment. It is one of mediation. Because we are self-conscious we are able to choose — to a certain degree — the character of our relationship with the ecological world.

In the emerging field of Ecological Political Theory, Andrew Biro has done important work illustrating the identity and difference of humans and nature. Biro's analysis points to the pitfalls of appeals to 'nature,' and calls for a 'denaturalizing' of ecological thought. With the shift of focus to process philosophy and Critical Realism, the understanding of this relationship is deepened. Building on key work already done by Biro and other ecological political theorists, I have incorporated the notions of process and emergence/stratification to introduce new lines of analysis into ecological thinking. The inclusion of these schools of thought was meant to supplement the outlook provided by the 'historical-dialectical' thinkers. The latter see correctly that humans are qualitatively different from other ecological organisms. Process thinking, along with theories of stratification and emergence derived from Critical Realism, delve into the question of how self-consciousness arose from ecological processes and systems. It is an open question whether the fundamental process ontology — specifically its rejection of substance ontology — is compatible with the other schools of thought here discussed. Regardless, process philosophy helps us to order entities by their degree of internal complexity, and this seems perfectly in agreement with much of the historical-dialectical outlook. Importantly, humans can be understood as an example of a highly complex entity. We are identical to the rest of nature in that we are constituted by processes — or even, substance in motion. But we are different insofar as our internal process, the motions of the compositional substance, are much more complex. Where, though, do we draw the line between humanity and other biological life, or between the biological and the chemical, for that matter? Process thinking is unclear on where the qualitative distinctions lie. Here, Critical Realism, which is emergentist and stratificationist, enters the

conversation. It sees the world as composed of qualitatively different layers, ordered by complexity. Higher, more complex levels, 'emerge' from lower, less complex ones. But they are not separate. For example, biological entities are more complicated that chemical ones, but are still rooted in chemical processes, which are in turn more complicated than, but rooted in physical processes. In this configuration, we can see humans as occupying a high — perhaps the highest — ontological strata. In this way we are qualitatively different from the ecology. Yet, we are always composed of and dependent on the ecological, biological, chemical, physical, etc, levels. And in this manner we are fundamentally embedded in nature — identical to it.

The ontological project delineated here, what I have called 'polyvalent ontological monism,' might best be grasped as a response to three other understandings of the human relationship with nature, and thereby of the subject's relation to the object/scientific knowledge. The first is exemplified by Marcuse and Adorno. It reserves a place for the primacy of the object, but also acknowledges the role of human labour/intervention in the ecology. Here, humans are both different from and identical to the ecology. Employing a critique of modern capitalism, this view seeks a future in which the human/nature dialectic is rebalanced so as to eliminate unnecessary forms of domination and repression. Adorno and Marcuse seem to deny the objectivity and neutrality of modern science; it can never claim a perfectly clear view of the objects of knowledge and it is furthermore implicated in the rationalizing, dominating project of modern capitalism. Second, there is Weber's view that there is a fundamental division between natural and the social science. Knowledge of the natural world can claim the status of objectivity, but social scientific knowledge is alway necessarily defined by the values of researchers (Maley

2011, 154). The third view is what Robert Antonio has called 'strong-program' postmodernism, a dangerous form of skepticism and misology. Antonio writes that this outlook "abandons all 'truth' claims, viewing social theory and science exclusively as narratives, rejecting references to 'realities' external to the theoretical text, and dismissing 'objective' inquiry about the 'validity' of theories or how well they represent 'reality'" (Antonio 2000, 52-53). On this view not only is science impossible, but objectivity, nature, can be nothing more than subjective creation.

However, this is not to say that humans have perfect, unhindered access to the natural world. Indeed, we ought to be skeptical of many of the categories used to understand natural phenomena and experiences. For example, in his seminal essay "The Trouble with Wilderness," William Cronon argues that the concept of 'wilderness' is socially constructed. He writes, "wilderness embodies a dualistic vision in which the human is entirely outside the natural. If we allow ourselves to believe that nature, to be true, must also be wild, then our very presence in nature represents its fall" (Cronon 1996, 80-81). Cronon in no way denies the realness of the external world, and argues that there is something "irreducibly nonhuman" in our subjective experience of nature (Cronon 1996, 70). It is simply that some categories, such as the idea of "pristine, untouched wilderness," are not particularly useful, and may in fact be unattainable. Cronon holds that by abandoning the futile quest to connect with a singular, true wilderness, we can start to see the wonders of nature much closer to home (Cronon 1996, 86).

The entirety of this dissertation has been an attempt to provide reasonable and defensible ontological foundations for understanding the truth of the human place in nature, as well as for political and ethical judgement. As such, it entails a wholesale rejection of strong-program

postmodernism. Even if our knowledge of social and natural phenomena are necessarily circumscribed, as thinkers ranging from Adorno to Bhaskar have shown, it is simply intellectually dishonest to deny the epistemological privilege and explanatory power of modern science. For science to work, the world must be structured according to knowable laws or tendencies. Science, by any reasonable account, does work, and therefore there must be some discoverable laws underlying the workings of the world. The response to Weber is a more complicated and interesting one. Siding with Weber, I have sought to defend the — partial — objective validity of natural science. On the other hand, the foregoing analysis has marshalled a variety of ontological positions supporting the notion that the natural and the social are deeply intertwined rather than simply dichotomous. Bhaskar astutely notes that the causative mechanisms at work at the level of the social are much more difficult to uncover than those which are the objects of natural science. However, this does not preclude some reasonably objective knowledge of social phenomena. Just as it has been consistently shown that humans and nature are simultaneously identical and different, natural and social science must share important commonalities — a basic unity of method — while still diverging in important ways.

Additionally, I have substantially accepted the general ontological outlook offered by the Critical Theorists: the preponderance of the object, the distinction between basic and surplus alienation, as well as the social corollary of aiming to find a state of balance, or peace, between subject and object, or between humanity and nature. However, I have taken issue with their characterization of science as *ipso facto* dominating and disenchanting. In his incisive excavation of Marcuse's critique of science, Workman shows that in general the type of science targeted by

the Frankfurt thinkers is positivism. Indeed, the bland and mechanistic outlook offered by positivistic methodology does reduce quality into quantity, and elides causation into constant conjunction. This tells us little about the real workings of the natural or social worlds, and, as Marcuse shows brilliantly in his *One-Dimensional Man*, is complicit in the domination of humanity and nature. However, not all science is positivism. Workman's 'retroductive' science, exemplified by Bhaskar's Critical Realism, commits none of the ontological or methodological errors of positivism. Because science does not necessarily fetishize quantification and mechanistic understanding, if used correctly, it *can* describe nature in a way that inspires a sense of complexity, beauty, and enchantment.

The Political (and The Ethical)

In his pithy and incisive article, "The Political," Jeremy Valentine describes the challenges posed to 'political' thinking in the postmodern condition. He takes issue with various foundational approaches, which he divides into two categories. On one hand, Rawls and Habermas "attempt to ground the political in a type of deliberation that secures the polity…" (Valentine 2006, 508). One the other, Schmitt, Strauss, and Arendt all "propose a concept of the political in response to what they take to be the denial of it within modernity. They thus subscribe to the epochality of modernity in order to affirm some authentic 'originary' moment of the political against it from a position external to it" (Valentine 2006, 509). In each case, Valentine finds that these foundational moments are ultimately illusory. Seeing the difficulties posed by foundations, Valentine turns to 'post-foundational' approaches to the

'political.' He describes three: the thoroughly postmodern view of Jean-Luc Nancy, the slightly less anti-foundationalist approach of Laclau and Mouffe, and the radical-democratic outlook of Sheldon Wolin (Valentine 2006, 510). As I have argued, attempts to do away with the ontological foundations of social and political action are both futile and ill-conceived. They offer no possible way forward, no progressive solution, to the immense political conundrums of late modernity. They are wrong-headed in their denial of an essential human commonality. Nonetheless, I find something salvageable — something, in fact, quite useful — in Wolin's political theory.

Wolin makes an important distinction between politics and 'the political.' The former constitute the everyday activity of the distribution of power and resources, both within and outside the formal, legalistic, procedural realms. In Sheldon Wolin's formulation, the 'political,' on the other hand, is a rupture, an exceptional moment, in which the grounding and direction of everyday politics is renegotiated. We live in extraordinary times that call for extraordinary measures. There is a profound crisis in the human relation with the rest of the ecological world, and the future of life on this planet is under a very real threat. Now is the time for a collective moment in which we acknowledge that politics as it has been must change direction. Importantly, Wolin brings to the table a strong radical-democratic outlook. This means that the 'moment' of 'the political' must be an open, collective, and democratic one. One of the principal intentions of this dissertation has been to offer an ontological underpinning for a renewed and democratic sense of 'the political,' as described by Wolin. Just as meta-ethics describes the foundations of ethical thinking, this project might be best described as 'meta-political,' insofar as it seeks to give philosophical grounding for a moment of 'the political.' The unique relationship to nature

described here is universal to all humans and is also fundamentally democratic in its accessibility. This makes it an ideal underpinning for a democratic and universal sense of 'the political.'

It must be noted, however, that such foundations have in the past been used to perpetuate hierarchical and dominating social relations. This is a warning that the present analysis must heed. Following Aristotle, I have described an ordered, hierarchical, organic unity that can serve as the foundation for a sense of the 'political.' For Aristotle, and many other conservative thinkers, the idea of nature as an organic unity served to justify unequal social relations, and even slavery. However, I have here also shown that philosophers from Rousseau onwards warn us against naturalizing social phenomena. Nature itself is never the regulative ideal for social and political life. However, what I have here called a 'polyvalent ontological monism' locates humans in nature in such a way as to be useful to social and political thought. While nature as a whole may be hierarchical, it in no way follows logically that social and political relations should be such.

The foundation, the basic premiss, of this moment of 'the political' would be greatly served by two things. First, it must admit that despite postmodern/post-foundationalist denials, there is something universal to all human beings — an essence of what it means to be human. All the thinkers discussed in this dissertation point to the faculty of self-consciousness as fundamental to human being. Only on such a communal recognition of this basic identity can a truly collective politics proceed. Second, because the goal of this moment of 'the political' is to reform our common relation with the ecological world, its foundations must describe the truth of

our relationship to it. This means the necessity of recognizing that while we are outside of nature in significant ways, we are also deeply embedded in it, and dependent on it for our continued existence. Furthermore, ecological life not only sustains human life, it is worthy of protection for its own sake. Indeed, as the exploration of aesthetics suggests, it is the source of great meaning and a profound sense of wonderment. With this base, the description of which has been the chief objective of this dissertation, may be supported a moment of 'the political' that is adequate to the political and ecological tasks at hand.

While the foregoing analysis has been mainly meta-theoretical, it still begs the question of practicality. That is: what does all of this mean for everyday politics and political institutions? While I have largely bracketed the issue of specificity, the project still clearly points to a few conclusions. It is evident that the reconfiguration of human-ecological relations demanded by this dissertation also require as a necessary condition the transcendence of capitalist modernity. As Hegel, Marx and the Frankfurt thinkers have shown, capitalism foists an unwarranted amount of alienation from nature upon the subject. To fully appreciate the ecological world, and our special place within it, all humans must be able to freely interact and experience with nature. This means overcoming the excessive division of labour engendered by capitalist production. Capitalism, as a set of socio-economic relations, is only the beginning of the problem, however. What I have tried to call into question is the larger problem of how we, as modern subjects, see our own place in nature. By and large, modernity characterizes the human-ecological relationship as one of radical separation, which has been shown to be untrue. It does so to validate myths about progress, productivism, and 'economic growth,' which have also been called into question.

It is my hope that this work can lend theoretical support to movements for 'degrowth.' This outlook sees that economic 'growth' and continually expanding production are incompatible with the ecology, and furthermore that they do nothing to increase human happiness and fulfillment.

Additionally, the ontological exploration here contained can help to clarify a longstanding issue in ecological ethics: the debate between anthropocentrism and ecocentrism. I have endeavoured to show that this is a false dichotomy. Humans do, as the historical dialectical thinkers consistently show, occupy a rank of special moral privilege. This means that our needs take precedence over those of other species. Specifically, this refers to the use of natural resources. However, as process thinking has shown, by virtue of their inherent complexity, other organisms and ecosystems also command moral value. Their needs and requirements must also be taken into consideration. This opens the door for a discussion about the reasonable use of natural resources. To what extent is it reasonable to interfere with natural spaces for our own ends? The answer is that we must do so to some degree. But it is also the case that many of the material superfluities that characterize modern life do nothing to contribute to the 'good life,' or the development of our most human and creative capacities. This indicates that we should seek to preserve wilderness areas, natural spaces, and biodiversity as much as possible. We have more to gain, the next two sections will show, in leaving them intact rather than plundering their resources.

The Aesthetic

In Chapter III, using Marcuse's aesthetic theory, I made the case that the appreciation of nature can, like the work of art, be a revolutionary moment. It creates a 'negative,' critical moment, showing the untruth of the current state of affairs and opening up new possibilities. It points to the truth beyond the facticity of everyday reality. The key theoretical observation of *The Aesthetic Dimension* is the following: "Art breaks open a dimension inaccessible to other experience, a dimension in which human beings, nature, and things no longer stand under the law of the established reality principle" (Marcuse 1978, 72; c.f. Marcuse 1972, 87). The point here is that art is able the show that the given reality is not the only possible reality. The potential exists for other ways for humans to organize themselves, and to interact with each other and with nature. I have argued that the idea of nature — as aesthetic representation more so than a concept that perfectly matches its object — serves this function as a tool to combat capitalist modernity's degradation of nature. Above and beyond its negation of the established reality, art is also able to create a "beautiful image" (*schöner Schein*) of another possible reality. Marcuse writes:

> [T]he radical qualities of art, that is to say, its indictment of the established reality and its invocation of the beautiful image… of liberation are grounded precisely in the dimensions where art *transcends* its social determination and emancipates itself from the given universe of discourse and behavior while preserving its overwhelming presence.[50]

The shattering of the given reality and the creation of a beautiful, alternative image can pave the way for the development of a new and liberated sensibility (Marcuse 1978, 7).

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[50] Marcuse 1978, 6.

But what is the specific content of this image? Quoting from his friend Leo Lowenthal, Marcuse writes that art can represent an entirely different world, which is fictitious and yet simultaneously "more real than reality itself" (Marcuse 1978, 22). He is suggesting that the fictional world of art can represent the *truth* of human being that is denied by the established *reality*. In this way, art is contradictory, negative, and properly two-dimensional. In a brilliant passage, Marcuse describes how the fictitious world of art is both more and less that the given reality:

> It contains nothing that does not also exist in the given reality, the actions, thoughts, feelings, and dreams of men and women, their potentialities and those of nature. […] But it is "unreal" not because it is less, but because it is more as well as qualitatively "other" than the established reality. As fictitious world, as illusion (Schein), it contains more truth than does everyday reality. […] Only in the illusory world do things appear as what they are and what they can be. By virtue of this truth (which art alone can express in sensuous representation) the world is inverted — it is the given reality, the ordinary world which now appears as untrue, as false, as deceptive reality.[51]

The aesthetic dimension opened up by artistic representation serves an important role in challenging the prevailing one-dimensionality. Taking the analysis even further, Marcuse writes that the tension between the established reality and the fictitious world of art (or "Nature" for First Nations) open the possibility for the important activity of remembrance, particularly of life past (Marcuse 1978, 23). Under the prevailing reality principle, it is less painful to forget past suffering as well as past joy. On the other hand, *remembrance* of the past — made possible in the aesthetic dimension — creates a will to end suffering and establish perpetual happiness (Marcuse 1978, 73). Remembrance, or recollection, is not of a past golden age, or of a state of nature or

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[51] Marcuse 1978, 54.

innocence. Marcuse describes it instead as an epistemological capacity to synthesize experiences and fragments of the given (distorted) reality into a *schöner Schein* (Marcuse 1972, 70). Resisting the immanence of one-dimensional society and thinking, the aesthetic dimension, with its beautiful images and powers of remembrance, is fundamentally transcendent: "Imagination… retains the insoluble tension between idea and reality, the potential and the actual. This is the *idealistic core* of dialectical materialism: the transcendence of freedom beyond the given forms" (Marcuse 1972, 70). Just as art — music, visual art, literature or other forms — opens up another dimension and invokes remembrance of past ways of being, so too does the idea of nature. It is not necessary that this representation of nature be perfectly accurate. Indeed, it may even be partly mythical. Its significance is as an alternate dimension, a beautiful image of a different reality that breaks apart the prevailing way of being and thereby creates the possibility of a better future.

This has been an excellent starting point for the discussion of nature and aesthetics. But it is clear that there is much more to be said. To begin, the concept of aesthetic appreciation is made possible only by thinking, reflective subjects. Humans, noted Marx, can labour to create according to the laws of beauty, and this presupposes that they know them. Of course, it has been my intention to bring the discourse from the concept of active manipulation to that of passive reception. Taking in natural beauty does not mean that ecological processes, or inanimate objects exert agency on us, as Bennett would have it. She and other adherents of 'the new materialism,' are right in their insistence that the subject be de-centred (see Bennett 2010 and Coole and Frost 2010). The object can indeed determine the subject. However, it is taking the analysis too far to

say that objects exert agency upon humans to the same degree that humans exercise agency on them. For the purposes of this passive, receptive ecological aesthetic, we should say instead that while it is in our 'species being' to manipulate nature, our highly developed capacities allow us to appreciate it without interfering with it as well. In purely practical terms, this is, I think, actually the crux of the matter of enchantment. In the end, we do not need long, technical, dense treatises on self-consciousness, metaphysics, nature, and history to see that nature is enchanted. Quite the opposite: we can see that everywhere and in everything. What is required is simply a new and different way of looking at our surroundings. It is not difficult to understand that modern science has disenchanted nature in one sense, but re-enchanted it in another. We can easily see the unbelievable beauty and complexity that encircles and permeates us. True, many today lack access to unspoilt ecosystems. But nature, and life, are everywhere, and so is the possibility of experiencing them aesthetically. Only thus can we think about nature as is it and as it could still be, and contemplate our role in its future.

The Spiritual

In the present conjuncture of human-ecological crisis, a new field of interdisciplinary academic study called 'environmental humanities' has begun to develop. It asks how we might improve our relationship with nature, both for its sake and our own. More so than a work of philosophy, politics, or ethics, this dissertation may best be understood as a contribution to this new field. At its core, this study has asked what it means to be human, and how we can have a meaningful relationship with the natural world. There is a potential future in which ecological

life on this planet is severely diminished, and the necessary conditions for human life demolished. We will bear the responsibility for such a future. It would constitute our failure as a species, and we would rightfully give up our place in the biological kingdom. Conversely, there is another path open to us, in which we give up our excessive consumption and destruction, and reconcile ourselves with the natural world. This would necessitate a recognition of our unique place in the ecological order, and with it an understanding of the true structure of the human psyche, or soul. As such, it would be — in the Greek sense of the word — a spiritual moment, or awakening. While it seems that we suffer a loss in the relinquishment our unrestrained consumption, we in fact have everything to gain. By renouncing our false and destructive needs, we make room for our true needs, the satisfaction of which develops our genuinely human, creative, and spiritual sides. By freeing ourselves from the thralldom of needless material consumption, we open the path for new, different, and more sustainable ways of interacting with nature. We may begin to remember that nature is not simply the material out of which we furnish goods to consume. Instead, as many First Nations have refused to forget, it is what nurtures our existence and fills our lives with meaning. This, of course, means offering a palate for our creative labour. But is also means that nature can provide the opportunity for us to experience beauty, complexity, and all the wonders of life. It can give us a place to reflect upon the interconnectedness of our existence. In the end, nothing can make us more human. It has been the object of this dissertation to show that this path is open to us, and that we can and should take it.

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