In Search of Wholeness: Holism's Quest to Reconcile Subject and Object, from Leibniz to the Deep Ecology Movement

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Abstract

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This thesis explores the ways in which key holistic thinkers over the course of the last three hundred years have articulated unity between the human subject and objective world. I borrow the term "holism" from the philosopher J. C. Smuts, who coined it in his 1936 work *Holism and Evolution*, and I use it here in an expanded sense that includes all thinkers in the Western tradition who, like Smuts, have been preoccupied with the question of unity. Although the nature of cosmic unity and the individual's place within it have been questions for philosophical debate since the classical Greeks of the sixth and fifth centuries BC, from the seventeenth century onwards these questions became largely associated with a series of thinkers who sought to overcome the dualistic separation of subject and object introduced by Galileo, Descartes and others in the mechanistic philosophical tradition of Western thought.

My consideration of the holistic tradition includes selected writings by Leibniz, Hegel, Whitehead and Arne Naess, cofounder and key communicator of the deep ecology movement. In my discussion of these authors I observe an emerging pattern that has gradually carried holistic thought away from its traditional dependence on an absolute universal Being as the origin of unity in the world, towards an increasing emphasis on Becoming as the origin of Being. This pattern is confirmed by my broad analyses of Renaissance philosophy and of the Counter-Enlightenment thinkers Vico, Hamann and Herder. It is further confirmed by Naess' vision of the deep ecology movement, which emphasizes plurality and diversity in the struggle to create more ecologically sustainable forms of human living. The pattern is challenged, however, by my discussions of Heraclitus and of the deep ecology movement, which both exhibit features that also contradict the existence of a definite linear progression "from Being to Becoming." Insofar as the deep ecology movement recognizes the validity of a broad diversity of philosophical views and premises as grounds for ecological action and decision-making,

it is part of a larger movement in contemporary societies that is helping create an open space wherein all perspectives are appreciated as valuable in their own right. This movement seeks to challenge all absolute and hegemonic claims to truth (which in the early twentieth century gave rise to fascism and in our present day continue to inform our views of nature and the self), and, as I suggest, is also contributing to the emergence of an apophatic perspective in our own day that is a precondition for change.

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Acknowledgments

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Dedication

To my father.

Introduction

At the heart of the ecological movement lies a desire for a more harmonious and sustainable relationship between humankind and the natural world. This desire manifests in many different ways; the ecological movement is as diverse and multifaceted as the hundreds and even thousands of initiatives that compose it on all levels of society, from the grass-roots to the governmental and beyond. Among its more philosophically radical expressions, this desire has given birth to a critique of the historical and conceptual foundations of modern industrial societies and their exploitative approach to natural resources. This critique is largely associated to the deep ecology movement that began in the 1970s and 80s, although it has many forerunners and is today championed by a growing number of emerging fields. Broadly speaking, this critique points to a particular philosophical tradition that emerged in Western Europe in the late Renaissance out of the works of thinkers like Galileo Galilei, Francis Bacon and René Descartes. This tradition affirmed a series of principles and theories that included the separation of mind and matter, the Cartesian self ("I think, therefore I am") and a distinction between the primary properties and secondary qualities of objects—all of which became crucial elements in the formation of the modern scientific method from the seventeenth century onward. To the extent that modern science helped provide the conceptual basis for industrial society and its utilitarian approach to resource use, many supporters of the deep ecology movement trace the roots of our current ecological problems to the scientific tradition associated with Galileo, Bacon, Descartes and their successors.

The deep ecology movement is characterized by a process of "deep questioning" that "examines the *roots* of our environmental/social problems" (Sessions 1995: 59; Drengson & Inoue 1995: xix, italics original). It recognizes that ecological issues like pollution and resource depletion cannot be considered or addressed separately from the socio-economic issues of war, inequality and globalization. The roots of the ecological crisis, therefore, lie just as much in our ways of conceiving and relating to the natural world and to ourselves as in our ecologically destructive practices. In this way, many supporters of the deep ecology movement point to a particular way of conceiving reality that has in some

ways become the defining mark of the modern scientific approach and the social forms that have emerged from it. This way conceives the world as divided between human subjects and nonhuman objects (the latter including both biotic and abiotic forms as well as the material aspect of human beings, i.e., the human body). Consciousness, mind and will belong strictly to the former, while the latter is composed of purposeless matter governed by mechanical processes (e.g., gravity, entropy, feedback loops, etc.). This division between the mental and material, or subjective and objective, aspects of reality, however, informs our ways of relating to nonhuman nature and ultimately justifies a utilitarian approach that sees the natural world as something existing solely for the sake of human needs and wants. As the cofounder and principal communicator of the deep ecology movement, Arne Naess, writes with respect to this perspective: "there is no good reason why we should not look upon such a bleak nature as just a resource" (Naess 2008: 74). Arguably, this division between subject and object lies at the heart of the ecological problems we face today. One might even argue that our ecological predicament cannot be properly addressed until we have addressed this basic way of conceiving reality in the West as divided between human subjects and nonhuman objects.

Thinkers in the deep ecology movement like Arne Naess recognized this and have set out to propose their own solutions, solutions that include (among others) alternative views of reality that harken back to ancient conceptions of nature (i.e., before the damage was done) or that seek to re-envision modern science in a way that rids it of its Cartesian and mechanistic assumptions and replaces these with concepts such as reciprocity and mind-in-nature.

In doing this, these thinkers place themselves at the tail-end of a tradition of thought that dates back to the emergence of modern science itself. As early as the seventeenth century, thinkers in Europe (and later in North America) recognized the potential dangers of a world view that imposed a strict division between mind and matter, or subject and object. These thinkers set out, each in their own way and without necessarily seeing themselves as part of a broader movement, to revise the categories by which we comprehend reality in the hopes of undermining the thrust and progress of mechanistic philosophy, whose influence and implications for Western society was already visible to them in their day. Although as I said these thinkers did not identify themselves with a

particular movement or tradition, I refer to their collected efforts (which although unsystematic were guided by a common goal) as the "holistic" tradition, or, more simply, "holism." Holism, derived from the Greek *holos* ("whole"), points to a theme that has qualified Western philosophy since the ancient Greeks, although it has only truly come into its own during the last three hundred years in response to the rise of mechanistic science. This theme is the question of wholeness or unity: What is unity? How is it achieved and what is its source? How does the human subject achieve a state of wholeness within the cosmos? In the wake of the Cartesian division between subject and object, the question of wholeness has become primarily aimed at the reconciliation of these two poles of human experience. I consider any author who has sought to address this question, either in part or in full, to have contributed to the holistic tradition. Thus, holism is not so much a movement in modern Western thought that includes a set of self-identified proponents, but rather a *theme* that pervades the last three hundred years of Western thought and has provided intellectual fuel for nearly every tradition and philosophical movement that has emerged during that time.

Research Questions

This thesis seeks to provide an outline of the holistic tradition by way of some of its key thinkers. These thinkers are G.W. von Leibniz, G.W.F. Hegel, Alfred North Whitehead and Arne Naess. The first intention is to explore the ways in which these thinkers have articulated unity between the subjective and objective poles of human experience, with their associated distinctions between mind and matter, self and other, man and nature.[1] This first intention is guided by the thesis' first research question:

[1] I use the word "man" here deliberately. Although it has become customary in our day to replace the traditional "man" with more gender-neutral terms like "humanity" and "humankind," this does not change the fact that for centuries the masculine term has been used to refer to the human species as a whole. When Leibniz, Hegel and Whitehead speak of "mankind" ("*Menschheit*") they are referring to humankind as a whole with an emphasis on its male population. This emphasis is reflective of the patriarchal nature of the societies in which they lived and wrote. In my view, it is important when rendering the thoughts of another to respect the context in which they emerged and to which they were addressed. To replace "man" in these instances with more gender-neutral and inclusive terms amounts to an unconstructive anachronism: it helps only to conceal the deeply patriarchal and male-dominant character of past Western societies (and indeed of our present day). For this reason, when speaking about these past thinkers I deliberately use the term "man" and "mankind" in an effort to do justice to the time and place of their thinking as well as to their philosophies as they were meant to be understood. When speaking about contemporary thinkers like Arne

(1) How do key thinkers in the holistic tradition in Western thought address the issue of the unification of subjective knower and objective known?

As I hope to have made clear in this introduction, the primary focus of this thesis is the ways in which thinkers associated to the deep ecology movement have addressed the question of unity from within the context of their concerns about industrial society and the need for more ecologically sustainable forms of human living. This primary focus is captured in the thesis' second research question, which asks: **(2)** How is contemporary deep ecological thought a continuation of the holistic tradition's quest for unity? Due to the space constraints of this thesis, I have decided to focus my discussion primarily on one thinker who lies at the heart of the deep ecology movement and its holistic orientation. This thinker is Arne Naess. Naess named and cofounded the deep ecology movement in the early 1970s, and since then has been one of its principal communicators. His personal philosophy and vision of the movement have contributed greatly to the movement's overall direction and character and has greatly influenced many deep ecology supporters in their articulations of personal ecological philosophies of their own. Naess by no means represents the deep ecology movement as a whole, but his thoughts and life were inextricably entwined with the movement's emergence and development, and thus provide more than enough material for a cursory overview such as this one.

This thesis represents an exercise in what the scholar Isaiah Berlin called the "history of ideas": The thesis considers a handful of thinkers and their works with specific regard to how these thinkers have addressed the question of wholeness. In doing so, I make extensive use of the works of historians such as Richard Tarnas, Ernst Cassirer, Isaiah Berlin and others as they are critical examples of recent attempts to place mechanistic and non-mechanistic trends within the history of ideas. Insofar as this thesis represents an extension and exploration of an aspect of the works of these authors and commentators, it relies heavily on their prior accomplishments in the history of ideas.

Here I must make a note regarding the limitations of this thesis. As attested by the table of contents, the present thesis explores a broad range of movements and thinkers throughout Western history, from Heraclitus in the sixth century BC to Arne Naess in the

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Naess who themselves make use of more gender-inclusive terms, I use the terms "humankind" and "humanity" as a reflection of their more recent efforts to transcend the normative structures of male-centred terminology.

twentieth and twenty-first centuries. Each of these movements and thinkers considered on their own could easily provide enough material to fill the pages of this thesis and more, as they have already filled the pages of numerous essays, books and theses before this one. None of these thinkers and movements, it goes without saying, can be done full justice in the span of a single thesis, let alone a single chapter or even, as is the case on many occasions in this thesis, a mere chapter section.

Because this thesis sets out to cover far more terrain than it can contain, its objective is not to be comprehensive. Due to the broad scope and limited length of the present paper, many crucial aspects of the philosophies and movements that are considered will inevitably be overlooked or understated. As I have said, however, the goal here is not to say everything there is to say about every author that is discussed. Rather, it is to take a particular question which is expressive of a particular theme in Western thought ("wholeness" or "unity," where the two words are used interchangeably) and to explore how it has been addressed in the works of figures like Leibniz, Hegel, Whitehead and Naess. Even with regard to this particular question, the question of wholeness or unity, the thesis must inevitably fall short. It inevitably fails to account for every author who has contributed to the intellectual tradition of holism; it even undoubtedly fails to do complete justice to the authors it does discuss. As we will see in chapter 1, holism and the question of wholeness are inextricably bound to the rise of a particular brand of philosophical thinking in the West whose core premise and concern has been the distinction between the subjective knower and the objectively known. This brand of philosophical thinking has been central to the Western tradition arguably since the ancient Greeks of the sixth and fifth centuries BC. To do full justice to the question of wholeness in Western thought, therefore, would mean to fully capture the essence, trajectory and incommensurable diversity characteristic of the Western tradition since Heraclitus and Plato—an enterprise that I cannot possibly hope to achieve within a single thesis, let alone a single lifetime.

This thesis holds no lofty ambitions. Its ends extend far beyond its means. In recognizing this, it offers itself to the reader as an initiatory step, an introductory look at a theme and a question that belongs to a much larger, longer conversation. This thesis seeks only to crack open a few doors, to let in a modicum of light, to sound the history of

Western ideas however partially in the hopes of broadly outlining an intellectual tradition whose primary concern has been the achievement of wholeness between subject and object, mind and matter, man and nature. All this it does with the intention not of providing answers but rather of raising *questions*: questions about the nature of wholeness, about possible interpretations of history and some of the figures that have left their mark upon it, about meaning in our present day and its relationship to our individual and shared identities in the West.

Although at times the thesis ventures wholeheartedly into that logical space which houses the philosophies of the thinkers discussed in the chapters ahead and which supplies them their ground, the overall intention is always to understand these thinkers and their theories in relation to their broader social and intellectual contexts. The intent, therefore, is not to judge the logical validity of their attempts to create a unified vision of reality, but rather to understand the nature of these attempts, their social and conceptual origins, and the effects they have had on subsequent approaches to unity, self and nature. The orientation is distinctly historical and yet entirely invested in the present moment: it seeks to understand how thinkers of the past and present have conceived the unification of subject and object in order to better understand the ideas that continue to shape our social and individual identities today. Regardless of how far back we go and how deeply we search, the impulse that prompts our departures from the present is always to return to it with a better understanding of who we are and what is at stake. In the following pages, I offer my partial contribution to this ongoing process of self-discovery.

Chapter 1: Holism

The term holism (from the Greek *holos*, "whole") was coined in 1936 by the South African philosopher Jan Christiaan Smuts. In his book *Holism and Evolution*, Smuts uses the term to refer to an integrative theory which he hoped would become the foundation for a new science and new point of view. Holism, for Smuts, referred to a fundamental principle of reality that he found grounded in experience: "Holism shows itself in all the evolving structures faintly but perceptibly as a growing synthetic fullness of character and meaning, in other words, as a tendency towards more wholeness" (Smuts 1936: 150). Life and mind, he wrote, arise organically from matter; similarly, "Holism" evolves from "Mechanism," and these various evolutionary developments are expressive of a single-minded tendency in nature towards ever more inclusive states of wholeness—the crowning achievement of which is, in our present day, what he calls Personality: "Human Personality takes up into itself all that has gone before in the cosmic evolution of Holism. It is not only mental or spiritual but also organic and material" (Smuts 1936: 261).

Smuts' Holism was, as its name attests, deeply preoccupied with the question of wholeness; indeed, wholeness seems to be the kernel around which his entire theory took shape. One of his primary concerns was to discover a rational ground for the reunification of mind and body: "The ideal Personality only arises where Mind irradiates Body and Body nourishes Mind, and the two are one in their mutual transfigurement" (Smuts 1936: 258). This desire to reunite mind and body, matter and meaning, mechanism and organism within a single evolutionary principle arose in reaction to a particular development in the history of ideas: namely, the separation of the subject and object of experience whose corollary divisions in Western thought have included the separations of mind and body, thought and feeling, self and other, and man and nature.

Smuts was reacting directly to this pervasive attitude, which continued to pervade both the mainstream science and culture of his time, and which uncritically affirmed a hard distinction between subject and object, assuming a fundamental alienation of knower from known. Smuts considered this divisive attitude to be an abuse and a perversion, while Holism was the cure and remedy: "It is the severance of body and spirit which

makes the ignoble use of either possible. [...] When spirit irradiates body and body gives massive nourishment to spirit, the ideal of the creative whole as the antithesis of evil is realised in Personality" (Smuts 1936: 263-4).

It is difficult to pinpoint the exact origin of the subject-object separation to which Smuts was reacting. The cultural historian Richard Tarnas observes that "an emergent distinction between subject and object seems to have been present already at the very birth of Homo sapiens" (Tarnas 2007: 19). This suggests that the subject-object distinction is an integral aspect of our coming-into-being as Homo sapiens— in other words, that we came into being as a species precisely by way of this emerging distinction between subjective perceiver and objective perceived. If we accept Tarnas' observation, we have to admit that the subject-object distinction is actually *pre*-historical, in the sense that it was a necessary precondition for the emergence of historical consciousness itself. The emergence of the subject-object distinction is thus inherently tied to the emergence of human self-consciousness, and therefore the birth of history (which is a record of our social self-consciousness) is an expression of the emergent distinction between subject and object. The question of finding a historical point of origin for this emergent distinction thus becomes beside the point, for it predates (or rather emerged simultaneously with) history.

That said, although the distinction between subject and object may be said to be an integral aspect of human experience since the "beginning," the ways in which we experience ourselves and the world around us are also greatly informed by the various constructs that mediate our experience: language, ideology, concepts, etc. "Language alone makes experience possible," wrote Isaiah Berlin in his commentary on Hamann and Herder (Berlin 2013b: 240). These constructs vary from culture to culture and from period to period, and so, it seems to me, must our modes of experiencing. In light of this, it seems clear that Smuts was not only reacting to an inescapable feature of human experience but also to a particular construct and development in thought. This construct and development may indeed be rooted in a fundamental and perhaps inescapable quality of human experience, but it has also carried this quality to a dichotomous extreme and made it subject to mathematical and rationalistic conceptions in the hopes of making it more orderly and reliable.

If the emergent distinction between subject and object is, as Tarnas suggests, an inescapable feature of human experience, the cultural development that led this distinction to a dichotomous extreme in more recent centuries has a somewhat more definite point of origin in history. Broadly speaking, it can be traced to the sixteenth and seventeenth centuries where it arose in tandem with an emerging scientific outlook that was the fruit of a renewed intellectual dynamism characteristic of the Renaissance and the pioneering works of figures like Leonardo da Vinci, Galileo Galilei, René Descartes and Francis Bacon.

Although no single figure can be said to have originated the subject-object separation that has become the mark of Western science and thought since the seventeenth century, one figure does stand out as having, at the outset, most clearly and lucidly articulated this epistemological separation and its implications for philosophy. This figure is René Descartes (1596-1650). Descartes' writings capture so fully the phenomenon of the subject-object (or mind-matter) division that his name has forever been associated to it. Let us now, in order to better understand the context of Smuts' holism and the philosophical counter-movement to which he belonged, turn briefly to the origins of the Cartesian division between mind and matter.

1.1 Descartes and the separation of mind and matter

In his sweeping account of the development of the Western mind from the Greeks to the present day, the cultural historian Richard Tarnas opens his section on Descartes with the following statement:

> If it was Bacon in England who helped inspire the distinctive character, direction, and vigour of the new science, it was Descartes on the Continent who established its philosophical foundation, and in so doing articulated the epochal defining statement of the modern self. (Tarnas 1991: 275)

Bacon ushered in a new empirical approach that challenged the medieval Aristotelian framework by placing a rigorous emphasis on the data of experience coupled with the concerted "vexing" of nature (that is, the placing of nature in circumstances that would

force her to reveal her secrets). "There is no hope," he wrote in his *Novum Organum*, published in 1620, "except in the *renewal* of the sciences, i.e. that they may be raised up in a sure order from experience and founded anew" (Bacon 2000: 80, italics original). The catalyst for this renewal of the sciences, according to Bacon, was an experimental method that forcibly extracted the natures and hidden truths of things by placing them under artificial stress:

> For just as in politics each man's character and the hidden set of his mind and passions is better brought out when he is in a troubled state than at other times, in the same way also the secrets of nature reveal themselves better through harassments applied by the arts than when they go on in their own way. (Bacon 2000: 81)

Descartes, for his part, laid his foundation for proper scientific thinking in a strikingly different way from Bacon. For him, clear scientific thinking began with the application of rational scepticism to one's own thought. And yet, when these two seemingly conflicting models (of Baconian empiricism on the one hand and Cartesian rationalism on the other) were brought together, they gave birth to a method and an epistemology that, as the historian Morris Berman writes, have "become part of the air we now breathe" (Berman 1981: 29).

As Tarnas points out, Descartes did more than articulate the rational ground for a new scientific method. He also provided the epochal defining statement of the modern self. By associating the self strictly with rational thought (*res cogitans*) and setting it apart from the external world—as well as from the body and the senses, which Descartes considered no less external to the self—Descartes articulated a definition of the self that not only made modern science and its technological achievements possible, but also became a prevailing informant of identity in the West up to the present day. The Cartesian definition of the self remains, in my view, the single greatest unconsciously held assumption among Western cultures. Enthusiasts and critics alike attest to the centrality and profound influence that the Cartesian self has held, and continues to hold, on the way that we understand ourselves and the world around us.

Descartes lived during a period of great philosophical unrest in his country. The Renaissance humanists and naturalists had successfully eroded the absolute authority of

the Church and the ancients, cast doubt on those forms of knowledge which had for centuries informed and buttressed religious, social and philosophical beliefs.[2] Belief itself came under attack from Sceptic thinkers like Montaigne, who affirmed that human beliefs were not reflective of timeless unshakeable truths but were in fact the products of cultural custom (Tarnas 1991: 276). This in turn gave rise to a "sceptical crisis" in French philosophy during Descartes' youth which had a deep influence on the character and direction of his later writings (ibid.). In the wake of the epistemological uncertainty engendered from over a century of humanist attacks on accepted authorities, Descartes set out in search of a new and irrefutable foundation for certain knowledge.

"To begin by doubting everything was the necessary first step" (ibid.). In order to resolve the problem set forth by the modern Sceptics, Descartes embraced a sceptical approach: To discover certainty, one first had to doubt everything. Descartes also happened to be a reputed mathematician, and his appreciation for the precise methodologies of geometry and arithmetic led him to adopt these as his models for philosophical thought.

> Mathematics began with the statement of simple self-evident first principles, foundational axioms from which further and more complex truths could be deduced according to strict rational method. By applying such precise and painstaking reasoning to all questions of philosophy, and by accepting as true only those ideas that presented themselves to his reason as clear, distinct, and free from internal contradiction, Descartes established his means for the attainment of absolute certainty. (ibid.)

This method, which Descartes elaborated by marrying scepticism with mathematics, led him to the conclusion that nothing is certain: not the apparent reality of the external world or even of his own body (which are conveyed by means of unreliable sense organs), not the ideas that underlie his opinions and beliefs, not even the notion that his reason necessarily provides him with a faithful representation of reality and its underlying principles. Once everything had been cast in doubt, only one thing remained which could not be doubted: the fact of his own doubting.

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[2] I speak more on this in chapter 2.

> From the very fact that I know [*sciam*] I exist, and that for the moment I am aware of nothing else at all as belonging to my nature or essence, apart from the single fact that I am a thinking thing, I rightly conclude that my essence consists in this alone, that I am a thinking thing. And although perhaps (or rather certainly, as I shall shortly claim) I have a body, which is very close conjoined to me, yet because, on the one hand, I have a clear and distinct idea of myself, in so far as I am a thinking and not an extended thing, and, on the other, a distinct idea of the body, in so far as it is only an extended and not a thinking thing, it is certain that I am really distinct from my body, and can exist without it. (Descartes 2008[1641]: 55, brackets by translator)

This fact became the basis for Descartes' first irreducible axiom: that the "I" which doubts irrefutably exists and is independent from the body. The certainty of this "I"'s existence and independence could then serve as the foundation for all subsequent knowledge. *Cogito, ergo sum*—I think, therefore I am. "All else can be questioned, but not the irreducible fact of the thinker's self-awareness" (Tarnas 1991: 277). With this epochal first step, Descartes began his ascent towards true scientific knowledge.

The difference that Descartes discovered between the certainty of the doubting "I" and the uncertainty of the external world (which, as I mentioned before, included the body and its sense perceptions) led him to divide reality into two principal categories: *res cogitans*, or "thinking substance," and *res extensa*, "extended substance." *Res cogitans* referred to the substance of the irrefutable "I" whose existence had been proven beyond doubt, and which included "subjective experience, spirit, consciousness, that which man perceives as within" (Tarnas 1991: 276):

> For certainly, when I consider the mind, or myself in so far as I am a purely thinking thing, I can distinguish no parts in myself but understand myself to be a thing that is entirely one and complete. And although the whole mind appears to be united with the whole body, if the foot is cut off, or the arm, or any other part of the body, I know [*cognosco*] that nothing is therefore subtracted from the mind. Nor can the faculties of willing, perceiving by the senses, understanding, and so forth be said to be parts of the mind, since it is one and the same mind that wills, that senses, and that understands. (Descartes 2008: 61, brackets by translator)

Res extensa, in contrast, refers to all things considered external to the thinking "I"—"the objective world, matter, the physical body, plants and animals, stones and stars, the entire physical universe, everything that man perceives as outside his mind" (Tarnas 1991: 276):

> In this category it seems we should include bodily nature in general, and its extension; likewise the shape of extended things and their quantity (magnitude and number); likewise the place in which they exist, the time during which they exist, and suchlike. (Descartes 2008: 15)

Cartesian dualism thus emerged from this perceived difference between thinking and extended substances. Upon this difference, Descartes posited that mind, spirit and consciousness were the sole property of the subjective thinker; all extended substances, in contrast, were strictly of a material and mechanical nature. Animals and plants were mere *automata* whose behaviour could be explained entirely by means of mechanical processes:

> All actions performed by animals are like only those that occur in us without any help from the mind. By this we are forced to conclude that we know no source of movement in them, besides the disposition of their organs and the continuous flows of animal spirits that are produced by the heat of the heart, which thins out the blood. (ibid.: 148)

One could therefore understand all there was to know about such creatures, or about any extended substance for that matter, by means of the same methods that were employed to understand the functioning of a clock or a water fountain. Since such methods were predominantly quantitative and mathematical, it stood to reason that all science would benefit from the widespread adoption of a scientific method grounded in mathematical reasoning and informed by a distinction between primary measurable properties and secondary experiential qualities (Descartes 2008: 15. See also my passage on Galileo in section 2.3).

Thus, Descartes laid out the rational foundation for the new scientific method. This foundation he derived from his first axiom, the *Cogito*, as well as from his dualistic distinction between *res cogitans* and *res extensa*, mind and matter. This distinction helped further justify analogous distinctions (both longstanding and emerging) between

thinking and feeling, self and other, man and nature, which would later become points of attack (along with the Cartesian division of mind and matter) for thinkers like Leibniz, Hegel, Whitehead and Naess.

Together with the empirical approach initiated by his earlier contemporary Bacon, Descartes' method provided a definitive foundation for modern science and philosophical thought more broadly. This foundation allowed science to flourish as it had never before, yielding unprecedented results in nearly every field of knowledge, though especially in the natural sciences, and most particularly in physics. As Tarnas tells us,

> it was not accidental to Newton's accomplishment that he had systematically employed a practical synthesis of Bacon's inductive empiricism and Descartes' deductive mathematical rationalism, thereby bringing to fruition the scientific method first forged by Galileo. (Tarnas 1991: 280)

Newton's tremendous achievements in physics and astronomy, which produced his three laws of motion and law of universal gravitation which he published in 1687, came as an ultimate confirmation and seal of the scientific method that had first been articulated by Galileo and then elaborated by Bacon and Descartes, among others. Newton's breakthroughs in mechanistic science subsequently determined the general character and direction of scientific inquiry in following centuries, in both the natural and social sciences—at least until the end of the nineteenth century when discoveries in electromagnetics and biology, as well as the emergence of relativity and quantum theories in physics began to seriously challenge the firm materialistic and mechanistic bases of Newtonian science (Whitehead 1963: 23, 106-7). Thinkers from the seventeenth century onwards in many fields from medicine to economy witnessed the great strides that Newton had achieved in the realm of inert matter and were compelled to apply the same methods to biological life and human society in the hopes that the mechanistic approach would shine an equally bright light in their own fields.[3] In this way, mechanistic

[3] Consider, for instance, Tarnas' description of the physician Julien Offray de La Mettrie's (1709-1751) portrayal of "man as a purely material entity, an organic machine whose illusion of possessing an independent soul or mind was produced simply by the interplay of its physical components" (Tarnas, 1991: 310), and Jeremy Rifkin's description of the economist Adam Smith (1723-1790) as a thinker who was "determined to formulate a theory of economy that would reflect the universals of the Newtonian paradigm" (Rifkin, 1989: 41).

science, along with its many presuppositions, which included Descartes' *Cogito* and his dualistic separation of mind and matter, gradually became viewed as the only sound and reliable basis for knowledge about the world. As this attitude grew increasingly embraced by and embedded in Western cultures, to the extent that it has virtually faded from view, it became the cultural basis for such later movements as the Enlightenment and the Industrial Revolution—movements which continue to this day to promote and export the numerous epistemological presuppositions about the independence of the thinking self and the separation of mind and matter that underlie them.

Thus, Cartesian dualism and Baconian empiricism contributed to the formation of a scientific outlook and method that dominated in the sciences (both natural and human) until the end of the nineteenth century and continues to exert tremendous influence on world views in Western industrial nations to this day. This scientific outlook and method has been given many names by previous authors. Alfred North Whitehead called it "scientific materialism" (Whitehead 1963: 23). Fritjof Capra called it the "Newtonian World Machine" (Capra 1987: 53-74). In following other seminal authors like Carolyn Merchant (1980), Morris Berman (1981) and Rupert Sheldrake (2012), I refer to this scientific world view and its associated tradition as "mechanistic science." In his 2012 book *Science Set Free*, Sheldrake outlines mechanistic science's "creed" in ten points. This creed does not represent an explicit dogma to which scientists in the mechanistic tradition adhere, but rather "ten core beliefs that most scientists take for granted" (Sheldrake 2012: 7). The list is as follows:

1. Everything is essentially mechanical. Dogs, for example, are complex mechanisms, rather than living organisms with goals of their own. Even people are machines, "lumbering robots," in Richard Dawkins's vivid phrase, with brains that are like genetically programmed computers.
2. All matter is unconscious. It has no inner life or subjectivity or point of view. Even human consciousness is an illusion produced by the material activities of brains.
3. The total amount of matter and energy is always the same (with the exception of the Big Bang, when all the matter of the universe suddenly appeared).

4. The laws of nature are fixed. They are the same today as they were at the beginning, and they will stay the same forever.
5. Nature is purposeless, and evolution has no goal or direction.
6. All biological inheritance is material, carried in the genetic material, DNA, and in other material structures.
7. Minds are inside heads and are nothing but the activities of brains. When you look at a tree, the image of the tree you are seeing is not "out there," where it seems to be, but inside your brain.
8. Memories are stored as material traces in brains and are wiped out at death.
9. Unexplained phenomena such as telepathy are illusory.
10. Mechanistic medicine is the only kind that really works.[4]

In following Sheldrake and others, then, I use the term "mechanistic science" to refer to the scientific approach and tradition that takes these ten points for granted and adheres to the Cartesian division between subject and object underlying many of their truth claims.[5] As we will see in the next section as well as in later chapters, these points have been the object of criticism of holistic thinkers since the eighteenth century. Because most of the authors considered in this thesis articulated their theories in response to the prevalent claims of mechanistic science, the latter can be seen to be the necessary counterpart to holism one of the preconditions of the emergence of the holistic tradition.

1.2 The holistic reaction

For as long as the presuppositions of Cartesian philosophy and Newtonian science have existed, there have been those who have sought to oppose them. From Pascal onwards—who in Descartes' lifetime expressed his own terror before the eternal silence of modern

[4] Cited from Sheldrake 2012: 7-8.

[5] I use the term "mechanism" in two somewhat different ways throughout this thesis. Firstly, when using terms like "mechanistic science," "mechanistic world view" and "mechanistic paradigm," I use mechanism as an umbrella-term for the scientific approach outlined above, which is an amalgamation of mechanistic, materialistic and reductionist presuppositions. Secondly, in section 4.1.1 on the concept of nature as mechanism, I use the term mechanism in the strict sense. This strict sense is distinct from materialism and reductionism. Mechanism in the strict sense refers to the view that reality can be entirely explained by means of causal mechanisms.

science's infinite spaces (Tarnas 1991: 301)—Western literature has been home to a persistent, if variegated and unsystematic, stream of critiques aimed at the underlying values and assumptions of the scientific method pioneered by Galileo, Bacon and Descartes and perfected by Newton. Although we already find such critiques taking shape in Pascal, who rightfully viewed the new science as a threat to religious belief (ibid.), and Leibniz, who on mathematical and logical grounds challenged the Cartesian claim that mind and matter are incompatible (Leibniz, 1965[1714]: 38), the oppositions to the mechanistic world view truly came into their own in the eighteenth century, in reaction to the philosophical systems put forward by the Enlightenment *philosophes* in France along with their allies in other European countries. On the front line of this wave of oppositions, we find figures like Vico in Italy and Hamann and Herder in Germany. These three thinkers form the heart of what Isaiah Berlin calls the Counter-Enlightenment: a "defiant rejection of the central theses of the Enlightenment" (Berlin 2013a: 24) whose spirit was carried forward in the later eighteenth and early nineteenth centuries by the Romantic thinkers Schiller, Fichte, the Schlegel brothers, Schelling and (although he was too critical of his peers to be called Romantic) Hegel.

This Romantic tradition persisted through the nineteenth and twentieth centuries by way of various strains, by way of the poetries of Wordsworth, Coleridge, Byron and Shelley, by way of the philosophies of Emerson, Thoreau and the American Transcendentalists, all the while informing the philosophies of such figures as John Muir, Alfred North Whitehead and J.C. Smuts, whose works and achievements served in a powerful sense to challenge the conventional mechanistic paradigm from within.

Today, we find many of the values and criticisms associated with this multifarious tradition carried forward in the works of a number of ecological writers and activists. These writers and activists have put forward in our own day critiques of modern urban-industrial societies that find inspiration in the writings of those earlier opponents to the Enlightenment who, more than two hundred years earlier, took issue with the very values and assumptions that have today provided the conceptual bedrock for technocratic, expansionist and urban-industrial societies.[6]

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[6] See, for instance, the article published by Duncan Taylor on opposing world views in environmental debate (1992). In this article, Taylor identifies an emerging Ecological World View in contradistinction to what he calls the Expansionist World View. Taylor associates the latter with the scientific legacy of Bacon,

The basis for this three hundred year old counter-movement's opposition, its particular points of contention, vary greatly based on which authors one chooses to consider. In focusing on Vico, Hamann and Herder (along with several others including Machiavelli and Montesquieu), Isaiah Berlin placed his emphasis on the Counter-Enlightenment's rejection of what he considered to be the ideal of the Enlightenment, namely its assumption of universalism, that "what is true, or right, or good, or beautiful can be shown to be valid for all men by the correct application of objective methods of discovery and interpretation, open to anyone to use and verify" (Berlin 2013a: 24-5). Vico's historicism, Hamann's irrationalism, and Herder's pluralism are all presented by Berlin as challenges to this core ideal of Enlightenment thought, an ideal so pervasive that Vico and Herder were far from immune to its influence (Berlin 2013b: 291).

The present thesis aims to present a somewhat different emphasis. As the title attests, the emphasis here is on wholeness. This thesis focuses on attempts by thinkers in the West to account for unity in the cosmos, a unity which embraces the individual and the universal within itself and achieves a form of "absolution" through the dissolving (or the retaining and revisiting) of the boundaries between subject and object, mind and matter, God and man, man and nature. Wholeness has arguably existed as a question to be answered through philosophical inquiry since the ancient Greeks, and has been a major preoccupation of Western religious and philosophical movements from then until now, mechanistic science included.

That said, the question of wholeness definitely acquired a new significance and urgency in the last three centuries as part of the Counter-Enlightenment's attempts to undermine the hegemony of mechanistic science and Enlightenment values and ideals. The question of unity in this more recent context has become the question of how to address and reconcile the epistemological division between mind and matter that was first articulated by Descartes, and that underlies mechanistic science as well as our ways of

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Descartes and Newton as well as with the later developments of mercantile and colonial expansionism, capitalism, consumerism and the "wise management" conservation approach developed by Gifford Pinchot (Taylor 1992: 26-8). The Ecological World View, in contrast, has roots in the Romantic tradition as well as in the organicist traditions of Leibniz, Hegel and Whitehead, and is identified with John Muir's preservationist approach to ecological conservation (Taylor 1992: 28-31). For more on the relationship between Cartesian philosophy and technocratic society, see Drengson 1995, particularly pages 82-3; between mechanistic science and urban-industrial society, see Macy 1998: 40-1.

experiencing self and world in the West today. Each in their own ways, the authors considered in this thesis provided their answer to this question. In their works, we discover the outline of a tradition whose primary concern has been the discovery and achievement of a unified state in reality that resolves the problems created by the division of subject and object, mind and matter, man and nature. This tradition loosely binds the various authors presented here to one another. To the extent that they address the question of wholeness in their works, these authors belong to a philosophical tradition which, although it runs parallel to and weaves its way in and out of the Counter-Enlightenment tradition described earlier, is here considered separately in its own right.

When, in his preface to *Holism and Evolution*, Smuts writes that "our race and our civilisation are to-day confronted with the alternatives of integration or disintegration", and that "Holism points the way to the former as against the latter alternative" (Smuts 1936: vii), he is speaking from within this wholeness-seeking tradition. Smuts is concerned first and foremost with the achievement of ever greater wholeness, with the discovery of the world *as* Whole. He opposes the "morbid and unnatural condemnation of the flesh" which he associates to traditional mechanistic philosophy, as well as the evil, abuses and perversions that arise from the severance of mind and body (Smuts 1936: 263-4).

In these many ways, Smuts' Holism is an expression of the wholeness-seeking tradition in Western thought. But more than that, Smuts has provided this tradition with a name. The term holism, from the Greek *holos*, speaks to the heart of all wholeness-seeking. Its root word *holos* ("whole") places a paramount emphasis on the ideal of wholeness, while its ideological suffix, *-ism*, captures the deliberate, reactionary and at times programmatic intent that has characterized the pursuit of that ideal in recent centuries. In my view, the term holism perfectly encapsulates the character, values and aspirations of the authors considered in this paper in their quest for unity. Therefore, despite the fact that Smuts clearly meant it to refer specifically to his own theory of evolutionary Holism, I adopt the term holism here to refer not only to his theory but also to the entire tradition from which Smuts' theory arises. This tradition, as I said, has roots that reach back as far as the fifth

century BC, though it only came into its own as an intentional project (an "ism") with the emergence of Cartesian dualism and mechanistic science in the seventeenth century.[7]

The following chapters present a survey of key holistic thinkers and their particular contributions to the holistic project in the West. These contributions are not necessarily coherent or consistent—the later ones do not necessarily follow from those that came before (although, as I discuss in section 3.6, there does appear to be an emergent pattern in the way that the thinkers in this paper address the question of wholeness). In some cases, as in the case of Leibniz's theory of monads and Whitehead's theory of prehensive occasions, there is a clear continuity between ideas. In other cases, as in the case of Hegel and Whitehead, it would seem that with regard to key notions (like Hegel's dialectic) the former was, as far as we know, all but unknown to the latter.

The thinkers discussed in the following pages are not deemed holistic because they ascribed to a particular doctrine called holism. The term holism itself was, after all, coined quite late by a younger contemporary of Whitehead: neither Leibniz, Hegel nor Whitehead use it to define their own philosophies.[8] Rather, the authors discussed here are deemed holistic only insofar as their work revolves around the multivalent ideal and

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[7] Other authors have used different terms to refer to a similar collection of thinkers, to their rejection of mechanistic science and their emphasis on the unification of the Cartesian divide between subject and object. As we saw earlier, Duncan Taylor refers to the "organicist" tradition of Leibniz, Hegel and Whitehead (Taylor 1992: 28); the historian Carolyn Merchant similarly refers to organicism (Merchant 1980: 100) as well as the "organic view" and "organismic perspective" (ibid., 289). Merchant also uses the term holism (ibid., 293) and seems to use this term interchangeably with the previous three. I follow Merchant in using these terms interchangeably, though I favour the term holism because of the potential ambiguities of the term organicism. As is made clear by Joseph Needham in his 1928 article "Organicism in Biology", the term organicism is not only used to refer to the holistic tradition (in the sense that I use it here) but it is also used to refer to a particular theory in the biological sciences. Although this biological theory shares certain common origins with holism, especially with regards to Whitehead's philosophy of organism (Needham 1928: 33), it is actually more akin to "organic *mechanism*" than to holism as I have so far defined it. Considering that the holistic tradition as I have outlined it in this chapter largely came to be in *reaction* to mechanistic science and philosophy, I fear that using the term organicism, which evokes a form of mechanistic thinking, might blur the lines that I am now trying to draw in the sand. (This blurring may indeed prove more fruitful at a later date—as we will see in section 4.1.1—but for now the lines being drawn are crucial to understanding the context and character of holistic philosophy as a reaction to Cartesian and Enlightenment thought.)

[8] This might lead some readers to feel that I commit an anachronism by employing holism as a blanket term for the works of these thinkers. In my present case, anachronism is to a certain extent inescapable. To use the term organicism instead of holism would in no way solve the problem (save perhaps in the case of Whitehead, whose philosophy of "organism" is etymologically close enough to "organicism" to perhaps warrant the label). Either way, I am willing to live with the anachronism that my use of the term holism entails because I feel that this term is best suited to describe the philosophical thread that is the topic of this paper. That said, it is important as we move forward to remember the importance, particularly when dealing in the history of ideas, of recognizing the order in which ideas and terms have emerged, and to recognize that an author's thoughts can ultimately only be captured in his or her own words.

imperative of wholeness. In all cases, the thought of these authors cannot be said to begin and end with their holistic concerns. Rather, for Leibniz, Hegel, Whitehead and Naess, wholeness represents one aspect of a much broader picture, one element in a spectrum of concerns. In this sense, I am not discussing the philosophies of these authors in their entirety but only the aspects of their philosophies that are expressly concerned with the question of wholeness, in other words, the aspects of their philosophies that have made a definite contribution to the holistic thread.

Holism, in short, is a term that I borrow from the philosopher J.C. Smuts to refer to a conceptual thread in Western thought that is concerned with the question of wholeness and, more precisely, the unification of the subject and object of experience. This thread runs parallel to a counter-movement in the eighteenth and nineteenth centuries which Isaiah Berlin calls the Counter-Enlightenment (2013a), and has been historically interwoven with this counter-movement. Holism is particularly concerned with finding a way to address and reconcile the Cartesian division of mind and matter that lies at the heart of the mechanistic paradigm of modern Western society. Each in their own way, Leibniz, Hegel, Whitehead and Naess offer alternative perspectives that seek to aid the Western mind in finally overcoming its longstanding epistemological division between subject and object, mind and matter, man and nature.[9]

These holistic perspectives speak, on the one hand, to modern society and the problems that have arisen in the wake of its unspoken Cartesian and mechanistic assumptions; on the other hand, they speak to an apparently primal and primordial need in human beings to bridge the inherent distance between subject and object, knower and known—a need that is arguably as old as the distance itself and that has pushed humans ever further behind and ahead of themselves, ever further outwards and inwards, in search of a sense of unified reciprocity with the external world.

[9] As we will see in section 3.5 on Whitehead, from the beginning of the twentieth century onwards this epistemological division was significantly challenged in science by emerging fields such as quantum physics. Although the subject-object division has been largely rejected by leading-edge science in the wake of such emerging fields, this epistemological division has continued to exert a tremendous influence on mainstream social, political, economic and scientific thought. Whitehead was keenly aware of this in his own day and it was one of the motivating forces behind his philosophy of organism (Whitehead 1963: 106; Lowe 1962: 222).

Whether the thinkers discussed in this paper have succeeded in their task, whether their attempts to discover unity in the world and to bridge the Cartesian rift have in the end yielded a new world order and furthered our self-understanding as a culture and as a species, is not for me to say. What I offer in the pages ahead is an exploration of how these individuals went about solving the question of wholeness, how others after them either carried forward or rejected their solutions, and, finally, the powerful ideas and unique insights that each of them has entrusted to our shared history and identity in the West.

Chapter 2: Man and Nature in the Renaissance

The previous chapter established holism and the holistic tradition as I intend to employ them in this thesis. These terms refer to a diverse and inconsistent stream of thought in the West whose primary concern since the seventeenth century has been the reconciliation of the division between subject and object: between the Cartesian conceptions of *res cogitans* (mind, self) and *res extensa* (matter), between the concepts of man and nature that began to emerge in a forceful way during the Renaissance. Before we turn to the holistic aspects in Leibniz, Hegel, Whitehead and, in the final chapter, the deep ecology movement, this division and opposition between subject and object needs to be considered more closely in its genesis.

The present chapter delves a little further into the opposition between subjective mind and objective matter by observing how it was first expressed in the philosophies of certain Renaissance thinkers. Although Descartes' *Cogito* was truly epochal in its grasping of the spirit of an emerging era (an era that continues to unfold in our present day), it too had its precedents in the thought of previous generations. Concepts of the individual and the cosmos, of subject and object, had already been acquiring a new character during the centuries preceding Descartes' life. From the fourteenth century onwards, the Renaissance witnessed the emergence of new philosophies of man and nature that were redefining the individual's relation to the cosmos and the human subject's relation to objective fact. It is crucial to understand something of these concepts and categories in their genesis if we hope to understand the context in which holism emerged and began to call for their reconciliation. For it is these new categories, explored and tentatively established by thinkers in the Renaissance, that holistic thinkers in later centuries would attempt to reconcile in their search for unity. In a sense, it was the emerging categories themselves, which introduced a heightened distinction between the subjective and objective poles of experience, that created a new and pressing need for a unified vision of man and world. Before we begin our discussions of how Leibniz, Hegel and Whitehead articulated unity in their respective philosophies, let us then begin by defining what it was that they were trying to unite: the dual poles of man and nature,

subject and object, knower and known—all concepts which underwent major revisions during the humanist revival of the Renaissance.

2.1 A new state of tension in thought

In his book on the individual and the cosmos in Renaissance philosophy, the scholar Ernst Cassirer (1874-1945) makes a reference to an allegorical motif that had been the subject of fascination and inspiration for many thinkers and artists during the fourteenth and fifteenth centuries.[10] The motif in question is the *Battle between Fortune and Hercules*, a story borrowed from ancient Greek myth: "Against her old enemy Hercules, Juno sends Fortune. But instead of conquering him, she is overpowered, taken, and chained" (Cassirer 1963: 73).

This story was the popular topic of pageants and artistic works from the fourteenth century onwards and was featured in numerous philosophical works (ibid.). For instance, the Italian friar and philosopher Giordano Bruno (1548-1600), recounted it in his *Expulsion of the Triumphant Beast* (1584):

> Fortune comes before Zeus and a gathering of the Olympian gods to request of them the place that Hercules had hitherto occupied in the heavenly constellations. But her claim is declared invalid. Indeed, to her, the roving and inconstant one, no single place is denied; at her pleasure she may show herself anywhere in heaven or on earth. But the place of Hercules is assigned to *Valour*. [...] Valour is unyielding to vice, unconquerable by suffering, constant through danger, severe against cupidity, contemptuous of wealth—and the tamer of Fortune. (Cassirer 1973: 73-4, italics original)

The particular relationship between Fortune and Hercules in this passage highlights the opposition of Fate and Valour. Fortune, to whom no single place is denied, is not allowed to enter the realm of Hercules, who symbolizes human agency. According to Cassirer, the very *possibility* of this relationship and opposition was "characteristic of the culture of the Renaissance and its whole intellectual attitude" (Cassirer, 1963: 74). For in this opposition, in this emphasis on valour in the face of fortune, the thought of

[10] In this section, I pull heavily from Ernst Cassirer's insightful work, *The Individual and the Cosmos in Renaissance Philosophy* (1963).

the Renaissance was announcing its divergence from the general path of medieval thought. This divergence was far from an actual break—for "there is no real break with the philosophical past" (ibid.). It was felt instead as a "new *dynamic* of thought" (ibid., italics original), wherein long-established ideas were suddenly being imbued with new life and new possibility.

The opposition illustrated by the struggle between Fortune and Hercules—between the objective necessity of the cosmos and the will of man—is an ancient one. According to Tarnas, it has been a motive force for "not just modernity but the entire human project [...]. An emergent distinction between subject and object seems to have been present already at the very birth of Homo sapiens" (Tarnas 2007: 19). The Renaissance, for its part, did not offer a solution to this perennial opposition. Instead, it was host to "a new *state of tension* in thought" (Cassirer 1963: 75, italics original), one which would prove to be a major determining factor in the subsequent course of Western holistic thought (Cassirer 1963: 191).

In building up to his seminal discussion of Hegel's works, the cultural historian Charles Taylor (1975) traced the development of the concept of the self as it made its way from its general conception in Antiquity and the Middle Ages to the eighteenth century, where it exerted an important influence on Hegel. Taylor describes the centuries of European history leading up to the eighteenth century as having witnessed "a revolution in the basic categories in which we understand self" (Taylor 1975: 5). While "the modern subject is self-defining," he writes, "on previous views the subject is defined in relation to a cosmic order" (Taylor 1975: 6).

These previous views which defined the subject in relation to a cosmic order were informed by two major philosophical traditions (among others). These traditions were Neoplatonism and medieval Scholasticism, rooted respectively in the works of Plato and Aristotle (whose works will be briefly discussed in sections 3.1.2 and 3.1.3, below). Neoplatonism was a philosophical stream that emerged in the wake of Plato's death in the mid fourth century BC and developed over the course of the several ensuing centuries, culminating in the third century AD in the work of Plotinus. According to Tarnas, with Plotinus "Greek rational philosophy reached its end point and passed over into another, more thoroughly religious spirit, a suprarational mysticism" (Tarnas 1992: 84). This emerging interpretation of classical philosophy, which integrated "a more

explicitly mystical element into the Platonic scheme while incorporating certain aspects of Aristotelian thought" (ibid.), was to be called Neoplatonism. It affirmed a doctrine of transcendent principles (the highest of them being "the One") which was grounded in Plato's doctrine of transcendent Ideas and combined concepts of hierarchy, emanation and suprarational mysticism elaborated by Plotinus. In this way, "Neoplatonism became the final expression of classical pagan philosophy, and it assumed the role of Platonism's historical carrier in subsequent centuries" (ibid.: 86).

Medieval Scholasticism emerged in the late Middle Ages (c. thirteenth century) as a result of the achieved hegemony of the Catholic Church in Europe (which led to heightened tolerance of pagan forms of thought) and the influx of classical texts into Western Europe from the Byzantine and Islamic empires in the East (ibid.: 175). This influx exposed scholars in the West to the scientific cosmologies of Aristotle and Ptolemy (among others), both of whom had been lost to Western Europe during the greater part of the Middle Ages. The tradition that was born from this exposure, supported by an emerging tradition of rigorous secular scholarship and education sponsored by the Church, developed around the newly-acquired major works of Aristotle, which included the *Metaphysics*, the *Physics*, and *De Anima* (*On the Soul*) (ibid.: 176). It culminated in the thirteenth century in the works of the Scholastic philosophers Albertus Magnus and his pupil Thomas Aquinas, whose devout loyalty to biblical theology was equalled only by their sympathy for "Aristotle's affirmation of nature, the body, and the human intellect" (Tarnas 1991: 178).

The cosmology of medieval Scholasticism, deeply influenced by the Catholic Church's Neoplatonic heritage and the emerging Aristotelian outlook, generally divided the world into a hierarchy of levels, with a general distinction between the heavenly and earthly realms. Every being was assigned to one of these levels "as its rightful place in the universe" (Cassirer 1963: 84). "In this tradition a proper human life is 'my own' only in the sense that I am a man, and this is thus the life fit for me" (Taylor 1975: 15). The Scholastic concept of the self, influenced by Aristotelian as well as Neoplatonic traditions, was deeply rooted in the notion that every entity possesses a fixed place in the order of being. An entity's being then determined the spectrum of its abilities and potential. This was expressed in the well-known Scholastic dictum "*operari sequitur*

esse" ("action follows being"). The ethical implications of this dictum are clearly described in a passage by Cassirer:

> In the medieval doctrine of two worlds, and in all the dualisms derived from it, man simply stands apart from the forces that are fighting over him; he is, in a sense, at their mercy. Though he experiences the conflict of these forces, he takes no active part in it. He is the stage of this great drama of the world, but he has not yet become a truly independent antagonist. In the Renaissance a different image emerges ever more clearly. (Cassirer 1963: 76-77)[11]

In 1486, the leader of the Florentine Academy, Pico della Mirandola (1463-1494), challenged the rigid cosmology of the Scholastics in his *Oration on the Dignity of Man*. Guided by his ethical vision of humanity, Pico advanced his concept of man by way of a reinterpretation of the story of Genesis: After having assigned a limited nature to all other creatures according to the divinely fixed order of being, God granted Adam an indeterminate nature. "We have given to thee, Adam, no fixed seat, no form of thy very own, no gift peculiarly thine" (Pico della Mirandola, 1998: 4). Lacking any definite nature of his own, man was thus free to fashion himself as he saw fit.

> In conformity with thy free judgment, in whose hands I have placed thee, thou art confined by no bounds; and thou wilt fix limits of nature for thyself. [...] Neither heavenly nor earthly, neither mortal nor immortal have We made thee. Thou, like a judge appointed for being honourable, art the molder and maker of thyself; thou mayest sculpt thyself into whatever shape thou dost prefer. (Pico della Mirandola 1998: 5)

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[11] It should be noted that although Cassirer uses Scholasticism as a counterpoint to the emerging philosophies of man and nature in the Renaissance, from a different perspective the Scholastic tradition can also be seen as a necessary precursor to the emerging theories of becoming characteristic of Renaissance philosophy and subsequent thought discussed in this thesis. In Scholastic thought we discover an early instance of appreciation for the possible plurality of truth and multiplicity of phenomena, largely inspired by Aristotle's attitude to nature and the physical world. Tarnas captures this aspect of Scholasticism quite well:

> with the introduction of Aristotle and the new focus on the visible world, the early Scholastics' understanding of "reason" as formally correct logical thinking began to take on a new meaning: Reason now signified not only logic but also empirical observation and experiment—i.e., cognition of the natural world. [...] A constantly growing multiplicity of facts about concrete things had to be integrated with the demands of Christian doctrine. (Tarnas 1991: 177-8)

In Pico's hands, the Scholastic cosmology experienced a partial reversal. While the hierarchy of fixed natures still applied to the nonhuman world, mankind now possessed a different nature—just as the constellation of Hercules had been placed out of Fortune's grasp, who once asserted her force over all of existence. *Operari sequitur esse*, therefore, still applied to nonhuman natures, but in the human world the opposite was now true. "The being of man follows from his doing" (Cassirer 1963: 84). In this reversal of order, the human subject suddenly glimpsed a new sense of itself founded upon its individual freedom of activity. Meanwhile, that same subject continued to experience the rest of the world according to fixed categories of being.

In this dawning contrast between the human and nonhuman, between free and fixed natures, we begin to see the contours of an emerging state of tension. The new vision of a self-affirming human consciousness, together with the rising influence of a new philosophy of nature emerging from the ashes of the medieval cosmos, had begun to shake the old order and undermine its absolute authority (Cassirer 1963: 109). But a tension was rising between these two agents of change, who seemed "to embody not only different but diametrically opposed intellectual tendencies" (ibid.). The reconciliation of these two concepts, "self" and "nature," whose diametrical opposition only sharpened as they were more clearly defined (ibid.), became a major concern for thinkers from the Renaissance onwards.

2.2 The emerging philosophy of man

Already in Plato's *Timaeus* (c. 360 BC), we can see an attempt to reconcile the self with the cosmos. This struggle is embodied in its notion of the soul. The soul, governed by the principle of love (Eros), "belongs to a middle realm of being. He stands between the divine and the human, between the intelligible and the sensible worlds, and he must relate and join them to each other" (Cassirer 1963: 132). The soul is the meeting place of subjective appearance and objective idea (ibid.). Correspondingly, Eros is the inherent impulse of appearance as it strives towards the ideal. Eros "constitutes the truly active moment of the Platonic cosmos" (ibid.) in which the movement from becoming towards being is effected—and with that movement, the reconciliation of the intelligible and the sensible.

Yet this movement of reconciliation, which moved strictly *from* becoming *to* being, became increasingly inadequate for thinkers in the Renaissance. Its movement only went one way. Plato did not include a parallel movement of being *towards becoming* that would lead the ideal back into the flux of everyday life. In the Platonic cosmos, as stated earlier, "the pure *objectivity* of the absolute stands, as such, above the sphere of subjective consciousness" (ibid., italics original). So long as the subject was in this way enclosed within the objective ideal, the absolute freedom of the self remained compromised.

Freedom, however, "lies in the *reversal* of the relationship we are accustomed to accepting between *being* and *acting*" (Cassirer 1963: 84, italics original). Pico, driven by his vision of human agency and freedom, achieved such a reversal in his *Oration*. Adam, he claimed, was granted a *becoming* nature—a nature not restricted to any given place in the cosmic hierarchy of being.

Pico inverted the Platonic order by emphasizing the becoming of man over his being. By doing this, he revealed how attached he was to the Platonic concept of Eros. Pico's concept of man is essentially the exaltation of Eros. In it, Eros is raised out of its subservience to eternal being and made the *source* of being itself.[12]

The emphasis on man's becoming nature brought with it a new level of uncertainty. If man fashioned his own nature through his actions, this nature could not, in principle, be known in advance. This, of course, stood in stark contrast to the Scholastic belief in a fixed order of being, as well as its belief in the absolute will of God and providence. "And yet, when compared with the certainty and comfort of the medieval belief in providence, the new uncertainty signifies a new liberation" (Cassirer 1963: 76). This liberation was arguably the primary motivator for those who embraced the new concept of the self. In Pico's case, this uncertainty and liberation was made the defining quality attributed to Adam by God in his recounting of Genesis. Other influential thinkers of the Renaissance such as Nicholas Cusanus (1401-1464) and Carolus Bovillus (1475-1566)

[12] All of this aligns with what I stated at the start of this chapter, namely that the Renaissance did not so much introduce novel ideas as it introduced a change in emphasis among pre-existing ideas. In order to challenge Scholasticism's preeminence of being, Pico did not invent an entirely new set of concepts; rather, he placed new emphasis on very old concepts, the concepts of being, becoming, and Eros. There is no real break with the past.

equally stressed the freedom of man and his differentiation from nature (Cassirer 1963: 93).

The liberation of the self from the clutches of the medieval world did not leave the world unscathed. On the contrary: "World views create worlds" (Tarnas 2007: 16). The emerging concept of man required a kindred concept of nature (Cassirer 1963: 189). Those Renaissance thinkers whose emphasis was on the value of the self and Eros had, not surprisingly, "re-visioned" the world as a deeply sympathetic universe that lent itself naturally to the self's self-discovery (ibid.). In their hands, the world became the harmonious counterpart to the liberated self, not only confirming the self's state of liberation, but also aiding it in its quest for self-determination.

A certain theory of knowledge that was popular among Renaissance thinkers at this time helped to validate this view of the world. According to this theory, knowledge presupposed an essential kinship between knower and known: "we perceive the object, we grasp it in its proper, genuine being only when we feel in it the same life, the same kind of movement and animation that is immediately given and present to us in the experiencing of our own Ego" (Cassirer 1963: 148). According to this theory, knower and known share a single nature. It follows that the knower glimpses something of himself in the objects he apprehends. Knowledge of the world thus involves a process of self-discovery. This particular conception of knowledge and the way in which it binds the knowing subject to the known object served to validate the claim that man achieves his own inner freedom through knowledge of the world.

In an apparently paradoxical manner, the self therefore had to seek outward in order to find itself. As Cassirer writes, "what is required of man's will and knowledge is that they be completely *turned towards* the world and yet completely *distinguish* themselves from it" (Cassirer 1963: 86, italics original).

The first part of this statement—that man's will and knowledge be *turned towards* the world—we can understand based on the Renaissance theory of knowledge outlined in the preceding paragraph. The aspiration of the self is to produce an image of the universe within itself (Cassirer 1963: 189), for only in this way can it achieve complete self-knowledge and freedom. The second part of the statement—that man's will and knowledge completely *distinguish* themselves from the world—is perhaps less obvious, though it flows naturally from the first. After all, the act of turning towards something

requires nothing short of a complete distinction from it: “Turning towards the whole of the cosmos always implies the ability not to be bound to any one part” (Cassirer, 1963: 86). In order to know the whole of the cosmos, the self must not be bound to any one part of it. What is more, the ability not to be bound to the cosmos has become an ethical imperative for the self. For the self, openness towards the world “must never signify a *dissolution* in it, a mystical-pantheistic losing of oneself” (ibid., italics original). Such dissolution, after all, entails the death of the self. In order to *be*, the self must maintain a distinction between itself and the world.

The Renaissance concept of the self and its corresponding world describe a universe in which self and cosmos exist in a harmonious and sympathetic relationship. The two participate in the same essential nature and therefore aspire to the same goal: the liberation of the self (whose best illustration is Pico’s God who deliberately endows Adam with an indeterminate nature).

As I said before, this concept of man and its corresponding concept of the cosmos required that the human subject be wrested from the grips of the medieval belief in divine law as expressed in Revelation. In order for this to happen, one had to reject the absolute authority of Revelation. A constellation needed to be forged for the self where divine fate could not enter.

The rejection of the absolute authority of Revelation had serious implications. “The clear-cut form of the classical and medieval conception of the world crumbles, and the world ceases to be a ‘cosmos’ in the sense of an immediately accessible order of things” (Cassirer 1965: 37). The emancipation of the self from the authority of divine law had the necessary consequence of undermining the unquestionable truth of Revelation, and created a new state of uncertainty where new forms of knowing could emerge.

Among these new forms of knowing, there arose a philosophy of nature which in some respects was the heir of the medieval concept of divine law (Whitehead 1963: 128). Yet unlike the medieval concept of divine law which looked to Revelation for guidance and validation, the emerging philosophy of nature appealed to a combination of sensory experience and mathematical reasoning to validate its claims. The new philosophy of nature thus gave rise to a concept of *natural* necessity that over the course of the following centuries came to replace the divine necessity of the Christian cosmology. Divine law gradually gave way to natural law. Thus, in a strange turn of

events, the Renaissance's emancipation of the self and its rejection of the Scholastic cosmology served as the precondition for the emergence of a concept of natural necessity that quickly became the greatest obstacle to the self's liberation. "A transcendent bond is replaced by an immanent bond; a religious and theological bond is replaced by a naturalistic bond" (Cassirer 1963: 101).

2.3 The emerging philosophy of nature

It is interesting to see how, contrary to popular belief in our present day, the rise of modern science did not only come about due to the inherent persuasiveness of its empirical observations and mathematical calculations. Rather, the scientific method appears inherently persuasive to us today because it has acquired an unquestionable validity over the course of centuries of rising influence of a particular scientific approach in the West, which Whitehead called "scientific materialism" (Whitehead 1963: 10), and which I refer to as "mechanistic science."

Before science could even begin to influence the character of thought, however, the Renaissance concept of man had to clear a space for it to grow. It was only after the dominant Neoplatonic cosmology of the Middle Ages had been shaken by the concept of a self-determining man that the Renaissance philosophy of nature (which later evolved into modern science) was able to begin refining its own methods of empirical observation and mathematical calculation unhindered by the influence of Scholastic thought (Cassirer 1963: 120). Without the intervention of the concept of man to upset the medieval order, the Renaissance philosophy of nature may not have had the impetus from within itself to escape the influence of medieval Scholasticism—especially since it shared many characteristics with the more established Scholastic view.

According to Whitehead, "the objectivism of the medieval and the ancient worlds passed over into science" (Whitehead 1963: 128). In Scholasticism this objectivism had taken the form of a belief in divine law and the absolute will of God. Man was absolutely contained within the will of God, from whom man received his nature and place within the cosmic order. Divine providence took precedence over individual will. An analogous view arose in the Renaissance philosophy of nature, but to the extent that it couched its theories in naturalistic rather than theological terms, it did not trace its

direct ancestry to dogmatic theology. Instead, it harkened to another crucial informant of the medieval world view: astrology.

As we recall, the medieval Christian mind tended to make a distinction between the spheres of the earthly and the divine. Providence reflected the will of God, which then by virtue of the absolute nature of God imposed itself upon all things in nature, including the will of man. Providence, in other words, determined all earthly happenings, and did so from above. And yet, when questioning phenomena of the earthly sort, the medieval mind often turned to a different source, one that was more in line with the sensual character of humanity's native earthly abode. This source was astrology, and it was the basis of late medieval naturalism.

During the Middle Ages and well into the Renaissance, it has been suggested that astrology exerted an influence no less significant than that of Christianity (Cassirer 1963: 99). Arising from pagan and Arabic sources, astrology was founded on the notion that the movements of the heavenly bodies express the underlying principles of nature, and that a keen observation of their patterns discloses the patterns governing the natural world (Cassirer 1963: 101). There were times when the Church considered astrology a threat to God's omnipotence, for it claimed that the planets *themselves* exerted an influence over the destinies of people and things on earth. Despite this mistrust, however, astrology was tolerated by the Church, just as many other non-Christian rituals and beliefs were tolerated at the time (Cassirer 1963: 99). Tolerance was made easier by the accepted distinction between the earthly and divine spheres. So long as astrology and all other forms of knowledge were understood to belong to the imperfect earthly realm—and were thus also subject to the rule of divine providence—astrology could be retained as a limited form of worldly wisdom (ibid.).

In the wake of the new concept of man advanced by thinkers like Pico and Bruno, astrology became a favoured point of departure for an emerging concept of nature. These thinkers, as we recall, were calling for a reversal in the status of being and becoming (or acting). They sought to move away from the static cosmology of their Scholastic forerunners and peers towards a vision of man as self-defining, which in turn impacted the predominant concept of nature by helping to displace the primacy of the Aristotelian-Scholastic categories of being—those predetermined categories by which all things were determined and understood. Just as the new concept of man had involved

a renewed emphasis upon man's immanent becoming and self-determinateness, the concept of nature was now free to explore the immanent natures of *things*: "nature according to its own principles." To many thinkers during the Renaissance, these immanent principles were most clearly accessed through astrology.

> To understand nature according to its own principles (*juxta propria principia*) seemed to mean nothing but to explain it by the *forces* innate in nature. But where did these forces appear more clearly, where were they more graspable and more general than in the movements of the heavenly bodies? If the immanent law of the cosmos, the all-embracing universal rule even for particular occurrences was readable at all, it must be here. During the Renaissance, therefore, astrology and magic do not conflict with the "modern" concept of nature; on the contrary, they become its most powerful vehicle. (Cassirer 1963: 101-2, italics original)

Renaissance astrology embodied the two major features of what would later become the modern philosophy of nature (and later still, modern science). These features are, firstly, a passionate interest in empirical fact, and secondly, a devotion to the most general laws of nature (Whitehead 1963: 10). Astrology related these two apparently disparate aspects by describing how the observed movements of the heavenly bodies disclosed the principles directing nature from within.

But astrology was still too deeply embedded within a magical (or acausal) conception of the world to be considered truly modern. The modern concept of nature would have to wait for later developments in mathematics and art by such thinkers as Leonardo da Vinci (1452-1519) and Galileo Galilei (1564-1642) in order to be fully and finally emancipated from its dependence on astrology and the magical interpretation of nature.[13]

Cassirer describes the final stage in the development of the modern concept of nature as an inner crisis that took place within experience itself (Cassirer 1963: 152). This crisis was a necessary step in the concept of nature's emancipation from its astrological and magical roots. It involved a "separation of the 'necessary' from the 'accidental', [a] distinction between that which obeys laws and that which is fantastic and arbitrary"

[13] For more details on the magical interpretation of nature, see Carolyn Merchant's description of Neoplatonic magic (Merchant, 1980: 106-9).

(Cassirer 1963: 152). Bacon referred to this conceptual triage as "cleansings and purgings of the mind" that would in turn give rise to "the true way of interpreting nature" (Bacon 2000: 57). This "triage," however, could not be effected by the early empirical and sensualistic philosophies of the Renaissance, whose theoretical explorations constantly led them back to magical interpretations of the world (Cassirer 1963: 147). Rather, it fell to art and mathematics to redefine the categories of experience from within.

The task, then, was "to bring a definite measure and a fixed rule to the indistinct mass of phenomena by constantly relating experience to mathematics; and that is done by transforming empirical accidentality into orderly necessity" (ibid.: 155). For this to occur, empirical phenomena had to be reconceived so that they expressed, from within themselves, a form of necessity. "What we call the world of facts is nothing but a tissue of 'rational principles'" (ibid.). "Nature does not so much 'have' necessity, but rather *is* necessity" (ibid.: 156, italics original). In Leonardo da Vinci's artistic approach, which was intimately tied to and inspired his mathematical theory, we find such a union of reason and perception: "True and objective necessity is found *in* vision, not above or below it" (ibid.: 158-9, italics original).

> The decisive point in Leonardo's thought is precisely that a dualism between the abstract and the concrete, between "reason" and "experience", can no longer exist. Both moments are related and bound to one another; experience completes itself only in mathematics, just as mathematics first "comes to its fruition" in experience. (ibid.: 154)

Thus we arrive at the modern concept of natural necessity: similar in tone to the theological and astrological concepts of fate yet entirely emancipated from the theological and astrological frames of reference. Instead, experience has become mediated by mathematical form. This mediation has grown so intuitive that the two are perceived as indissociable, nay, a single process. Necessity arises from experience, from *within* the experienced phenomena themselves.

Another element that contributed to the conceptual "triage" of experience in the Renaissance was the introduction by Galileo and others of a distinction between the primary properties and secondary qualities of bodily objects. This distinction first appeared in Galileo's writings, inspired in part from the atomism of such classical

thinkers as Democritus, Lucretius and Epicurus, although marked by a number of significant differences from those earlier views (Buyse 2015: 35). Following Galileo the distinction between primary properties and secondary qualities became a central element of the philosophies of Descartes, Locke and Newton (ibid.: 21). In his book *The Assayer*, published in 1623, Galileo wrote the following concerning the difference between the intrinsic properties of bodies and those that our consciousness projects onto them in the act of perception. I quote the passage at length because of its importance as the first post-classical articulation of a distinction that would come to define the epistemological basis of mechanistic science and, via mechanistic science, the attitude towards the material world commonly held by people in the modern West:

> Now I say that whenever I conceive any material or corporeal substance, I immediately feel the need to think of it as bounded, and as having this or that shape; as being large or small in relation to other things, and in some specific place at any given time; and as being one in number, or few, or many. From these conditions I cannot separate such a substance by any stretch of my imagination. But that it must be white or red, bitter or sweet, noisy or silent, and of sweet or foul odor, my mind does not feel compelled to bring in as a necessary accompaniment. Without the senses as our guides, reason or imagination unaided would probably never arrive at qualities like these. Hence I think that tastes, odors, colors, and so on are no more than mere names so far as the object in which we place them is concerned, and that they reside only in consciousness. Hence if the living creature were removed, all these qualities would be wiped away and annihilated. But since we have imposed upon them special names, distinct from those of the other and real qualities mentioned previously, we wish to believe that they really exist as actually different from those. (Galilei 1957: 274)

These developments in the late Renaissance philosophies of nature, which include the identification of experience with mathematical principles and the distinction between primary and secondary qualities, not only laid the groundwork for a concept of nature that served as a counterweight to the new concept of man, but also, paradoxically, one that *confirmed* that concept of man:

> For ultimately the Renaissance concept of *nature* was nourished by the same intellectual forces that gave birth to its concept of mind and its concept of man. What was required here was nothing less than that these forces turn, so to speak, against themselves, and that they put their own limits around themselves. (Cassirer 1963: 101, italics original)

Thus, the concepts of self and nature which initially seemed "to embody not only different but diametrically opposed intellectual tendencies" (Cassirer 1963: 109) are actually revealed to be polarized expressions of a single intellectual force. With the new concept of nature, necessity was not simply opposed to subjective freedom, but had become the seal of human subjectivity (Cassirer 1963: 159). To use Cassirer's expression, the new concept of nature was the emerging Renaissance subjectivity turned against itself and forced to act as its own limit. In this way, the Renaissance man discovered his rightful counterpart and irreducible companion in the modern concept of nature, which at once validated and restricted his claim to absolute freedom.

Chapter 3: The Changing Ground of Unity

What is unity? Is it real or ideal? Is it achievable, in this world or another? Is it given or is it made? Does it involve discovering one's origin in the immutable eternal origin of all things, or does it result from being immersed in the ever-changing flow of phenomena in their infinite diversity? Does unity involve a releasing of tensions, an end to conflict and strife, or are such tensions, such conflict and strife the key ingredients to creating a truly unified world, a world where nothing is left out? These questions lie at the heart of the holistic tradition and of the thinkers whose contributions are considered in this chapter. Whether one ascribes to the doctrine that unity resides in an immutable and eternal principle or substance, or that it is an emergent aspect of the ever-changing flow of perceived reality, one thing is certain: the way in which philosophers have conceived unity throughout the history of Western thought has differed greatly over time and between thinkers. One might even argue that there have been as many ways to conceive unity as there have been individuals to conceive it—although I believe this statement takes the thought too far and underestimates the influence of culturally-shared ways of thinking and perennial structures of experience on our individual conceptions of self and world. In the present chapter, I hope to bring attention to the different ways in which unity has been conceived by holistic authors since the seventeenth century. I have chosen to focus on three key authors: Leibniz, Hegel and Whitehead. To this list, I add a section on the ancient philosophers Heraclitus, Plato and Aristotle who, although I cannot honestly bring myself to call them holistic, did provide early intimations of many questions that would later resurface in holistic thought, and who are responsible for laying the greater part of the foundation for the philosophical tradition in the West. I also add a section on Vico, Hamann, Herder and the Counter-Enlightenment, in which I introduce the notion of pluralism, to be later developed in the section on Whitehead as well as in chapter 4. Taken together, the sections of this chapter present a broad overview of key holistic thinkers. This overview is not meant to be comprehensive—neither as a survey of holism nor of Western thought. It is meant as an exercise: an exploration of ideas and an application of deep thought to a limited number of

philosophies and authors, in the hopes of yielding some form of partial insight into the question of wholeness and unity in the West.

Over the course of this exercise, I will be calling on a series of recurring concepts. These concepts have been central to philosophy in the West, arguably since the beginning, and as we will see in the next section, they and their constitutive relations to each other have undergone a series of radical shifts from the Renaissance onwards. These concepts include Being and Becoming, the individual (and/or the particular) and the universal, the finite and the infinite, God, nature and man (later to become the more gender-inclusive "humankind"). Another concept that has been a central player in the Western quest for unity is the Absolute. I use "the Absolute" in the sense suggested by Sean Kelly and David Bohm in their dialogue on order, disorder and the Absolute: "In its concept, the Absolute is that to which nothing can be added" (Bohm et al. 1996: 226).[14] Another way of understanding the Absolute is in the words of the Jungian analyst Wolfgang Giegerich, who describes it as "the uroboros, the ontological and *logical horizon* for every thing in the world and for the world as such" (Giegerich 1998: 57, italics original). The Absolute is "that kind of knowledge that is 'ab-solved' (freed) from the difference between the absolute and the empirical, the infinite and the finite" (Giegerich 2010: 59). The Absolute is that logical space wherein the infinite variety and flux of perceived reality is freed from its difference and brought together as one. This concept, therefore, lies at the heart of the question of wholeness: wherever the Absolute resides, the unity that we seek shall be found. The Absolute as a perennial concept that is subject to our changing conceptions of self and world therefore plays a central role in the present discussion of wholeness and the unification of subject and object.

[14] Bohm adds: "Yes. We can say it in words. But I don't know that it refers to anything. [...] Any human concept seems to be limited in some way" (Bohm et al. 1996: 226). Despite Bohm's insightful (and I believe warranted) reservations, this definition of the *concept* of the Absolute is sufficient for the present discussion. The present thesis is concerned with how individual thinkers have conceived unity and wholeness throughout history. The question as to whether or not such conceptions are an adequate reflection the *actual* Absolute (the one that assumedly lies beyond our finite comprehension) belongs to another, far more expansive, conversation.

3.1 Forerunners of holism in early Western thought

The Renaissance witnessed the birth of an entirely new way of relating the individual to his surrounding world, a "new state of tension" between the subject and object of experience that were now being experienced in a wholly different way, as it were, in light of emerging philosophical outlooks that placed an increasing emphasis on the *becoming* nature of man and cosmos. As we will see, this new state of tension between man and cosmos greatly influenced subsequent philosophical attempts to reunite the subject and object of experience, to reconcile the self with the cosmos, humankind with nature; for this reason I call this emerging state of tension the centre of gravity of my thesis, around which revolve the later discussions of Leibniz, the Counter-Enlightenment, Hegel, Whitehead and the deep ecology movement. Each in their own way, the thinkers discussed ahead grappled with the issue of unity from within the conceptual framework introduced by the Renaissance. This conceptual framework was the new canvas, the renovated stage upon which later philosophical pursuits of unity and wholeness would unfold.

That said, although the Renaissance thinkers experienced this cultural birth as the midwives of a new state of tension between man and cosmos in the West, they and their modern descendants were by no means the first to struggle with issues like the reconciliation of subject and object or the unification of man and nature. As I have noted, these issues have arguably existed for at least as long as the philosophical methods of inquiry used to address them, methods which many scholars trace back to the fifth and fourth centuries BC: to that early outburst of critical and reflective thought which took place first in the Ionian cities of Miletus and Ephesus (located in present-day Turkey), and later in the flourishing Attic city-state of Athens as well as in Alexandria, in present-day Egypt. Indeed, not only are this period and these regions of the early Western world generally given credit for the birth of Western philosophy, but, according to Richard Tarnas, they are the birthplace of what may be referred to today as the mainstream philosophical tradition in the West.

> The Greeks were perhaps the first to see the world as a question to be answered. They were peculiarly gripped by the passion to understand, to penetrate the uncertain flux of phenomena and grasp a deeper truth. And they established a dynamic tradition of critical thought to

> pursue that quest. With the birth of that tradition and that quest came the birth of the Western mind. (Tarnas, 1991: 69)

The profound debt we in the West owe to these ancient figures is summarily captured by Alfred North Whitehead in his famous (albeit overstated) declaration that "the safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato" (Whitehead, 1978: 39). Whitehead states elsewhere that "Greece was the mother of Europe; and it is to Greece that we must look in order to find the origin of our modern ideas" (Whitehead, 1963: 14). Insofar as holism is concerned, Carolyn Merchant also tells us that "organic thought in the Renaissance had its roots in Greek concepts of the cosmos as an intelligent organism" (Merchant, 1980: 103). In saying this, Merchant has three root traditions especially in mind: Platonism, Aristotelianism, and Stoicism (ibid.). Taken together, these three traditions and their followers have provided much of the ground for the development of Western society and thought from the third century BC onwards. Later in this section, I will explore Plato's contribution to the holistic enterprise by way of his dialogue *Timaeus*, as well as Aristotle's contribution by way of his notion of immanent form. But these thinkers and their theories, as elemental as they were, also have their forerunners. Before we can speak about such towering figures as Plato and Aristotle, one such forerunner deserves to be mentioned. This forerunner is Heraclitus, an Ephesean thinker who, we are told, was at his prime around 500 BC (some seventy years before Plato was born), and whose sole remaining works today are a series of extant fragments that come to us by way of his later commentators (Geldard 2000: ix, 1).

3.1.1 Heraclitus

Heraclitus, so the legend goes, was born into a noble Ephesean family and "at some point abdicated his role in the leadership of the city-state in favor of a life of self-reflection" (Geldard 2000: 6). This retreat from politics and his birthright as an aristocrat is reflected in the extant fragments, which, according to the classicist Richard Geldard, are

> less concerned with society and the laws of nature than with inner truth and the discovery of the ways in which human beings can effect a kind of alchemical

> transformation of their being to bring that being into communion with the Supreme or Absolute Self. (Geldard 2000: 9)

Heraclitus is concerned with cosmic order and measure, what he calls the incomprehensible Logos (Fragment 1, Geldard 2000: 32, 156). His teachings seek to evince (to the extent that this is possible) how the Many come to express the One, and how the One comes to pervade and order the Many. His teachings arise in the wake of his Ionian precursors: Thales, Anaximander and Anaximenes, often referred to (along with Heraclitus) as the "pre-Socratics", and best known today for their naturalistic attempts to account for reality in terms of the interactions of the various elemental forces: fire, earth, water, air. Many of the extant fragments attributed to Heraclitus do indeed describe the common essence of the cosmos, of all reality, as an "eternal fire":

> This cosmos [the unity of all that is] was not made by immortal or mortal beings, but always was, is and will be an eternal fire, arising and subsiding in measure. (Fragment 24, Geldard 2000: 44, brackets by Geldard)

> All things equally exchange for fire as does fire for all things, as goods are exchanged for gold and gold for goods. (Fragment 26, Geldard 2000: 45)

> The lightning directs everything. (Fragment 27, ibid.)

The use of fire imagery (which includes lightning as its supreme symbol in nature) calls attention to the fluid and changing nature of the cosmos. Indeed, Heraclitus is perhaps best known for his statement that "New and different waters flow around those who step into the same river. [...] We cannot step twice in the same river" (Fragments 21 and 22, Geldard 2000: 158). Again here, Heraclitus seems to employ the river as a metaphor for a cosmos whose nature is, both in essence and general action, a perpetual flux, a "long-term breathing" (Geldard 2000: 44). When read this way, it is easy to interpret the extant fragments as proponents of a doctrine of reality as constant flux and Becoming, to be set in contrast to doctrines that emphasize a static, timeless essential Being. This dualistic contrast, however, seems to me an oversimplification of the fragments and Heraclitus' thought; for while Heraclitus does speak of the cosmos as an eternal fire, the words he uses to qualify this fiery essence add a layer of complexity to his statements: The word "cosmos" itself, from the Greek *kosmos*, suggests the presence

of an all-pervasive order and, as Geldard suggests in his brackets, of unity in change. This is echoed by Heraclitus' image of the river, which in its onflowing state nonetheless remains constant. The words "measure" (*metra*) and "directs" (*kybernetes*), which appear in fragments 24 and 27 respectively, also suggest a form of order governing the flux of reality, which Heraclitus called Logos (for which Geldard offers multiple translations: "word," "account," "cosmic law," "Absolute").

Heraclitus, as stated previously, was concerned with discovering how the Many come to express the One and how the One comes to pervade and order the Many. In this sense, he was grappling with a relatively novel tension in his time between disparate and seemingly irreconcilable concepts—disparate not only logically, but also geographically. Ephesus' location in Asia Minor made it a prime point of intersection between a diversity of cultures from both the West and the East, "from Greece, Egypt, Judea, Persia, Scythia, as well as from the lands beyond the Indus River" (Geldard 2000: 4). This intermingling of cultures and languages in Ephesus during Heraclitus' lifetime seems to have set the stage for Heraclitus' primary philosophical undertaking. In seeking to discover how the Many come to express the One and how the One comes to order the Many, Heraclitus was effectively attempting a synthesis of what, at that time, might have been viewed as Eastern and Western visions: "of concepts of unity, or non-dualism, from the Eastern worlds and multiplicity from the Western, out of which grew a unique transformative vision" (Geldard 2000: 7).

The concept of the One, Geldard writes, "did not arise in traditional Greek religion or mythology.

> It is not, for example, contained in the *Theogony* of Hesiod, in Homeric epics, or, for that matter, even in the *Golden Verses* of Pythagoras. Nor does it appear in Orphic thought or the Eleusinian Mysteries. The One Supreme Self, or *paramatman*, is Vedic in origin and is central to Eastern thought. Its pervasive influence became overt for the first time in the eighth century BC with the Upanishads. (ibid.)

Heraclitus' synthesis of the One and the Many was effectively a synthesis of what we traditionally conceive as East and West, and it set the stage for questions of wholeness

and unity that would later become the keystones of the Western holistic tradition.[15] Some twenty-four centuries later, the Cambridge scholar and Indian mystic Sri Aurobindo mused on these questions in a series of essays titled "Heraclitus":

> We see everywhere a multiplicity of things and beings; is it real or only phenomenal or practical, *māyā*, *vyavahāra*? Has individual man, for instance,—the question which concerns us most nearly,—an essential and immortal existence of his own or is he simply a phenomenal and transient result in the evolution or play of some one original principle, Matter, Mind, Spirit, which is the only real reality of existence? Does unity exist at all and, if so, is it a unity of sum or of primordial principle, a result or an origin, a oneness of totality or a oneness of nature or a oneness of essence,—the various standpoints of Pluralism, of Sankhya, of Vedanta? Or if both the One and Many are real, what are the relations between these two eternal principles of being, or are they reconciled in an Absolute beyond them? (Aurobindo 1998: 221)

Heraclitus' originality and significance does not, arguably, simply arise from his being among the first to address these questions in a semi-rationalistic manner that foreshadowed the intellectual and logical development of later Greek and Western thought. What is even more remarkable is the way in which he addressed these questions and moved towards their resolution. In insisting that both unity and multiplicity are real and coexistent (Aurobindo 1998: 222), Heraclitus laid the ground for a unitive vision that strikingly anticipates such modern philosophical *tour-de-forces* as Leibniz's concept of active force, Herder's pluralism, Hegel's dialectic, and Whitehead's process theory. For Heraclitus, existence is "eternally one and eternally many" (ibid.), a truth which he expresses through such ambiguous and multivalent

[15] This point of convergence between East and West, as well as the many historical synchronicities that occurred around the time that Heraclitus lived and that spanned the traditional divide between East and West, have attracted increasing attention from scholars in the twentieth and twenty-first centuries, from Erik Voegelin and Karl Jaspers to Sri Aurobindo and Ken Wilber. Voegelin referred to the period around 500 BC as the "Great Leap of Being" and Jaspers called it "The Axial Period" (Geldard 2000: 5), a period that witnessed the birth of philosophy in the West with the pre-Socratics in Asia Minor and, some time later, Socrates and the Sophists in Athens, as well as the life and teachings of the Buddha, Lao Tse, Confucius, and Zoroaster (Zarathustra) in the East. As Geldard writes, this historical convergence of major historical figures, along with the spiritual traditions and guiding paradoxes they originated, seems to cast doubt on our traditional distinctions between East and West. Although we in the Christian West have tended to view our history, and indeed the history of all humanity, as centered around the birth and life of Christ (our dating system is an enduring testament to this), it might then prove more appropriate in light of recent developments to say that "500 BC was the axis around which world culture really turns" (ibid.).

imagery as the eternal fire and the river, whose ever-changing nature is nonetheless constant in its ever-changingness. The One thus becomes that element of constancy and measure in change, in the fact that all things change.

> Heraclitus insisted that everything (*ta panta*) that exists also partakes of the One, not merely as having come from or emerged from the essential Unity at some moment in time, some beginning, but that everything continues to partake of the One in its present, fluctuating becoming. Being in Becoming, Becoming in Being. (Geldard 2000: 38)

The reconciliation of the One and the Many, of undivided unity and heterogeneous multiplicity, occurs by way of a principle called *palintropos*, which Geldard translates as "opposing coherence": "They do not apprehend how being in conflict it still agrees with itself; there is an opposing coherence, as in the tensions of the bow and lyre" (Fragment 16, Geldard 2000: 39). Heraclitus views conflict and strife as universal and necessary processes. "He derides those who naively wish for peace in the world in the sense of a release of tensions as not understanding the necessity of conflict in the creation" (Geldard 2000: 40). Here again, Heraclitus seems to anticipate the pluralistic and dialectical conceptions of unity that would emerge in the eighteenth century in response to the erosion of the Neoplatonically-inspired notion that man's unity lies in his relationship to a single, eternal and infinite Being, which in the Christian tradition was identified with God. "It is necessary," states one of the fragments, "to know that conflict is universal and that strife is right, and that all things happen through strife and necessity" (Fragment 18, Geldard 2000: 40). Unity, therefore, is not achieved through a release of tensions and the subsumption of the Many within the all-embracing singularity of the One, but rather through a *holding* of the tensions between the Many and the One, through maintaining the charged distance between irreconcilable opposites.

Heraclitus proves to be a fascinating forerunner of the modern holistic project. As the starting point of the present discussion of unity, he initiates us into the question of unity in the West, the tension between the One and the Many which in the works of later thinkers would be addressed by way of such issues as the division of subject and object, mind and body, man and nature. He also, in his own esoteric and suggestive manner,

foreshadows the direction and character of the quest for unity in the West, and in many ways resonates more profoundly with our recent history and present day than with the centuries of medieval and early modern thought that separate his time from our own, centuries which were by and large dominated by Neoplatonic and Aristotelian systems of thought. It is no surprise, then, that the past hundred years have witnessed a renewed fascination and interest in the figure of Heraclitus and the few fragments attributed to his name.

3.1.2 Plato's *Timaeus*

We now move forward in time and space, from circa 500 BC to the turn of the following century, from the Ionian coast to the Attic city-state of Athens, where Plato, disciple of Socrates, and Aristotle, disciple of Plato, lived and taught. I am neither a classical philologist nor a sociologist, so my present interest in these thinkers lies less in discovering the true meaning of their works than in their influence on subsequent Western thought. For this reason, I have chosen to focus my discussion on Plato's *Timaeus* rather than such dialogues as the *Republic* and *Symposium* which have received more attention by scholars in recent centuries. Unlike the *Republic* and the *Symposium*, the *Timaeus* was the only major dialogue available to Western scholars and thinkers during the greater part of the Middle Ages (McDonough, 2010). To the extent that Neoplatonic thought has deeply influenced Christian conceptions of unity and the individual's relationship to the cosmic whole, both in the Middle Ages and today, this influence was primarily exerted by way of the *Timaeus*.

The *Timaeus* begins with its eponymous character being asked by Socrates to provide his account of the origin of the universe. In this account, we are presented with a full-fledged cosmology that remains unique among the dialogues:

Timaeus begins by describing the created order (*kosmos*) as a living being, a "world animal" that contains all intelligence within itself and exists in itself: self-moving and self-contained, governed by eternal patterns and composed of lesser intelligences that are microcosms of the greater whole.

> The animal should be as far as possible a perfect whole and of perfect parts: secondly, [...] it should be one, leaving no remnants out of which another such world might be created [...]. Of design he was created thus, his

> own waste providing his own food, and all that he did or suffered taking place in and by himself. (Plato, *Timaeus*, 32d-33a, 33c)

Since the world animal is the embodiment of the encounter between pleromatic chaos and emergent order, it stands to reason that it should be composed from their mixture. Timaeus describes this mixture as the union between the two opposing elements of the cosmos, known as "the different" and "the same": "'The same' is the perfect image of the eternal patterns, while the movement of 'the different' is a manifestation of the imperfect material body of the *kosmos*" (McDonough 2010: §2a, italics original). Both "the same" and "the different" are integral elements of the cosmos, so much so that the Creator fashioned the world soul by mixing them together with a compounded third that served as a binding intermediate (Plato, *Timaeus*, 34c-35a).

Timaeus here establishes a cosmology that, on the one hand, distinguishes the material and divisible bodies from the eternal and unchangeable patterns, while on the other hand also seeking their harmony—as though the attainment of highest perfection required the inclusion of imperfection. This is supported by a later passage where the creation of mortal beings is described as a prerequisite for the world's perfection: "Without them the universe will be incomplete, for it will not contain every kind of animal which it ought to contain, if it is to be perfect" (Plato, *Timaeus*, 41b-c). Perfection does not exclude imperfection, unity not disunity. On the contrary, perfection must include imperfection, mortality, divisible material within itself; for "it should be one, leaving no such remnants out of which another such world might be created."

The cosmology of the *Timaeus* affirms the absolute nature of the world animal as that which leaves nothing outside. In accordance with some of Plato's other more renowned writings, the unity of the world animal is here described as an ideal unity.[16] Timaeus tells us that the Creator "made the soul in origin and excellence prior to and older than

[16] Consider, for instance, Plato's allegory of the Cave in the *Republic* (*VII*, 514a-520e), in which his character Socrates makes the famous distinction between the perceptible and intelligible (or ideal) worlds. The perceptible world Socrates likens to a deep cave in which people are forced to look at shadows projected on a wall in front of them from the dim light of a fire located behind them. The intelligible world, in contrast, is likened to the world above and its primary source of light, the sun, which Socrates associates with the good, the beautiful and the true (517b-c). Although this passage is arguably meant in the first place to illustrate the difficult transition between the perceptible world of the cave and the sunlit intelligible world (which forces those who travel between these realms, i.e. philosophers, to constantly adjust their eyes, and to ultimately lose interest in the illusory shadows in the cave), it also serves as a noteworthy illustration of the Platonic doctrine that distinguishes between the perceptible and intelligible aspects of reality and grants precedence to the intelligible world as the cause and source of the perceptible.

the body, to be the ruler and mistress, of whom the body was to be the subject" (Plato, *Timaeus*, 34c). This soul, which earlier was described as the fusion of "the same" and "the different," is now described somewhat differently: it is not, as we might have imagined previously, the product of the harmonious mixture of opposing elements, but rather it is the compression *by force* of "the reluctant and unsociable nature of the [different] into the same" (ibid.). In other words, the flux of nature is here subsumed within the eternal patterns, which are higher in the order of perfection. The perceptual is thus subjected to the rule of the ideal, and the ideal conceived as entirely external to and autonomous from the perceptual. As Ernst Cassirer writes: "the pure *objectivity* of the absolute stands, as such, above the sphere of subjective consciousness" (Cassirer 1963: 132, italics original). Unity is conceived as the relinquishing, or the *seeing-through*, of the perceptual world (the world of individual subjective experience) in favour of the eternal world of ideas, the universal world animal, which contains the perceptual world within itself as a partial aspect of its own perfection. The Many are thus subsumed within the One, which is defined as the sole source of absolute unity.

3.1.3 Aristotle

This changes somewhat with Aristotle. Unlike his teacher, Aristotle had an inclination for studying empirical phenomena. This led him to direct his Platonically-educated mind to the phenomenal world, where he placed "a new and fruitful stress on the value of observation and classification within a Platonic framework of form and purpose" (Tarnas, 1991: 62).

Aristotle carried forth Plato's interest in the relation between form and matter (expressed above as the relation between "the same" and "the different"). But unlike his teacher, Aristotle did not separate the form from the perceptible object. Rather, Aristotle's appreciation of form joined forces with his keen interest in empirical observation to produce his concept of immanent form:

> an organism moves from an imperfect or immature condition in a teleological development toward achievement of full maturity in which its inherent form is actualized [...]. Every being is moved from potentiality to actuality according to an inner dynamic dictated by a specific form. (Tarnas, 1991: 57-58, 62)

Aristotle preserved his teacher's notion of the objectivity of form, but renounced Plato's emphasis on form's externality. In Tarnas' words, Aristotle affirmed that the specific form of a particular being exists objectively from that being: just as in the statement "I am a man, and this is thus the life fit for me," the form which guides the development of all men exists independently of any particular man (Taylor, 1975: 15). This objective form, however, arises from *within* the particular individual as that individual's "inner dynamic."

Together, Plato, Aristotle and the traditions that emerged from their works laid the greater part of the foundation for subsequent philosophical inquiry in the West. Along with a handful of other key thinkers from the ancient world, they provided the Western intellectual tradition with a fundamental direction, texture and tone that have endured to the present day. In seeking to understand the subject's relation to the objective world, or the individual's relation to the cosmos, thinkers have constantly returned to these pillars of Western philosophy and their insights into the nature of reality. The revival of their works that took place in the Renaissance, as we saw in chapter 2, eventually led to the emergence of our modern conceptions of man and nature, which were the products both of a renewed appreciation of the original Greek texts as well as an increasingly critical attitude towards accepted interpretations of Platonic and Aristotelian doctrines. One way to view the contributions of the thinkers discussed ahead is to see them as carrying forward, all in their own way, the philosophical project that was initiated in Plato and Aristotle's day. The thinkers discussed ahead are still fully invested in the questions that already weighed on the minds of those ancient thinkers—and so we might be tempted, along with Whitehead, to view them as mere "footnotes" to the uniquely original insights of those ancient seers and thinkers. And yet, these later works also seem to carry something truly novel, an original spark of their own, and in this sense need to be viewed as revolutions in thought in their own right, each building upon the last and yet providing something singular and incalculable to the whole of Western philosophy. The truth, it seems to me, as always, lies somewhere in between these two extremes (an observation which, as I recall, is generally attributed to Aristotle).

3.2 Leibniz's Monadology

I have often found that an epochal thinker is distinguished by the fact that his thought gives rise to conflicting interpretations. His contributions are at once an accomplishment in the face of what was, and an intimation of what will be. The epochal thinker is the pinnacle of the thought process he has engaged. He has resolved some longstanding problem, and so possesses it in its fullest clarity and complexity. Yet at the same time, he is the foreshadow of something to come. That same thought which was the pinnacle of achievement also offers itself as an as-of-yet unclarified intuition, whose premonitory nature is only fully recognizable in hindsight.

G.W. von Leibniz (1646-1716) was such an epochal thinker. His philosophy offers a brilliant synthesis of the problem introduced by the Renaissance—by its emerging philosophies of man and nature and their ambivalent relationship—while also providing the material for later thinkers such as Hegel and Whitehead. Cassirer writes that

> With the philosophy of Leibniz a new intellectual power emerges. Leibniz not merely alters the content of the prevailing world picture, but he also endows thinking in general with a new form and a new basic direction. (Cassirer 1965: 28)

Part of this new form and new basic direction was the character of the universe which Leibniz proposed. In contrast to Descartes' dualism and Spinoza's monism, Leibniz's universe was pluralistic (Cassirer 1965: 29); the pluralities that composed it he called *monads*.

3.2.1 The monad

Rooted in the Greek *monas* meaning "single unit," monads are nature's simple substances, "the veritable atoms of nature, and, in one word, the elements of all things" (Leibniz 1965[1714]: 148). Yet the monad is unlike the atom as we familiarly know it. While the atom of modern science "is a unit which, so to speak, resists multiplicity and retains its indivisibility despite every attempt to resolve it into subdivisions" (Cassirer 1965: 31), the monad knows no such opposition. "For with the monad there is no alternative between unity and multiplicity, but only their inner reciprocity and necessary correlation" (ibid.). The monad, in other words, is an individual substance that has gained an "inalienable prerogative" (Cassirer 1965: 32) in the context of a new dynamic

between the individual and the universal: “In Leibniz’s system every individual substance is not only a fragment of the universe, it is the universe itself seen from a particular viewpoint” (ibid.). It is therefore no longer a question of favouring the individual over the universal, or the universal over the individual, but with Leibniz the question becomes how “the one is contained and grounded in the other” (Cassirer 1965: 30).

This question becomes a point of contention as we move deeper into Leibniz’s system of thought. There is no doubt that Leibniz thought of his monad as “a perpetual living mirror of the universe” (Leibniz 1965: 157); the monadic individual expresses the universal, which in turn finds its ground in the individual, thus providing the basis for a pluralistic universe. But the nature of the reciprocity remains unclear. This is because the nature of the monad itself has yet to be clarified.

On the one hand, we get the sense from Leibniz that the monad is not so much an entity as an organizing activity: *in itself* a reflection of the universe by virtue of the relations which bind it to the rest of the universe (Whitehead 1963: 140-1). According to this description, the monad is an “occasion” of pure Becoming. Its Being (or substance) is merely an expression of that *process* by which the universe converges within it as into a single point, and then moves on. By this definition, the nature of the reciprocity between the individual monad and the universe is self-evident: it is an inherent aspect of the monad’s nature. The monad conceived in this way is nothing but the process by which the universe is reflected in the individual, an individualized moment in the universe’s unfolding.

And yet, we find that Leibniz did not entirely adhere to this view. In other instances, he insists that “the monads must have some qualities, otherwise they would not even be beings” (Leibniz, 1965: 148). Implied in this statement is a very different concept of the monad, one that affirms the monad as a substance distinct from the qualities attributed to it. This distinction between substance and quality, or between Being and Becoming—which Whitehead calls “Cartesian substance” (Whitehead 1963: 140)—is reminiscent of medieval Scholasticism in that it draws a line between Being (substance) and Becoming (quality) while granting preeminence to the former. In the previous paragraph, where the monad was conceived strictly as an individualized moment in the universe’s unfolding, the monad’s Being was indissociable from its Becoming. In contrast, the

monad conceived as a Cartesian substance is a Being (i.e., a substance) whose unity is attributed to it the way a predicate is attributed to a subject. The underlying Being of the monad is indifferent to its relations, just as the atom of mechanistic science retains its atomic essence regardless of its configuration within the whole (a hydrogen atom is a hydrogen atom, no matter what compound it is a part of).

By virtue of its Cartesian substance, the monad is "windowless," a closed unit whose "passions merely mirrored the universe by the divine arrangement of a preestablished harmony" (Whitehead 1963: 141). As a closed unit, the monad cannot be the source of its own reciprocal relationship with the universe, for such reciprocity requires an interaction, a "window" into the universe and other monads. The source of this reciprocity, consequently, must arise from *outside* the monad.

> The interaction of substances or monads has its cause not in an influx, but in *a harmony created by divine preformation*. Each monad while following its own inherent nature and laws adapts itself to all the others outside itself. (Leibniz 1965: 105, italics mine)

This law by which every monad adapts to every other is a law that has, according to Leibniz, been pre-established by God (Leibniz, 1965: 161). It manifests as the immanent nature of every monad in a similar way that Aristotle envisioned the form arising immanently from within an individual organism. In other words, it is the monad's nature to be a living mirror of the universe because God preformed it to be that way. We find here something that we already encountered in Scholastic thought, although this time it arises in a different context: The more Leibniz insists upon his view of the monad as Cartesian substance—that is, the more he insists upon a distinction between the monad's fixed substance and its qualities—the more he is forced to resort to an objective agent for the absolute unity of the whole.

3.2.2 Leibniz's Absolute

> The ultimate reason of all things must subsist in a necessary substance, in which all particular changes may exist only virtually as in its source: this substance is what we call *God*. (Leibniz 1965: 154, italics original)

Just as Leibniz could not entirely wrest his concept of the monad from the grip of the Cartesian substance, so his concept of God remained defined by it as well. Although

Leibniz argued against Descartes' hard separation of thinking and corporeal substances (Leibniz 1965: 38), he retained the more general concept of the Cartesian substance, that final real Being that underlies the qualities attributed to it (Whitehead 1963: 140).

Leibniz's God has something in common with Plato's world animal and Aristotle's Prime Mover. He is a being of pure objectivity whose laws manifest as immanent expressions of an objectively established order. It seems that this was the only logical way to ensure universal harmony while preserving the Cartesian substance of the monads. Leibniz required the intervention of an objective Absolute to ensure harmony in the form of a pre-established law. In both his concepts of the monad and of God, Being supersedes Becoming and is the immutable foundation of all change. The Absolute, in other words, retains its objectivity so as to assure, "from on-High," the harmony of a universe composed of monads whose essential substances are closed to one another.

Although Leibniz's pluralism offered a new and essential role to the individual entity, one which would seem to follow in the steps of the Renaissance concept of man, his attempt to preserve the Cartesian substance of individual monads undermined the individual's newfound status. Out of logical necessity, the monads were retained in a subsidiary rank to God. No matter how inherently valuable and essential the monads were made out to be, their value and essence were ultimately the products of God's pre-established order.

3.2.3 Nature in flux

Somewhere in Leibniz's thought, something had nonetheless already begun to shift away from this conception of Being and unity. In speaking of God, he continued to hold fast to the Scholastic/Cartesian concept of substance—which, as we saw, undermined his attempts to construct a truly pluralistic universe founded upon the monadic individualities. But when Leibniz turned his attention from God to Creation, his statements suddenly expressed a wholly different way of thinking.

> The whole of *nature*, I would say, is *a perfect work of God's making*, and this so much so that every natural machine—this is the true but rarely observed *difference* between nature and art—consists in its turn of an infinity of organs, therefore evincing the infinite wisdom and

> power of its creator and ruler. (Leibniz 1965: 96, italics original)

Just as the monad is an expression of God's pre-established harmony, nature is the corporeal expression of God's infinite wisdom and power. Nature is the totality of corporeal substance in the universe, and as such its substance is described in a strikingly different manner from the monad, which in contrast to nature is composed from the joining of corporeal *and* spiritual substances (Leibniz 1965: 106). Nature is defined as an "efficacy, form, or force" (Leibniz 1965: 100). This force, Leibniz writes, "cannot be explained by an appeal to the imagination" (Leibniz 1965: 101). What he means by this is that natural substances cannot be conceived according to the traditional separation of substance and quality, subject and predicate, or Being and Becoming. If we were to imagine nature—that is, if we were to conceive it imaginally, or picture it—we would have to grant it some body or stable form by which to recognize it. Our imaginations force upon things the Cartesian duality of subject and predicate, whereas nature does not abide by this duality. Leibniz tells us that the image of a created Nature endowed with wisdom and directing the corporeal machines from without is a fiction (Leibniz 1965: 97). Nature is not *endowed* with qualities, nor does it direct from without; it is an inherent force in all things. It is "intermediate between the faculty to act and the action itself" (Leibniz 1965: 83), meaning that it belongs neither to the category of subject ("the faculty to act") nor to that of predicate ("the action itself"). Nature is "brought into operation by itself alone" (ibid.). In other words, it is not defined by a hierarchical relation between Being and Becoming. Nature's Being—that which it is—is nothing other than the *activity* by which it becomes. The same applies to all corporeal substances, since "the very substance of things consists in their force to act and to be acted upon" (Leibniz, 1965: 102). Here, Leibniz does not only abandon the concept of Cartesian substance. He turns it on its head. Things, as it turns out, are not *things* at all. Their substances are not substances in the conventional sense, but are a restless active force and activity, a Becoming (Leibniz 1965: 83).

If we were to follow this train of thought to its end, we would soon arrive at a philosophy that bears a striking resemblance to Whitehead's philosophy of organism. But that would be getting ahead of ourselves. With his concept of nature as active force, Leibniz had put his finger on a key to freeing the monadic individualities from the

absolute grip of the Cartesian substance. But he did not apply this concept consistently throughout his philosophy. He protected the spiritual substances of the monads and of God from his concept of active force by drawing a logical line between corporeal and spiritual substances. “The soul follows its own laws, and so does the body” (Leibniz 1965: 161). In this way, the absolute will of God was preserved, while natural processes could start to be explained according to their own principles, in the manner that had already come to define the natural sciences in Leibniz’s time. These two modes, spiritual and corporeal, could coexist relatively comfortably. The former remained grounded in the concept of the Cartesian substance, while the latter was home to an emerging theory of Becoming. And since orthodoxy insisted that the corporeal substances be subordinate to the spiritual—their mechanical principles flowing from higher metaphysical ones—the theory of Becoming remained subordinate to the absolute Being of God (Leibniz 1965: 97-8).

Thus, Leibniz’s philosophy can be seen from two conflicting standpoints. On the one hand, it granted the individual a new and essential status within the pluralistic universe by affirming that “every individual substance is not only a fragment of the universe, it is the universe itself seen from a particular viewpoint” (Cassirer 1965: 32). In this sense, Leibniz’s thought embodied and carried forth the Renaissance impulse to free the individual from the shackles of the universal and to replace those shackles with a principle of reciprocity.

On the other hand, Leibniz placed the individual within a system that deferred to a universal Being for the assurance of absolute harmony. Left to their own teleological devices, the individual monads would surely undermine the meaning and order of the system, and therefore God as the ontological source of all substances was an inescapable and necessary concept. This made for a system that is, in the end, more closed than open, more restrictive than liberating for the individualities that compose it. Substance and quality, body and soul, God and nature. . . Leibniz’s system is a system of partitions erected in the name of universal harmony, and the windowless monad is its exemplar.

Although Leibniz was an early proponent of pluralism, his pluralistic perspective remained subject to one of the most widely-embraced assumptions of his time: that reality is governed by a set of rational, discoverable laws that are common to all people

in all places at all times: “these laws governed inanimate and animate nature, facts and events, means and ends, private life and public, all societies, epochs and civilisations” (Berlin 2013a: 4). This assumption engendered the belief, shared by Leibniz and the Cartesians, that the nature of reality could be captured in a single universal framework or system of thought—granted that system was developed according to the correct methods and founded on true first principles. In line with his Cartesian opponents, Leibniz wrote that “all our certain knowledge is established through *demonstrations* or through *experiments*. In both, reason dominates” (Leibniz 1965: 11, italics original). These rational methods and principles, once they have demonstrated their ability to generate certain knowledge about the world, are considered to be universally valid and applicable across cultural and temporal boundaries.

This understanding of knowledge and natural law made possible the works of the great system-makers of the seventeenth and eighteenth centuries who, like Aristotle and Aquinas in previous eras, sought to provide a comprehensive and conclusive framework for the multitude of phenomena that comprise reality, as well as a universal language that might capture the essence of the cosmos (Hausheer 2013: xlviii).

In the eighteenth century, however, a voice of opposition began to emerge in reaction to this prevailing way of thinking in Europe. The voice was raised in protest to the epistemological division of mind and matter proposed by Descartes as well as the mechanistic, materialistic and reductionist assumptions of Newtonian science, but it also (and for Berlin, especially) called out and challenged the more fundamental and pervasive assumption of rational universalism that qualified most philosophical thought at the time (Berlin 2013a: 24-5).

In our present day, the individual who is most responsible for reviving our appreciation for this voice of opposition and the thinkers that comprise it is Isaiah Berlin. Berlin’s essays in the history of ideas carry us into the worlds of these disparate thinkers of the eighteenth and nineteenth centuries scattered throughout Italy, Germany, France, Russia and Britain, and demonstrate how the writings of these disparate thinkers, when considered as a whole, provide a compelling, inconsistent, passionate and at times virulent critique of Enlightenment that has served as a model and inspiration for so many subsequent critiques and rejections of Enlightenment thought and its cultural offspring.

3.3 Isaiah Berlin's Counter-Enlightenment

Isaiah Berlin's essays on the Counter-Enlightenment focus primarily on three authors: Vico, Hamann and Herder. By studying the works of these three individuals—along with a number of other dissident and complex figures of the modern era including Machiavelli, Montesquieu, Hume, Herzen, Moses Hess, Disraeli, Marx and Sorel, all of whom are included in his collection of essays *Against the Current* (2013a)—Berlin evinces a set of common themes that recur throughout the works of these reactionary thinkers. It should be noted that the Counter-Enlightenment was not a movement in the strict sense of the term. As Mark Lilla writes in his Foreword to *Against the Current*,

> Strictly speaking, there was no such thing as a Counter-Enlightenment, no club to join or set of doctrines to profess. It was a term Berlin used to identify a group of dissident modern thinkers dismayed by the dominant trends in European thought since the seventeenth century, which they found mistaken and potentially destructive. (Lilla 2013: xiii)

These dissident thinkers were bound, in a loose and chaotic sense, by their shared antipathy to the doctrines of the French Enlightenment. This antipathy gave rise in many cases to a series of mutually reinforcing critiques. Thinkers of different generations and nationalities, whose writings were little known or unknown to one another, mounted strikingly similar attacks against the rationalist and universalist doctrines of the Enlightenment—as with Herder and Vico, who shared a similar pluralistic outlook even though there is no indication that Herder had read Vico's *New Science* before 1797, "long after his own ideas had been given to the world" (Berlin 2013a: 141, see also 121). Of the many recurring themes that Berlin identifies as characteristic of the Counter-Enlightenment—which include populism, nationalism and anti-rationalism—I will focus on two in particular in the present section. These themes are *pluralism* and *expressionism*. My decision to focus on these two ideas is guided by what lies ahead in the later sections on Hegel and Whitehead. As we will see, the ways in which Hegel and Whitehead (and Naess in the deep ecology movement) address the question of unity bears the distinct mark of the pluralist and expressionist outlooks championed by Vico,

Hamann and Herder. Just as the Renaissance represents in a sense the boundary between two prevailing ways of conceiving self and world in Western history, the ideas put forward by Counter-Enlightenment thinkers from the mid-eighteenth century onwards mark a decisive shift in the ways that absolute unity and wholeness are conceived by the authors in this paper. The two ideas that have most contributed to this shift, it seems to me, are pluralism and expressionism.

We discover an early proponent of pluralism in Vico, while expressionism was passed on from Hamann to his student Herder who elaborated it and also adopted a pluralistic attitude to human society. Let us begin, then, by exploring Vico's pluralistic approach and its rejection of Enlightenment universalism.

3.3.1 Pluralism

Like many other dissident thinkers after him, the Italian scholar Gimabattista Vico (1668-1744) began as a sympathetic proponent of the new philosophy pioneered by Descartes in the previous century. Before turning away from this philosophy and dedicating himself to the erection of a new science that in many ways undermined the absolute authority which the Cartesian method had claimed over the human and natural worlds, Vico fully embraced the belief in mathematics as the paradigm of all human knowledge (Berlin 2013b: 36, 38). Later in life, particularly in his last work, the *Scienza nuova* or "*New Science*" (1744), Vico turned his back on this view and affirmed instead that "the Cartesians were profoundly mistaken about the role of mathematics as the science of sciences; that mathematics was certain only because it was a human invention" (Berlin 2013a: 5). Here we see emerging a theory of knowledge which served as the basis for Vico's new scientific vision. According to this theory,

> the external world must remain opaque to men in a sense (which he endeavoured to make clear) in which it could be said that their own thoughts, feelings, purposes and volitions were not opaque, but capable of being understood. (Berlin 2013b: 38-9)

This theory of knowledge is similar to the theory common during the Renaissance that I described in section 2.2, according to which all knowledge presupposes an essential kinship between knower and known, or, in this case, between maker and made. We can only know that which we have made, or that which we have had a hand in

making: for "only those who make things can truly know what they are and for what purpose they have been made" (Berlin 2013a: 5). Consequently, we cannot "know the external world—nature—for we have not made it; only God, who created it, knows it in this fashion" (ibid.). On the other hand, we can know that which we *are* directly acquainted with—the various elements and aspects of human affairs, "motives, purposes, hopes, fears" (ibid.). These things we can know, and in a way that we cannot know the natural world.

This theory of knowledge, which led Vico in the end to abscond from the Cartesian philosophy that had so fascinated him earlier in life, determined the general direction of his scientific inquiry, which was aimed at those parts of the world that we can know—namely humanity, human affairs and history. By the same token, the theory undermined any group or philosophy that claimed to provide absolute and certain knowledge about the nonhuman world. Science, to the extent that it deals in certain knowledge, must be focused on what is distinctly human, distinctly *ours*. The methods of mechanistic science can provide explanations for *how* various phenomena occur in nature, but they are incapable of discovering *why* such phenomena occur, or to what end (Berlin 2013a: 5). As Morris Berman points out, the development of mechanistic science during this period heralded a shift in our relationship to such questions. From the seventeenth century onwards, and particularly in the twentieth century that Berman is addressing, "'how' has become our 'why'" (Berman 1981: 28). In recalling our attention to the importance of *why*, Vico questioned the ability of the mathematical and mechanical sciences to discover truth (which is related not only to the outward behaviour of things but also to their meaning and purpose), and laid the foundation for a new science that could.

Similar to Leibniz's Monadology, Vico's *New Science* is informed by a prototypical form of pluralism. Just as Leibniz's monads exist within the metaphysical context of God's pre-established harmony, Vico speaks of a *storia ideale eterna* ("ideal eternal history") "in accordance with which the particular histories of all nations proceed through time in their rise, progress, state [of perfection], decline and end" (Vico 2002[1725]: 288, brackets by translator). All civilizations follow a recursive historical pattern that carries them through various *sette di tempi* ("sects of time" [ibid.: 16]) whose internal development and sequence is fixed on the basis of the natural law of

human nations: “from the caves of the *orribili bestioni* to the divine, the mythopoeic, and the heroic, poetic, metaphor-creating cultures, and from them to the humane, prose-using democracies” (Berlin 2013a: 145). This sequence of the ideal eternal history is grounded in what Vico calls the “natural law of the gentes,” which, he tells us, is ordained by Providence “through the dictate of human necessities or utilities” (Vico 2002: 40).

Vico is deeply critical of the doctrines put forward by his contemporaries Hugo Grotius, John Selden and Samuel Pufendorf, because they fail to account for the role of Providence in the origins and development of human nations (Vico 2002: 14-8). He rejects Bayle’s claim that there can be such a thing as a society of atheists (ibid.: 9, 274), as well as Polybius’ belief that “the world could contain a nation of sages in the absence of any civil religion” (ibid.: 157). In all cases, Vico’s objection has to do with the failure of these ancient and modern thinkers to recognize the importance of religion and the idea of Providence, both as the central element of earlier forms of civilization and as the necessary precursor to the formation of society and philosophy (ibid.: 274). Polybius, Bayle, Grotius, Selden and Pufendorf all make the mistake of assuming that their own philosophical era and civilization possesses some sort of eternal validity, and thereby underestimate the role that previous (seemingly primitive) forms of religious society have played in the formation of their own secular, philosophical age. Vico’s objection to these authors thus arises both from his concern with discovering the proper sequence of the ideal eternal history as dictated by Providence through natural law, but also from a sensitivity to the variety of ways in which cultures at different times and in different places express themselves, and the importance of recognizing the validity of those modes of expression.

To the extent that Vico is concerned with “natural law,” he is very much a man of his time and is no less interested in discovering the universal patterns and principles that direct human society. His originality lies in the way he goes about discovering these patterns and principles. Rather than affirming a set of fundamental axiomatic statements proper to the philosophy of his own time and then working his way backwards from those axioms in logical fashion to discover the origins of human society and history, Vico demonstrates an uncanny sensitivity to the different ways in which cultures and civilizations have expressed themselves at different points in history. To Vico, it is

necessary to understand how these modes of expression embody the particular cultures they arise from. Only in this way can we hope to grasp the lived realities of such distant civilizations as those of Homeric Greece, Imperial Rome, Biblical Judea, or the Far East.

> Language, religious rites, myths, laws, social, religious, juridical institutions, are forms of self-expression, of wishing to convey what one is and strives for; they obey intelligible patterns, and for that reason it is possible to reconstruct the life of other societies, even those remote in time and place and utterly primitive, by asking oneself what kind of framework of human ideas, feelings, acts could have generated the poetry, the monuments, the mythology which were their natural expression. (Berlin 2013a: 5-6)

Vico thus emphasizes the need to understand poetic, religious and juridical works from within the social and cultural contexts that brought them forth. This may seem commonplace to us today, but it was a far cry from the attitude that prevailed during Vico's time, when it was customary among the Enlightenment *philosophes* and their allies to retroactively impose their own ideal values and norms on the whole of history; to judge, for instance, the Homeric epics according to eighteenth-century poetic taste and Roman law according to eighteenth-century legal systems—or, conversely, to disparage their own time and place on the basis of the presumably superior achievements of previous civilizations (Berlin 2013a: 14, 131, 160). To Vico, neither of these approaches does justice to the civilizations under study. Each society is unique and gives birth to masterworks that are expressions of their own way of life. The masterworks of different times and places are incomparable. The *Iliad* is neither superior nor inferior to the poetries of Racine and Corneille, Shakespeare and Milton. Just as the latter are crowning achievements of later forms of civilization, the Homeric poems are an unsurpassable poetic expression of a "nascent mankind" marked by "a wholly corporeal imagination" (Vico, cited in Berlin 2013a: 156), "a sublime expression of a society dominated by the ambition, avarice and cruelty of its ruling class; for only a society of this kind could have produced this vision of life" (Berlin 2013a: 131).

In this sensitivity to the rich variety of lived realities—at times complementary, at times wholly incompatible—that have contributed to our shared history in the West, we

discover Vico's emerging pluralism as well as his rejection of the Enlightenment belief "that there exist true, immutable, universal, timeless, objective values, valid for all men, everywhere, at all times", and that "these values form a coherent system, a harmony which, conceived in social terms, constitutes the perfect state of society" (Berlin 2013a: 152). Homer's *Iliad* cannot be rewritten, nor surpassed; the world view that birthed it has long since passed into history along with the epic poetry that was that world view's ultimate expression. The passage from one "sect of time" to another entails irretrievable loss. This again reflects Vico's belief that every culture and era is unique and that consequently these must be judged from "within," according to their own values and standards, and not according to the values and standards of another.

The German philosopher Johann Gottfried Herder (1744-1803) shared a similar sensitivity and appreciation for the uniqueness of cultures and the inability of any single rational framework to capture all life in its infinite diversity. "What painter of the soul could paint it in one stroke?", he wrote in his introduction to his major work, *This Too a Philosophy of History for the Formation of Humanity*, published in 1774 (Herder 2002: 268). Any attempt to discover whether the trajectory of human history has been heretofore guided by a universal pattern or singular direction would have to "ground itself on a study of the human heart in its most diverse forms, under the most manifold influences of times, needs, contingencies, ethics, habits, forms of government, etc., or it depicts a dream" (ibid.: 270). The Enlightenment thinkers—"d'Alembert, Helvétius, Holbach and, with qualifications, Voltaire and Diderot, Wolff and Reimarus" (Berlin 2013b: 208)—favoured clean-cut categories and logical consistency over faithfulness to the particular historical and social phenomena under study, and this often led them to "to reduce the heterogeneous flow of experience to homogeneous units, to label them and fit them into theoretical frameworks in order to be able to predict and control them" (ibid.: 221). Herder abhorred this. "We seek and weigh forces," he wrote, "not the phantom of their abstractions and consequences, which perhaps change with every ray of the sun" (Herder 2002: 270). If the living essence of a thing lies in its individuality and unique development, then the homogenizing theories of the French *philosophes* were a form of death—a stripping away of what makes us most human, of what makes all things what they are, to be replaced with abstract models and formulae that have no

bearing on the people, places and societies they claim to explain, no bearing on life as it is experienced, felt, suffered and lived through.

According to Berlin, it was Herder's teacher, Johann Georg Hamann (1730-1788), who instilled in Herder his appreciation for specific cultural and historical phenomena (Berlin 2013b: 22). This appreciation for the sacredness of facts, which Hamann had wielded against his opponents in his fanatical attempt to tear down the rational edifices of the French Enlightenment (ibid.: 11-3), was passed on to Herder and became the basis of his pluralism. This pluralism was an expression of Herder's belief "not merely in the multiplicity, but in the incommensurability, of the values of different cultures and societies, and, in addition, in the incompatibility of equally valid ideals" (ibid.: 218-9). Human societies and cultures, which are defined not by what they have in common with all other societies and cultures but by what makes them unique and different, can only be understood by way of an "inner feeling" (Herder 2002: 270). In order to grasp the lived realities of individuals and societies in other places and at different times in history, one must be able to "feel into" (*Einfühlung*) those lived realities and the unique conditions that have given rise to them. Like Vico, Herder believed that

> to understand a religion, or a work of art, or a national character, one must "enter into" the unique conditions of its life: those who have been storm-tossed on the waves of the North Sea (as he was during his voyage to the west) can fully understand the songs of the old Skalds as those who have never seen grim northern sailors coping with the elements never will; the Bible can be understood only by those who attempt to enter into the experience of primitive sheperds in the Judaean hills. (Berlin 2013a: 14)

Only by refining this faculty of "infeeling" are we able to grasp the unique "*Schwerpunkt*" (centre of gravity) of a given culture and thus understand it from the inside, according to its own values and standards—which is the only way to understand a culture other than our own.

There is an organic feel to Herder's philosophy of history. In it, thought and culture, action and location, are brought together into countless indivisible wholes. One cannot truly grasp the thought of a figure or group without fully grasping the time and place where they lived; one cannot truly understand the significance of a historical event without being sensitive to the ideas and conceptual frameworks that informed the

individuals involved in that event. Thought and language, theory and practice are not separate but all expressions of a single whole which is the individual man and his social and physical context. Herder not only challenged the tendency among Enlightenment thinkers to erect theoretical flatlands that attempted to explain all human behaviour by way of a handful of universal propositions, but he also attacked the tendency in those same thinkers to divide human life into a series of logical categories or genera. Like Vico, Herder refused to separate philosophy from history, fact from value, or language from its performance. Together, these aspects of human life expressed a total vision of the world (Berlin 2013a: 5). This vision of the world, informed by a complex and incalculable web of intersecting social, physiological and physical conditions (Herder 2002: 269), was unique and only graspable in terms of these broader contexts and the ways that they had come to manifest in that particular vision of the world. This belief fuelled Herder's fascination and appreciation for all cultures and societies, past and present. Each represented to him a unique vision of the world that was intrinsically valuable (by virtue of the fact that it could only be valued from inside itself). The colonial subjugation of indigenous cultures, both in his own time and in previous periods, was therefore to be seen as odious and a crime against humanity (Berlin 2013b: 271).

There is something reminiscent of Leibniz's monads in Herder's vision of cultural pluralism, in the sense that every monad had been conceived both as a particular substance, finite and fleeting, but also as a self-enclosed whole, a vision of the universe from a particular standpoint (Cassirer 1965: 32). Herder, however, did not share Leibniz's concern for universal harmony and so was all too willing to concede the obvious incompatibilities that he observed between certain values and societies in his own time and throughout history. Although his later theory of history did include the notion of a common goal, which he named *Humanität*, to which all of humankind aspires through its various forms of artistic and scientific expression (Berlin 2013a: 15), and although he did believe that all cultures "could and should flourish fruitfully side by side like so many peaceful flowers in the great human garden" (ibid.), Herder never abandoned his sense of the great diversity and incommensurability of cultures. "Not a man, not a country, not a people, not a national history, not a State, is like another. Hence the True, the Beautiful, the Good in them are not similar either" (Herder, cited in

Berlin 2013b: 292-3). Here lies the truly revolutionary element of Herder's thought, which we already saw foreshadowed in Vico: To the extent that all cultures are comprehensible only from within themselves and according to their own standards, and considering that these standards are in some cases incompatible, there is no way to gather all of human activity under the purview of a single theoretical framework, system or model. No single theory or law can account for the totality of lived experience in all places and all times. Such theories and laws are, like the various forms of art and religion to be found in society, expressions of a particular culture and place; they affirm a particular aspect of human life (presumably the aspect most characteristic of the time and place where it was affirmed) at the expense of other aspects that lie outside its scope. To claim that any such theory or law is universal is therefore a grave mistake—a mistake made all the more dangerous by the process of institutional homogenization that it inevitably brings to bear on human life and society, which brings human beings to treat "the world, including men and nature, [...] as a mechanical system to be manipulated for utilitarian ends by teams of rational experts" (Hausheer 2013: lx).

The pluralistic perspective first adopted by Vico and later embraced by Herder represents the penultimate blow to the view of reality as arising from a single, immutable and eternal Substance or Being whose nature is discoverable in the form of rational laws common to all places and all times. According to Berlin, this view represents the heart of the Western tradition from Aristotle to our present day:

> the overwhelming majority of systematic thinkers of all schools, whether rationalists, idealists, phenomenalists, positivists or empiricists, have, despite their many radical differences, proceeded on one central unargued assumption: that reality, whatever mere appearances may indicate to the contrary, is in essence a rational whole where all things ultimately cohere. (Hausheer 2013: xxxvii-xxxviii, see Berlin 2013a: 6)

Pluralism may not be mutually exclusive from this view of reality—indeed, as we have seen and have yet to see, Leibniz, Hegel and Whitehead are all systematic thinkers who, each in their own way, embraced a form of pluralism while still holding to their conviction that reality is an intelligible and ultimately coherent whole. And yet pluralism, particularly in Herder's radical form which did not seek to fit neatly into an overarching framework of unity and harmony, cast serious doubt on the prevailing

assumption of reality as a rational (i.e., coherent and intelligible) whole—doubt from which this assumption has, in my view, never entirely recovered. This has serious implications for the question of wholeness, since this question has until now always been answered by way of an overarching framework, an Absolute which brings the multitudinous phenomena of reality together and dissolves their differences into unity. If Herder is correct, however, the positing of such an Absolute is not only false but it commits a violence to the incommensurable diversity of life on earth. How, then, are we to achieve unity with the world? The remaining sections are meant to address this question.

3.3.2 Expressionism

If pluralism constitutes the penultimate blow to the prevailing view in the West of reality as a rational and ultimately coherent whole whose origin lies in a single immutable and eternal Being or Substance, then the ultimate blow (at least with regards to the order presentation in this thesis) goes to the view that Berlin calls "expressionism" (Berlin 2013b: 218). Expressionism is the wholehearted affirmation of the statement, "*Life as expression*."

> Expressionism claims that all the works of men are above all voices speaking, are not objects detached from their makers, are part of a living process of communication between persons and not independently existing entities, beautiful or ugly, interesting or boring, upon which external observers may direct the cool and dispassionate gaze with which scientists—or anyone not given to pantheism or mysticism—look on objects in nature. This is connected with the further notions that every form of human self-expression is in some sense artistic, and that self-expression is part of the essence of human beings as such (Berlin 2013b: 218)

Expressionism is a doctrine which views all human activity, and art in particular, as an expression of the individual or group (ibid.). We encountered this doctrine earlier in Vico when I noted that his sensitivity to the uniqueness of other cultures and times as well as the need to understand them from within their own cultural horizons arose from his belief that the poetic, religious, political and social achievements of cultures were expressions of their unique character. The Homeric poems are portals into the lived

realities of Greek societies in the ninth and eighth centuries BC because they are first and foremost expressions of the unique vision of the world associated to that place and time in history.

In this way, Vico's expressionism went hand in hand with his pluralism—the one grounded and informed the other. We find a similar relationship between expressionism and pluralism in Herder as well. To Herder, each society and culture is unique precisely because it exists as an expression of a particular time and place and its particular set of conditions—"climate, geography, physical and biological needs, and similar factors" (Berlin 2013b: 234). These factors are "made one by common traditions and common memories, of which the principal link and vehicle—indeed, more than vehicle, the very incarnation—is language" (ibid.). Language thus becomes the paradigm of cultural expression for Herder. Like his teacher Hamann, Herder embraced the notion that "words and ideas are one" (ibid.). Language was therefore the carrier of a culture's entire world vision, of the ideas, concepts and experiences that distinguish it from all other peoples. This in turn fuelled Herder's populist beliefs: Germans should speak German, not Latin or French. Only the German language could capture and express the unique character of German culture—which, according to Herder, was better suited than any other European culture for philosophical reflection ("is it not therefore a task for everyone who has German blood in his veins and a German philosophical spirit to develop this patriotic theme, [...] so that he cedes nothing belonging to philosophy and to its standing?" [Herder 2002: 6]).

Perhaps more than anything else, the expressionist doctrine challenged the longstanding belief that man's essential nature is fixed, that his being is dictated by a divinely pre-established hierarchy of beings in which man and all other living things discover their rightful place in the cosmos. This belief traces back to the Neoplatonic and Aristotelian notions of form as objective to the individuals it informs, a notion that was later adopted by Scholastic thought in the Middle Ages and finds analogous expression in some of the systematic philosophies of the Enlightenment.[17] The scholar Charles Taylor captures this notion in a passage about the Aristotelian tradition: "In this tradition a proper human life is 'my own' only in the sense that I am a man, and this is

[17] See sections 3.1.2 and 3.1.3 on Plato and Aristotle, and section 2.1 for a description of late medieval Scholasticism.

thus the life fit for me" (Taylor 1975: 15). For Herder and those who followed in his wake, however, this statement failed to do justice to the diversity of ways of being human that they observed in the world. It reduced the plethora of possibilities to a mere handful (or, in many cases, to a single one) for the sake of rational coherence. And so it was for Herder and his followers (particularly the Romantics of the late eighteenth century) to make "the epoch-making demand that my realization of the human essence be my own" (ibid.). The essence of what makes a man, his values and ways of being in the world, are not given but *made*. Human nature

> does not so much as contain even a central kernel or essence which remains identical through change; [...] men's own efforts to understand the world in which they find themselves and to adapt it to their needs, physical and spiritual, continuously transform their worlds and themselves. (Berlin 2013b: 11)

What we see here is a radical departure from the longstanding emphasis, central to the Western tradition, on Being as the origin of all things and of the world's unity. In its stead, there emerges a doctrine that places an increasing emphasis on Becoming as the origin of Being. We already saw this in Pico's retelling of the story of Genesis, in which he defined Adam as one granted with an indeterminate nature, free to fashion his own essence as he wished. Leibniz continued this thought, although he restricted it to his treatment of corporeal substances. In the expressionism of Vico and Herder, we see the thought taken to its utmost conclusion. We create our own natures. All our works, religious and artistic, from the Bible to the rationalist philosophies of the Enlightenment *philosophes*, are expressions of a particular time and place, of a particular culture and *Kräfte* ("force"), of our changing ways of being and moving through the world. According to Berlin, this thought is altogether new. "The ancient world and the Middle Ages knew nothing of it" (Berlin 2013b: 20). It marks a shift in the prevailing approach to human nature and its unity with the world, an irreparable dent in the central Western belief in a single unchanging reality underlying the flux of phenomena.

If we return to the two concepts of the One and the Many that had sought reconciliation in the teachings of Heraclitus, the expressionist doctrines of Vico, Hamann and Herder seem to be calling for an outright rejection of the concept of the

One.[18] Expressionism denounces the notion that a single purpose or law underlies all human activity. In a sense, expressionism is the One turned inside-out: what binds all humanity, what all men hold in common, is the fact that their lives and activities are forms of self-expression, and that as such each life and culture is incommensurable insofar as it gives concrete expression to a particular possibility, a particular way of being human. These possibilities and ways of being human may differ greatly from one time and place to another, and in many cases they may be irreconcilable, but they remain constant in the fact that they are all, without exception, forms of self-expression. The doctrine of expressionism thus seems to give new life to Heraclitus' statement that the only constant element in reality is change. Change is the paradoxical common thread that binds us all together, and it is therefore *in* change that we can discover the order (Heraclitus' "Logos") of the world.

I have already taken this thought well beyond anything that Vico, Hamann (definitely Hamann) or Herder would have said. But then again, what I am saying here perhaps has more to do with what lies ahead, in the sections and the chapter to come. It is not insignificant that Hegel was not only influenced by his Romantic peers, but that he was also an admirer of Heraclitus (Geldard 2000: 17). Despite the major critiques levied by the Counter-Enlightenment thinkers against all attempts to capture reality's incommensurable fullness within the confines of a single theory, law or model, both Hegel and Whitehead were deeply concerned with discovering a universal explanatory system, a philosophy that could account for everything from subjective experience to world history, everything from God to the causal interactions of physical bodies. Their philosophies, however, bear the unmistakable mark of the Counter-Enlightenment's pluralistic and expressionistic critiques of Enlightenment thought. Both in their own ways, Hegel and Whitehead follow in this critical counter-tradition. Their theories were meant to address the numerous shortcomings that they observed in the thoughts of their time, on both sides of the divide. Hegel was as much reacting to the Enlightenment doctrines of mechanism and materialism as he was to the reactionary theories of his Romantic peers. Whitehead was as much working from within the Romantic counter-

[18] Although in their respective total philosophies, Hamann was the only one who sustained this rejection throughout his writings, and he did so for largely reactionary purposes (Berlin 2013a: 8, 13). As we saw, both Vico and Herder retained a vague sense of universal coherence ("the One") in their notions of an ideal eternal history, on the one hand, and *Humanität*, on the other.

movement as he was from within the tradition of mechanistic science. Unity, for both of them, involved bringing together the various strains of thought into ever greater circles of inclusiveness, and carrying the antitheses into ever more complex and adequate syntheses.

If we take our final lesson from Herder, however (and it is significant that he should have the last word here), these attempts to bridge the incommensurable gaps between ways of being are destined to give rise to ever more sophisticated forms of oppression. Unity inevitably involves a degree of uniformity, an overstatement of harmony and commonality at the expense of individuality and difference. This overstatement for Herder translated socially and politically into forms of imperial colonialism and into the technical bureaucracies of the State, both of which involve "the substitution of machinery for life" (Berlin 2013b: 231. See also Berlin 2013b: 226, 246, 254-260). What matters, however, is the individual and his own unique development. Unity is not found in a literal interpretation of Oneness but in its inverted form: the common thread of ever-changing nature, Heraclitean "fire." This voice of caution never completely fades from view in the works of Hegel, Whitehead and in the deep ecology movement of Arne Naess. In many ways, it is absorbed by these thinkers and made a crucial part of their integrative theories. Whether Herder would have agreed with the ways in which his criticisms were carried forward in the hands of later holistic thinkers, however, belongs to another topic and another time.

3.4 Hegel's Dialectic

During his time as an Oxford professor, Isaiah Berlin supervised the post-graduate studies of the young Charles Taylor in the early 1960s. The reflections that arose from that collaboration and from Taylor's years of study later helped set the context for Taylor's major work on Hegel, published in 1975. In the opening chapter of *Hegel*, Taylor points to the expressionism of Herder and particularly of his later Romantic followers (Taylor calls it "expressivism" to avoid confusion with the twentieth century modernist movement in art [Taylor 1975: 24]) as a crucial informant and precursor to Hegel's thought.

One of the principal aspirations of Romantic expressionism, writes Taylor, was to achieve the absolute freedom of the subject—the individual freed from the totalitarian rule of necessity (Taylor 1975: 24-5). But even more than this, expressionism hoped to realize the *union* of man's freedom with what appeared to be the antithesis of such freedom: man's unity with nature (ibid.).

Expressionism was defined by this struggle to unite its two conflicting aspirations—to reconcile emancipation with integration. It was an arduous, paradoxical struggle. Many expressionist thinkers who sought to balance the scales found themselves swaying in favour of one side or the other. Fichte placed his emphasis on moral freedom with his notion of "a spiritual principle underlying nature" (Ellis 1981: 405). In asserting the moral character of history over the necessity of nature, however, Fichte offered little hope for their union (Taylor 1975: 36-7). Schelling, in contrast, affirmed the unity of nature and history (Taylor 1975: 42)—but by excluding reason from this unity (Taylor 1975: 47), Schelling's vision ultimately left no room for the freedom of the subject.

It was for Hegel to recognize that "our conception of spirit and its self-realization must have a place for reason if man is to be the vehicle of cosmic spirit and yet retain his autonomy" (Taylor 1975: 48). Far from solving the tension that held freedom and unity at a distance, Hegel's realization only deepened the conundrum. For was not reason the supreme mode of division, the affirmation of the thinking subject at the expense of an integrated cosmos? This was certainly the consensus among many expressionist thinkers, in particular Hegel's Romantic peers (Taylor 1975: 47), who were actively engaged in a mission to undermine the hegemony of the Enlightenment concept of reason as cold and calculative, "divorced from feeling and will" (Taylor 1975: 13).

Yet if expressionism was to achieve a synthesis of its two main aspirations, reason would have to play a central role. It was obvious that the freedom of the subject resided in its inherent rationality, since reason was the faculty by which men create laws for themselves (Taylor 1975: 60). Reason had been granted to Adam in the beginning; it was the quality that distinguished him from other animals and was therefore integral to the expressionist project. Furthermore, expressionism's second aspiration (the union of man and nature) also required the active participation of reason. After all, a union that was not enacted *freely* was tantamount to a renunciation of subjective autonomy, the

complete surrender of the subject to an undifferentiated stream of life that it does not comprehend (Taylor 1975: 46-7). Such a surrender implies the death of the self, the subsumption of the rational subject, and was therefore not a possible route for expressionism to take, since it precluded the absolute freedom of the subject.

Hegel shared the expressionist aspiration to integrate man's absolute freedom with his unity with nature (Taylor 1975: 51). He recognized the dilemma caused by the marriage of these conflicting aspirations in the theories of his peers, as well as the difficulties caused by his own emphasis on reason. One of the first steps he took in solving this dilemma, then, was to conceive Subject as *absolute*—that is, as objectively all-encompassing.[19] This absolute Subject Hegel named "Geist."

3.4.1 Absolute Subject

Loosely translated as "spirit," "mind," "soul," or "intellect" (Rauch, 1988: xii), Geist was Hegel's answer to the paradox of expressionism. Hegel understood that absolute freedom could never be achieved by man in his finitude. For freedom to be absolute, the subject of freedom had to be equally absolute (Taylor, 1975: 72). Geist was therefore subjectivity conceived as the Absolute. Absolute freedom was not achieved by man but in Geist. Man could achieve a similar freedom only by recognizing himself in absolute Spirit, that is, as a finite expression of the infinite. In this way, man achieved his ultimate freedom through his unity with absolute Subject.

At this point, Hegel's absolute Subject may appear to be no more than a concealed version of the objective Absolute we encountered in Plato, Aristotle and Leibniz. Is not the relation between Geist and man identical to that between Leibniz's God and his monads? In both, it would seem, the human subject remains no less trapped in his own finitude, no less detached from the seat of real absolute freedom. The objectivity of Hegel's absolute Subject stands, as such, above the finite subjectivity of man. Absolute Subject, we might be tempted to conclude, is not a solution to the paradox of expressionism but a regression to the problematic state that had incurred the criticism of expressionism in the first place.

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[19] Recall the definition of "the Absolute" given at the start of this chapter: "In its concept, the Absolute is that to which nothing can be added" (Bohm et al. 1996: 226).

This is not entirely fair, for something crucial has not yet been explained. Hegel sought to reconcile the absolute freedom of the subject with a real unity between man and nature; he understood that the solution to this paradox required nothing short of a new foundation with a whole new set of categories. “The overcoming of the not-self can never be completed, if the subject himself is not to disappear” (Taylor, 1975: 40). Likewise, the overcoming of the expressionist paradox can never be completed, if the form of thinking that maintains the paradox is not to disappear. Hegel thus set about erecting a new foundation, one that reflected more directly the nature and dynamic of Spirit. And since he claimed that all of nature tended towards the spiritual (Taylor, 1975: 38), his foundation of Spirit would prove to be the foundation of reality itself.

3.4.2 The true infinite

Just as Leibniz believed the imagination was incapable of grasping nature as an active force, Hegel believed that “our ordinary, phenomenal, consciousness” was incapable of grasping the nature of Geist (Hegel 1969[1816]: 45). Ordinary consciousness is dominated by contradictions—between self and other, the individual and the universal, matter and spirit—precisely because it does not see contradiction for what it is (Hegel, 1969: 440-1). In the language of ordinary consciousness, which reflects our perceptual experience, something either *is* or *is not*; this rule of common sense is captured in the well-known law of contradiction that declares that contradictory statements cannot both be true in the same sense at the same time. A person is *either* here *or* there, *either* living *or* dead.

In contrast to ordinary consciousness, which is bound to phenomenal perception, the language of absolute consciousness—the language of Geist—follows the logical movement of pure thought (Hegel 1969: 55-6). Here, the conventional law of contradiction gives way to a new law that states quite the opposite: That everything that *is* must also, out of logical necessity, *not*-be. “Everything is inherently contradictory,” wrote Hegel in his *Science of Logic* (Hegel 1969: 439). So goes Hegel’s revised law of contradiction, the entry point to his Dialectic.

Far from standing as an obstacle to the development of life, the inherent contradictions of things are the source of their life and movement: “It is only in so far as something has a contradiction within it that it moves, has an urge and activity” (Hegel

1969: 439). On this basis, Hegel claimed that the movements of finite things have their source in their tendency towards their opposite, the infinite.

> Matter [...] seeks its unity and thereby its own abolition; it seeks its opposite. If it would attain this it would be matter no longer, but would have perished. It strives toward ideality, for in unity it exists, ideally. (Hegel n.d.)

Finite things move because they aspire to the infinite, because they carry the infinite already within themselves as their end. Since the infinite is in this way already present *ideally* within finite things (i.e., as their end), the infinite can be said to exist both *as* finite thing *and* infinite ideal. In other words, the infinite is both finite and infinite. According to Hegel, this was the only way to formulate the true infinite (Hegel 1969: 137): an infinite which excludes the finite is not truly infinite for its infinity is boundaried by finitude, thus making finitude an obstacle to absolute infinity—like the constellation of Hercules to Fortune, who could not enter there even though no single place was denied her. The true infinite, on the other hand, must include both itself and its opposite. It is therefore not a temporal or spatial infinite (which are defined strictly in opposition to finitude), but a logical one: a "thought" infinite.

The same rule applies to the Absolute in Hegel's philosophy. Geist is not truly absolute so long as it is conceived in strictly objective terms as a cosmic "enclosure" or "container" into which all finite subjects are placed as into a box. Conceived in this way, the Absolute remains limited (and therefore not absolute), since it excludes that which it contains by virtue of the difference between the enclosure and the enclosed. The true Absolute, on the other hand, like the true infinite, must be at once the enclosure and the enclosed. *As* the enclosure, it *is* the enclosed; the enclosed in turn carries the enclosure within itself as its truth (Hegel 1969: 138). In a world like Hegel's that is defined by ideality, the truth of a thing lies in its ideal, that which it strives towards (Hegel 1969: 577). All things are defined by their dialectical movement towards unity in the ideal (towards the infinite or absolute enclosure). Hegel's dialectic thus turns out to be a full-fledged theory of Becoming; for the truth of a thing lies in its *movement* towards itself as its end.

3.4.3 Entering the dialectic

In a sense, the dialectic can be seen as the consummation of Plato's theory of Eros, its coming full circle. Eros, as we recall, was considered by Plato to be "the truly active moment of the Platonic cosmos" (Cassirer 1963: 132). In the *Timaeus*, Eros is described as the inherent impulse of finite things striving towards the ideal. Eros is the movement of partial and imperfect Becoming towards absolute Being.[20] Within the pure objectivity of the Platonic Absolute, however, the movement of Eros can only go "up"—that is, *from* the finite (Becoming) *to* the infinite (Being). With Hegel, the linear "upward" movement of Eros is transformed into a dialectical spiral. The Absolute is no longer the divinity atop the Mount receiving those ascending mortal subjects who have successfully transcended their sinfulness and imperfection. Hegel's Absolute has actively descended into the realm of mortality, entered finitude so as to *become* it. As such, the Hegelian Absolute is no longer defined by its rank in the hierarchy of being, "above" or "below." The dialectic affirms that the Absolute is *both* "above" *and* "below," *both* infinite *and* finite, *both* universal *and* individual in their own right at the same time. The Absolute in Hegel is not identified with one side or the other, but with the movement through which the two sides are joined. It is only by virtue of this movement that the Absolute can be said to be at once the enclosure and the enclosed.

> This absolute *universality* which is also immediately an absolute *individualization*, and an absolutely determined being, which is a pure positedness and is this *absolutely determined* being only through its unity with the *positedness*, this constitutes the nature of the *I* as well as of the Notion; neither the one nor the other can be truly comprehended unless the two indicated moments are grasped at the same time both in their abstraction and also in their perfect unity. (Hegel 1969: 577, italics original)

The Absolute is no longer identified merely with one side of the opposition between subject and object, individual and universal, Being and Becoming, finite and infinite. Rather, the Absolute is the ceaseless dialectical *activity* that holds the two indicated moments together (Taylor 1975: 48). This activity, however, is not the sort of temporal or spatial activity that is perceived by phenomenal consciousness (like the activity of a child running across a playground, or a person aging). Hegel has already asked us to

[20] See section 3.1.2.

renounce this form of phenomenal thinking, as it bars the way to philosophy (Hegel 1969: 45). Rather, the activity by which the opposites are connected and contained is a logical activity: the movement of pure thought liberated from the oppositions of phenomenal consciousness (Hegel 1969: 49). It is only through this activity of Geist that absolute unity is finally achieved, not only ideally but actually in the world.

> In Hegel's understanding, the Absolute first posits itself in the immediacy of its own inner consciousness, then negates this initial condition by expressing itself in the particularities of the finite world of space and time, and finally, by "negating the negation," recovers itself in its infinite essence. Mind thereby overcomes its estrangement from the world, a world that Mind itself has constituted. Thus the movement of knowledge evolves from consciousness of the object separate from the subject, to absolute knowledge in which the knower and the known became one. (Tarnas 1991: 380)

Hegel calls this movement of negation and "negating the negation" *sublation*, translated from the German *Aufhebung*: "'To sublate' has a twofold meaning in the language: on the one hand it means to preserve, to maintain, and equally it also means to cause to cease, to put an end to" (Hegel 1969: 107). The Absolute in its initial condition (as inner consciousness not yet posited in the external world) passes over into the finite world of time and space by positing itself as other, as outside itself. In overcoming its own identity and entering the other, it sets the stage for its own return to itself in its infinite essence. In this movement of departure and return, or of alienation and homecoming, the absolute Subject achieves absolute unity within itself by achieving unity between itself and the other that it has constituted. It does this by arising to the self-knowledge that it *is* the other, or rather that the other is a further determination of itself. This twice-sublated unity (marked by the negation of absolute Subject in its initial condition followed by its negation as finite other) does not only overcome the sublated "moments" of absolute Subject in its movement towards unity but also preserves their identities, which is to say that it preserves their difference (that is, the difference between absolute Subject as inner consciousness and absolute Subject as the externalized world of phenomena). The movement of sublation is not a literal movement in time or space, which inevitably entails the end of a previous state (the moment I move I am no longer where I was). Sublation, rather, is a logical movement,

the movement of pure thought's self-realization. As in individual human experience, the realization and overcoming of a previous self does not entail the complete end of that self. Rather, that self continues to exist within the new self as the condition of its emergence, as a reminder of what I was and what I continue to carry within myself. In this sense, both previous and present selves are retained with my present self, both as different moments of my personal development and as integrated aspects of my present self.

In its final form, this twice-sublated unity thus retains both the difference between its two previous determinations (as inner consciousness and external phenomena) as well as the unity it has finally achieved within itself through its process of "homecoming." Like the true infinite, which out of logical necessity must contain the finite within itself, true (i.e., absolute) unity must contain difference within itself. The sublated movement of absolute Subject thus leads to its absolute unity: the unity of its unity and difference. This unity includes even disunity within itself and is therefore absolutely all-inclusive. Whereas the Platonic Absolute had been posited in opposition to the finite and particular aspects of the world, Hegel's dialectic carries these finite and particular aspects into absolute Subject by positing them as the externalized moments of absolute Subject in its process of self-discovery. They are therefore necessary to the fulfilment of the self-sublating Subject, which seeks only to know itself (Taylor 1975: 138).

> Whereas for Plato the immanent and secular was ontologically dismissed in favor of the transcendent and spiritual, for Hegel this world was the very condition of the Absolute's self-realization. [...] All of nature's processes and all of history, including man's intellectual, cultural, and religious development, constitute the teleological plot of the Absolute's quest for self-revelation. (Tarnas 1991: 380)

We discover in Hegel an attempt to bring together two conflicting traditions: on the one hand, the main stream of Western thought which, since Aristotle, has sought to understand reality in terms of a single overarching principle or law, and on the other hand, the expressionist tradition that emerged in reaction to that tradition. Hegel's unity is not one that disparages the phenomenal world and its particularities, nor does it attempt to reduce the plurality of human experiences to a fixed set of universal axioms. According to Hegel, "the structures of human knowledge were not fixed and timeless,

as Kant supposed, but were historically determined stages that evolved in a continuing dialectic until consciousness achieved absolute knowledge of itself" (Tarnas 1991: 380). We see something of Vico and Herder in Hegel's dialectic. Hegel's philosophy remains a form of idealism, in it, the first and last word still go to Mind. But this idealism has moved beyond Platonic idealism, beyond the idealism of the Cave and of the *Timaeus*' self-contained world animal. In a sense, Hegel's idealism is the twice-sublated form of Platonic idealism, which has passed through the materialist and expressionist critiques of its world- and life-denying doctrines to arrive at a better understanding of itself and of its relationship to the external world of phenomena. This relationship is marked by a simultaneous difference and unity. Absolute Subject can only reach full knowledge of itself by recognizing the irreducible reality of external phenomena and how they, in their rich diversity and conflict, express the evolving nature of Subject: "the universal Spirit expresses itself in space as nature, in time as history" (ibid.).

Hegel's philosophy and dialectic offer an impressive synthesis of absolute idealism and the expressionist critique, of the desire to understand reality in terms of a single unifying principle and the desire to see each human experience as unique and inherently valuable. Just as the Christian God descended into mortal man so as to better know his own infinity, the Idea has descended into phenomenal reality in order to better understand its own nature. In Hegel, it returns to itself and thereby completes the circle, returning not only to an understanding of itself as Idea but also carrying a renewed appreciation for phenomenal reality, the countless ways in which it expresses the truths of Spirit and reveals Spirit to itself.

If Hegel represents one of the major emerging strains of thought in Continental Europe, a strain that would later greatly influence Karl Marx in his writings on capitalism, Whitehead represents the empirical and analytical tradition more closely associated to Britain and, later, North America. This is only partly true. Whitehead's wide variety of influences (which include the idealists Bishop Berkeley and Plato) make him a thinker who is at times difficult to classify. That said, his training as a scientist and mathematician as well as his longstanding collaboration with Bertrand Russell place him quite comfortably within the British analytical tradition. Where this is most apparent is in his philosophical attitude. In contrast to Hegel, Whitehead was a realist and an empiricist. To him, the physical world was not an externalized expression of

Mind, but rather mind was a product of phenomenal reality and experience. This difference in attitude gave rise to a significantly different conception of unity, one grounded not in the expanding self-knowledge of an absolute Subject but in the tangible flow of perceived reality.

3.5 Whitehead's Process

Alfred North Whitehead (1861-1947) was a mathematician first and a philosopher second (in time if not in mind). He was sixty-four years old when he published his first major philosophical work, *Science and the Modern World*, in 1925. This was after nearly four decades as an accomplished professor of mathematics at Trinity College and the University of London (Lowe 1962: 6). By that time, the three volumes of the influential *Principia Mathematica*, co-written with Bertrand Russell, had been on the shelves for over a decade and a second edition was scheduled to appear shortly.

As a scientist, Whitehead owed his allegiance to realism, that close companion of empiricism. According to the scholar Victor Lowe, author of the seminal book *Understanding Whitehead* (1962), Whitehead's method was realistic, not idealistic. Instead of describing how the objective world comes into being as an embodiment of subject or mind, Whitehead sought to describe "how subjective experience emerges from an objective world" (Lowe 1962: 40). Whitehead was adamant about the existence of a common objective world that transcended the scope of any individual experience and was the basis of cognition: "The *things* pave the way for the *cognition*, rather than *vice versa*" (Whitehead 1963: 84, italics original). Even though his concept of eternal objects, as we will see, was an expression of idealism in its own right, Whitehead erected his system on an empirical foundation. Emerging from a modern scientific tradition that traced its origin to the Renaissance philosophy of nature, Whitehead's philosophy rested on the premise of an objective world, yet could not disentangle this objective world from the facts of experience.

As a mathematician, on the other hand, Whitehead partook wholeheartedly in the aspirations of rationalism. As we recall, it had been mathematical idealism that had laid the groundwork for modern empiricism in the late Renaissance by "restructuring"

experience according to its rationalist principles.[21] Modern British empiricism, in short, was supported by a rationalist scaffolding. More precisely, it was supported by the scaffolding of mathematics. Whitehead was keenly aware of this (Whitehead 1963: 10). In attempting to create a new framework for science, he knew that a strictly empirical approach was not up to the task. One could not overcome the established structures of experience on the basis of experience alone, or else one was doomed to constantly reaffirm the pre-established structures without ever being able to question them, like the early sensualistic philosophies of the Renaissance who had failed time and again to move beyond the then-predominant magical interpretation of nature. Rather, one had to descend to the level of the scaffolding and effect the revolution there. One had to build a new conceptual structure to replace the old, and this was done by means of a rationalist method. Whitehead was therefore constantly in search of novel ways "to explain in the light of universal principles the mutual reference between the various details entering into the flux of things" (Whitehead 1963: 128).

It may be that Whitehead's eclectic assortment of influences, which included the pillars of modern empiricism John Locke and David Hume, the idealists Plato and Berkeley, the poets Wordsworth and Shelley, and the realists William James and Samuel Alexander, made him better disposed than most to capture the changing character of holistic thought at the start of the twentieth century.[22] By Whitehead's lifetime, the critiques first put forward by the Counter-Enlightenment thinkers of the eighteenth century had made their way into wider fields and made it difficult even for Hegelian idealism to be considered tenable.[23] Indeed, this was Whitehead's attitude. According to Lowe, he rejected "the traditional doctrine which contemplates a being at

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[21] See section 2.3.

[22] For the influence of Locke on Whitehead, see Lowe, 1962: 252; of Hume and James, see Lowe, 1962: 189; of Plato, see Lowe, 1962: 27; of Berkeley, see Lowe, 1962: 68; of Wordsworth, see Lowe,1962: 24; of Shelley, see Whitehead, 1963: 3; of Alexander, see Lowe, 1962: 264.

[23] Consider the following passage by Tarnas:

> as an entirety, the Hegelian synthesis was not sustained by the modern mind. In fulfillment, as it were, of its own theory, Hegelianism was eventually submerged by the very reactions it helped provoke—irrationalism and existentialism (Schopenhauer and Kierkegaard), dialectical materialism (Marx and Engels), pluralistic pragmatism (James and Dewey), logical positivism (Russell and Carnap), and linguistic analysis (Moore and Wittgenstein), all movements increasingly more reflective of the general tenor of modern experience. With Hegel's decline there passed from the modern intellectual arena the last culturally powerful metaphysical system claiming the existence of a universal order accessible to human awareness. (Tarnas 1991: 382-3)

once infinite and changeless as the sole repository of reality and value" (Lowe 1962: 16). He denied "that ultimately only one individual (God, or the Absolute) exists" (Lowe 1962: 35). How then could he hope to construct a universal system of meaning in the absence of its key concept and necessary foundation, the Absolute?

As far as I can tell, it was not Whitehead's deliberate intention to formulate a post-Hegelian concept of universal order or the Absolute. His immediate attentions lay elsewhere, for the most part. But in his attempt to create a metaphysical system of the world founded on science yet sensitive to the historical trajectory of the Western mind, Whitehead developed a comprehensive holistic theory that brought together some of the most basic questions of the Western tradition since Plato with the scientific and philosophical realizations of his own time.

3.5.1 The revolution within

> The progress of science has now reached a turning point.
> (Whitehead 1963: 23)

Whitehead lived during a time of great upheaval in scientific thought. By the end of the nineteenth century, Newtonian physics had generally been accepted as the ultimate explanation of reality: "It was an age of successful scientific orthodoxy, undisturbed by much thought beyond the conventions" (Whitehead 1963: 96). And yet, at the same time, this period of triumph was also witnessing the collapse of the mechanistic scheme of thought. The concepts of matter and mass that lay at the heart of the accepted scientific view were losing their unique preeminence as the one "real, physical substratum" of reality (Cassirer 1963: 146). In the wake of nineteenth century electromagnetic theory, evolution in biology, as well as quantum and relativity theories, mass was giving way to *energy*. "The atom is transforming itself into an organism" (Whitehead 1963: 96).

As a mathematician and scientist, Whitehead watched from the front row as this revolution took place within the basic concepts of science. Whenever he peered beyond the boundaries of professional science, however, he noticed what little effect the revolution was having on the general view of the educated public. "The educated man's implicit conception of the universe," he believed, had "not responded to the advance from the seventeenth-century physics of inert matter to the late nineteenth-century

physics of energetic vibrations described in terms of vectors" (Lowe 1962: 222). This was especially problematic to Whitehead because he recognized that "it is not any system of philosophy, but the success of the materialistic ideas of science, which has shaped the philosophy unconsciously held by mankind" (ibid.).

Western society and culture had been profoundly impacted by the developments of modern science since the seventeenth century, and now, in Whitehead's time, science itself was moving beyond those developments. The result was that scientific theory had begun to outrun common sense (Whitehead 1963: 106). How might one then realign common sense with the new discoveries in science? It would require nothing short of

> replacing the Newtonian concepts with new ones which would both express the general character (basic for all natural sciences alike) of our experiences of space, time, and matter, and accommodate results of the most delicate astronomical and physical observations (Lowe 1962: 11).

Whitehead set about articulating a foundation for the new concepts that would replace the antiquated Newtonian framework, which he referred to as "scientific materialism" (Whitehead 1963: 23). This new foundation, as Lowe points out, would not only have to lend itself to the most rigorous scientific inquiry but also to our general experience of reality.

3.5.2 Experiencing as process

Whitehead sought to create a metaphysical system that agreed with the new discoveries in science, mostnotably in quantum and relativity theories. In order to do this, he took for his starting point the basic insight of these emerging theories: "The reality is the process" (Whitehead 1963: 70). Here, claimed Whitehead, lay the principal failure of scientific materialism, in that its description of the world as composed of inert matter had failed to grasp nature's inherent dynamism (Whitehead 1963: 101). Scientific materialism had fallen prey to what Whitehead called the fallacy of misplaced concreteness (Whitehead 1963: 52): it had mistaken its own abstract concept, the material atom, for the real stuff of the universe. Whitehead, for his part, declared that the materialistic concept was valid only in certain exceptional cases when one was dealing in high levels of abstraction (Whitehead 1963: 76). For the vast majority of

remaining cases, however, a new basic concept had to be found, one that expressed the fact of process rather than the abstraction of matter.

For all his criticism of scientific materialism, Whitehead embraced the reductionist method that had come to be associated with it since Descartes' *Discourse on Method*. Whitehead went in search of the smallest constituent elements of the universe, although for him these were not atoms of matter but "atoms of process" (Lowe 1962: 44). They were the *actual entities* of nature (Whitehead 1978: 255)—although as such they were not entities at all, but bits of process.

"Our first step, which was also his [Whitehead's], is to give up completely the habit of picturing the material world as composed of enduring elements" (Lowe 1962: 17). In order to understand Whitehead's philosophy, the concept of Being has to give way entirely to Becoming. Whitehead's organicism attempted to free science from its concept of Being (or, as scientists called it, "matter") just as the Counter-Enlightenment had freed philosophy more than a century earlier. Substance, Being, matter. . . these concepts were disowned by Whitehead's philosophy of organism. One could continue to use them but only in restricted contexts, and on the condition that one remained ever mindful of the level of abstraction that such concepts inevitably impose on the undivided flux of nature.

Now, for these newfound atoms of process to have some relevance to experience, experience had to be made an inherent aspect of process itself. Thus, Whitehead affirmed that "the transient experiences *are* the ultimate realities" (Lowe 1962: 38, italics original). The actual entities of nature, those "occasions" discovered by Whitehead when he abstracted the undivided flow of nature into its smallest constituent parts, were actually occasions of *experience* (Whitehead 1964: 187).

A word of caution is needed here. Whitehead also affirmed that the common understanding of what constitutes an experience was inadequate to describe what he meant. To assert that some form of *human* (or at the very least conscious) experience lay at the heart of nature would be to regress into that anthropomorphic brand of idealism that Whitehead sought to avoid at all costs (Lowe 1962: 243, 261-2). That said, human cognition could not be excluded either from the rules of nature, since "any doctrine which refuses to place human experience outside nature, must find in descriptions of human experience factors which also enter into the descriptions of less

specialized natural occurrences" (Whitehead 1964: 187). Although our ordinary definition of experience (as human cognition) was inadequate to describe the nature of the atoms of process which Whitehead had discovered, this definition had to be reflected to some extent in Whitehead's broader conception of experience.

In the end, Whitehead favoured a generalized concept of experience that included human cognition as an extreme case (Whitehead 1964: 187). Experience may or may not involve cognition, and is not reserved to humans (Whitehead 1963: 88). To avoid confusion with our common notion of experience as human cognition, Whitehead named his generalized concept of experience *prehension*, from the Latin *prehendere*, which means literally "to grasp" (Whitehead 1963: 67). Experience is thus defined in its broadest of possible meanings, as the activity by which the subject "grasps" objects before it.

Prehensions are the building blocks of process, the source of both constancy and novelty in an otherwise undifferentiated flow of energy (Lowe 1962: 22). It was here, in his theory of prehensions, that Whitehead offered his synthesis of subject and object, of the part and the whole, of freedom and necessity—of those two contentious protagonists of the holistic narrative whose dynamic relationship we have been following since the start of chapter 2.

3.5.3 The ideal in the real, unity in the now

There is something about Whitehead's philosophy that is deeply reminiscent of Leibniz's Monadology. Whitehead himself traces his own organic view of reality to Leibniz (Whitehead 1963: 140). Like Whitehead's prehensive occasion, Leibniz's monad was formulated to replace the atom of scientific materialism as the fundamental element in nature. The monad was that element which, as the individual, enjoyed a relation of "inner reciprocity and necessary correlation" with the whole (Cassirer 1965: 31). The monad was the basis of Leibniz's pluralistic universe. Yet according to Whitehead, the downfall of Leibniz's pluralism was his inability to move beyond the conventional category of being—the concept of "Cartesian substance" (Whitehead 1963: 140). Leibniz's monads possessed an underlying substance that was distinct from their relation to the whole, and whose mutual harmony depended on an objective agent:

God. In the end, "inner reciprocity" for Leibniz actually meant "God's pre-established harmony."[24]

But what if the monad were conceived free of the concept of Cartesian substance? What if it were conceived as *reciprocity itself* captured in one of its individual moments? What sort of entity would we discover then? According to Whitehead, we would discover the prehensive occasion, the atom of process that was at the basis of his philosophy of organism.

In contrast to the monad, the prehensive occasion did not possess a substance that underlies or extends beyond its relations: "Each relationship enters into the essence of the event; so that, apart from that relationship, the event would not be itself. This is what is meant by the very notion of internal relations" (Whitehead 1963: 115). Leibniz failed to realize that in order to be truly pluralistic the monad's nature could not be windowless, guided by the absolute nature of God, but had to be the product of its internal relations. Leibniz's failure to realize this led him to posit an objective Absolute that ultimately prevented his more dynamic concept of active force from taking hold.

The prehensive occasion, on the other hand, fully embraced Leibniz's concept of active force. It was *strictly* the momentary individualization of a "complex of relatednesses" (ibid.). Relations are prehended into the occasion as objects, which then form the basis of that occasion's subjectivity or individuality (Lowe 1962: 39-40).

The aggregate of antecedent occasions (those occasions which have completed their process of individualization and now stand as objects, as *given* for the present occasion to prehend) is what we commonly refer to as "the past" (Whitehead 1964: 185). The past offers a sense of continuity because the prehending occasion inherits its subjective form from the forms of antecedent occasions. Whitehead called this the doctrine of the continuity of nature (ibid.).

But this was not enough. Whitehead could account for continuity in nature, but if the present were simply a reiteration of the past nothing new could ever appear. Novelty was too crucial an ingredient for Whitehead to be relegated, as the mechanists had done, to mere fluke chances and astronomical probabilities. Scientific materialism had failed to properly account for novelty. Whitehead considered it a prerequisite for any

[24] See section 3.2.

comprehensive metaphysical system. “Order is not sufficient,” he wrote. “What is required, is something much more complex. It is order entering upon novelty” (Whitehead 1978: 339).

In his attempt to account for novelty, Whitehead referred to a wholly different category of objects. Like the antecedent occasions described earlier, these objects were also prehended by emerging occasions. But rather than expressing the continuity of patterns inherited from the past, these objects expressed the potential for the emergence of new patterns (Whitehead 1963: 144). Whitehead called these clusters of potential *eternal objects* (Whitehead 1963: 144).

Eternal objects are the immortal patterns, colours and shapes that recur throughout and organize nature:

> The mountain endures. But when after ages it has been worn away, it has gone. [...] A colour is eternal. It haunts time like a spirit. It comes and it goes. But where it comes, it is the same colour. (Whitehead 1963: 83)

Eternal objects express the shared aspect of nature. They exist independently of the flux of things, although only as unrealized possibilities. They are the ideal in the real, the infinite realm of possibilities waiting to be realized. Eternal objects are therefore held in common by all things, in potentiality if not in actuality. Each emerging occasion prehends the entire realm of eternal objects as its boundless “future.” This future becomes gradually restricted, however, as certain possibilities become actualized within the occasion at the expense of others (Whitehead 1963: 146-7). My decision to become a philosophy professor precludes me, to the extent that I remain committed to this career choice, from becoming a doctor or an army officer.

Eternal objects also provide the common language that makes the very act of prehension possible (Whitehead 1963: 137). An emerging occasion prehends antecedent occasions on the basis of the eternal objects that the two have in common. For example, the possibility of the colour green in an emerging occasion “re-cognizes” the *actual* colour green in an antecedent occasion. As the media of all prehension, therefore, eternal objects provide the basis for an emerging occasion’s connectedness to its surroundings.

Eternal objects are also the basis of the occasion's unbounded unity with the whole of the universe; for it is only insofar as an occasion prehends eternal objects (that are in related, in potential, to all other eternal objects) that the occasion can be said to be in a state of unity with the cosmos (Whitehead 1963: 153). Whitehead's cosmic unity is thus a unity residing in and mediated by the eternal objects, the ideal in the real.

Not only are eternal objects the basis of unity in the universe, they are also the source of every occasion's process of individualization. As every occasion's "future," eternal objects present the prehensive occasion with an infinite spectrum of possibility—in other words, a spectrum of choice. Novelty appears when an occasion prehends its past and, in light of its prehended future, favours a novel pattern over a replicated one. This capacity to "choose" is what constitutes an occasion's individuality (Lowe 1962: 20).

Eternal objects thus play a dual role: they give rise both to individuality and to connectedness. Freedom and unity, the two aspirations of expressionism, are thus achieved by means of a single category of objects which, when considered in its totality, is God (Whitehead 1978: 343). Taken in this form, the concept of God has undergone a subtle yet fundamental transformation. On the surface, God remains as he was: the sole repository of value and ends, the origin of both cosmic unity and individual agency. And yet the status of God, who remains all these things, has irrevocably changed. In order for God to be the residing place of the Absolute (which, as we saw in Leibniz and to a certain extent Hegel, is how God has been traditionally conceived), God must not only be the source of unity and freedom, the aggregate of value in the universe, but he must also be the grounds by which reality is "*ab-solved*"—freed!—from the difference between the part and the whole, between the finite and the infinite, the temporal and the eternal, the ideal and the actual.[25] The Absolute is that concept ("the One") in which all oppositions and contradictions have been "dissolved" (or "ab-solved") into undifferentiated unity.

According to Whitehead, however, God himself is split in two. God is divided into two natures which he names *primordial* and *consequent*. As *primordial*, God is infinite potentiality itself, the entire realm of eternal objects conceived as a whole (Whitehead

[25] See my definition of the Absolute at the start of this chapter as "that kind of knowledge that is 'ab-solved' (freed) from the difference between the absolute and the empirical, the infinite and the finite" (Giegerich 2010: 59).

1978: 343); as *consequent*, he is the unity of objectified reality, the totality of actualized nature (Whitehead 1978: 345). These two natures, which reflect reality in its ideal and actual forms, are brought together only in the moment of a prehensive occasion's actualization. In the instant that an occasion prehends its past and future and internalizes them into its own unique individuality, primordial and consequent natures are unified.

God, therefore, depends on the constant actualizations of individual occasions for his own completion (Lowe 1962: 25). Only by virtue of these occasions does God pass from his primordial to consequent state, from ideality into actuality. Within the individual occasion, *God himself* is freed from the difference between his primordial and consequent natures. The Absolute has become a paradox of sorts, having entirely entered the realm of Becoming. Even God, conceived for millennia as the ultimate Being both infinite and eternal (and still, it seems, in this way by Whitehead), is subject now to the ceaseless flow of reality and the countless finite and fleeting occasions of individuality that that flow engenders. More than that, this ultimate Being *relies* on the finite fleetingness of reality for its continued unity. Whitehead's process philosophy finds wholeness in the innumerable individual moments of actualization, that no longer rely upon a single static universal Being for their unity and harmony, but whose status has actually superseded that of the universal. The universal is now brought into unity through them.

This statement of unity is the final point in what might be seen as a major cultural (and, in a sense, epochal) transition out of Western's philosophy's traditional reliance on a single immutable concept or principle for the achievement of unity and order in the cosmos, towards something wholly different and new. Each author considered in this chapter represents a stage in this ongoing transition. With Whitehead, we arrive at a particularly creative end point to our discussion. In him, we discover a synthesis of all the questions and traditions that we encountered previously, of the new concepts of man and nature that emerged during the Renaissance, of the expressionist and pluralist critiques of Counter-Enlightenment thinkers, of the long trajectory of Cartesian thought and Newtonian science, all wrapped up in an approach that blends empiricism, realism, rationalism and idealism, and walks the line between the increasingly entrenched analytical and continental traditions in Western thought.

For as long as there will be people to contemplate the nature of the world and their own lives, there will be those who will be called by the question of wholeness. Whitehead in no way marks the end of this perennial question in Western thought. The question goes on and continues to find new expression in every rising generation and in its many differing voices. Whitehead does, however, offer us an interesting rest stop in our ongoing search for unity. His philosophy offers an insightful vantage point from which to view our own time and questionings, now placed within the broader context of a holistic tradition whose roots reach back to the earliest philosophical reflections of the Greeks, to the ground-breaking theories of the Renaissance, and to the disparate voices of those critical thinkers, poets and artists in the eighteenth century whose sensitivity to the changing tides made them particularly sensitive to the oppressive, alienating and destructive potentials of a philosophical movement that had already taken hold of Europe in their time, and that would come to be the defining factor in the development of Western society from then on to the present day.

In the context of our present day, what does the quest for wholeness entail? What does wholeness even mean? In a post-metaphysical, post-modern world, has wholeness become synonymous with community, family, social network? Does wholeness involve spirit—and if so, is spirit to be associated strictly with interpersonal relationship, or does it still carry something of its older metaphysical and religious significances? Despite the heroic efforts of the thinkers discussed in this chapter, none of these questions have achieved a final solution in our day. They remain to be answered, and I believe it is in their nature to remain that way. Such questions, after all, are less problems to be solved than rites of passage: stages that each of us must work through as part of an ongoing process of self-knowledge. Like the Zen koan, these questions are not resolved in order to bring about a state of rest, a static end point that releases the questioner from the stress and struggle of finding an answer. On the contrary, resolving such questions as “What is wholeness?” only brings about a deepened awareness of the changing nature of such questions. As in Whitehead’s prehensive process, these questions ask to be answered anew in every arising moment, as the nature of wholeness itself changes in light of ever-changing conditions. These questions, then, ask that we grasp each present moment in its fullness and affirm it through that ongoing process known as individuality.

Such questions, therefore, are not questions at all (in the sense of having to be *answered*), but rather reflections of a state of openness to what is. After all: the question is not what *was*, what *will be*, or what *ought* wholeness to be, but, quite simply, what it is.

3.6 Closing remarks on an emerging pattern

Before continuing on to the topic of wholeness in deep ecological thought, I would like to return to a pattern that has become increasingly apparent over the course of this chapter and its exposition of holistic thought. It is impossible to know whether this pattern is confirmed by the broader corpus of holistic philosophies or whether it is merely the product of the current study's limited grasp of the topic. A more comprehensive study of the holistic tradition would have to be completed in order to answer this. That said, based on the present chapter's findings and on my own understanding of the broader development of Western thought, I believe it holds at least some form of larger relevance and therefore deserves to be mentioned.

From Plato to Whitehead, we have witnessed a gradual yet definite shift in the way that unity is conceived among the thinkers considered in this chapter. I have brought attention to this shift at several points throughout the chapter. It is a shift from the more traditional emphasis on a single, immutable, eternal Being as the source of unity (both for humans and the cosmos) towards an increasing emphasis on Becoming as the origin of Being. This shift of emphasis "from" Being "to" Becoming, and from the universal to the individual and the particular, is, I believe, confirmed through the present juxtaposition of holistic philosophies and their forerunners, which has carried our study from the sixth century BC to the first half of the twentieth century.

In Plato's *Timaeus*, we find unity to reside in an objectively posited Absolute: the self-contained, self-subsisting world animal. Even in Aristotle, who placed a greater emphasis on phenomena and empirical observation, the form that guides the development of an organism exists objectively from any individual organism ("I am a man, and this thus the life fit for me"). In both these ancient thinkers, there is the sense of the Idea presiding over the flux of phenomena. In both, reality is grounded in an

objectively posited Absolute (although according to Aristotle this Absolute manifests immanently from within the organism).

In the Renaissance, however, a new concept of man emerges that places greater emphasis on man's agency and freedom and his ability to, like Pico's Adam, fashion his own nature as he sees fit. This concept of man is followed closely by a concept of nature that places an analogous emphasis on the observation of phenomena ("nature according to its own principles"). Together, these two concepts, whose relationship is at once contentious and mutually affirming, begin to erode the time-honoured foundations of Scholastic philosophy based on the doctrines of Neoplatonism and Aristotelianism.

In Leibniz, we see these concepts carried forward especially in his treatment of nature as an active force. Leibniz's concepts of spiritual substance and of God, however, remain subject to the more traditional concept of fixed Being, or, as Whitehead called it, "Cartesian substance."

In the Counter-Enlightenment's pluralist and expressionist critiques, we discover a further extension of the Renaissance's emphasis on Becoming in its definitions of man and nature. The Counter-Enlightenment as a whole, in the eyes of Isaiah Berlin, sought to undermine the Western tradition's age-old belief that reality is grounded in a single, immutable and eternal principle or substance, as well as the corollary assumption that reality can therefore be explained by means of a single system or framework based on a set of laws that apply equally to all men, in all times, everywhere.

In Hegel, we discover an early attempt to synthesize the expressionist critique with the more traditional view of unity that that critique sought to undermine. Hegel describes reality as the product of absolute Subject's dialectical movement towards ever greater forms of self-knowledge. Absolute Subject begins as inner consciousness, unaware of itself *as* Subject. Then, by a process of logical negation (or as Hegel calls it, sublation), absolute Subject posits itself in time and space as the external world of phenomena. This externalization then paves the way for the Subject's return to itself by way of a second moment of sublation whereby it arises to an awareness of itself as absolute Subject and of the world as an expression of its continued unfolding. Absolute Subject is thus defined by Hegel as the active ground of all reality. Phenomena, for their part, are made necessary to the Subject's deepening self-awareness. Hegel thus provided a synthesis of two contending ways of conceiving unity by firstly couching his theory of

Becoming in a modified form of idealism, and secondly, in contrast to Leibniz, by making his idealism subject to his theory of Becoming.

Whitehead's philosophy of organism carries us into a somewhat different tradition in Western thought, namely the British analytical tradition and the field of natural science. His theory of prehensive occasions offers an alternative scientific framework to the mechanistic philosophies of Descartes and Newton, one that he claims better captures the inherent dynamism of experienced reality. Whitehead's philosophy is not idealistic. It has completely abandoned the notion of a single unifying substance or principle. Unity for him arises from the activities of individual occasions of experience, which, in their act of prehending ("grasping") their surroundings as well as the infinite realm of possibility available to them effectively bring together the entire cosmos, as it were, into a single unified moment of individual expression.

There is an unmistakable pattern that emerges from these various philosophical theories and movements. Each represents a milestone in a larger movement that appears to be taking us towards ever more pluralistic and individualistic ways of describing unity and wholeness—towards an ever increasing emphasis on the *becoming* natures of man and cosmos. Does this reflect a broader movement within the Western mind, a movement that has been collectively carrying us out of those metaphysical presuppositions that have undergirded Western philosophies and guided our investigations since the dawn of the Western tradition? Although the present chapter seems to suggest something along these lines, a definite answer lies beyond the scope of this thesis. And even within the scope of this thesis, it already appears doubtful: for even in these pages, we discover exceptions that put into question the universal applicability of this pattern in thought.

Notice how at the start of this section I wrote "From *Plato* to Whitehead." I did this deliberately, because the ancient philosopher that preceded Plato in section 3.1, Heraclitus, does not fit the neat mould that I have attempted to outline just now. At the dawn of the Western tradition, Heraclitus made statements that seem to foreshadow the most controversial insights of the Counter-Enlightenment, of Hegel and Whitehead. If his fragments are at all understandable to us today, they seem to be affirming the opposite of that immutable Being associated to Neoplatonic and Scholastic thought. According to Heraclitus' fragments, the only constant element in nature is change:

"eternal fire." Unity arises from the transformative qualities of all things, whose transformations are guided by universal measure, the measure of Logos. Not only are conflict and strife not opposed to order, they are its key ingredients.

Heraclitus ushered in the Western philosophical tradition through his attempt to unify the concepts of the One and the Many, concepts that were—if we are to believe Richard Geldard's account—as foreign to one another in a logical sense as they were in a geographical and cultural sense. In that moment of initiation and unification between two irreconcilables, Heraclitus pierced so deeply in his insight that it would take just over two thousand years for the greater part of the Western tradition to arrive at a similar realization.

The presence of Heraclitus at the start of this chapter undermines any attempt to make the historical trend "from Being to Becoming" absolute. At the dawn of the Western philosophical tradition, Heraclitus foreshadowed the revolutionary thought of the Counter-Enlightenment as well as Hegel and Whitehead's approaches to unity. His fragments raise many questions. Do his fragments ask us to broaden our historical scope? Was he so far ahead of the curve that he needs to be viewed as one of the earliest expressions of a larger cultural development that encompasses the Western tradition as a whole—a development defined by this concept of Becoming and its relation to the individual, which has taken twenty-five hundred years to rise out of its esoteric origins into popular philosophy and culture? Or maybe the truths that he and all other great seers seek after are not subject to the laws of passing time—those laws which govern the lives of the individuals and groups who are called upon, time and again, to give expression to such truths. The fragments themselves are problematic too. How "genuine" are they? Do they truly reflect the thoughts and intentions of Heraclitus the man? Or do they, in a seeming final affirmation of his doctrine of ever-changing fire, simply mirror the ideas and values of their audience, giving expression through their changing interpretations to the changing tides of history and consciousness?

As if Heraclitus' fragments were not enough to cast doubt on the adequacy of the "Being to Becoming" trend as a historical model for holism and Western thought more broadly, the situation is complicated further by the works that lie ahead of us, in chapter 4. As we will see, the deep ecology movement is constituted by a variety of outlooks and approaches to unity. Although the philosopher and cofounder of the movement

Arne Naess definitely embraces a form of Whiteheadian pluralism in his view of the deep ecology movement, he is joined by the voices of others (like Bill Devall and George Sessions) whose visions of deep ecology, as we will see, seem to bring us much closer the objectively posited Absolutes of Plato and Leibniz—unity as grounded in Being.

Does this mean that Devall and Sessions are mistaken and Naess is correct, since the former fail to fit within my proposed "Being to Becoming" pattern of history while the latter carries it forward quite eloquently? No. It simply points to the fact that the "Being to Becoming" pattern fails to capture the whole picture, that it requires further elaboration and a better grasp of complexity. The following section is meant to address this to a certain extent, but mostly seeks to explore the ways in which unity has been articulated in deep ecological thought.

Faced with the very real dangers of globalized capitalism, consumerism, industrial expansionism and exploitation, ecological devastation, species extinction and climate change—all of which are presumably the products of a three-hundred year old wedge that scientific thought has driven between the human subject and its perceived object—ecological authors have in recent decades actively revived many antecedent holistic arguments and critiques, some of which have were discussed in this chapter. In their search for a paradigm of social and scientific sustainability, the ecological authors considered in the pages ahead speak from within a critical tradition that owes much of its origins to the Counter-Enlightenment and Romantic thinkers of the eighteenth and nineteenth centuries. They look to such holistic authors as Leibniz, Hegel and Whitehead and draw inspiration from their works, and have thus given rise to compelling and timely interpretations of the self, its relationship to the cosmos and the nature of wholeness.

Chapter 4: Deep Ecologies

The final chapter of this thesis addresses wholeness in the context of deep ecological thought. It also seeks to draw parallels, where parallels can be found, between the ecological thinkers considered here and those thinkers that were considered in the previous chapter. How is the question of wholeness addressed by key supporters of the deep ecology movement—in particular by the movement's seminal thinker and cofounder, Arne Naess? In what ways has Naess carried forward the holistic program to reconcile the alienated poles of scientific (and now Western) experience? Subject and object, as we recall, were torn apart by the paradoxical project of mechanistic science in the West. This project was born from conflicting aspirations: on the one hand it was born from a budding desire in the Renaissance to understand nature according to its own principles, to discover laws of nature through rigorous observation of phenomena; on the other hand, its development was impelled by what Leopold calls "our Abrahamic concept of land" (Leopold 1966: xviii), a concept grounded in what Leopold saw as an imperialistic interpretation of Genesis 1:26.[26]

Over and beyond these two conflicting aspirations of the modern scientific mind, modern science also emerged as the product of a dawning conception of the self and its corollary approach to knowledge and truth. This individual self, captured in Descartes' *Cogito ergo sum* ("I think therefore I am"), was conceived first by Descartes and later by an increasing number of thinkers as the sole bearer of meaning in a world of extended substances, an external world defined in strictly mechanistic and materialistic terms. By way of the tremendous achievements and discoveries that marked mechanistic science from the seventeenth century onwards, this scientific approach was eventually established as the primary informant of the "philosophy unconsciously held by mankind" (Lowe 1962: 222). The Cartesian self, which as we recall provided the epistemological ground

[26] "And God said: Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth" (King James Bible).

for the development of modern science, was thereby established as a precondition and justification for the rationalist projects of the Enlightenment.

The holistic thinkers discussed in the previous chapter were all, in one way or another, reacting to the increasing hegemony of the Cartesian self in their time, as well as the strict division that this self imposed between subject and object, knower and known, man and world. Each of these thinkers, from Leibniz to Whitehead, sought as part of their philosophy to reconcile or resolve the Cartesian dualism. Arguably, this they did in the hopes of achieving or recovering a unified state that had either been lost with the advent of modernity or had not yet been achieved in the history of humanity.

To the extent that this is the primary program of holism—to reconcile the Cartesian dualism between subject and object—a number of supporters of the deep ecology movement present an extension of the holistic tradition in our present day. More on this will be said below in the sections on Arne Naess and the deep ecology movement. But before we turn to these topics, we first need to understand something of the context in which the deep ecology movement and its supporters emerged. Sections 4.1 and 4.2 are meant to provide this context.

As is common among ecologically-inspired holistic theories, the thinkers discussed ahead ground their theories of integration in the concept of nature. Broadly speaking, nature is to ecological philosophy what wholeness is to holism. It is its point of departure, its centre of gravity, its primary source of inspiration and ultimate ideal. For this reason, it will be helpful to develop a sense of this key concept, its origins and character in the context of key ecological forerunners and thinkers.

Nature in its various definitions is identified as the Web of Life, the Ground of Being, the totality of experienced phenomena, the whole which couches and grants context to the individual parts (Esbjörn-Hargens & Zimmerman 2009: 19-44). It is the gravitational centre of ecological thought, and therefore its favoured ground for the reconciliation of subject and object (at least among those thinkers who consider it a problem). And yet nature is far from being a perennial concept shared by all cultures in all places. As we will see, the concept of nature that informs contemporary ecological thought emerges partly from the mechanistic developments of modern science, and partly from the changing perceptions of wilderness that have characterized Western industrial societies

since the emergence of Romanticism in the eighteenth century. As Whitehead demonstrated and Leibniz before him, nature (like science) also possesses a flexibility and an ability to adapt to our changing values and conceptions of self and world. The nature of Whitehead was starkly different from the natures of Descartes or Newton, which in turn were significantly different from the natures of Saint Augustine or Aristotle. Insofar as nature in this way reflects the cultural values and assumptions that it is set against (as wilderness, i.e., the *non*human) and that inform our observations of the phenomenal world, nature is a concept as mutable and diverse as the cultures that make up our collective histories and present day. This leads us to the realization that the concept of nature is actually the expression of a complex intersection of inherited cultural assumptions and values combined with individual sense perceptions. Nash describes wilderness as having "a deceptive concreteness" (Nash 1982: 1). Its number of attributes "is almost as great as the number of observers," while our attitudes to it have changed significantly over time (ibid.). Nature (or in Nash's case, wilderness) is necessarily fraught with meaning. It has many definitions and countless connotations that vary according to time and place. It will be helpful, then, to define more precisely what we mean by "nature" here—or at the very least, what are some of the values and assumptions that inform the concept of nature employed by certain thinkers in the conservation and ecological movements.

4.1 Nature in ecological thought

4.1.1 Nature as mechanism[27]

A dominant interpretation of the natural world we have inherited is mechanistic. To a large extent, this is just as true on either side of the mechanistic/holistic, or Enlightenment/Counter-Enlightenment, divide, and it is especially true in the case of ecological holism.

[27] As pointed out in chapter 1, I use the term mechanism in the present section in its *strict* sense, i.e., as the view that reality can be entirely explained by means of causal mechanisms. This definition stands in slight contrast to the meaning that mechanism holds in the expressions "mechanistic science" and "mechanistic paradigm," in which mechanism is meant as a stand-in for a particular scientific outlook that includes mechanistic, materialistic and reductionist presuppositions (see section 1.1, footnote 5).

Although Leibniz, an early holistic thinker, affirmed that monads were composed of a union of spiritual and corporeal substances, he simultaneously affirmed that "all particular phenomena could be explained mechanically if they were sufficiently explored by us, and that there is no other means of understanding the causes of material things" (Leibniz 1965: 78). In response to the Cartesians, Leibniz had indeed asserted the inherently spiritual character of reality (which he captured in his dual-natured monads). He did however agree with the Cartesians that physical-phenomenal reality, the corporeal dimension, could be explained entirely through mechanistic processes. Leibniz's nature, although more complex and fluid than the atomistic universe of scientific materialism, remained entirely subject to causal mechanisms.

Similarly, Whitehead's philosophy of organism never abandoned the notion of mechanism. He himself referred to his philosophy as a form of "organic mechanism" (Whitehead 1963: 76). Although he placed his emphasis on organisms rather than on atoms as the "concrete enduring entities" of nature (ibid.), his philosophy fully embraced the notion that reality functions according to mechanical processes governed by sets of universal, knowable laws:

> In this theory, the molecules may blindly run in accordance with the general laws, but the molecules differ in their intrinsic characters according to the general organic plans of the situations in which they find themselves. (ibid.)

Whitehead believed in a universe that functions according to mechanical principles. The difference was that his organic mechanism accounted for the complexity and creativity of perceived reality in a way that the atomistic and materialistic brands of mechanism that had served as the principal framework for science since Newton's *Principia* could not. Whitehead's organic mechanism surpassed scientific materialism in its ability to account for how the part is bound to the whole, guided and defined by it, and how the two enjoy a relation of mutual reciprocity (Whitehead 1963: 76); but this reciprocity remained no less mechanically determined by the laws of prehension than materialistic atoms by the laws of gravity and inertia. Mechanism—the doctrine that all natural phenomena can be explained mechanically, that is, by means of causal mechanisms (Oxford American Dictionaries)—remains, in Whitehead as in Leibniz, a fundamental aspect of their views of physical reality. What sets these thinkers apart from

the Cartesian-Newtonian mechanistic tradition is that they introduced a more complex understanding of the causal mechanisms that direct natural processes.[28]

The science of ecology presents a particularly compelling extension of the sort of organic or "holistic" mechanism that we found intimated in Leibniz, systematized by Whitehead, echoed in Smuts (chapter 1) and enlarged by Ludwig von Bertalanffy's seminal work on systems theory in the 1960s and 1970s.[29] Ecology, defined as "the branch of biology that deals with the relations of organisms to one another and to their physical surroundings" (Oxford American Dictionaries), emerged partly in response to one of the questions that Whitehead's organic mechanism sought to answer—namely, what systemic dynamic characterizes the relationship between the part and the whole, between the individual and the group?

Thus, to the extent that ecology has inherited this vision of organic mechanism passed down from Whitehead and Smuts through Bertalanffy, ecology inherits with it certain mechanistic presuppositions of the Western scientific tradition whose origins, as we saw in chapters 1 and 2, lie in the works of Galileo, Bacon, Descartes and Newton.

That said, as the science of *interrelationships*, ecology is also uniquely predisposed to the kinds of organismic perspectives that have characterized holistic thought since Leibniz. Because ecology's emphasis is on the community rather than on the individual, it requires from the outset a systemic approach to phenomena—i.e., an investigation of

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[28] One major difference between these thinkers is that Leibniz accorded the idealistic or spiritual aspect of reality a wholly different substance from the corporeal: "Just as all is full of souls," he wrote, "all is also full of organic bodies. These two realms remain distinct, each one being governed by its own law" (Leibniz 1965: 79). For Leibniz, mechanism expressed the law governing *corporeal* substances, and as such did not apply to spiritual substances. Whitehead, in contrast, located the ideal-spiritual realm (his eternal objects, which taken in their totality comprised God) entirely within the phenomenal world and thereby established them as objects in their own right. These objects, although of an ideal nature, were therefore equally subject to the mechanical processes of nature.

[29] From Bertalanffy's *General Systems Theory* (1973[1968]):

> The necessity and feasibility of a systems approach became apparent only recently. Its necessity resulted from the fact that the mechanistic scheme of isolable causal trains and meristic treatment had proved insufficient to deal with theoretical problems, especially in the biosocial sciences, and with the practical problems posed by modern technology. (11-2)
>
> General system theory, therefore, is a general science of 'wholeness' which up till now was considered a vague, hazy, and semi-metaphysical concept. In elaborate form it would be a logico-mathematical discipline, in itself purely formal but applicable to the various empirical sciences. (37)

See also Merchant 1980: 289.

the system *as* system rather than as the mere aggregate of its constitutive elements. In contrast to more traditional scientific disciplines that seek to solve problems by breaking them down into their smallest constituent parts (Bertalanffy 1973: 16), ecology's systemic approach requires its students and researchers to not only understand each constituent part but also the dynamic by which these parts come together to form an ecological whole. This inevitably results in situations of great complexity—of such complexity, at times, as to elude comprehension. As Aldo Leopold points out, the ecologist is constantly humbled by the objects of his study for he is daily engaged with biotic processes whose complex mechanisms may forever remain beyond our full understanding (Leopold 1966[1949]: 241). And yet, despite ecology's propensity to instil a profound sense of intellectual humility in its students (ibid.: 279), the ecologist must nonetheless conduct his scientific investigations on the presumption that biotic processes can indeed be explained through causal mechanisms, however complex and unfathomable those mechanisms may be.[30]

Mechanism, therefore, remains an important informant of much of ecological research and of its concept of nature. But mechanism is also, as we have seen, a key perpetuator of the Cartesian division between subject and object. A mechanistic view presupposes reality as *res extensa*: devoid of subjectivity ("mind") and therefore entirely subject to causal law. Mechanistic science imposes its mechanistic assumptions on all physical reality, which includes the human body, its sense perceptions and organic functions. Meanwhile, the mind doing the science is not the human body but the Cartesian *ego*: pure subjectivity dissociated from its material container and environment.

As an inheritor of the methods and assumptions of the Western scientific tradition, ecology in its more traditional applications thus finds its starting point in the concept of nature as mechanism.[31] By taking inspiration from and contributing to continued efforts

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[30] We see this last attitude reflected in Leopold's writings when he describes ecosystem processes as "a tangle of chains so complex as to seem disorderly, yet the stability of the system proves it to be a highly organized structure" (Leopold 1966: 252). In order to do his work, the scientist must trust in the existence of knowable and consistent causal mechanisms governing natural phenomena. Without this belief, science as we know it cannot proceed, nor can it be of use.

[31] As we will see in later sections on deep ecology, deep ecological perspectives have largely questioned and rejected this mechanistic conception of nature, along with its implied divisions between subject and object and between primary properties and secondary qualities. But for now, I am speaking strictly of ecology as it has emerged from out of biological and systems sciences, both of which still espouse in their mainstream articulations a mechanistic conception of natural processes.

in systems science—which have led in turn to the emergence of fields like panarchy and Gaia theories—ecology has been able to significantly extend its understanding of ecological processes without having to leave the confines of its mechanistic framework.[32] But due to the highly complex and multivalent nature of ecological processes and their associated environmental problems, some ecological thinkers have been brought in recent years to question the adequacy of the mechanistic assumption at the base of their field as well as of most of science. As Sean Esbjörn-Hargens and Michael E. Zimmerman write in their book on Integral Ecology,

> even well-intentioned, thoughtful people often legitimately disagree in various situations as to whether there even is an environmental problem, as different individuals and cultures have different ways of evaluating the same issue. (Esbjörn-Hargens & Zimmerman 2009: 19)

"Because environmental problems and solutions manifest differently depending on your perspective," many ecological thinkers have begun to search beyond science's native mechanistic frame for conceptions of nature which account for the subjective and intersubjective factors that influence our understanding of it (ibid.). Nature, they have begun to realize, is not only an objectively-given fact but also the expression of value. Seen from this perspective, nature can no longer be viewed in strictly mechanistic terms as the universal aggregate of material bodies whose causal relations are dictated by scientifically discoverable laws. Nature must also be viewed as the emergent expression of the *encounter* between subjective knower and objective known—as a manifestation of diverse values which it carries inherently within itself.

Recent attempts to move beyond the traditional scientific framework have led to several less-than-successful results. Esbjörn-Hargens and Zimmerman point to a handful of instances featuring scientists whose perception of the shortcomings of conventional

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[32] For an overview of systems theory and its connection to ecology, see Fritjof Capra's books *The Turning Point: Science, Society and the Rising Culture* (1987) and *The Web of Life: A New Scientific Understanding of Living Systems* (1996), as well as Joanna Macy and Molly Young Brown's *Coming Back to Life: Practices to Reconnect Our Lives, Our World* (1998). For panarchy theory, see Gunderson and Holling's *Panarchy: Understanding Transformation in Human and Natural Systems* (2002), Berkes et al.'s *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change* (2003), and Thomas Homer-Dixon's *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization* (2006). For Gaia theory, see James Lovelock's *The Revenge of Gaia: Why the Earth is Fighting Back and How We Can Still Save Humanity* (2006).

scientific approaches nevertheless failed to grant them the impetus and perspective to escape the confines of the mechanistic presupposition. In one instance, they cite Forest Service Chief Dale Bosworth who in 2004 stated that "we need more than technical solutions to problems. We need to focus on the problem in its full dimension—its social and its regulatory and its political and its economic and its ecological dimensions" (Esbjörn-Hargens & Zimmerman 2009: 20). In another instance, Esbjörn-Hargens and Zimmerman cite the biologist Edward O. Wilson, who in his 1998 book *Consilience* made a similar call for a "'jumping-together' (con-silience) of multiple perspectives, including the sciences and humanities" (ibid.: 20).

In the first instance, Esbjörn-Hargens and Zimmerman observe that

> even though Bosworth wants to focus on the 'full dimensions' of environmental problems, he fails to mention the ethical, cultural, interpersonal, psychological, or aesthetic (subjective and intersubjective) dimensions of such problems (ibid.).

In the second instance, they point out that even Wilson's consilience "uses only physical, biological, and social methodologies (objective and interobjective methodologies)" (ibid.).

On the one hand, both Wilson's book and Bosworth's statement recognize the inadequacy of current reductionist and atomistic approaches in science. On the other hand, neither of them questions the premise of mechanistic science: namely, that all natural phenomena can be explained mechanically, that is, by means of causal mechanisms (see footnote 5 in chapter 1 and footnote 27 at the start of this section). In both cases, the call for a more expansive approach is extended only to those fields and methodologies that treat environmental problems in a purely objective manner. Both Bosworth and Wilson fail to account for what Esbjörn-Hargens and Zimmerman call the subjective and intersubjective dimensions. The separation between subject and object is left unquestioned. While both expressed a constructive desire to expand the scope of scientific inquiry by merging the natural and social sciences, their visions of an expanded science still left the Cartesian dualism unscathed. The Cartesian ego's exclusive claim to mind and subjectivity thus remains unchallenged, and the external world (both human

and nonhuman) continues to be viewed as a strictly objective, albeit highly complex, mechanism.

These two instances speak to the depth of our engagement and identification with the mechanistic presupposition of Western scientific thought, and beyond that with the Cartesian division of subject and object that pervades our science as well as our culture at large. That scientists and thinkers like Bosworth and Wilson are able to recognize the problems engendered by the mechanistic presupposition of mind-matter dualism and yet remain incapable of overcoming the boundaries of that presupposition speaks to how deeply engrained and unconsciously accepted mechanism remains in our present society and time.

There are those, however, who have developed a sufficient awareness of science's mechanistic presupposition and its implications to explicitly challenge it. These individuals have called for much deeper and more expanded approaches to systemic environmental problems. They include John Muir (as a notable forerunner), Aldo Leopold, Rachel Carson, Arne Naess, Joanna Macy, as well as Sean Esbjörn-Hargens and Michael E. Zimmerman, the authors of the article just cited. The critiques and contributions of these authors will be the subjects of the following sections' discussions.

The purpose of the present section on the concept of nature as mechanism has been to demonstrate how ecology has inherited the mechanistic presupposition from its parent scientific tradition, and how it continues to struggle with this presupposition in its attempt to better understand the nature of interrelationship. For the thinkers ahead, as with many of the thinkers now behind us, mechanism and its underlying Cartesian division between subject and object is not a thing of the past. Rather, it is the starting point, the springboard and trigger to their theories and critiques. Nature as mechanism persists as a powerful informant of their views of the natural world, and in the end I believe few succeed in completely eluding its influence.[33] Again, this serves as a compelling testament to the

[33] This should in no way be seen as an indication of their failure or inadequacy. As a collectively accepted cultural assumption, mechanism expresses a fundamental aspect of our present society and time. To the extent that we are members of a culture and society grounded in the mechanistic presuppositions of our Enlightenment predecessors, I believe it is natural and inevitable that we should discover mechanism's pervasive influence in a great deal of what we think and do. It is the belief, rather, that we can somehow escape or build an immunity to such constitutive assumptions that in my view leads to self-defeating and ultimately destructive theories and practices.

enduring power of this presupposition in our society and time. One can scarcely appreciate or even fully comprehend the contributions of the deep ecology movement without first comprehending its principal starting point and point of contention, mechanism.

4.1.2 Nature as sublime

Another crucial informant of how nature is perceived in contemporary ecological thought traces its roots to the Romantic movements of the eighteenth and nineteenth centuries. Romanticism heralded a significant shift in our collective appreciation of wild nature in the West. As Roderick Nash points out in *Wilderness and the American Mind* (1982[1967]), this shift has occurred gradually and is in no way concluded in our present day. Nonetheless, it outlines a definite movement in Western societies over the course of the past three hundred years: from a general attitude of hostility and revulsion towards wild and undeveloped places predominating in the Christian West until recent times towards an increasingly sympathetic attitude that views wilderness as sublime and an expression of divine beauty. As Nash writes, it was not so much that the wilderness itself changed, but rather a change in taste gradually altered our prevailing attitudes towards it (Nash 1982: 46).

Something else that has changed are the living conditions of many human beings in Western societies. The Industrial Revolutions (which occurred synchronously with the rise of Romanticism in the eighteenth and nineteenth centuries) led to mass rural exodus, as more and more people moved into urban areas for work. “Appreciation for wilderness,” writes Nash, “began in the cities. [...] Enthusiasm for wilderness based on Romanticism, deism, and the sense of the sublime developed among sophisticated Europeans surrounded by cities and books” (Nash 1982: 44, 51). The distance from wild nature that inevitably resulted from increasingly urbanized contexts seems to have been a formative factor in the development of an aesthetic that prizes wilderness as picturesque and in some cases superior to man-made society. According to Nash, it was those whose vantage point allowed them to view nature from afar who were the first to call for its vindication: “The literary gentleman wielding a pen, not the pioneer with his axe, made the first gestures of resistance against the strong currents of antipathy” (ibid.: 44).

Traditional conceptions of wild nature inherited from the Middle Ages and earlier times often portray wilderness as a fearful and hostile place. For centuries, wilderness "was instinctively understood as something alien to man—an insecure and uncomfortable environment against which civilization had waged an unceasing struggle" (ibid.: 8). In its Judaeo-Christian connotations, wilderness is viewed as the desolate and hostile land into which humankind was banished as a result of its initial transgression in Eden (ibid.). Nash, whose book focuses on perceptions of wilderness in the New World, writes that the early pioneers carried these European preconceptions about wild nature with them to North America, where their struggles against the elements were constantly informed by an attitude that viewed wild country as something to be ordered and overcome (ibid.).

From the fifteenth century onwards, this prevalent attitude began to undergo a shift: initially among educated circles in European cities and later spreading to North American urban centres (ibid.: 44). The shift was fuelled by a variety of movements. Authors embracing various forms of primitivism affirmed that "an idyllic life presumably awaited those who entered the woods" (ibid.: 48), while new aesthetic theories were developing a concept of sublimity that "dispelled the notion that beauty in nature was seen only in the comfortable, fruitful, and well-ordered. Vast, chaotic scenery could also please" (ibid.: 45). The concept of sublimity in turn "suggested the association of God and wild nature" (ibid.: 46), which helped feed the budding deistic movement, which "accorded wilderness, as pure nature, special importance as the clearest medium through which God showed His power and excellency" (ibid.). Deists affirmed that "spiritual truths emerged most forcefully from the uninhabited landscape, whereas in cities or rural countryside man's works were superimposed on those of God" (Nash 1982: 46).

These different movements, along with Romanticism's variegated "enthusiasm for the strange, remote, solitary, and mysterious" (ibid.: 47), combined to foster an increasing appreciation for wild country and landscapes untouched by human development in Europe and North America. This appreciation in turn helped give momentum to the conservation movement, particularly the strain rooted in John Muir's preservationist approach. Muir, Leopold, Carson and Naess all possess an ecological sensibility that is expressive of one or more aspects of primitivism, Romanticism and the aesthetics of the sublime.

When Muir makes such declarations as "Oh, these vast, calm measureless mountain days, inciting at once to work and rest! Days in whose light everything seems equally divine, opening a thousand windows to show us God" (Muir 1967[1911]: 34), he is expressing the close relationship between God and nature, as well as giving voice to the deistic belief that nature is the purest expression of God's beauty, power and goodness ("a thousand windows to show us God"). According to Nash, even as a young frontiersman Muir retained a deep admiration and respect for the surrounding wilderness: "instead of lauding civilization, Muir expressed displeasure at its cruel, repressive, and utilitarian tendencies. Wild nature, in contrast, appeared to have a liberating influence conducive to human happiness" (Nash 1982: 123). For Aldo Leopold, the year (1865) that Muir tried to buy a plot of land from his brother in order to make it a sanctuary of wilderness "still stands in Wisconsin history as the birthyear of mercy for things natural, wild, and free" (Leopold 1966: 17).

Leopold's "Conservation Esthetic" (1966[1949]), for its part, outlines an ecologically-enlightened attitude to outdoor recreation based in an aesthetic appreciation ("perception") of nature and wilderness. Leopold's aesthetic is set in contrast to forms of mechanized recreation that inevitably incur attrition of the land and its resident life. Although Leopold's conservation aesthetic was firstly meant as a response to his concerns about ecological integrity and sustainability (how do we enjoy nature without hastening its destruction?), his approach is clearly an extension and a response to earlier aesthetic theories that sought to invert certain cultural biases by adopting a view of nature as inherently beautiful, and therefore as possessing a value over and above its ability to serve human needs and ends.

When Leopold writes that "we seek contacts with nature because we derive pleasure from them" (Leopold 1966: 283), he is echoing these earlier aesthetic theories and their positive claims about wild nature. When he places an emphasis on the activity of *perceiving* nature (as opposed to trophy hunting or other activities that take from the land) as "the only truly creative part of recreational engineering" (ibid.: 290), he is reacting to the problematic consequences of those same aesthetic theories—for the earlier attempts of these aesthetic theories to promote an appreciation of wilderness had had the unexpected result, in Leopold's day, of giving rise to a swelling tourist industry focused

on outdoor recreation and the appreciation of nature. This industry was placing increasing amounts of pressure on the continent's already rarefied plots of extant wild country, enough pressure that Leopold felt the need for a new approach to recreation that intuitively abided by the values of conservation.

Both in his claim that we derive pleasure from our contacts with nature and in his attempt to define an aesthetic attitude to recreation that would allow us to appreciate the natural landscape without placing such pressure on it as to hasten its demise, Leopold is expressing a view of natural and wild country as something valuable in its own right and therefore deserving of our respect and careful consideration. This view Leopold shared with his predecessor, John Muir, who was known to affirm often, when confronted with the utilitarian assumptions of his peers, that all things existed first and foremost for themselves.[34]

Rachel Carson's scientific and journalistic works, which include her widely-acclaimed books *The Sea Around Us* (1951) and *Silent Spring* (1962), are guided by a similar deep-felt curiosity and appreciation for the natural world and its beauty. This appreciation, says professor of environmental history Linda Lear, was developed early in life "in the company of her mother, a devotee of the nature study movement" (Lear 2002: xi). At a young age, Carson also discovered a deep affinity with Romantic thought and she had already read widely in the English Romantic tradition by the time she entered college (ibid.). These influences, familial, intellectual and artistic, continued to exert themselves on her thought throughout her life. *Silent Spring*, for instance, reveals an author who is not only concerned with the destructive impacts of chemical pesticides on the healthy functioning of natural ecological processes, but also the threat which those chemicals posed to the continued existence of an incomparably beautiful natural world. Citing Justice William O. Douglas, a major voice in the early American environmental movement, Carson writes that "the esthetic values of the wilderness are as much our

[34] A notable instance is recorded in the June 7 entry of his *First Summer in the Sierra*. Near the end of the entry, Muir contemplates the unpopular plant known as poison oak or poison ivy: "Like most other things not apparently useful to man, it has few friends, and the blind question, 'Why was it made?' goes on and on with never a guess that first of all it might have been made for itself" (Muir 1967: 22). Nash quotes a different passage in which Muir makes a similar statement about rattlesnakes: "Modern man asks 'what are rattlesnakes good for?' with the implication that for their existence to be justified their existence had to benefit human being. For Muir, snakes were 'good for themselves, and we need not begrudge them their share of life'" (Nash 1982: 128).

inheritance as the veins of copper and gold in our hills and the forests in our mountains" (Douglas, cited in Carson 2002: 72). By making recourse to aesthetic values in her argument against the indiscriminate use of chemical pesticides, Carson is carrying forward a form of Romantic revolt against the utilitarian approach of modern mechanistic science that dates back to the eighteenth and nineteenth centuries and the various movements discussed in this section.

In his writings on Tvergastein, a place 1,500 meters above sea level among the slopes of Mount Hallingskarvet where his cottage was located, Arne Naess demonstrates a fascination and appreciation for the mountain's untamed landscape that recalls the attitudes of Muir, Leopold and Carson. Although his writing is less infused with Romantic flourish than the writings of those earlier thinkers, one definitely gets the sense in reading Naess of a deep connection and love for this place of belonging, its many features and the diversity of life forms that inhabit it. This deeply personal connection was symbiotically interwoven with his equally prevalent scientific appreciation for the natural world, and in this way became a principal basis and inspiration for his deep ecological writings.[35]

Naess, like Muir, Leopold and Carson, calls for a renewed appreciation of nature. Nature, and especially wild nature, far from being something in need of being appropriated and controlled by humans for human ends, holds the key to discovering that vision of humility and reciprocity that is the precondition for the human species' continued survival. At the base of this discovery lies an inversion of the prevailing utilitarian and mechanistic view of nature—an inversion which is brought about in the first place by a developed appreciation for one's place of ecological belonging.

A voice flows through the writings of Muir, Leopold, Carson and Naess, a voice that calls for a renewed appreciation of nature as the vehicle of sublimity, the key to our true selves and a balm for our increasingly urbanized and technological lives. This voice is rooted in a desire to invert an attitude towards wilderness and the natural world that we have inherited from previous times and which has become increasingly dominant through

[35] Naess often referred to his personal philosophy, or "ecosophy," as "Ecosophy T." In his article on the origins, development and future prospects of the deep ecology movement, Alan Drengson suggests that "T" stands for Tvergastein, thus highlighting the central role that this place had in defining Naess' personal philosophy of life (Drengson 2010b: 56).

a series of developments characteristic of the modern era: urbanization, industrialization, their associated technological progress as well as the Cartesian-Newtonian view underlying the project of mainstream mechanistic science since the seventeenth century. In seeking to challenge and invert the prevailing attitude to nature in the industrial West, the proponents of nature as sublime, positive and in some cases superior to human society have not sought to eliminate the age-old opposition between nature and society. Instead, they tipped the scales. The traditional emphasis on human society as superior to untamed wilderness (the very word *untamed*, after all, implies something undesirable in need of being brought under order) has been replaced with a contrasting notion of nature as the desirable element. Human society (at least in its present form) is then reconceived accordingly as that which requires realignment. By virtue of this inversion of the values associated to the poles of the nature-society opposition, the natural world is granted a newly crucial status as the point of reference to which human society must adapt. In the context of this inverted value system, Naess is able to view Hallingskarvet as "the symbol of everything good that was lacking in the world and in myself" (Naess 2008: 53). Similarly, Carson's *Silent Spring* proposes an ecological perspective that challenges the prevailing mentality of her society and time by affirming that *nature*, not humans, holds the solutions to our environmental problems:

> Nature herself has met many of the problems that now beset us, and she has usually solved them in her own successful way. Where man has been intelligent enough to observe and to emulate Nature he, too, is often rewarded with success. (Carson 2002: 81)

Likewise, Leopold's *Sand County Almanac* is suffused with a sense that nonhuman life, animals and plants, possess an instinctual understanding of their place in the whole, whereas humans lack a clear sense of where they belong. "Is education," he writes, "possibly a process of trading awareness for things of lesser worth? The goose who trades his is soon a pile of feathers" (Leopold 1966: 20). According to him, nature and its nonhuman residents have long held the wisdoms that we humans struggle to achieve:

> It is an irony of history that the great powers should have discovered the unity of nations at Cairo in 1943. The geese of the world have had that notion for a longer time, and each March they stake their lives on its essential truth. [...]

> Hemisphere solidarity is new among statesmen, but not among the feathered navies of the sky. (Leopold 1966: 25, 38)

In the works of Leopold, Carson and Naess, we discover mature expressions of that view of nature that emerged alongside the development of modern science and society, asserting itself early on in the movements of primitivism and Romanticism. According to this view in its various forms, nature is the moral, political and economic Archimedean point of society. To the extent that nature, particularly in its wild form, is "the raw material out of which man has hammered the artifact called civilization" (ibid.: 264), it is the precondition of human society. As such, it presents society with its own ideal while also determining its limits and, to a certain extent, its basic character. While preserving the age-old opposition between nature and society (which in earlier times had supported the disparagement of wild nature), the concept of nature as sublime that informs many ecological thinkers inverts the values associated to each pole of the opposition and affirms, in contrast to the dominant earlier view, the superiority of nature over society, of wilderness over civilization, of the nonhuman over the human elements of the world.

Together, the concepts of mechanistic and sublime nature present a broad outline of the concept of nature that informs the works of many ecological thinkers and key figures of the environmental movement. These two major cultural informants of our present views of nature, however, are by no means in perfect harmony. Their union within the concept of nature is a precarious and problematic one at best. Firstly, they refer to different aspects or scales, as it were, of the natural world. The concept of nature as mechanism that we observed from Leibniz forward refers to nature as the entire realm of corporeal substances (to use Leibniz's terminology), the totality of phenomenal occurrences that comprise the universe. The concept of nature as sublime, on the other hand, refers specifically to nature as the nonhuman: namely wilderness, the parts of the biotic and abiotic realms that have not yet been altered or altogether destroyed by human intervention.

At first glance, the latter concept of nature as sublime would appear to be contained within the purview of the former concept of nature as mechanism: The concept of nature as mechanism includes the entire phenomenal universe (at least in its objective and

measurable aspects), which obviously includes the nonhuman or wild sphere within it. And yet this is where the tension arises. The concept of nature as sublime resists subsumption within the strictly mechanistic conception of nature. This is because these concepts arise from conflicting traditions. These traditions are familiar to us now: they are the traditions of mechanistic science and holism, or Enlightenment and Counter-Enlightenment. The concept of nature as mechanism demands the imposition of a particular set of values and assumptions, namely the Enlightenment values and assumptions of mechanism and the Cartesian self, onto the natural world (which in this case includes humanity). The concept of nature as sublime, in contrast, reflects a movement in Western thought that has emerged in express reaction to mechanistic science's narrow conception of nature and life. In the works of John Muir and later conservationists, the concept of nature as sublime also became the grounds for their reaction against the consequences of industrialism and capitalism on the wild places of the world as well as a justification for their preservation. In its various manifestations, the concept of nature as sublime is a contestation of mechanistic science and its objectifying approach to the natural world. By reaffirming the distinction between wilderness and society and by placing greater value on the former, proponents of sublime nature establish the realm of nonhuman nature as the basis for their contestations of certain prevailing trends in Western industrial society. It is no surprise, then, that the concept of nature as sublime resists complete symbiosis with the concept of nature as mechanism.

And yet these two concepts have found a way to coexist, if precariously, within the broader concept of nature that informs ecological thought (and to varying degrees Western thought at large). History proves itself here to be more creative and flexible than pure logic. Even though these two concepts may seem to be logically incompatible due to their conflicting origins and connotations, they have been brought together through circumstance and the complex dynamics of culture into tenuous coexistence within the writings of many ecological thinkers. It seems to me that the intersection between these two concepts of nature has been a source of inspiration and motivation for a great deal of the integrative theories that we find emerging in deep ecological thought. As a point of tension that some have inevitably interpreted as a problem in need of solving, the intersection between the concepts of nature as mechanism and nature as sublime

continues to stimulate a variety of responses within the ecology movement. In the hands of reactionary individuals it becomes fuel for the further entrenchment and opposition of holistic and mechanistic modes of thinking and being; in the hands of those possessed by a more reconciliatory spirit, it beckons the construction of integrative programs whose guiding light is the reconciliation of these two concepts of nature and their respective traditions.

4.2 Origins of the deep ecology movement

The deep ecology movement emerged in the 1960s and 1970s largely as an attempt to extend, both in breadth and in depth, the longstanding movements of environmentalism and conservation in North America and elsewhere. Both Arne Naess and Alan Drengson propose the publication of Rachel Carson's *Silent Spring* in 1962 as the starting point of the deep ecology movement (Naess 2005: 89; Drengson 2010b: 50). Yet as Drengson points out, long before Carson's revolutionary book there had existed "a long-standing movement for conservation of land and resources, as well as support for creating parks and other areas devoted to preserving wilderness and spectacular nature" (ibid.). Carson, for her part, did not initiate this movement but rather added to it in a crucial way which paved the way for the emergence of the deep ecology movement in subsequent decades. We will speak more on this later. But I suggest we heed Drengson's observation and begin our discussion of the ecological movement somewhat earlier than *Silent Spring*.

In following Roderick Nash's work on *Wilderness and the American Mind* (1982) and Duncan Taylor's article on the competing traditions informing contemporary environmental debate (1992), I would like to extend the prehistory of the deep ecology movement to include two key forerunners of Carson: namely, John Muir and Aldo Leopold. Both Muir and Leopold were crucial players in the development and publication of the pre-existing conservation movement that Drengson mentions above. Their discussion will lend a vital clarity as well as a broader context to the more recent emergence of the deep ecology movement in the latter part of the twentieth century. Without Muir and Leopold's earlier efforts to promote the conservation and preservation of the land and, in Leopold's (and Carson's) case, to bring ecology into mainstream

awareness, the later call by deep ecological thinkers for an ecology that delves deeper and sweeps ever more broadly in its investigations of nature and society would have scarcely been comprehensible, let alone possible.[36]

4.2.1 John Muir

We have already discussed John Muir's (1838-1914) deep identification with primitivistic and glorifying conceptions of wild nature (section 4.1.2). According to Nash, these views were grounded in an intense appreciation for wild country that developed early in Muir, partly in reaction to his father's strict Calvinist beliefs, in his youth in the fishing village and surrounding hills of Dunbar Scotland, on his family's Wisconsin farm and later during his time at the University of Wisconsin (Nash 1982: 123-4). During his two and a half years as a student in Madison, Muir came into contact with professors and peers in both science and theology who provided him with an intellectual framework for his budding attitude towards "the clearing, trampling work of civilization" (Muir 1901: 3) and the wildernesses that were suffering at its expense. This framework was inspired by the works of the Romantic poet Wordsworth as well as the Transcendentalists Emerson, Thoreau and Walter Rollins Brooks (ibid.: 124). In the Transcendentalists, Muir discovered a confirmation of his own belief in the fundamental

[36] It should be noted that my present discussion of Muir, Leopold, Carson and Naess is a selective account of the deep ecology movement's origins and emergence. More extensive accounts have been written, such as George Sessions' brief overview in "Deep Ecology, New Conservation, and the Anthropocene Worldview" (2014). In that article, Sessions lists a number of direct and indirect contributors to the ecological movement that I do not discuss here. These contributors include the influential ecological spokespersons David Brower and Paul Ehrlich (to whom Sessions adds Rachel Carson), as well as Lynn White Jr., Arne Naess, Gary Snyder, Lewis Mumford, David Ehrenfeld, Paul Shepard and Michael Soulé; he also notes milestone events like the establishment of the UN Intergovernmental Panel on Climate Change in 1988, the signing of the *World Scientists' Warning to Humanity* in 1992, and the drafting of a similar statement by fifty-eight National Academies of Science throughout the world in 1993 (Sessions 2014: 109). To Sessions' list we might also add E. F. Schumacher, Helena Norberg-Hodge, Vandana Shiva, David Rothenberg, Alan Drengson, Bill Devall and George Sessions himself—and still we would not have fully exhausted the list of individuals who have in some way contributed to the further development of the ecological movement and its "deep" orientations. By focusing my discussion strictly on Muir, Leopold, Carson and Naess, I am not claiming that these other individuals and events have made a lesser contribution to the formation and development of the deep ecology movement. Rather, my decision is primarily based on issues of expediency as well as space limitations. The present section in its limited scope cannot possibly hope to provide a full account of the deep ecology movement's prehistory and history, nor does it intend to. That said, I do believe that the works of Muir, Leopold, Carson and Naess taken together feature all the major themes that Sessions touches upon in his more extensive list of contributors. These four authors therefore provide the basis for a concise and well-rounded (if incomplete) understanding of the prehistory and emergence of the deep ecology movement as a more recent expression of longer-standing movements in conservation and environmentalism/ecology.

kinship between God and nature. Transcendentalism affirmed "a correspondence or parallelism [...] between the higher realm of spiritual truth and the lower one of material objects" (ibid.: 85). According to Transcendentalist writers like Emerson and Thoreau, "nature was the proper source of religion. [...] wilderness, in contrast to the city, was regarded as the environment where spiritual truths were least blunted" (ibid.).

This view of nature and its associated deprecation of human civilization would continue to be an essential part of Muir's philosophy to the end of his life. In his final work, *My First Summer in the Sierra*, published three years before his death, we find him bemoaning the destructive advance of two thousand domesticated sheep, or "hoofed locusts" as he called them (Muir 1967: 29), that Muir was hired to accompany into the mountainous Yosemite region.

Muir's admiration of the natural world also extended to the Indians who inhabited it and whose harmonious coexistence with their environment earned them equal respect as was due to nature itself:

> Indians walk softly and hurt the landscape hardly more than the birds and squirrels, [...] while their more enduring monuments, excepting those wrought on the forests by the fires they made to improve their hunting grounds, vanish in a few centuries. (ibid.)

Muir would then contrast this way of life to the way of the white man, whose roads, dams and pipelines were so swiftly erected and yet so slow to erode:

> These are the white man's marks made in a few feverish years, to say nothing of mills, fields, villages, scattered hundreds of miles along the flank of the Range. Long will it be ere these marks are erased, though Nature is doing what she can, replanting, gardening, sweeping away old dams and flumes, levelling gravel and boulder piles, patiently trying to heal every raw scar. (ibid.)

This attitude towards nature and its antagonistic human counterpart, rooted in primitivistic values as well as Transcendentalist philosophy, became one of the bases for Muir's approach to conservation. For Muir, the preservation of natural places—and particularly of wild ones—was not only a matter of economic necessity (as his younger contemporary Gifford Pinchot affirmed) but was equally if not more important for

spiritual reasons. In the opening of his book *Our National Parks*, published in 1901, Muir expresses this conviction in typical flourishing prose:

> Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life. Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their own little ongoings with those of Nature, and to get rid of rust and disease. (Muir 1901: 1)

Muir's life coincided with a rising national concern with issues of conservation and land management (Nash 1982: 129). His lifelong efforts to establish segments of government-protected wilderness in his beloved Yosemite region and elsewhere brought him into contact with numerous key figures in the American government and forestry division, including President Theodore Roosevelt and Gifford Pinchot, founder of the "wise use" conservation approach and later appointed the first chief of the federal Forestry Service. At first Muir and Pinchot worked in collaboration against those who sought strictly to exploit the land for profit. But as time passed Muir became increasingly aware of the irreconcilable nature of his own preservationist approach, which sought to protect nature for nature's sake, with Pinchot's more utilitarian approach to resource conservation. Eventually the friendship and partnership binding these two men collapsed and the camps that emerged around their respective approaches became increasingly polarized. Muir eventually abandoned his earlier attempts to establish a common ground between himself and Pinchot's followers (ibid.). From this parting of ways emerged a division and distinction within the conservation movement that continues to influence environmental debate to this day.

4.2.2 Muir and Pinchot: Conservation's ideological divide

Gifford Pinchot (1865-1946) was a younger contemporary of John Muir. The two met for the first time in 1893 during one of Muir's visits to New York, where they were introduced by Robert Underwood Johnson, Associate Editor for *Century* Magazine (and a devout follower of Muir's) (Winkley 1959: 129-30). Pinchot was the first American to

choose forestry as a career (Nash 1990: 73). After graduating from Yale, his love for the outdoors and innovative outlook led him across the Atlantic to study forestry at the French Forest School in Nancy. Upon his return, he immediately went to work, first as a private contractor and later as a government employee, putting into practice the innovative approaches that he had learned overseas. Nash describes Pinchot's conservation philosophy as "characterized by utilitarianism and a democratic orientation," and writes that he "was the driving force behind the Progressive conservation movement" (Nash 1990: 73).

Under Pinchot's direction, the federal Forest Service (to which he was appointed chief in 1898) became the centre of an effort to consolidate what had become, as Pinchot put it later in his 1947 book *Breaking New Ground*, "a mess" (Pinchot 1972: 320). At the start of the twentieth century, authority over the country's natural resources was spread out across more than two dozen different government organizations: "At the beginning of 1905, when the Forest Service was created, the twenty-odd Government organizations in Washington which had to do with natural resources [...] were all in separate and distinct watertight compartments" (ibid.: 319). Minerals were the designated jurisdiction of three departments, streams of another four or five, forests belonged to yet another six, and the rest was parcelled out among a dozen more. It was Pinchot's major accomplishment to realize that these scattered organizations, which until then had been functioning as independent units, in fact all belonged to a larger picture. This larger picture, which would later be identified by ecologists as the forest ecosystem, was overseen by the Forestry Service, whose central role with regard to all organizations involved in the country's natural resources granted Pinchot an ideal position to bring them together into new forms of collaboration. Pinchot's insight and the policies that emerged from it led to ground-breaking approaches to conservation that no longer treated forests as mere aggregates of trees (a by-product of atomistic and reductionist thinking), but as complex systems comprised of plants, streams and animals, biotic and abiotic processes. In Pinchot's words:

> Suddenly the idea flashed through my head that there was a unity in this complication—that the relation of one resource to another was not the end of the story. [...] Seen in this new light, all these separate questions fitted into and made

> up the one great central problem of the use of the earth for the good of man. (ibid.: 322)

Although Pinchot recognized the complexity of natural processes and the need for a conservation approach that recognized the contributions of all aspects of the forest—animal, mineral and vegetal—to the proper functioning and growth of the forest ecosystem, he continued to view this complexity from a strictly utilitarian perspective. In *The Fight for Conservation*, published in 1910, Pinchot wrote that "the first principle of conservation is development, the use of the natural resources now existing on this continent for the benefit of the people who live here now" (Pinchot 1967: 43). "Wise use" management, in other words, seeks to better understand the processes by which a forest functions and grows in order to more efficiently make use of its natural resources "for the greatest good of the greatest number for the longest time" (a slogan which Pinchot attributes to W. J. McGee, head of the Bureau of American Ethnology at the time) (Pinchot 1972: 326). This approach, which deliberately echoed utilitarian philosopher Jeremy Bentham's famous appeal to the "greatest happiness of the greater number" more than a century earlier, was guided by a clear democratic impulse. In *The Fight for Conservation*, Pinchot wrote that "the natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of a few" (Pinchot 1967: 46).

This utilitarian approach to conservation, which although concerned with efficiency and the minimization of waste was strictly concerned with these things because of their potential negative impacts on the quality of human life, stood in stark contrast to Muir's preservationist approach, which sought rather to preserve nature for *nature's* sake. Although Pinchot and Muir began their relationship as allies in the fight against unregulated exploitation, a series of disappointed outcomes made it increasingly evident that Muir's preservationist approach was irreconcilable with Pinchot's "wise use" approach. This led to increased entrenchments between the two men and their followers.

These entrenchments have continued to inform issues in conservation and ecology up to the present day. More recently, Duncan Taylor presents them in the form of two conflicting definitions of sustainability and their underlying world views in an article titled "Disagreeing on the Basics" (1992). In this article, Taylor associates Pinchot and the "wise use" conservation approach to a longer tradition of Enlightenment and

mechanistic thought that reaches back as far as Bacon, Descartes, Newton and the rise of mechanistic science. Taylor refers to this tradition's prevailing outlook as the "Expansionist World View" (Taylor 1992: 26-8), thereby identifying it not only with the Enlightenment and mechanistic traditions but also with "the West's historical experience of geographical expansion" and its "concept of continuous growth [...] extrapolated optimistically into a seemingly boundless future" (Taylor 1992: 26).

In contrast to the Expansionist World View, Taylor outlines a movement which he calls the "Ecological World View" (ibid.: 28). This movement, characterized by a diversity of views and origins which extend beyond the Western tradition, is primarily associated with the Counter-Enlightenment and Romantic movements of the eighteenth and nineteenth centuries, as well as with Muir's preservationist or "righteous management" approach to conservation (ibid.: 30).

Seen in light of these conflicting world views and their approaches to conservation and sustainability, Pinchot and Muir become spokespeople for two traditions that we have been following from the beginning of this thesis. Through Pinchot, a sophisticated form of mechanistic thinking was introduced into natural resource management; with Muir, a more holistic approach to land stewardship was given voice. As attested by Taylor's article, both approaches to conservation and their associated world views have continued to influence how issues are being addressed in conservation and ecology today. Pinchot embodies the prevailing mechanistic and utilitarian strain in conservation ecology, while Muir is one of the earliest voices for a holistic approach grounded in the spiritual and ethical claims of thinkers associated to the Counter-Enlightenment and Romantic traditions. Although the first approach associated with Pinchot continues to exert tremendous influence in our present day, it is the second holistic approach that we see carried forward in the works of Leopold, Carson and Naess.

4.2.3 Aldo Leopold

If Muir and Pinchot were the progenitors of an ideological divide that has marked the conservation movement since its inception more than one hundred years ago, Aldo Leopold (1887-1948) represents the first notable attempt to bridge that divide. Leopold himself moved between camps over the course of his life.

Like Pinchot, Leopold graduated from Yale and his passion for the outdoors led him to pursue a career in forestry. Unlike Pinchot, however, he did not have to go as far as Europe to receive the training he needed. Thanks to the philanthropy of the Pinchot family, the Yale Forest School had been founded in 1900 and was the primary supplier of personnel for the United States Forest Service (Nash 1982: 183). Leopold did not even need to change campuses to pursue his forestry career. Upon graduating from the Yale Forest School in 1909, Leopold was appointed Forest Assistant in the American Southwest (ibid.) where he began applying the knowledge he had been taught in school.

For the first part of his life and career as a forester, Leopold adhered largely to the conservation approach that he had been taught at the Yale Forest School. His first major published work, *Game Management* (1933), considered one of the founding works on wildlife management, effectively applied Pinchot's "conservation as wise use—greatest good for the greatest number" land management philosophy to the conservation and sustainable development of wild game (Young 2011: 999).

Even in these early years, though, we see intimations of his later philosophy. Nash cites a 1915 newspaper article in which Leopold writes:

> the aim and purpose of this little paper is to promote the protection and enjoyment of wild things. . . may it scatter the seeds and understanding among men, to the end that every citizen may learn to hold the lives of harmless wild creatures as a public trust for human good, against the abuse of which he stands personally responsible. (Leopold, cited in Nash 1982: 183)

Leopold's approach to conservation changed radically in the wake of a transformative experience during a hunting excursion in New Mexico. Leopold recounts the experience some years later in his *Sand County Almanac* (1949). He and a few others were eating lunch on a high rimrock when they inadvertently came upon a pack of wolves, mother and cubs. "In those days we had never heard of passing up a chance to kill a wolf" (Leopold 1966: 138). The men immediately loaded their rifles and fired on the animals. "When our rifles were empty, the old wolf was down, and a pup was dragging a leg into impassable slide-rocks" (ibid.).

> We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever

> since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.
>
> Since then I have lived to see state after state extirpate its wolves. I have watched the face of many of newly wolfless mountain, and seen the south-facing slopes wrinkle with a maze of new deer trails. I have seen every edible bush and seedling browsed, first to anaemic desuetude, and then to death. I have seen every edible tree defoliated to the height of a saddle-horn. [...] I now suspect just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer. (Leopold 1966: 139-40)

With time, the radical shift in perspective that Leopold traces to this encounter with the dying wolf carried him increasingly further away from his initial utilitarian attitude to wildlife management. Leopold considered whether Pinchot's "wise use" approach itself, with its emphasis on highest use, required the preservation of portions of forest as wilderness (Young 2011: 1000). Like Muir, Leopold's sensitivity to the realities of nonhuman beings and their relationships to one another paved the way for a relationship between man and nature that differed starkly from the view that dominated in his native field of wildlife conservation.[37] Yet in contrast to Muir, this relationship for Leopold was not founded primarily on spiritual and sentimental grounds. Rather, Leopold based it on his scientific knowledge of ecological processes. As Nash writes, Leopold's "growing awareness of the interrelations of organisms and their environment led him to the realization that protecting wild country was a matter of scientific necessity as well as sentiment" (Nash 1982: 182). This view is captured most strikingly and succinctly by Leopold's land ethic, which he first published as a journal article in 1933 and later expanded as part of his *Sand County Almanac*.

[37] This sensitivity to the nonhuman world is made evident by the title of the section in which Leopold recounts his encounter with the dying wolf, "Thinking like a mountain" (Leopold 1966: 137-41). This title was later reused by John Seed, Joanna Macy, Pat Flemming and Arne Naess in the title of their book *Thinking Like A Mountain: Towards a Council of All Beings* (1988).

Leopold's land ethic proposes an extension of our ethical conscience, which heretofore has remained confined to relations between human beings, to the nonhuman environment. Leopold grounds this in a process of ecological evolution: just as, in times past, ethics had eventually evolved to include human chattel and therefore rendered the institution of slavery unacceptable, we are now being called upon to extend our ethical conscience further so as to include the biotic and abiotic elements that support human life (Leopold 1966: 237-9). This extension of ethics, fuelled by a heightened ecological understanding of the world we live in, gives rise to what Leopold calls the ecological conscience (ibid.: 243). The ecological conscience carries the individual beyond his accepted ethic of economic self-interest towards a state in which he intuitively feels responsible for the well-being of the land and its inhabitants (ibid.: 245-6). In realizing that his well-being depends on the proper functioning and well-being of all elements comprising the natural systems that support him, the human individual rises to an awareness of his interdependence with his natural environment. This inevitably leads him to adopt a conservation approach that aspires not only to his own advancement but to "a state of harmony between men and land" (ibid.: 243). With his land ethic, Leopold moved beyond the strictly utilitarian outlook of the "wise use" school and of his own youth towards a perspective that discovered in ecology a scientific confirmation of Muir's preservationist approach. In this way, Leopold provided an invaluable basis for continued efforts in the conservation and ecological movements.

One of the most significant contributions of Leopold's later works, and one that would be picked up by Rachel Carson more than a decade later, was his emphasis on the interior aspects of human life in issues of conservation and ecology. Leopold recognized that the problems faced by conservationists in his day were not going to be solved by quick fixes or technical solutions. Rather, many of the problems were being caused by the conservation approaches themselves (as with the extirpation of wolves throughout North America that led to the overpopulation of deer). The solution, therefore, did not simply lie in changing conservation practices, but more importantly in effecting a change on the level of the concepts, values and assumptions guiding such practices. Without a change on that deeper level, a conservation approach based on Leopold's land ethic is doomed to fail. So long as the majority of conservation efforts were undertaken in a utilitarian and

strictly economic spirit, the sorts of ecologically-enlightened approaches proposed by Leopold could never hope to take root. “No important change in ethics was ever accomplished without an internal change in our intellectual emphases, loyalties, affections, and convictions” (Leopold 1966: 246). The challenge of the conservation movement and its younger sibling, the ecological movement, was not only a practical one but also, and perhaps more importantly, a philosophical one.

This realization, which we see for the first time in Aldo Leopold’s later writings and subsequently championed by Rachel Carson, would ultimately be embraced as a central tenet of a social movement that identified itself as ecologically “deep.”

4.2.4 Rachel Carson

Rachel Carson’s (1907-1964) *Silent Spring* is commonly regarded as the book that launched the modern environmental movement. Although Carson did not live to see its influence (she died eighteen months after its publication in 1962), *Silent Spring* was a significant contribution to the then-budding environmental movement in the United States—perhaps the most significant single work leading up to the establishment of the Environmental Protection Agency in 1970 (Wilson 2002: 361). Like Muir and Leopold before her, Carson found herself confronted with a dominant scientific attitude whose claim to dominion over nature was, in her estimation, leading to more harm than good (Lear 2002: xv-xvi). In Carson’s day, this dominion had been successfully extended to the nuclear and (in her own field of biology) molecular levels, where scientists guided by an aggressive reductionism and atomistic approach hoped to unlock the codes to all matter and life. One of the areas where this approach had led to tangible breakthroughs was the chemical industry. In the attempt to maximize agricultural efficiency, ever more potent chemical pesticides were being concocted and disseminated in the United States in the hopes of ridding the world once and for all of undesirable pests. The dangers that these pesticides (which included the now-infamous DDT) posed to the environment and to human health were well known among experts in their respective fields, but according to the later writer Edward O. Wilson “it was Rachel Carson’s achievement to synthesize this knowledge into a single image that everyone, scientists and the general public alike, could easily understand” (Wilson 2002: 357).

Carson's synthesis sought to demonstrate the dangers of indiscriminate spraying of toxic chemicals on crops and neighbourhoods throughout North America. In order to do this, she had to articulate, in clear and accessible manner, the ecological principles that made these dangers evident. She had to explain why, for instance, spraying corn crops in order to kill the insects that feed off the corn is not only nefarious to the health of those who eat the corn after it has been exposed to the toxic pesticides, but also ultimately counterproductive in the long run because the so-called "pests" that the chemicals were designed to exterminate are likely part of a complex web of interrelations that maintains not only the balance of the broader ecosystem but also the healthy development of the corn crop itself. In her attempt to illustrate the ways in which pest and crop, or human and environment, are ineluctably connected within the larger natural system, Carson crafted *Silent Spring*, a prime vehicle for the dissemination of such ecological principles as we have already encountered in Aldo Leopold's *Almanac* and land ethic. As with Leopold, Carson's ecological perspective inevitably led her to sharply criticize the mainstream scientific view that was responsible for the mass production of ever more potent chemical pesticides in her day.

> The earth's vegetation is part of a web of life in which there are intimate and essential relations between plants and the earth, between plants and other plants, between plants and animals. Sometimes we have no choice but to disturb these relationships, but we should do so thoughtfully, with full awareness that what we do may have consequences remote in time and place. But no such humility marks the booming "weed-killer" business of the present day, in which soaring sales and expanding uses mark the production of plant-killing chemicals. (Carson 2002: 64)

In following Leopold's insight that the challenge of the conservation movement is not only practical but possesses a philosophical dimension as well, Carson's critique of the chemical industry and its underlying view of nature rooted in Enlightenment assumptions of mechanism and reductionism is not mounted on strictly scientific grounds. Its objection is also moral. The question "what can we do?", which has been at the heart of the scientific enterprise since Bacon, is for Carson necessarily followed by the question "what *should* we do?" In speaking about a notably tragic case of mass spraying that occurred in 1954 in the town of Sheldon, Illinois, Carson writes: "Incidents like the

eastern Illinois spraying raise a question that is not only scientific but moral. The question is whether any civilization can wage relentless war on life without destroying itself, and without losing the right to be called civilized" (Carson 2002: 99). Again, Carson seems to be calling for a new and expanded ethical conscience. This conscience, grounded in the insights of ecology, extends our sense of responsibility outwards to the natural environment through the realization of the profound interconnectedness between every aspect of nature, and particularly of the threads of interdependence that bind us humans to the nonhuman bases of our continued existence.

According to Naess, not only did Rachel Carson's *Silent Spring* launch the North American environmental movement, but it also heralded the emergence of a particular strain within that larger movement (Naess 2005: 89). This strain has taken especial inspiration from her and Leopold's insight that the environmental problems we face are undergirded by more tacit philosophical ones. As Naess puts it, the controversies Carson wrote about in *Silent Spring* "revealed political, economic, and technological forces that could engender future silent springs. Rachel Carson went deep and questioned the premises of her society" (ibid.). Elsewhere, Naess writes that "Rachel Carson's *Silent Spring* (from which we can date the beginnings of the international deep ecological movement) insisted that *everything*, not just politics, would have to be changed" (Naess 1995a: 445, italics original). The philosopher Alan Drengson, supporter of the deep ecology movement and long-time friend and colleague of Naess', expands on this:

> Carson helped us to grasp that caring for some animal populations, such as birds, requires that we care for the health of the whole system they live in. [...] Carson suggested that honoring this responsibility requires a basic shift in the way we see, feel, and value the world. This deep change is often described as a shift in paradigms, values, and basic relationships. We cannot continue to do the same things in the same way for the same reasons, with only modest modifications. We cannot go on with business as usual, if we are going to solve these problems. (Drengson 2010b: 50)

The movement that espoused these statements and carried them forward would emerge in the 1970s and immediately call on its parent movement to dig ever more deeply and sweep ever more broadly in its investigations of our ecological predicaments. Guided by

expanded ecological perspectives grounded in a diversity of cultures and ideological backgrounds, the movement offered a common platform to those who were actively engaged in ushering what George Sessions has called "the Age of Ecology" (Sessions 2014: 106). Although this movement continues to resist strict definition to this day, it was first given a name and a broad orientation by Naess in 1973. The name then given was the deep, long-range ecology movement (Naess 1973).

4.2.5 Arne Naess

In his article titled "The Shallow and the Deep, Long-Range Ecology Movement: A Summary," published in 1973,[38] Arne Naess (1912-2009) offered an initial outline of a movement whose name would later be simplified to the "deep ecology movement" (or, in some cases, simply "deep ecology"). In this article, Naess drew a contrast between two movements in the scientific community which he called "shallow" and "deep" (Naess 1995b: 3). The shallow ecology movement, wrote Naess, is focused primarily on the "fight against pollution and resource depletion" (ibid.). Its scientific approach is accordingly reductionist and materialistic, associated with the long tradition of mechanistic science in the West whose approach to ecological problems in our present day has been to treat them strictly as problems "out there," and that proposes superficial solutions which make use of the technological prowess of industrial nations. The shallow ecology movement's central objective: "the health and affluence of people in the developed countries" (ibid.).

In defining the deep ecology movement in contradistinction to this "shallow" approach to ecological problems, Naess revived and extended the legacies of Leopold's and Carson's ecological activisms. Unlike the shallow ecology movement, which was the product of the same scientific mentality that had seen no issue with unregulated cutting in the National Forests, the development the atom bomb and the mass production of toxic chemicals pesticides in Carson's day, Naess describes the deep ecology movement as philosophically and socially aware: aware of itself as grounded in particular philosophical traditions and assumptions, and aware of its embededness in complex social structures.

[38] Following a presentation that Naess gave at a conference on the "Future of Research" in Bucharest the previous year (Drengson 2010a: 93-4),

In his 1973 article, Naess characterized the deep ecology movement through seven major points: first, its philosophical "rejection of the human-in-environment image in favour of *the relational, total-field image*" (ibid., italics original); second, its emphasis on biospherical egalitarianism in principle; third, its espousal of principles of diversity and symbiosis; fourth, its anti-class posture; fifth, its engagement in the fight against pollution and resource depletion (thus including the shallow movement's project within its own); sixth, its emphasis on "complexity, not complication" (ibid.: 5); and seventh, its endorsement of forms of government that favour local autonomy and decentralization. In thus characterizing the deep ecology movement, Naess outlined an approach that recognized the indissociable relation between ecological and social problems. Egalitarianism is not only a social issue among humans but an ecological one as well between humans and nonhumans, and among nonhumans between themselves. The ecological crisis cannot be fully addressed without taking into account the problems caused by class inequality and the wasteful redundancies of over-centralized governments. And finally, the rejection of the human-in-environment image is not only an objection to the prevailing paradigm informing scientific discourse and research, but is first and foremost an *acknowledgment* that scientific discourse and research *is indeed guided* by a paradigm, a set of culturally determined assumptions and values. A major factor underlying the persistent hegemony of modernist (i.e., mechanistic, reductionist, materialistic, etc.) values and assumptions in science is that these values and assumptions are typically considered to be the only valid ones. More often than not, they are unconsciously held to be the "way things are." By recognizing that science has traditionally stood upon a particular conceptual foundation constituted by a particular set of values and assumptions (inherited in large part from the Enlightenment), and by suggesting an alternative foundation based on the "relational, total-field image" of "organisms as knots in the biospherical net or field of intrinsic relations" (Naess 1995b: 3), Naess' initial articulation of the deep ecology movement opened the door to the possibility that science might not have to rely on the monolithic conceptual structure of mechanistic philosophy but that its investigations can find equally valid ground in a diversity of conceptual structures, values and assumptions, some of which are not entirely compatible with the values and ideals of Descartes, Newton and the Enlightenment. In

this regard, Naess resembles Leibniz and Whitehead in their attempts to revise the basis of our scientific knowledge of the world.

With regard to the connection Naess draws between the social and ecological dimensions of the problems we face, both individually and collectively, Naess is carrying forward the highly engaged ecological visions of Muir, Leopold and Carson (among others). For Naess, the ecological movement was one of three major social movements that had emerged in the twentieth century. Together with the two other movements, which he refers to as the peace and social justice movements (Naess 2008: 99), the ecological movement has emerged in reaction to "a convergence of three areas of self-destructiveness: the self-destructiveness of war, the self-destructiveness of exploitation and suppression among humans, and the self-destructiveness of suppression of nonhuman beings and of the degradation of life conditions in general" (ibid.). Naess defines the three problematic areas in this way to highlight the overlap that exists between the various movements that address them: thus, the ecological movement is concerned with a form of self-destructive suppression of nonhuman beings (the so-called "environment") whose corollary within human society is the target of the peace and social justice movements. Moreover, he uses the term "self-destructiveness" in all three cases to point to their common outcome: war, inequality and ecological devastation, although generally directed against a perceived other, ultimately contribute to humanity's destruction at its own hands. The movements of peace, social justice and ecology, therefore, have the shared goal of putting an end to these self-destructive social practices that threaten our species' continued survival. It is the accomplishment of the deep ecology movement, at least in Naess' initial articulation, to have become aware of this shared goal and to have explicitly oriented itself in such a way as to be in synergistic cooperation with the two other movements.

The call that Naess sent out in his 1972-3 article was soon heard and before long the term "deep ecology" was being used by a growing number of authors around the world. The 1980s and 90s witnessed the publication of numerous books and volumes on deep ecology and its associated movement. In 1983, Alan Drengson founded *The Trumpeter*, a quarterly dedicated to ecophilosophy that would become the torchbearer for deep ecological discussion for decades to come. In 1984, during a hike in Death Valley, Arne

Naess and George Sessions elaborated a set of eight platform principles for the deep ecology movement. These principles were based on empirical research conducted by Naess and others on people's views relating to the issues that the principles addressed (Drengson 2010a: 103). These principles were meant as broad expressions of the central tenets embraced by supporters of the movement, "a *working platform* for the *deep ecology movement*," and they were deliberately designed to promote inclusiveness as well as a variety of interpretations (Drengson 2010a: 103, italics original). The principles are as follows:[39]

1. All living beings have intrinsic value.
2. The richness and diversity of life has intrinsic value.
3. Except to satisfy vital needs, humankind does not have the right to reduce this diversity and this richness.
4. It would be better for human beings if there were fewer of them, and much better for other living creatures.
5. Today the extent and nature of human interference in the various ecosystems is not sustainable, and the lack of sustainability is rising.
6. Decisive improvement requires considerable change: social, economic, technological, and ideological.
7. An ideological change would essentially entail seeking a better *quality of life* rather than a raised standard of living.
8. Those who accept the aforementioned points are responsible for trying to contribute directly or indirectly to the realization of the necessary changes.

These principles carried forward and expanded upon the essential argument of Naess' 1973 article, adding depth and new dimensions to the deep ecological project. We also find implied in the eight principles (with a particular emphasis on number six) a general attitude that would become constitutive of the deep ecological community. Nathan

[39] The version presented here is Naess' last and most recent version of the principles, which he included in his 2002 work, *Life's Philosophy*, and which I cite from Drengson 2010a: 103-4 (italics are original). This latest version offers a somewhat modified and concise formulation of the original principles devised by Naess and Sessions.

Kowalsky (the present managing editor of *The Trumpeter*) would later describe this attitude as "the intuition that there is something fundamentally flawed about the current state of global civilisation" (Kowalsky 2014: 100). As Kowalsky suggests, this intuition has been a dominant leitmotiv among supporters of the deep ecology movement, pervasively informing their views of the ecological crisis and of the various measures proposed to address it. It is an intuition that was shared by the movement's forerunners, Muir, Leopold and Carson, who each in their own way launched radical critiques against the status quo in their day. The intuition runs back even farther to the Romantic and Counter-Enlightenment traditions that emerged in the eighteenth century with Vico's critique of the Cartesian claim to certain knowledge about nature and its dismissal of the human sciences, with Hamann's crusade against the rationalism and universalism of the *philosophes*, and with Herder's pluralist and expressionist objections to the uniformizing tendencies of mechanistic philosophy and its Enlightenment proponents. Then, as now, the intuition guiding these counter-movements has been that something is profoundly wrong with the way society has developed in the West since the Renaissance. Mechanistic science, the Cartesian *ego*, bureaucracy, capitalism, industrialism, technology. . . all these developments have made us lose sight of our own humanity, of what is good and right and beautiful and, in the case of the ecological movement, of the very fabric that sustains our life and the lives of all other beings on the planet.

This intuition was definitely present in Naess' thought. We see it clearly in his discussion of the "aberrations" of a mechanistic science that rules out as irrelevant "every passionate appeal revealing deep feelings, empathy, and even identification with natural phenomena" and leaves room only for "real facts [...] narrowed down to those of mechanically interpreted mathematical physics" (Naess 2008: 74). We see it as well in the opening lines of an essay on his home at Tvergastein, where he calls attention to a "place-corrosive process" that is causing humanity to suffer greatly:

> Urbanization, centralization, increased mobility (although nomads have proven that not all sorts of moving around destroy the relation of belonging somewhere), the dependence on goods and technologies from where one does not belong, the increase of structural complication of life—all these factors weaken or disrupt the steady

> belongingness to a place, or even hinder its formation. There seems to be no place for PLACE anymore. (ibid.: 45)

We can detect a definite note of grief in Naess' tone (he himself speaks of a persistent longing) as he describes the process by which industrial societies have relinquished and continue to undermine our ability to belong to a place. Ironically, as Naess remarks, the need to articulate what it means to belong to a place only arises after it has been lost, after it has passed and been replaced by a persistent longing for what is no longer there (ibid.). This longing certainly influenced Naess' personal philosophy and fuelled his ecological activism—an activism which, as early as his 1973 article on the shallow and deep ecology movements, was directed at a scientific society that was so absorbed in its own narrowing vision of the world that it continuously failed to heed the auguries of its own destruction, should it continue down the path it has chosen.

What is remarkable about Naess, however, is that he was no mere reactionary. In this sense he was very much like Leopold and Carson, who as scientists worked just as much from within the system they criticized as they did in opposition to it. Indeed, Naess believed that science, far from being incompatible with the sort of appreciation of nature that forms the basis of an ecologically-enlightened state of mind, is one of the ways through which such appreciation is fostered:

> Unlike some of my ecosophically inclined friends, I do not consider science and, above all, research incompatible with profound positive feelings toward nature. Tvergastein as "object" of botanical, zoological, mineralogical, meteorological, and other scientific research did not detract in the least from the immediate experience of togetherness, of identification and appreciation. On the contrary. In the great naturalist tradition, exemplified by the systematics (taxonomy) of butterflies, the motivation is not mainly cognitive, but conative. Feelings are just as much directing the search as is abstract thinking. (Naess 2008: 60-1)

For Naess, "*researcher* fits in with the concept of a personal place" (ibid.: 64, italics original). In these statements he uses the words "science" and "research" to refer especially to the field of "natural history," which according to him involves "very little abstract thinking, very much seeing, listening, hearing, touching," in contrast to, say, Einstein's scientific thinking, "which is very different from that of a typical naturalist"

and whose view of "the external world as a field of lifelong research is essentially impersonal" (ibid.: 61). So even here, Naess makes a distinction between strictly mechanistic science, which employs "abstract" thinking, and the field sciences that bring the researcher in direct contact with the natural world. Although he does not claim that one form is absolutely superior to the other, he does however believe that the "abstract" thinking of the former type of science (Einstein's science), with its bias towards the primary mathematical qualities of things and dismissal of their secondary experiential qualities, is the direct progenitor of such problematic conceptions of nature as that of "*nature without any of the qualities we experience spontaneously.* There is no good reason why we should not look upon such a bleak nature as just a resource" (ibid.: 74, italics original).

Despite his reservations about the limitations of "abstract" thinking and the sorts of detached and disembodied world views it tends to inspire, Naess does not discount it entirely, nor does he discount the role and value of "shallow" mechanistic science.[40] The fact that Naess valued the role and contributions of mechanistic science is apparent in his 1973 article on the shallow and deep ecology movements, where he includes the shallow movement's mandate to fight against pollution and resource depletion within the purview of the deep ecology movement (Naess 1995b: 5). The only caveat he adds here is that this fight should not be conducted according to the narrow uncritical interests of the shallow movement (whose only interest is "the health and affluence of people in the developed countries"); rather, the fight against pollution and resource depletion has to be understood from within a more inclusive perspective that recognizes the social and political implications of ecological action: "if prices of life necessities increase because of the installation of anti-pollution devices, class differences increase too. An ethics of responsibility implies that ecologists do not serve the shallow, but the deep ecological movement" (ibid.). Elsewhere, Naess writes about "abstract" thinking that "the

[40] In 1989, sixteen years after the publication of his first article featuring the shallow and deep ecology movements, Naess admitted that his use of the terms "shallow," "reform" and "nondeep" to describe the more conventional and mainstream movements in science may have been "misleading" in that it may have led some to believe that he viewed the "shallow" movement as essentially inferior or less valuable than its "deep" counterpart. On the contrary, Naess recognized and commended the invaluable importance of the "shallow" ecology movement, which by 1989 had already begun to have an impact on government policy in many countries (see Naess 2008: 99. The original article was published in 1992, which in turn was based on a lecture given by Naess at the University of Victoria in 1989).

ecosystem concept is used to describe abstract structures, and the movement of deep ecology is to a large extent concerned with abstract structures. The importance of abstract structural considerations cannot be overestimated" (Naess 2008: 78). Here, as elsewhere, Naess—like Whitehead, who wished to retain the materialistic atom as a valid special case within the broader scope of his philosophy of organism—aspires to ever greater inclusiveness. This spirit of inclusiveness was at the heart of Naess' personal philosophy and it guided a great deal of his work. It helped inspire his pluralistic vision of the deep ecology movement.

In his article on the communication ecology of Arne Naess, Drengson tells us that Naess' lifelong study of language and communication cultivated in him a deep love for diversity and for "the role of dialects in evolving systems of language families" (Drengson 2010a: 80). "There are many ways to feel, see, say and write things" (ibid.). This appreciation of diversity which Naess first discovered by way of the many languages he learned later translated into ecology, where it found confirmation in the earlier insights of Leopold and Carson, who some time before Naess had begun to focus his writing on ecological concerns had already written about the value of diversity for ecosystem health (cf. Leopold 1966: 249, 264-5; Carson 2002: 10). For Leopold and Carson, however, diversity remained for the most part a strictly ecological concern. For Naess, its relevance was much broader. Not only was diversity a key factor in the health of natural systems, but it also offered, through the inextricable bond that ties natural systems to their associated ecological movements, an ideal basis for a global cross-cultural and grass-roots ecological movement (Drengson 2010). This movement, which Naess initially dubbed the "long-range international deep ecology movement" (Naess 2005: 89), was founded upon an inherently pluralistic platform. Unlike the monolithic framework of "shallow" mechanistic science, this pluralistic platform allowed for a diversity of cultural backgrounds and ideological assumptions to inform individual actions within the movement. This was crucial for Naess. "Pluralism is inescapable and nothing to lament," he later wrote in 2006. "Reality is one, but if accounts of it are identical, this only reveals cultural poverty. Excessive belief in 'science' favours acceptance of poverty as a sign of truth" (Naess 2008: 182. The article cited was originally published in 2006).

In the mid 1980s, Naess introduced an "Apron Diagram" to illustrate the pluralistic character of the movement. The diagram broke deep ecological discourse down into four layers, beginning at the top with the "ultimate premises" that underlie our world views and personal philosophies, and working its way down through the commonly shared platform principles, to the "normative and factual hypotheses" that we derive from the principles in light of our ultimate premises. These normative and factual hypotheses finally lead us to make particular decisions and actions, which comprise the bottom-most layer of the diagram (Naess 2005b: 63, see figure 1 below).

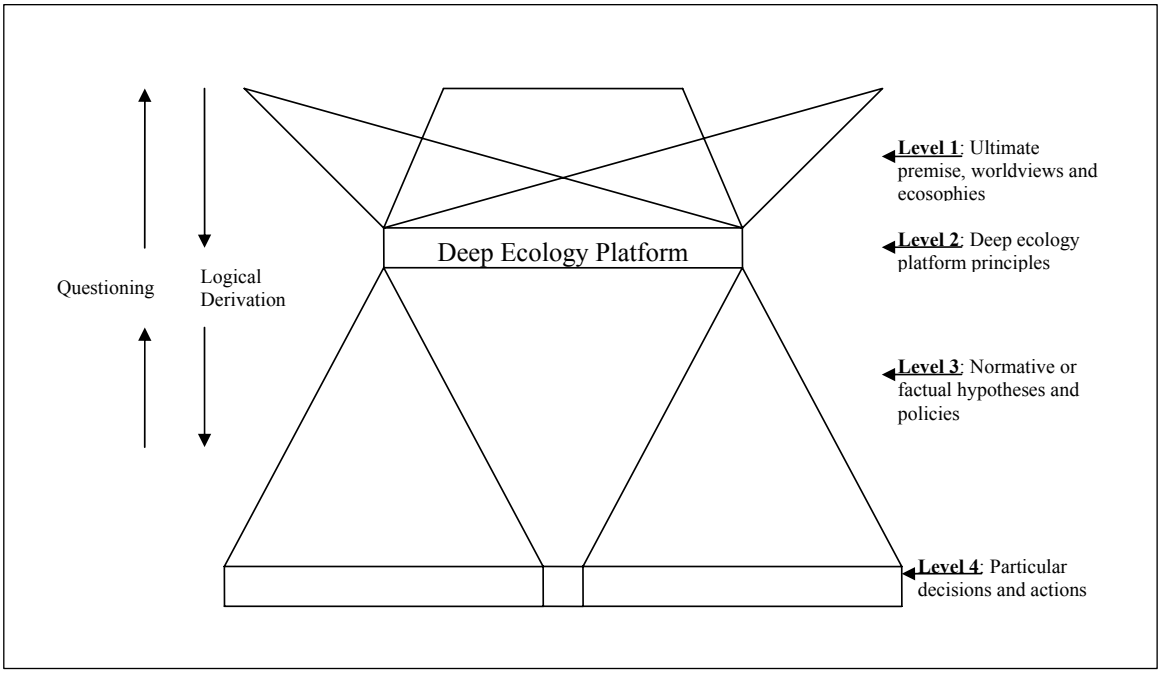

Figure 1: The Apron Diagram
(reproduced from Naess' article *The Basics of Deep Ecology*, 2005b: 63)

The diagram helps to clarify the level at which the deep ecology movement platform and principles function. It is not, as some had falsely assumed, an ideological framework or ultimate premise that adherents are required to follow. It does not provide an overarching religious or metaphysical structure of meaning. Rather, deep ecology is a *platform* upon which individuals adhering to a variety of religious and metaphysical structures of meaning can assemble and collaborate. The Apron Diagram makes this clear by positioning the deep ecology platform *below* the layer of ultimate premises, which is

divided into three divergent geometric shapes (a trapezoid and two obtuse triangles) to demonstrate that an indefinite number of different (and even incompatible) philosophical orientations can inform the actions and decisions of a supporter of the deep ecology movement. The deep ecology movement, in other words, does not require that one be Christian or Buddhist, Marxist or anarchist, Spinozan or Hegelian. All religious, political and philosophical stances are in principle compatible with the deep ecology platform.

> Supporters of the deep ecology movement refer approvingly to a diversity of philosophers, cultural traditions, and religious trends. [...] One must avoid looking for one definite philosophy or religious view among the supporters of the deep ecology movement. There is a rich manifold of fundamental views compatible with the deep ecology platform. And without this, the movement would lose its transcultural character. (Naess 2008: 105-6)

The deep ecology movement does not only allow for a diversity of ultimate premises but it also yields variety in its derived hypotheses and actions, as illustrated by the widening bottom portion of the diagram. As stated earlier, the platform principles were designed to elicit a diversity of interpretations, which could then serve as bases for a diversity of ecological decisions and actions. Far from undermining the strength and coherence of the movement, Naess believed that this diversity in the ultimate premises of its supporters and in the way that supporters interpret the platform principles is a key ingredient in the movement's effectiveness: "The diversity of level 1 beliefs is a strength, not a weakness. No deep cultural differences can exist without diversity at level 1! There is unity in diversity: unity at level 2, diversity at level 1!" (Naess 2008: 117). This attitude was based on Naess' belief, which he articulated early on, that the continued evolution of the human species "may partly depend upon the sheer plurality of cultural differences, whatever their deepness" (ibid.: 120).[41]

The deep ecology movement, therefore, not only seeks to provide a platform for ecological action but is also grounded in a form of pluralistic inclusiveness that Naess believed was integral to an enlightened ecological conscience. Insofar as it is designed to attract people from a variety of cultural, religious and philosophical backgrounds, the

[41] This statement is cited from an article on "Cultural Diversity and the Deep Ecology Movement" that first appeared in *The North American Review* in 1973.

movement derives its vitality from the diversity of personal philosophies that inform its supporters' decisions and actions. Naess referred to these personal philosophies, to the extent that they provided a basis for ecological awareness, as "ecosophies":

> Etymologically, the word "ecosophy" combines *oikos* and *sophia*, "household" and "wisdom." As in "ecology," "eco-" has an appreciably broader meaning than the immediate family, household, and community. "Earth household" is closer the mark. So an ecosophy becomes *a philosophical world-view or system inspired by the conditions of life in the ecosphere*. It should then be able to serve as an individual's philosophical grounding for an acceptance of the principles or platform of deep ecology (Naess, cited in Drengson 2010a: 104-5, italics original)

Following his emphasis on diversity and pluralism, Naess affirmed that "the details of an ecosophy will show many variations due to significant differences concerning not only 'facts' of pollution, resources, population, etc., but also value priorities" (Naess 1995b: 8). Each supporter of the deep ecology movement possesses his or her own personal ecosophy that is a unique expression of that supporter's life experience, places of belonging and philosophical inclinations, and which guides his or her decisions and actions within the context of the ecological movement. Naess possessed his own ecosophy which he named "Ecosophy T" (of which we will speak in the following section). Considering Naess' importance in the development and articulation of the deep ecology movement, there is no doubt that his personal ecosophy influenced the outlooks of many other supporters within the movement (Drengson 2010a: 104). However, this does not entail that Ecosophy T was intended as the ideological ground of the deep ecology movement as a whole. It was strictly Naess' personal philosophy, and as such it guided his actions and inspired others with similar dispositions in their attempts to articulate their own personal positions.[42]

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[42] This seems to have been a point of contention between supporters of the deep ecology movement and their critics over the course of the past few decades. According to Drengson, it arises from a misunderstanding of Naess' concept of ecosophy and of the nature of the deep ecology movement. In his article on the origins and development of the deep ecology movement (2010b: 58), Drengson dedicates a section to clarifying this "misunderstanding to avoid." He refutes the claim that some have made about Naess' Ecosophy T being "meant to characterize the whole deep ecology movement as part of a single philosophy called 'deep ecology.'" Naess meant no such thing, says Drengson.

> He was not putting forth a single worldview and philosophy of life that everyone should adhere to in support of the international ecology movement. Instead, he is making an empirical claim

In this way, the deep ecology movement as articulated by Naess was guided by an appreciation for the diversity of personal ecosophies that emerged from the world's many different cultures, languages, religious and philosophical traditions. This diversity, according to Naess, was what gave the movement its strength and unique ability to address the many ecological problems facing us today—just as it had been demonstrated that species diversity grants resilience and flexibility to ecosystems by making them more likely to recover from severe disturbances as well as more likely to develop new and creative forms of organization in the wake of changing conditions.[43] Whether or not the deep ecology movement has succeeded in becoming the rallying call for activists and thinkers in the ecological age continues to be subject for debate, as is attested by the thirtieth anniversary edition of *The Trumpeter*, which last year bore the title *Whatever Happened to Deep Ecology?* Regardless, Naess' contributions to the evolving ecological movement's project and self-understanding undoubtedly place him on par with such notable forerunners as John Muir, Aldo Leopold and Rachel Carson.

4.3 Reconciling subject and object through deep ecological inquiry

Arne Naess' personal philosophy is reminiscent of many of the thinkers we have already encountered in earlier chapters of this thesis. His emphasis on diversity and his view of ecosophies as emergent expressions of our encounters with the natural world immediately call to mind Herder's pluralist and expressionist critiques of Enlightenment thought. Naess also embraced a holistic outlook that both echoed and elaborated on Whitehead's philosophy of organism. Like Whitehead, Naess strove to revise the narrow yet prevalent scientific view of "mechanically interpreted mathematical physics" (Naess 2008: 74). The alternative view that he proposed as part of his personal ecosophy, and

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based on overwhelming evidence that global social movements, from the grass roots up, consist of people with very diverse religious, philosophical, cultural, and personal orientations. Nonetheless, they can agree on certain courses of action and certain broad principles, especially at the international level. As supporters of a given movement, they treat one another with mutual respect.

[43] For papers on the role of diversity in ecosystem resilience, see for instance Ervin Laszlo's book *The Systems View of the World* (2001[1996]), C. S. Holling's article *From Complex Regions to Complex Worlds* (2004), and Berkes et al.'s book *Navigating Social-Ecological Systems* (2003, esp. page 23).

that dated back at least as early as his 1973 article on the shallow and deep ecology movements, rejected "the human-in-environment image in favor of *the relational, total-field image*" (Naess 1995b: 3). This "total field" image described reality as composed of organisms, and those organisms "as knots in the biospherical net or field of intrinsic relations" (ibid.).

> An intrinsic relation between two things *A* and *B* is such that the relation belongs to the definitions or basic constitutions of *A* and *B*, so that without the relation, *A* and *B* are no longer the same things. The total-field model dissolves not only the human-in-environment concept, but every compact thing-in-milieu concept—except when talking at a superficial or preliminary level of communication. (ibid.: 3-4)

Compare this description of intrinsic relations to Whitehead's statement, cited in section 3.5, about the internal relations that constitute prehensive events: "Each relationship enters into the essence of the event; so that, apart from that relationship, the event would not be itself. This is what is meant by the very notion of internal relations" (Whitehead 1963: 115). Add to this Whitehead's assertion that "the doctrine which I am maintaining is that the whole concept of materialism only applies to very abstract entities, the products of logical discernment" (ibid.: 76)—an assertion which Naess all but duplicates in his last claim that the "thing-in-milieu" concept retains its validity only "when talking at a superficial or preliminary level of communication." As we can see, from early on Naess' philosophy shared a kindred spirit with his forerunner Whitehead, whose philosophy of organism, as we saw in the previous chapter, arose as a response to the mounting inadequacies of scientific materialism and carried the hope of providing a more inclusive framework for science and experience.

Later in life, Naess elaborated upon these earlier insights; gradually, his personal philosophy moving away from his earlier Whiteheadian formulations, towards a language more his own. Although his later philosophical writings still carried a distinctly holistic quality reminiscent of Whitehead's process philosophy, Naess now favoured terms like "gestalt," "concrete contents" and "spontaneity" in his descriptions of reality. These terms reflected a philosophical outlook that rejected the atomistic character of reality as

conceived by mechanistic science as well as its associated "detached view of subject-object relations" (Naess 2008: 80, 199).

> Phenomenologically speaking, the orders given by the place and the order given by oneself are inseparable. Only philosophies that impose a sharp subject-object dualism try to trace a border between the self and "its" geographical surroundings. (ibid.: 57)

On this basis, Naess went on to elaborate a theory of concrete contents. This theory affirmed that "there are no completely separable objects and, therefore, no separable water or medium or organism. A concrete content can only be one-to-one related to an indivisible structure, a *constellation* of factors" (ibid.: 72-3, italics original). A concrete content, in other words, cannot be experienced in isolation from its relation to the "constellation" of factors that composes it (which Naess also calls "gestalt," from the German word for "form"). For instance, the colour blue or water in a pot (to use the two examples employed by Naess) cannot be treated separately from their constitutive factors, gestalts or "intrinsic relations," which include my perception of them.

The recognition that reality is composed of "irreducible constellations" or gestalts thus "eliminates both objectivist and subjectivist views," replacing these views with the understanding that our questions about the pot of water "should be related, not to water as a separable object, but to constellations corresponding to concrete contents" (Naess 2008: 73). In this sentence and elsewhere, "concrete" refers to the intrinsic or internal relations that constitute a given content (the colour blue or the pot of water, for instance), whereas "abstract" refers to a content isolated ("abstracted") from its constitutive relations—the colour blue considered separately from the sky or from the pigment of my irises.

By inverting our typical associations to these two words, "concrete" and "abstract," Naess brings attention to how the mechanistic world view has coloured our entire understanding in the West of what is "real" and what constitutes a "fact." To the average person in modern industrial society, the "real" thing is the thing considered independently from its environment and from my own subjective perception of it. The "real" thing, in other words, is the product of a process of abstraction that we commit so effortlessly as to not even notice that it has taken place (incidentally, the word "fact" is etymologically rooted in the Latin word *factum*, which means "act" or "deed," and is also the root word

for “manufacture,” the place where things are “made by hand.” Far from suggesting that facts are objectively given, as is generally supposed in our society and time, the radical meaning of “fact” seems instead to imply a tacit process of “doing” or “making” that lies at the heart of all our facts about the world).

Naess’ theory of concrete contents inevitably calls into question mechanistic science’s traditional distinction between primary, secondary and tertiary properties. This distinction, as we recall, was introduced by Galileo in the late Renaissance. His distinction between primary measurable properties and secondary and tertiary experiential ones, coupled with his profound bias towards the former of the three, helped reshape modern man’s experience of the world according to the standards of mathematical idealism and, according to Cassirer, in so doing made possible the emergence of modern mechanistic science (see section 2.3). This distinction is problematic for Naess for a number of reasons that he outlines in his article on “The World of Concrete Contents” (2008: 70-80). At base, however, the issue concerns the ways in which we determine what is real, what “truly belongs” to a given content in the world, and how this affects our relation to such contents and the world they are a part of.

“As late as in the last part of the nineteenth century, mechanical conceptions of warmth and coldness were thought to imply the neither-nor answer. The experienced warmness or coldness is not a property of the water *itself*” (ibid.: 73, italics original). The emphasis by mechanistic philosophy on the primary measurable qualities of things and its dismissal of “subjective” secondary and tertiary properties had, over the course of these past three and a half centuries, engraved in our minds an intuitive certainty that the primary properties belonged the things in themselves, while secondary and tertiary properties were the products of subjective “projection” (ibid.). “Only as a consequence of this projection do things *look* green, white, black, and so forth. The perception of greenness in the mind is projected into the external world” (ibid., italics original).

This deeply-engrained attitude becomes problematic in the context of contemporary environmental debate, where “those who fight to ‘save’ a natural entity (a river, a wood, a sea, a kind of animal or plant, a landscape)” are often accused of basing their arguments on “feelings and subjective likes and dislikes” (ibid.: 70). Such environmental advocates “are said to lack a sense of objectivity and ultimately to lack adequate reference to *reality*

as it is in fact and not only reality as they feel it" (ibid., italic original). And yet, by pointing to the historical origins of that so-called "reality as it is in fact," Naess raises the issue of what sort of reality we are using as our benchmark in such debates. He suggests that the difference between those who fight to "save" a natural entity and those who criticize them for being too subjective is a difference of ontology, not ethics (ibid.: 77). Both parties have a different estimation of what counts as real. The critics are basing their accusations on an outlook that presupposes the mechanistic notion that the reality of a thing lies in its mathematical and measurable qualities. The conservationists, on the other hand, are speaking from within a perspective that resembles Naess' theory of concrete contents or gestalt ontology:

> A conservationist *sees* and experiences a forest as a unity, a gestalt, and when speaking of the heart of the forest, he or she is not referring to the geometrical center. [...] The gestalts 'the heart of the forest,' 'the life of the river,' and 'the quietness of the lake' are parts of reality for the conservationist. (Naess 2008: 77, italics original)

The conservationist, then, is speaking from a perspective that views his or her perceptions of things as indissociable from the things in themselves. My experience of the forest, in other words, is constitutive of *that* forest, in the sense that "I" and "forest" have come together in this moment to form the gestalt "Jordan walking through the forest." This gestalt is irreducible. I can remove neither "Jordan" nor "forest" nor the act of walking from it without causing it to become something entirely different from what it is. Naess is contending that the world we *genuinely* live *in* is composed of gestalts such as this (ibid.: 78-9). The notion, in contrast, that the world is made up of material objects whose essence lies in their mathematical proportions, which we encounter as detached subjects, and whose existence persists independently of our encounters with them is, according to Naess, the "aberration," the product of a process of abstraction. "The geometry *of* the world is not a geometry *in* the world" (ibid.: 74).

This is inconceivable to someone who blindly adheres to the mechanistic presumption of a hard division between subject and object, with its identification of primary qualities with the objects themselves and experiential qualities with mere subjective "projection." "There is no way of making the developer eager to save a forest as long as he or she

retains the conception of it as a set of trees" (ibid.: 77). Conservation, therefore (at least in the preservationist tradition descended from Muir), is not only confronted with the challenge of protecting forests and other habitats from pollution and industrial exploitation, but also with finding a way to *communicate* the particular way of seeing that underlies the conservationist's and ecologist's appreciation of things in nature. Until such communication takes place, environmental debates will continue to be the occasions of an interminable conflict between two or more parties marked by incompatible ontological premises.

In light of the challenge of conservation and of ecological efforts more broadly, whose job it is not only to "save" natural entities but also to become aware of its own mode of experiencing reality in order to articulate that mode in a way that is comprehensible to those involved in self-destructive ecological practices, Naess proposes his own gestalt ontology as a potential foundation for the principles of the deep ecology movement. "The framework of gestalt ontology is adequate, but scarcely the only adequate one, in any attempt to give the principles of the deep ecology movement a philosophical foundation" (Naess 2008: 80).

Around the same time that Naess published his thoughts on gestalt ontology, he wrote and published another article, titled "Self-Realization: An Ecological Approach to Being in the World," in which he further elaborated his personal philosophy.[44] In this article, Naess carries his ideas about gestalt ontology and concrete contents into a discussion of the self, where these ideas become the bases of his call for an extension of our traditional notion of self in the West. As we have seen, our traditional conception of the self in the modern West is largely inspired by the Renaissance and Cartesian philosophies discussed in the first and second chapters of this thesis. This narrow Cartesian self, which Naess refers to as the "ego-trip interpretation" of the self (ibid.: 86), sees the self as not only strictly individual but also divorced from the material body. This notion of the self, which continues to inform much of contemporary psychology and philosophy, presupposes in Naess' view "a major underestimation of the richness and broadness of our potentialities"

[44] The essay that I cited in my discussion of Naess' gestalt ontology was adapted from an article published in *Inquiry* in 1985. The article on self-realization that I discuss below was adapted from a lecture delivered in 1986, and later published in *The Trumpeter* in 1987. I refer to the reprinted version of this article in Naess 2008: 81-96.

(ibid.). Citing Erich Fromm's statement that "man can deceive himself about his real self-interest if he is ignorant of his self and its real needs" (ibid.), Naess proposes his concept of the *ecological self* as a more apt description of our identities as individuals embedded within larger ecological contexts. This ecological self is grounded in a process of identification that recognizes the gestalt character of reality and the indissociable natures of the subject and object of perception. If every concrete content is constituted by a constellation of factors that includes my subjective perception of an object as well as the object itself (these categories actually being the products of an analytical dissection of the gestalt "after the fact"), then in every occasion of gestalt formation I am presented with a notion of "self" that is not confined to a strict subject-object dualism, but rather extends beyond my individual thoughts and body to include the complete constellation of factors that make up the gestalt.

> When absorbed in the contemplation of a concrete, natural thing, a person does not experience a subject-object relation. Nor does a person have this experience when absorbed in vivid action, whether in movement or not. There is no epistemological ego reaching out to see and understand a tree or an opponent in a fight, or a problem of decision. A tree is always part of a total, a gestalt. Analysis may discover many structural ingredients, sometimes an ego-relation, sometimes not. The gestalt is a whole, self-contained and self-sufficient. If we call it "experience of the gestalt," we are easily misled in a subjectivist direction. (Naess 2008: 76)

Thus, Naess affirms that the ecological self—which is an expression of the gestalt or "constellative" nature of the self—is "that with which [a] person identifies" (ibid.: 83). Through a process of identification, our sense of self is extended outwards into ever greater levels of inclusiveness. My sympathetic identification with the forest is an expression of the gestalt that both the forest and I are "parts" of. These levels of inclusiveness are reflective of the various higher- and lower-order gestalts that we partake in and that constitute us, up to the highest most inclusive gestalt, which has received many names throughout history: the Christians named it "God," the Buddhists "*Atman*" (ibid.: 91), Spinoza spoke of "*Deus sive Natura*" ("God or Nature"), while certain ecological philosophers refer to it as "Nature."

Thus, by means of this process of identification, we can come to recognize the expansive nature of our ecological self. This expansiveness is spontaneously experienced as empathy, compassion and joy (ibid.: 83-4, 93-4): the spontaneous (i.e., unabstracted) overcoming of the subject-object dualism (which, as I said, is an abstraction that takes place "after the fact"). Spontaneity, then, is not so much an "overcoming" as it is a *letting go* of "the sentiment that there is always and always must be an ego involved in experience" (ibid.: 199). Spontaneous experience reveals the world as it really is: as the world of gestalts and concrete contents before these are "explained away" by the concepts and categories of abstract thinking.

As we saw earlier, Naess did not view abstract thinking as absolutely wrong or inferior to spontaneous experience and the gestalt perspective. On the contrary. The importance of the concepts and structures afforded by abstract thinking cannot be overestimated (Naess 2008: 78). But in the context of the deep ecology movement's attempts to put an end to our self-destructive ecological practices, one cannot help but recognize that a great deal of the ecological devastation in our present day is being administered by individuals and organizations whose world views have been conditioned by the presuppositions of uncritical abstract thinking. In this context, the view of reality proposed by Naess' gestalt ontology and ecological self begins to take on the look of an ecological imperative: For the sake of the planet and of all the beings living on it, both human and nonhuman, we must develop nondualistic and reciprocal views of reality that convey on an intuitive level the profound interdependence and interrelation of all things.

In his article on the ecological self, Naess uses the word "*self*" and extends it to include a person's ecological context because he recognizes the potency of the word: "if your *self* in the wide sense embraces another being, you need no moral exhortation to show care" (ibid.: 91, italics original). In saying this, Naess is responding to an issue that was first raised within the ecological community by Aldo Leopold. Leopold recognized that one of the largest obstacles that conservation faced was the attitude of enlightened economic self-interest commonly held by the people of the United States: "Land-use ethics are still governed wholly by economic self-interest, just as social ethics were a century ago" (Leopold 1966: 245). A little further, he writes: "Obligations have no meaning without conscience, and the problem we face is the extension of the social conscience from

people to land" (ibid.: 246). Naess took this diagnosis a step further by recognizing the historical progenitor of enlightened economic self-interest: namely, "abstract thought." For Naess, abstract thought referred specifically to that brand of analytical and reductionist thinking that was the fruit of the combined labours of Galileo and Descartes, as well as of those Renaissance philosophers who had granted undue importance to the individual ego (Naess 2008: 88). In time this form of thinking had made possible Newtonian physics, whereby it became the catalyst for Adam Smith's *Wealth of Nations* and its concept of enlightened economic self-interest.[45] An excessive reliance on abstract thought in the sciences had led to the belief, grown tacit with time, in a strict division between subject and object, knower and known. This belief had laid the epistemological foundation for the industrial revolution and its utilitarian approach to the natural world. Naess, like Leopold, recognized that the conservation and ecological movements could not succeed so long as this tacit belief in the ego-self's independence from the natural world continued to direct individuals, businesses and governments in their decisions and actions. Naess therefore proposed the ecological self as a solution to this dilemma. His solution, moreover, did not only address the problem in its superficial aspects, but in the spirit of "deep questioning" characteristic of the deep ecology movement, his concept of the ecological self aimed straight for the problem's philosophical roots.

Following Leopold's insight that "no important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions" (Leopold 1966: 246), Naess states the following:

> Unfortunately, humankind is very limited in what it can love from mere duty or, more generally, from moral exhortation. From the Renaissance to World War II, about four hundred cruel wars were fought by Christian nations for the flimsiest of reasons. It seems to me that in the future, more emphasis has to be given to the conditions under which we most naturally widen and deepen our self. With a sufficiently wide and deep self, *ego* and *alter* as opposites are eliminated stage by stage. The distinction is in a way transcended. (Naess 2008: 92)

[45] See section 1.1, footnote 3, for the connection between Newton's achievements in physics and Adam Smith's approach to economics.

Just as Leopold's land ethic sought to extend our ethical conscience to include the land and its nonhuman residents, Naess' ecological self extends our very notion of *self* to include our immediate surroundings and, ultimately, all other beings. In this way, altruism and moral exhortation are gradually replaced by self-love. Self-interest is not overcome. What is overcome is the narrow concept of the self that informs our ways of thinking and being in modern industrial societies. Through the widened and deepened realization of the ecological self, "self-interest" becomes equivalent to caring for the entire biosphere, and "self-realization" becomes the realization of all beings, everywhere—what Naess elsewhere calls "Buddhahood" (Naess 2008: 196).

4.3.1 Unity in diversity

Naess' personal philosophy, based on his mature conceptions of gestalt ontology and self-realization, is impressive in its own right. But it becomes truly remarkable when placed within the context of his other major contribution, namely, his vision of the deep ecology movement. When considering Naess' personal philosophy in isolation from his vision of the deep ecology movement, it is easy to fall prey to that "misunderstanding to avoid" which Drengson brought to our attention (Drengson 2010b: 58), whereby some have mistakenly inflated and absolutized Naess' Ecosophy T into the sole philosophical foundation of the deep ecology movement (and subsequently criticized him for it). But I believe that Naess' personal philosophy only truly comes into its own, and can only truly be appreciated, when it is understood from within the context of his own pluralistic vision of the deep ecology movement.

From within this context, Naess' Ecosophy T becomes an "adequate" philosophical basis for the deep ecology movement, "but scarcely the only adequate one" (Naess 2008: 80). As we recall, the deep ecology platform as defined by Naess is not grounded in any single ultimate premise, religious or philosophical outlook, but finds its origins in a diversity of outlooks, philosophies and cultures. Naess' Ecosophy T represents one such outlook, but it is far from the only valid one. Every statement that Naess makes as part of his personal philosophy needs to be understood within this broader context of the movement. Even when his statements about gestalts, abstract thinking and the ecological self *sound* absolute, the confidence that lends these statements their apparent absoluteness

is merely a reflection of Naess' commitment to his own personal perspective and ecosophy. Insofar as each of us possesses an articulated ecosophy (or at least the potential for one), we are called to commit to the unique perspective that our life has granted us. Like monads in the universe, each of us is "the universe itself seen from a particular viewpoint" (Cassirer 1965: 32), and the strength of our grass-roots movements arises from our wholehearted commitment to the particular viewpoint that our life has afforded to us.

The deep ecology movement, then, is strong *because* it is flexible, indeterminate, constantly changing along with the ecosophical perspectives of its supporters. "Some authors," wrote Naess, "ask for clarification: Where is the essence or core? Is there a definite general philosophy of deep ecology, or at least a kind of philosophy? Or is it essentially a movement with exasperatingly vague outlines?" (Naess 2008: 105) These questions presuppose a view that Naess has already rejected in his descriptions of the deep ecology movement: It is the view that strength and unity come from uniformity, from a single sweeping premise that includes everything within itself and autocratically binds all things to an absolute centre the way gravity binds the planets to the sun. Naess sees little value in such uniformity of vision. "I do not think that it is desirable," he answers, "to do more than tentatively suggest what might be the essential ingredients of a deep ecology theoretical point of view" (ibid.). Even here he leaves the space open for other possibilities, other perspectives that lie beyond his own. They too must have their place and be heard, for Naess has abandoned the old idea that unity resides in a single ground, system or absolute Being. Unity, rather, lies in diversity, plurality and the recognition that life is a process of Becoming whose forms of expression are as manifold as the individuals it begets.

This pluralistic vision necessarily entails a multivalence and flexibility within the very definition of "deep ecology." Naess has a particular vision of the deep ecology movement which he grounds in his own pluralistic values, but this very pluralism, if it is to be real and not just a nice word, opens the door for the emergence of different (and in some cases un-pluralistic) ways of conceiving the movement. In their 1985 book *Deep Ecology: Living as if Nature Mattered*, Bill Devall and George Sessions describe deep ecology in a strikingly different manner from Naess:

> Deep ecology is emerging as a way of developing a new balance and harmony between individuals, communities and all of Nature. It can potentially satisfy our deepest yearnings: faith and trust in our most basic intuitions; courage to take direct action; joyous confidence to dance with the sensuous harmonies discovered through spontaneous, playful intercourse with the rhythms of our bodies, the rhythms of flowing water, changes in the weather and seasons, and the overall processes of life on Earth. We invite you to explore the vision that deep ecology offers. (Devall & Sessions 1985: 7)

In Devall and Sessions' interpretation, deep ecology (note the absence of the word "movement") has become a "*vision*." This vision is offered as something that can "potentially satisfy our deepest yearnings." There is a promise of spiritual and perhaps even ontological fulfilment here. Here, deep ecology does not carry the function that Naess saw in it as a strict platform for ecological activism and critical questioning. Instead, it has taken the form of an ultimate premise: a "blueprint" for harmonious ecological living. Deep ecology, grounded in the wisdom of "Nature" with a capital N, is thus formulated as a particular philosophical orientation that belongs among the ultimate premises (level 1) of Naess' Apron Diagram (see Figure 1, section 4.2.5).[46]

Naess' initial pluralistic vision of the deep ecology movement allows for this interpretation by Devall and Sessions. By virtue of the inherent pluralism that guides Naess' vision of the movement, there is no way that we can claim Naess' pluralistic vision of deep ecology as a platform to be either superior or inferior, or more or less valid, than Devall and Sessions' vision of deep ecology as a particular philosophical position. Both descriptions are valid, insofar as they are expressive of different ways of approaching ecological problems. Both belong as parts of the deep ecology movement.

In this sense, the pluralism underlying the deep ecology movement is a pluralism to end all "*ism*": By recognizing the validity of both pluralistic and non-pluralistic perspectives of itself, deep ecological pluralism undermines the last vestiges of ideology

[46] To be fair, George Sessions writes elsewhere that the deep ecology movement is "partly characterized by the deep questioning process and the platform, and should not be identified with any particular Level 1 ecosophy" (Sessions 1995: 59). That said, Sessions' clear understanding of the nature of the deep ecology movement as it was outlined by Naess in his Apron Diagram does not, in my mind, contradict or preclude his and Devall's somewhat different interpretation of deep ecology as a particular "vision" of the world, as it is captured in the passage from *Deep Ecology: Living as if Nature Mattered*.

that inform its own pluralistic identity—in short, it undermines the "*ism*" in its pluralism. Pluralism stops being an "*ism*" (i.e., an ideology) when it recognizes the validity of ideological positions different from its own and accepts them as part of itself. It thereby shifts into what we might call "sublated" pluralism, or *plurality*: true diversity unencompassed and unconstrained by ideology.

The deep ecology movement is thus a reflection of pluralism taken to its utmost level, where it has been made to transcend its own ideological horizons ("the sublation of '*ism*'"). It embodies the final stage in that cultural process whereby our concepts of Being and Becoming, unity and wholeness, are being irrevocably changed. This process has made its way up through the centuries since the Renaissance (and in a sense since philosophy's inception) into our present day where it is embodied by a social movement that resists definition and refuses to be directed by a monolithic ideological agenda. The supporters of this movement seek wholeness and harmony no less than the great systematisers of the past, but unlike these past thinkers whose efforts were guided by the belief that reality could be captured by a single absolute philosophical theory or religious doctrine, the supporters of the deep ecology movement affirm that unity can also lie in diversity, in the irreducible multiplicity of life in its countlessly evolving forms of expression. The One, long believed to be the origin and aspiration of the Many, is now recognized as the subtle measure (Heraclitus' *metron* and *logos*) that manifests in our many lives and which grants our lives shared quality through the very act of asserting our irreducible distinctiveness.

As intimated above in section 3.6 and before that in section 3.1.1 on Heraclitus, there is a surprising resonance between these pluralistic views in contemporary ecological thought and the extant fragments of that ancient esoteric philosopher. More than a century before Plato wrote the dialogues that later provided the main inspiration for Neoplatonic and Christian Scholastic conceptions of unity, Heraclitus etched out a vision of the Whole that defined it paradoxically as composed of continually transforming processes, rivers that never cease to change yet nonetheless remain the same: "Everything taken together is whole but also not whole, what is being brought together and taken apart, what is in tune and out of tune; out of diversity there comes unity, and out of unity diversity" (Heraclitus, fragment 10, cited in Geldard 2000: 157). That which makes the

world One is not an all-encompassing Substance or Being but something far more subtle and invisible, the *logos* and measure (*metron*) by which all transformations and processes occur, the rational order which grants the chaotic universe of phenomena its cosmic character. In this sense Heraclitus does mean that unity comes out of diversity and diversity comes out of unity; for the two are imbibed in one another. And it is in a similar sense that Naess and other pluralistic supporters of the deep ecology movement affirm unity in diversity, the possibility that pluralism might be able to bring us together in ways that a single absolute framework, doctrine and belief cannot.

Perhaps Whitehead had it wrong after all. Rather than the European philosophical tradition being a series of footnotes to Plato, it seems more certain to me now that the history of the Western mind has been characterized by a long, roundabout homecoming to Heraclitus.

Conclusion

This final discussion of Arne Naess and the deep ecology movement marks the end of our long journey through the centuries of holistic thought. This journey began in the Renaissance, although many of its ideas were first given voice nearly two millennia earlier, during the period of Greek history that witnessed the birth of philosophy and of the Western tradition. Heraclitus, Plato and Aristotle count among some of the earliest forerunners of the holistic tradition, for they were among the first to inquire in a philosophical manner about the nature of unity in the world. Although many of their works were lost in subsequent centuries and not available to Western thinkers in the Middle Ages, their philosophies inspired others who in turn had a profound influence on medieval thought—an influence that I have unfortunately had to pass over entirely due to restrictions in space and time. The cultural Renaissance which began in the fourteenth century witnessed a "rebirth" of classical traditions fuelled in part by the sudden influx of original texts from Eastern Europe and Asia Minor, where the traditions of the ancients had been preserved. The Renaissance philosophies of man and nature were inspired by a deep admiration and respect for the Greeks and Romans whose works were suddenly made accessible, but it also introduced a reversal of many of the classical models: emphasis was placed increasingly on man's creative freedom and emancipation in the Renaissance philosophies of man, while emerging philosophies of nature were founded on values of empirical observation and the study of nature according to its own principles. These philosophies, whose surface conflicts were undergirded by a common emancipatory orientation, helped undermine the unquestioned authority of revelation and the ancients while also laying the foundation for the holistic project of reunification of man and world, or subject and object.

I use the term holism to refer to an intellectual tradition in the West whose main preoccupation for the past three hundred years has been the question of unity and wholeness. Although we discover this question informing the thoughts of ancient thinkers like Heraclitus, Plato and Aristotle, I contend that holism and the holistic tradition first began in the seventeenth and eighteenth centuries, as a response to the emergence of the

Cartesian division between mind and matter and its establishment as the epistemological basis for an emerging scientific approach. This approach I refer to as mechanistic science and identify it with the pioneering works of Galileo, Bacon and Descartes, with Newton's breakthroughs in physics and with the general project of the Enlightenment that ensued in the eighteenth and nineteenth centuries. From the seventeenth century onwards, holism has been primarily concerned with the reconciliation and reunification of the subject and object of perception, which since the Renaissance and especially since Descartes have been conceived as increasingly diametrical and irreconcilable.

Leibniz was the first of the holistic thinkers to be discussed in chapter 3. His Monadology, published in 1714, offered an alternative view of reality to the prevailing Cartesian and mechanistic view which claimed a strict division between spiritual and material substances. On the one hand, Leibniz's theory of monads sought to provide a basis for the harmonious coexistence of spirit and matter, and in so doing imbued the individual monads with an "inalienable prerogative." According to the scholar Ernst Cassirer, Leibniz's system saw "every individual substance [as] not only a fragment of the universe, [but as] the universe itself seen from a particular viewpoint" (Cassirer 1965: 32). This granted individual entities an unprecedented form of agency, which seemed to carry forward the emancipatory spirit of the Renaissance philosophies of man. On the other hand, Leibniz constructed his system in a way that did not make it harmonious in and of itself, but rather required the "pre-established harmony" of God for its ensured harmony and unity. This meant that in the end of the day, Leibniz's monadic philosophy embraced a form of absolute universal Being, identified with God, as the sole origin of all things and of their harmonious interactions.

With Hegel, this conception of unity is turned on its head. Hegel's dialectical logic, which asserted the inherent contradiction of all things, called on the absolute Being that marked Leibniz's thought as well as the Christian tradition and Neoplatonism to turn on itself, negate itself in order to rise to ever greater levels of inclusiveness and self-consciousness. This process Hegel called sublation. For Hegel, history (both natural and social) was the process by which absolute Subject (or Spirit, *Geist*) overcomes itself in its movement towards deeper stages of self-understanding. This process meant that concepts such as unity and the infinite (which are constitutive of *Geist*) must undergo their own

sublation, whereby they discover themselves in their antithesis and thereby achieve a more inclusive synthesis between themselves and their perceived opposites. The end product of this process of sublation is an infinite which is truly infinite because it contains its antithesis (the finite) within itself, and a unity which is truly unified because it contains its antithesis (disunity) within itself. In this way, both the finite and the infinite, both unity and disunity, were given their rightful place as stages within the evolving self-consciousness of absolute Subject.

In the eighteenth century leading up to the Romantic movement and then Hegel, a collection of thinkers emerged in various countries throughout Europe who brought radical critiques to bear on the prevailing mindset of their Enlightenment peers. These thinkers questioned the scientific methods, rationalist and universalist assumptions that had become common currency among the "arbiters of taste" in Paris and their allies in other countries. Vico, Hamann and Herder composed the core of this passionate and radical (if variegated and inconsistent) counter-movement that found great issue with the doctrines and values being propounded by Enlightenment thinkers in France and elsewhere. The historian of ideas Isaiah Berlin, whose essays on the Counter-Enlightenment have greatly contributed to the recent resurgence of appreciation for these three thinkers and their roles in the development of modern Western thought, refers to this counter-movement as the Counter-Enlightenment (Berlin 2013a: 1-33). The Counter-Enlightenment's primary contributions (to the extent that it can be considered a single group) include what Berlin refers to as the doctrines of *expressionism* and *pluralism*. Although these doctrines were not holistic in the strict sense, they dealt a decisive blow to the prevalent Western belief that reality can be explained by means of a single rational overarching system or premise. In the wake of the expressionist and pluralist critiques of the Counter-Enlightenment thinkers, it became increasingly difficult to make a compelling case for such all-encompassing theoretical frameworks as Leibniz's Monadology, or even Hegel's philosophical system, which nonetheless couched his dialectic within a unified and comprehensive system of the world. In this way, the Counter-Enlightenment played a crucial role in signalling and laying the groundwork for the further transition of holistic thought out of its traditional dependence on a single, absolute and universal Being as the origin of the world's unity. Attempts at unified

theories of meaning, the Counter-Enlightenment thinkers argued, needed to better account for the pervasive multiplicity and diversity that characterize society and nature. Otherwise, as Hegel recognized, such unity was doomed to be restrictive and false, its legitimacy contingent on its ability to hold difference at a distance.

Whitehead's philosophy of organism emerged in the early twentieth century as a holistic theory that had heeded the call and largely integrated the pluralist and expressionist critiques of the Counter-Enlightenment. On the one hand, Whitehead, like Leibniz and Hegel, attempted to put forward a comprehensive framework for understanding reality (although this framework was tailored for scientific inquiry). His three major philosophical works, *Science and the Modern World*, *Process and Reality* and *Adventures of Ideas*, published within eight years of each other in 1925, 1929 and 1933 (respectively), outlined a unified theory that proposed an alternative approach to scientific inquiry. This alternative approach was meant to supplement and ultimately replace the framework of scientific materialism, whose mounting inadequacies in the wake of relativity and quantum theories had reached a crisis point at the start of the twentieth century. Whitehead proposed a theory of prehensive occasions that, in an attempt to better account for the fluid and reciprocal nature of phenomena, also provided a basis for the overcoming of the Cartesian dualism between subject and object. The world as organism, unlike the world as a random aggregate of material atoms, was inherently whole. Furthermore, this wholeness was not the product of a single absolute entity or God whose autocratic grip on phenomena ensured universal harmony and unity. Rather, wholeness was seen as an emergent property of the individual occasions of experience, whose process of individualization involved the integration of both past occurrences and future possibilities within the particular "moment" in time and space that constituted a given prehensive event. In this way, Whitehead's philosophy of organism became the first comprehensive holistic theory to fully embrace the implications of the pluralist and expressionist critiques of the Counter-Enlightenment (and their origins in the Renaissance theories of Becoming). Whitehead's philosophy not only contributed to the later emergence of systems theory and its tremendous influence on the sciences (including ecology), but also provided a crucial precedent for Arne Naess' theory of

gestalt ontology and vision of the deep ecology movement which he first put forward in the 1970s and 80s.

The fourth and last chapter of this thesis focused on the deep ecology movement, its origins in the conservation and ecology movements, as well as its foremost communicator, Arne Naess. Both Naess and the ecological movement carry forward a number of ideas and perspectives that were raised in chapter 3. In Muir, we discovered a conservation approach guided by a conception of nature as "sublime" that was deeply influenced by the Romantic movement, by way of the American Transcendentalists. Leopold offered an early articulation of ecology as an organic theory of interconnectedness in the natural world and its connection to ethics. Carson carried forward this organic perspective and gave it a powerful voice that reached far and wide, eventually affecting policy in the United States and elsewhere and launching the modern environmental movement.

In 1973, Naess identified an emerging group within the environmental movement that called for a deeper understanding of the social, political and philosophical roots of the ecological crisis as well as the interconnection between the social issues of peace and social justice and the ecological issues of pollution and resource depletion. His personal theory of gestalt ontology, with its associated theory of self-realization, was deeply influenced by Whitehead's process philosophy. These theories proposed a view of reality that reflected Naess' personal relationship to the natural world and, more broadly, lent strength and credibility to the views of conservationists and ecologists, whose arguments all too often fell upon the deaf ears of people and organizations whose world views were defined by a mechanistic and reductionist view of nature and a utilitarian approach to its use.

Naess envisioned the deep ecology movement as an inherently pluralistic platform for ecological activism. This platform recognized a diversity of ultimate premises, or "ecosophies," as capable of inspiring support for the movement's platform principles and ecological action. Naess thus described the deep ecology movement as a movement that resists definition and refuses to be associated to a single ideological creed or approach. This has led some critics to question the movement's identity. "Where is the essence or

core? Is there a definite general philosophy of deep ecology, or at least a kind of philosophy?" (Naess 2008: 105)

I recall similar questions being aimed at the Occupy Wall Street movement in 2011. Like the deep ecology movement, the Occupy movement explicitly defined itself from the outset as a "leaderless" movement: "There are no projected outcomes, no bottom lines and no talking heads. In the Occupy movement, *We are all leaders*" (Gautney 2011, italics original). Far from being a weakness that undermines their identity and direction, the "leaderlessness" of these movements has arguably been the source of their greatest strength: by eschewing formal leadership, each person's experience and opinion is granted equal value.

The journalist Heather Gautney's description of Occupy Wall Street as a movement in which "*we are all leaders*" (ibid.) has a strong parallel with Naess' description of ecosophies as personal ecological philosophies particular to each individual that serve as the basis for their direct and indirect participation in the deep ecology movement. In both cases, a plurality of perspectives and approaches becomes the stimulus for a social movement that rejects traditional ways of governing and of conceiving society and nature. The deep ecology movement thus finds its place among a series of pluralistic anti-authoritarian, anti-discriminatory movements of the last fifty years that include feminism, gay rights, the international protests against the World Bank and World Trade Organization in the 1990s, and Occupy Wall Street (Gautney 2011). In all these movements, the statement "unity in diversity!" has been made the rallying call and guiding light for grass-roots initiatives against the status quo.

The deep ecology movement exemplifies the final stage (at least with regard to how far we've come today) in a transition that has marked the entire holistic tradition since its emergence alongside the Cartesian self and mechanistic science three centuries ago. This transition has carried holistic thought out of its traditional dependence on an absolute universal Being, with its corollary faith in the possibility that a single theory or framework might be able to account for all reality, towards an increasing emphasis on Becoming as the origin of Being. This increasing emphasis, which began in the Renaissance with the emergence of theories of Becoming in both its philosophies of man and nature, eventually blossomed into the pluralist and expressionist critiques of the

Counter-Enlightenment, followed by the pluralism of Whitehead's philosophy of organism and finally Naess' vision of the deep ecology movement.

What is far more intriguing about the deep ecology movement, however, is how it at once carries forward this historical trend towards a deeper recognition of plurality and Becoming, and completely explodes it. With the deep ecology movement, the movement "from Being to Becoming" that seems to characterize the development of thought through Leibniz, Hegel and Whitehead is entirely dissolved (which leads one to question the accuracy of my observations about this trend, as I did in section 3.6). As a pluralistic movement, the deep ecology movement recognizes the validity of all ecosophical perspectives—whether these perspectives are pluralistic (like Naess') or they seek to outline a particular unified theory of meaning (as we saw with Devall and Sessions), or they belong to a category, tradition or approach that is wholly different from these first two. The holistic trend away from a traditional dependence on an absolute universal Being as the single source of cosmic unity and wholeness has arguably led to the emergence in the late twentieth century of pluralistic movements like the deep ecology movement; but in so doing it has also led to a reaffirmation of the traditional conception of unity (as grounded in Being) as *equally valid* as the more recent pluralistic conceptions. In the deep ecology movement, all perspectives and philosophies stand on equal ground as potential contributors to ecological action and change.

In this way, the trend that we observed in holistic thought which has carried us towards ever more inclusive and pluralistic conceptions of unity has in our day engendered a cultural space that recognizes all traditions, philosophies and conceptual frameworks as potentially contributive to our current movement out of old and self-destructive modes of thinking and governing. It is as though we are preparing to make a great leap into something entirely new, a new way of thinking and being in the world that as of yet remains entirely unknown to us. In preparation for this leap, we have been gathering all the known ways of being and knowing that have marked our cultures and contributed to us arriving to this moment in history. The pluralistic view, for its part, has provided a platform for these various ways of being and knowing by instilling in us an appreciation for the profound value of world views and ways of living that are wholly different from our own.

Are we presently engaged in an act of collective "recollection" whereby all ways of being, all traditions in art and philosophy that have marked us as a culture throughout our history are being revived and recognized as irreducible parts of ourselves and of the journey that has led to who we are today? This seems to be confirmed by supporters of the deep ecology movement who see themselves as participating in the revival of old ways of knowing and being that were lost in the wake of modern society and the mechanistic world view.[47] It also seems to be confirmed by the works of scholars like Ernst Cassirer, Isaiah Berlin, Charles Taylor and Richard Tarnas, whose research and writings over the course of the past century have contributed to a heightening awareness and appreciation of past intellectual traditions, particularly those that were overshadowed by the progress of mechanistic science and the Enlightenment, and their contributions to modern thought and present-day society. Finally, it seems to me that this process of collective "recollection" is also confirmed by the deconstructive project of postmodern thought, which in its multifarious expressions and over the course of the past fifty years has brought attention to the numerous tacit conceptual structures that underlie our thinking and social organizations, as well as systematically undermined all absolute claims to truth. These postmodern accomplishments also seem to have contributed to the opening up of a cultural space in which a variety of diverse and irreconcilable perspectives can emerge and be recognized as valid in their own right.

On these many different levels, the last hundred years have witnessed a constant if unsystematic gathering of perspectives and conceptions of the world and of ourselves. The implicit message here seems to be: "This is who we are. This is who we have been until now." In light of the accelerating development of society in recent centuries and the profound uncertainties that confront us today on all levels from the economic to the ecological, it seems to me that this desire to understand who we are in our many different forms throughout history and across cultures is taking place in preparation for a profound shift in humanity's self-understanding, perhaps the profoundest shift in our history as a species. It is no longer feasible to place our hopes in a single theory, ideology or conceptual framework as the solution that will guide us to a better future. The emergence

[47] See, for instance, Devall and Sessions, who express this intention in exemplary fashion: "We believe, however, that we may not need something new, but need to reawaken something very old, to reawaken our understanding of Earth wisdom" (Devall & Sessions 1985: ix).

of pluralist and deconstructionist attitudes in the last century stand as the single greatest obstacle to the establishment in our day of monolithic ideological programs not marked by despotic or totalitarian methods of control. The attempt to revive ancient practices and world views, either in the ecological movement or elsewhere, cannot therefore be taking place in the hope of discovering an outlook that will provide the solution to our current predicaments (even though this hope is often the conscious motivator for such revival attempts). Rather, these revivals appear to be part of a much larger process of collective "recollection," whose primary aim is to deepen our self-understanding as individuals and as a species. He who knows himself is best prepared to face unexpected circumstances. And so in the face of an unprecedented unknown, we are gathering a deeper and more inclusive understanding of who we are by way of a pluralistic appreciation of the manifold expressions of human life.

In the face of the unknown, it seems to me that the solution does not lie in further ideological entrenchment, but rather in an openness to the plurality of possibilities that lie beyond our horizon and imagination. Whatever we are becoming lies beyond our present categories and comprehension. In order to comprehend what we are becoming, then, we must relinquish everything that we know and how we think we know it. The first step in relinquishing such knowledge is to become aware of the extent to which we think we know things, as well as the conceptual assumptions and traditions that underlie our knowledge. The present moment and the various movements that have led to it thus seem to be calling on us to adopt a fundamentally open stance to the world, akin to the apophatic perspectives of Heraclitus' fragments and the *Cloud of Unknowing* from the Middle Ages. Both works suggest a state of true presence premised on an act of negation or "forgetting" of everything we know (including that which we know we do not know) that creates an openness to the unknown, to the deepest manifestation of the unknown as that which we do not yet know we do not know.

The movement that has marked the development of holistic thought since the Renaissance has therefore carried us into a world that asks us not to keep our eyes fixed on the Edens of the past or the Utopias of the future. Rather, these are brought before our eyes once again one final time in order to be overcome, *sublated*. Their sublation in turn

provides the basis for a state of openness that rises to meet the present moment and its demand for our wholehearted, uncompromising commitment.

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