

Rudolf Steiner's Views on Nature and Spirit – a History of Philosophy Perspective

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(1) Introduction

(1.1) A World Context

The contemporary World context in which we live contains many challenges. As I write, the World is experiencing the biggest economic crisis for decades. Some have even referred to this as a 'global economic meltdown'. Similarly, there are huge issues concerning the sustainability of life, not just our own, but also of other species. Climate change is thought to be a threat to the varied environments in which different species can live and global warming may change these in an irreversible and damaging way.

Not only that, the diminishment of fossil fuel sources is a challenge to our very way of life, if not world civilisation. Take away oil, coal, gas and uranium and the foundation of contemporary life would simply crumble, unless substitutes can be found. There would be no tractors, cars, lorries, trains and planes as we know them and therefore no transport to support the global economy in which we live. A Middle Age society looms on the horizon with a population density of around thirty times higher (the population of England in 1066 is thought to have been around two million).

Many reasons have been given for these global problems: greed, speculative banking, too little regulation, Thatcherite monetarism, and so on. Many of such ideas place the reasons for the crisis outside into a seeming world of **objective** processes, divorced from human consciousness, emotion reason and will. There may well be some degree of truth to these reasons. However, there is another aspect to the problem that is worth considering: that it is our **personal World View** that conditions our consciousness and, consequently, the way we live our lives. **Our relationship to nature and the rest of humanity appears to be in crisis.**

What then is the world view that has led to this crisis? It may be thought that many people live their lives as if only material existence matters. In many cases, this is not considered to be an explicit self-conscious philosophy, but appears to be a lived reality. The implicit nature of this is somewhat as follows: **'I am only a material being and that consequently I only have this one life and will therefore try to maximise my personal happiness'**. The acquisition of material goods seems to follow naturally from this; it is a kind of 'materialism to the power of two'. Not only am I just a material being, but my personal happiness is determined by the possession of material objects. But there is another aspect to this in that we have an ongoing desire for new material objects and the personal, but temporary,

satisfaction that they give. It is almost as if the mere possession is not enough, the pleasure soon dies down and leads to the desire for new objects that give further, but partial, fulfilment. Taken together, the 'matter principle' and the recurrent desire are two sides of a powerful cyclic 'matter formula' that, it may seem, conditions our consciousness and thereby the current economic, social and environmental problems today. It could be that, were the 'matter formula' not so strong, the production of 'objects' would be less determined by 'material desire' and more by real need.

How has this come about? This is a historical question that this book in part tries to address. The 'matter principle' is relatively new as a broad cultural phenomenon. It emerged through the scientific revolution (ca 15th century) and began to gain momentum in the 19th century. It was then that a material world view succeeded a spiritual one and that over the next two centuries the 'matter principle' may be thought to have gained control over human self-consciousness: it could be thought that many of us today conceive ourselves as a purely material being in a purely material world and that we appear to act on that basis.

But there are some who suppose that we are not just material beings. What if we are also psychological (soul) and spiritual beings who live in a world not just of matter but also of soul and spirit? If we could consider things in this way, it may be thought, then it is possible that we may regain control over and re-orientate our self-consciousness, desires and our actions; not only towards matter but also towards the soul and spirit. This book aims to present a series of such views in their historical contexts. It will do this through a consideration of the spiritual history of an idea, that of the 'Great Chain of Being' (Lovejoy 1936) and its gradual transformation and re-emergence as a spiritual science and philosophy.

This new interpretation of the Great Chain of being does not answer contemporary challenges directly. It does not say; these are the answers to the economic crisis, the environmental despoliation, to energy depletion, to personal and social relationships. What it may possibly do, however, is help re-orientate the mind, our consciousness, towards a deeper reality that is part of our lives and put our relationship to the material World into a broader context. Instead of seeing ourselves as entirely material beings, we may begin to conceive ourselves as soul and spiritual beings too. In light of this, we may begin to value more than material objects and organise our lives and society accordingly and thus affect today's crises indirectly.

(1.2) An Education Context

Most people in the World have been educated in one way or another. Education forms our consciousness and is partly constitutive of what we are. Educate in one way and a certain kind of consciousness arises, which then impacts on our relationships with nature and other people. If we educate not merely to see nature and people just as being material, but as soul a spiritual too, this, I am convinced, will affect such relationships.

For many years, I have been interested in a form of holistic education called Waldorf or Steiner Education. As such, I have come to see the importance of locating Steiner's philosophy in a broader cultural context. In light of this, this book aims to consider the philosophies of spirit and nature, Steiner being a part of this. Many people in the World will be aware of this independent international schools movement which has around one thousand schools world-wide. It is a form of education that aims to develop the human being in a holistic way in terms of body, soul and spirit (Steiner 1995). Steiner formulated these ideas in terms of a science of the spirit that he called anthroposophy; which includes a world view as well as a new method for understanding. *What some may not be aware of is that his educational ideas are derived from anthroposophy and are only truly understandable, in a deeper sense, in that context, i.e., in a philosophy in which everything in the World is conceived as having body, soul and spiritual dimensions, and not just human beings.*

In the modern era, this may sound strange, and anyone doing a preliminary investigation of Steiner's ideas about the World, as Nature and Spirit, can be struck by the apparent divergence of his views from those of contemporary culture. The contrast between his depictions of spiritual and soul realities may appear very different from the supposed dominant mainstream notion that the World is only a complex arrangement of physical objects and processes.

But this divergence of views is only apparent and there is a basic reason for this: that since the development of a materialistic world view there has been a loss of knowledge amongst the general public of what Lovejoy (1936) called 'The Great Chain of Being'. Such knowledge today is largely restricted to historians of science, theologians and some alternative thinkers. I shall be drawing on the idea of the Great Chain of Being considerably, but with the primary aim of locating Steiner in the History of Ideas. The Great Chain of Being was a conception that dominated western culture since before the time of Plato up to the early 19th century. It was a notion that is not only philosophical in character, but also framed religious, scientific and

artistic practices; it also conditioned people's social and economic lives. Moreover, it was, at its foundations, a conceptual framework that encompassed not only physical, but also soul and spiritual realities. It was, in fact, an idea which saw the **source** of all kinds of reality as being of a **spiritual** nature. Had Steiner been speaking in the 18th century, his ideas may not have seemed so much out of place; today, however, with some important exceptions, they may look like something from another world.

For this reason, it is my intention in this book to locate Steiner within the historic landscape of the great western spiritual philosophies and to show that a spiritual world view was the predominant philosophical position for the majority of great thinkers for more than two thousand years. I will also attempt to show how Steiner's ideas are closely connected to the Great Chain of Being and how he developed his own view which does not have the negative consequences of some interpretations.

(1.3) Philosophical Context

Steiner is not the only person to hold a holistic world view of body, soul and spirit. I would also like to show that there has been a growing world view that lies outside of so-called mainstream thought, a view which, in some interpretations, incorporates soul and spiritual dimensions to existence. This is a theory which followed on from what has been called the 'Age of Emergence' (Wheeler 2006). I will try to show that the Age of Emergence began to develop shortly after the assumed demise of the Great Chain of Being and is in fact its natural successor. The philosophy of emergence takes the important lessons that can be learned from science and shows how the Great Chain of Being can be re-created without the negative aspects of the older interpretations such as faith-determined reason and an absolutism of reality, ethics and politics.

Moreover, there has been a renewed interest amongst scholars in the science and spirituality interface. Emergence is sometimes seen as a starting point for exploring a possible convergence of scientific and spiritual approaches to understanding the relationship between the 'Oneness' of the spiritual and the 'Many' of Nature. Contemporary discussions in what is sometimes called 'natural theology' can be thought of as a new 'Age of Convergence' between science and spirituality.

Steiner may be conceived as making an important contribution to the 'Ages of Emergence and Convergence', not in the sense of re-uniting science and faith, but in creating the foundations of a 'science of the spirit', a science which he called anthroposophy. Anthroposophy is not just a

continuation of natural science, nor is it mere faith in the spirit, but has its own characteristics in that it attempts to **know** the spirit, as well as the soul and the physical, and not merely believe or infer it.

The Great Chain of Being is about how the world is structured according to specific creative principles; it is often identified with a view called 'Emanationism'. Emanationism is the notion that the rich diversity of the World, the so-called 'Many', or Nature, is supposed to have been created by a single source, the One, and is structured in a very specific way. *This structure consists in reality, or the nature of Being, being a continuous series of links that 'ascend' from minerals, plants, animals and humanity, up to the various grades of 'celestial (spiritual) beings' and finally to the One Spirit, God, from which they have descended.*

The Great Chain of Being, however, was not only of deep philosophical significance, it became popularised in many religious contexts throughout its history and was frequently represented in various ways through paintings, songs of praise, poems and stained glass windows, etc. An example of this, from a Christian perspective, can be seen represented artistically in Didaui's Valades' book *Rhetorica Christiana* (1579):

Fig 1.1



When people of 17th century Europe went to church each week, they would be surrounded by the imagery of the Great Chain of Being, hear verses and sing songs about it. As I will show later, such a vision of the nature of reality also conditioned social structure.

Behind these popular representations, however, are some important philosophical questions. If we consider the above picture, there is a very particular structure to it that represents the form of reality as it was conceived towards the end of the development of the idea of the Great Chain of Being. In a sense, this picture represents a summation of a series of historical developments which will be considered in this book. At the centre top of the picture there is the Trinity which was considered to be the source of all reality, the Father in the absolute middle, with the Son on his lap with the Mother (Holy Ghost) to the left hand side. Philosophically, the Trinity is the functional centre of the cosmic structure. Surrounding this, in an almost circular shape, is the hierarchy of angels which constitute the next layer of the cosmic reality. Next, there appears to be another rank of angels (they have wings too), followed by the consequent layer of human beings, with what I take to be the incarnate Christ in the centre. There is then a series of levels of reality: three of animals, birds, fish, land creatures; each of which is associated with the cosmological 'proper place' of the elements in which they live: air, water and earth respectively (although this is not quite accurate for humans). At the bottom is the nadir of creation, namely Hell, where the devil lives and supposedly carries out his diabolical activities. Going back up to the Trinity, one can see an angel just below the feet of the Father God who appears to be holding a chain which descends from this high realm of reality down through the different layers of the cosmic structure, stopping at the level of earth, just above what appears to be a representation of the cycle of the Sun. *The chain represents the connections in Great Chain of Being and depicts the structure of the creative process and the continuity and gradation of the different kinds of being that are emanated from the Godhead, the One source of reality.*

My main concern, however, is not with such popular representations but the histories of the philosophies that lie behind them. In this book I will focus on the Great Chain of Being from a **philosophical** perspective and show how it revolves around the ideas of the One (Spirit) and the Many (Nature) and are a part of spiritual history, a history that has been going on since the first emergence of ancient civilisations.

I will also be considering whether or not the ideas proposed throughout this history can be considered as science and / or philosophy. This will be a significant issue here as many of the thoughts represented are located in historic-cultural contexts which some may not identify as either philosophy or science. Such thoughts may be embedded in contexts of poetic expression, pagan mythology and various forms of religion. It is my contention, however, that scientific and philosophic content can be found in many cultural forms, and that underneath the surface expression, there is a deeper content that has philosophical and scientific relevance. It is in this sense that I am in agreement with McEvilly (2002).

(1.4) Fundamental Principles

In this section, I will outline some fundamental principles which will act as the core conceptual framework for the rest of the book. The basic ideas for this I have drawn from Lovejoy, *but my interpretation of each of them is different and more general; this allows for a broader understanding of the idea. I will also focus more on how the differing interpretations of the principles give rise to different ideas about the structure of reality.* I will not be addressing questions to do with specialised issues of gender, class and race as they are affected by the conceptions of the Great Chain of Being (for this approach see Bynum 1975). This is because the historical understanding of such implications depends to a large extent on how reality is conceptualised.

I will approach this by introducing three concepts: 1) Cosmic Principles and 2) Cosmic Structure. Taken together these ideas fall under the subject area of what philosophers call **ontology**. This is the study of reality and the forces, or laws, which produced it. 3) Cosmic Epistemologies are the theories of knowledge applied to the cosmos, the means through which we **know** and **explain** anything:

1) Cosmic Principles:

These are the fundamental principles, through which Cosmic Structure is supposed to have been created. There are three in number which have been identified by Lovejoy: 1) The Principle of Plenitude, 2) the Principle of Continuity and 3) the Principle of Gradation.

The Principle of Plenitude is the concept of how the Many is created by the One. Throughout the history of the idea, there have been a number of

different interpretations of this which will be considered. The One, in most cases, is seen as God, or the Divine Source, which produced the Many. The Many manifests as the various kingdoms of nature: humanity, animal, plant, mineral, and the 'celestial beings' (the angelic hierarchy) thought to exist within this world view.

The Principle of Continuity is the notion that there is a continuous link between the different beings in creation from the lowest to the highest. A being at a lower level in creation shares some property with that on a higher level. For instance, humans have the property of passion in common with animals. Humans, animals and plants have life in common.

The Principle of Gradation is that beings further up the scale of reality will have extra properties, or powers, to the ones below. For this world view, humans have the power of reason, whilst animals do not; at least, if they do then not in any way the same degree. Animals have 'sense', whilst plants do not; plants have life, but minerals don't.

2) *Cosmic Structure:*

This is the fundamental form of the Universe generated and derived from the Cosmic Principles. It is the basic threefold structure of reality that comprises 'The One/ the Godhead', the Spiritual Hierarchies, and the Four Kingdoms of Nature. The Great Chain of Being is essentially a historically developed idea. As a relatively complete picture, it did not occur all at once; rather different facets of it appeared over two thousand years of historical time. Also not all authors discussed each aspect of it even when the picture was complete, which, for all intents and purposes was around the thirteenth century and can be seen represented in Dante's *Divine Comedy*. The general picture of the Great Chain of Being can be represented as follows:

Fig 1.2



3) Cosmic Epistemologies:

These are the basic theories of knowing embedded in the cultural-historical contexts within which the views of reality were conceived. In general, epistemology can be understood as the method through which an idea can be unified with experience and as the connectivity between one idea and another. It is through these that we find **explanations**. I will attempt to show differences in the epistemologies as well as the differences in ontology within the cultural-historic contexts considered. In this way, the different ways of knowing will be shown to give rise to different explanations of reality from those conceived by contemporary physical science. This will show that the ancients were doing science of their own kind, a science that focussed on the relationship between inner and outer qualities (see Goodwin 2008; Harding 2008).

(1.5) Cultural History, Explanation and Science

In discussions about the relationship between science and religion, the distinctions between the two are frequently polarised. If an individual is doing one, then it is often thought that they are necessarily not doing the other. Such a polarisation seems to me to be overdrawn and it fails to distinguish an important idea. In an investigation of the ideas within cultural

history it seems to me to be important to differentiate between the **cultural frame** and the **explanatory content** of a historic time period, or even a theory within it. This is important as it might be thought that some of the thinkers that I will be discussing were not doing science or philosophy simply because of the cultural frame within which they were operating. This is a view which I question; after all, future people may look back at our time and think that we were not doing science because our cultural frame is not like theirs. It is arguable that the physical world view which now dominates is also a historic-cultural frame which may be superseded. It is my view that within all cultural frames it is possible to find a philosophic-scientific attitude to how people explained themselves and the World.

It is also arguable that underneath the cultural frame similar explanatory contents can be found. For example, an aspect of this is the attempt to find a unified theory which can explain all phenomena. In cosmology and particle physics, there is an attempt to find the 'theory of everything' which explains how a unity, a oneness, produced a multiplicity over evolutionary time. Such an approach is framed entirely within the conceptions of physical theory. But, as I will show throughout this text, similar terminology can be found in all ages stretching back at least to the dawn of recorded civilisation. The difference lies in the cultural context in which such ideas were used. Throughout history, humanity has used ideas like 'the One that produced the Many' and has looked for the causes that help explain their lives and world existence generally though such a principle of **unification**. The 'cultural frame' of these historical periods is distinguishable from the 'explanatory content' used.

Another example is that in philosophy and science there is a discussion about what counts as an explanation. Much of this revolves around the use of the so-called laws of science. Examples of this might be Newton's laws of motion, Faraday's laws of electromagnetism, and Darwin's laws of evolution, etc. This approach, which may be called the law model of explanation, focuses on laws as **causes** and **content**. A cause is something which makes an event happen, for instance a falling object may cause a dent in the ground. The content of a law is that which differentiates one kind of cause from another. Thus gravitational causes are different in content from those of electromagnetism.

Further examples of scientific practices might include the rigorous use of **logic** within a particular paradigm, as was the case in the medieval times, as well as **hierarchical thinking**, or **systems thinking**, of interest as much as it is today (Capra 2002). Also, **scientific concepts** to re-interpret natural theology have been used broadly in the 20th century and the extension of

scientific epistemology to include soul and spiritual dimensions to the act of knowing and representing (Harman 1994a).

Many other criteria for what counts as science could be found, but it is on the basis of the above that I will use the following as the determinants for the philosophical / scientific practice that lies beneath the cultural frames throughout the history of the Great Chain of Being:

- 1) Unification;
- 2) Scientific laws as causes and contents;
- 3) Logic;
- 4) Hierarchical / systems thinking;
- 5) Scientific concepts;
- 6) Extended epistemology, inner and outer knowing and representation.

I will indicate these where I see this throughout the text.

(1.6) History as a Metamorphosis of Ideas

Steiner was a scholar of the German dramatist and natural scientist J. W. Goethe (1749-1832). He spent seven years in Weimar editing Goethe's Natural Scientific writings, the *Kürschner* (1883-97) edition, and frequently referred to him in his later publications. In particular, he emphasised the importance of Goethe's concept of metamorphosis. Goethe came to his idea of metamorphosis through his study of plants and colour which he conceived as being in a constant state of transformation through the principles of polarity, enhancement and union. Such an idea, it seems to me, is also applicable to the history of ideas: ideas, too, can be interpreted as being in a similar metamorphosis in time and be subject to polarity, enhancement and union. Each chapter of this book may in this sense be seen as a way of indicating moments of metamorphosis of the 'Great Chain of Being'. Just as a plant grows and has continuity with its past, as well as wilts and decays, so do ideas metamorphose over historical time. In particular, I will consider how this historical metamorphosis is connected with conceptions of science and philosophy as the explanatory content of an idea and distinguish it from

the cultural frames within which they were embedded. Just as a plant may grow and be modified by the environmental context, so too do ideas grow into, and are modified by, their cultural context.

Science tries to use certain ideas as part of its practice, as does philosophy. These are manifest as the explanatory content in the history of the Great Chain of Being. In that sense, some of the ancients may also be considered as doing science and philosophy once one perceives through the cultural frame of their age. This cultural frame, as a history, is the history of consciousness which acts as clothing to the explanatory content and affects it. In relationship to the Great Chain of Being, I will try to show this in that:

In chapter 2, during the time of the ancient civilisations, Indian, Persian, Egyptian and Greek, the approach to the One that explained the Many saw a metamorphosis from mythic religious consciousness to philosophical ideas. They, like current scientists, were searching for a unified world view that explained their existence even if it was framed in mythic consciousness. A transition here occurred in that some of the ancient Greeks turned toward sense-observation to find the unity of existence (Thales, Anaximenes, Heraclitus and Empedocles). Later, they began to form philosophical conceptions (Plato, Aristotle).

Chapter 3 sees how these ideas are transformed into religious notions, whilst still striving to find a unified world view. There is a turn towards inner perception and the use of philosophical logic in the service of religion (Plotinus, Augustine, Aquinas). Representation of reality also becomes important as does hierarchical thinking, as a form of scientific systems theory, the correspondence of thought and reality, paradigm logic and inner self-observation (Pseudo-Dionysius, Eriugena, Aquinas).

Chapter 4 describes how religion-based thought is challenged by an empirical knowledge free from religious conviction (Galileo). An ontology of the kingdoms of nature was also further cultivated (Powel). On the other hand, this ontology was ascribed ascending levels of ethical value and so went beyond mere science into philosophical ethics (Peacham). This conjunction of ontology and ethics may, by some, be conceived in a negative sense. Also, through the use of philosophical logic, a logical necessity was attributed to the Great Chain of Being (Spinoza, Leibniz). This was also changed from a religious system of reality to a fixed political structure, thereby joining the distinct domains of ontology, ethics and political philosophy (Bossuet, James I).

Chapter 5, the age of enlightenment, depicts the transformation and decay of the idea of the Great Chain of Being through the advent of materialistic science as well as a more 'nature-orientated' philosophy. Here there was a deepening of empiricism in its cultural outreach and which was used to critique the Great Chain of Being (Diderot, D'Alembert, Voltaire). Scientific evolutionism began to affect the way the Great Chain of Being was interpreted with human creativity and knowledge being a factor (Hegel, Goethe, Schiller and Schelling). The naturalistic interpretation of reality and its evolution then replaced the spiritual conception of the Great Chain of Being (Darwin).

Chapter 6 sees the re-growth of the Great Chain of Being through the development of the idea of emergence in about the last 100 years. In this, a transformation is seen in the shift from empirical science to an investigation of ideas. Empirical Science unifies with philosophy which leads to a regeneration of the idea of the scale of nature, but without the ethical and political implications (Boden, Dawkins, Goodwin, Harding, Morgan, *et al*).

Occurring at the same time as the 'Age of Emergence', I will show in, chapter 7, how there has been what I have called the 'Age of Convergence' where scientific ideas are used to transform and enhance the ideas of religion, which, in turn influence the way the Great Chain of Being is seen. This is almost a reversal of the approach of the Middle Ages where it was religion that affected philosophy and science rather than science affecting religion. Scientific and philosophical ideas like: evolution (Whitehead, Teilhard) the laws of physics (Davies), holistic philosophy (Harris), thermodynamics (Polkinghorne), field theory (Fox & Sheldrake), phase space (Ward), and the representation / participatory theory of truth, beauty, and goodness (McGrath); are used to transform spiritual convictions about the Great Chain of Being.

As a part of this, I will describe Steiner's anthroposophy as an attempt to develop a 'science of the spirit' and as a contribution to this 'Age of Convergence'. Steiner can be seen to use the philosophical conception of altruism to explain the emergence of the Many from the One. He develops notions of: how the One can be experienced in thought, and in that way cultivates an empiricism of the One Source; an empiricism of the human I, whereby the reality of the One can be experienced as image; the archetypes as the creative laws of reality; a hierarchy, or systems theory of Celestial Beings; as well as an empiricism of the kingdoms of nature. On the basis of these, he can be seen to advocate a view of the Great Chain of Being in which there is the possibility of creativity, evolution and freedom.

At various points in the text there will be some discussion about the relationship between Plato's two interpretations of the One, the transcendent (*The Republic*) and the immanent (*Timaeus*). For Lovejoy (1936, p. 315), it was what he called the fundamental incompatibility of these two notions of the One, or God, which lead to the downfall of the Great Chain of Being. The one God is a transcendent eternal and absolute perfect being not requiring other creatures, the other was immanent in his creation. This book does not try to evaluate this question, but points out a more nuanced historical understanding. One view is where the Many is an image of the Perfect One, where the created World is an atemporal, non-evolutionary, static product of God (Plato, Plotinus, Spinoza and Leibniz). A second position is where Nature, the Many, is an evolutionary temporal reality that is a creation of an eternal One, which, in its essence, undergoes no change (McGrath, Polkinghorne, Ward). A third view is where both God and Nature are a unity and both undergo change over time, neither of which is perfect (Eriugena, Whitehead).

(1.7) The Nature and Level of this Book

This book is a history of philosophy. So I need to say a few words as to how this approach differs from philosophy on the one hand and history on the other. Normal history, more often as not, refers to the major events that have occurred over time and the reasons for their occurrence. Frequently, such history covers issues to do with political events and their causes, such as why the Roman empire declined, or why Henry VIII made himself the head of the newly formed Church of England. The history of philosophy, or of ideas, in contrast, considers the historical progression of ideas, concepts and world views, the reasons why they were accepted and their implications for life, rather than political events. Philosophy, on the other hand, critically evaluates ideas and proposes new ones. Like for example, whether or not it is justifiable to argue that our ideas represent what exists in the world or if they are convenient stories we tell to each other. *The history of philosophy, as presented here, is not about the critical evaluation of ideas, but simply their history, why people believed in them and their implications for our self-knowledge and our knowledge of the world in which we live.*

This book is not intended to be an in-depth research presentation. Many of the ideas are tentative and should be treated as snapshots of an ongoing research process. Above all, this book is set at introductory university level studies. But as a philosopher once said "there is no shallow end to the philosophical pool", so each reader will find their own level.

The book should also be of relevance to those interested in the history of this major world view as it developed primarily in the west and its connection to anthroposophy. Those beginning to be interested in anthroposophy may also find it a useful backdrop to the development of Steiner's ideas.

The book also makes extensive use of original sources. I always find it important that originals are used as it gives direct access to the content and tone of an author's thought. This enables the reader to form their own judgement as to the interpretation and context which is added to them and to test out their accuracy and relevance.

(2) Ancient Civilisations: From Myth to a Philosophical Idea

The ancient civilisations of India, Persia, Egypt and Greece are often seen as ages of myth and mystical knowledge but which saw a transition to scientific and philosophical reasoning (Armstrong 2009, Lloyd 1982, Magee 1998, Steiner 1914/72). When one considers ancient thought, then, a question that may be asked is: were they doing mythology or science or philosophy? Implicit in this is the assumption that if they were not doing the latter two, then this thought, no matter how profound in other ways, is not to be taken seriously. This, however, cannot be assumed. Moreover, as I will try to show, there is a great deal of relevant scientific and philosophical content in ancient thought even if it is expressed in what may be termed a 'mythic' form. After all, myth, in the form of poetry and stories, can express our most deeply held convictions and can depict our 'science' and 'philosophy' in a very human way.

It is in this sense that I want to consider, briefly, some ancient thought in respect of its science and philosophy of the emanation of the Many from the One. As I will show later, this is a question that refuses to go away, no matter which cultural form it takes. Today that search for the One that explains the Many exists in many areas of science and philosophy, even in contemporary particle physics this is the case (Smolin 1997). It could be that the ancients were doing no different, even if it was in another kind of historic-cultural context.

Within these contexts I will show various metamorphoses of the understanding of how the creative One (Spirit) emanated the Many (Nature). The ancient civilisations of India, Persia and Egypt expressed their ideas in mythic cultural form with stories of the Gods' creation being expressed in hymns or spiritual poems. Near the relative beginning of Greek civilisation this can also be seen to some extent in Hesiod. Thereafter, the pre-Socratics, Thales, Anaximander, Heraclitus and Empedocles, initiate a historic process in which the creative One is determined in terms of that which can be perceived with the senses. Plato, on the other hand, represents that stream of views which argues that the creative One is only accessible through human thought. Aristotle may be interpreted as a unifier of these two ways of thinking in that he attempted to understand the creative process through observations of nature on the one hand and a rational conception of the ultimate cause through reason on the other.

In ancient Indian philosophies, which predated the ancient Greek thought, one can find spiritual representations of the relationship between God and

Nature, the One and the Many, seeing the former of these in terms of 'the greatest', i.e. as an explanatory content that cannot be surpassed: "Brahman—meaning now that which is the greatest, than which there is nothing greater, and also that which bursts forth into the manifested world, the one Being of which the hymn of creation spoken" (in Mohanty 2008). For this conception, the One which brings forth the Many is named Brahman. In ancient Persia, the role of the One was played by Ahura Mazdā, as the creator of all beings, in Heaven as well as Earth; he is the Unity that brought the Many into being: "Ahura Mazdā, who is the highest God and alone is worthy of worship. He is... the creator of heaven and earth; i.e., of the material and the spiritual world" (in König, 2008). In ancient Egypt the One that emanated, and is, the Many is Amon-re, the God who includes all Gods and all reality, and yet is more, he is:

The one only... both immanent and transcendent; he takes all the forms of the universe, yet his own form is inconceivable in its otherness... All gods are parts of him; all places are occupied by him; he is in heaven, the underworld, the East, and the West.

(In McEvilly 2002, p. 25)

It won't be the aim here to critique these ways of thinking, but rather to give indications that the search for the One source of existence is very ancient. It would be very easy to assume that the identification of the One with some form of God is entirely of a religious character, that the ways of thinking are embedded in, and influenced by, the mythological-religious context in which these ideas are found. Some may wish to reject them entirely on this ground.

But there is another way to think about these ideas, and that is to see them as attempts to understand the multiplicity of the world in terms of a unified world view. The underlying terminology used expresses an *explanatory content* which lies beneath the *cultural frame* and is concerned with unity and greatest generality. These are two ideas which are still used in contemporary definitions of what counts as a scientific explanation (Nagel 1961). This unity, this One, was, of course, often identified with some kind of divinity. However, the philosophical and scientific content is not so much in this, but in the kinds of ideas needed in order to explain the Many in terms of the One; that is in terms of what Lovejoy (1936) calls the "Principle of Plenitude". This principle is conceived as the source of all that comes, and can come, into existence; it is the primary mode of reality, or Being, from which all other kinds of being emanate. In some cases, this principle can become identical with the things that it creates.

In a sense, this idea encapsulates all attempts to explain the emanation of the Many from the One both ancient and modern. Modern science searches for the 'Theory of Everything' which is a single unified theory which explains the multiplicity of all that exists. This is a kind of 'deep structure' to all forms of explanation of this kind. The 'surface structure' of the explanation represents the 'mode of consciousness' of a particular cultural-historic context. In the case of the ancient civilisations this is the mythic awareness, today the search for the One is framed in terms of physical consciousness.

According to McEville (2002), the notion of the One that rules the Many spread into ancient Greece, possibly from Egypt, and manifested amongst the Orphics, a group that represented similar mythic thinking to that of the earlier ages just mentioned:

Zeus is the first and the last, one royal body, containing fire, water, earth, and air, night and day, Metus and Eros. The sky is his head, the stars his hair, the sun and moon his eyes, the air his intelligence, whereby he hears and marks all things, no sound or voice escapes his ears.
(In McEville 2002, p. 27)

Such an approach can also be perceived in Hesiod's *Theogony* which depicts how the universe was created:

Tell how at the first gods and earth came to be, and rivers, and the boundless sea with its raging swell, and the gleaming stars, and the wide heaven above, and the gods who were born of them... In truth at first Chaos came to be, but next wide-bosomed Earth, the ever-sure foundation of all the deathless ones who hold the peaks of snowy Olympus, and dim Tartarus in the depth of the wide-pathed Earth, and Eros (Love), fairest among the deathless gods, who unnerves the limbs and overcomes the mind and wise counsels of all gods and all men within them. From Chaos came forth Erebus and black Night; but of Night were born Aether and Day, whom she conceived and bore from union in love with Erebus. And Earth first bore starry Heaven, equal to herself, to cover her on every side, and to be an ever-sure abiding-place for the blessed gods.
(Hesiod, 2009)

Taken together, these mark a point at which mythology is used to explain the creation of the World's multiplicity (the Many). Set in mythic form, the notion culminates in the sense-perceptible elements of fire, water, earth and air, as being seen as parts of the God Zeus. In fact, Zeus is identified as the sum total and embodiment of the Universe. This mythology makes little distinction between the deity, the One, and the Many which it produces and

incorporates. The One God and the Manifold of Nature were, for this way of thinking, a unity.

With Thales (642-545bc), Anaximenes (born ca 520 BC) and Heraclitus (died After 480 bc) a small shift can be observed in the way such ideas are formulated. Instead of the One Source being a deity, who has an existence independently of the multiplicity it creates; we have a unification of the One, the creative being, with the sense-perceptible elements. It is the **observable** elements which are the creative source of existence, not Gods distinct and higher than the elements. In some ways, it is thought that the elements were Gods, because, for these early Greek philosophers everything that is capable of movement has soul and only Gods have soul (see Aristotle's 2009 discussion of Thales). For Thales, this observable element was water, for Anaximenes it was air and for Heraclitus it was fire; that were conceived as 'the One', the *arché*, the creative source for all that exists.

Empedocles (c. 495-c.435), can be seen as a synthesiser of the above pre-Socratics in that he saw the four elements as independent and not as being explicable by any one of them. Also, he thought that love and strife were the active forces that joined together and separated, respectively, the four elements, earth, water, air and fire. The latter also produced the Gods, or, at least, the Gods were composed of them:

At one time it grew together to be one only out of many, at another it parted asunder so as to be many instead of one; - Fire and Water and Earth and the mighty height of Air; dread Strife, too, apart from these, of equal weight to each, and Love in their midst, equal in length and breadth. Her do thou contemplate with thy mind, nor sit with dazed eyes. It is she that is known as being implanted in the frame of mortals. It is she that makes them have thoughts of love and work the works of peace. They call her by the names of joy and Aphrodite. Her has no mortal yet marked moving round among them, but do thou attend to the undeceitful ordering of my discourse. R. P. 166.

(Empedocles 2009)

In some important respects, these ideas represent a small shift away from the mythic element of the Orphics and their predecessors, to the more philosophical thinking of their successors in 5th century Greece. Even though Love is identified with the goddess Aphrodite, she is seen as a 'soul quality' that unifies the independent sense-perceptible elements. Being 'implanted in the frame of mortals' suggests that the human being's inner experience is assumed to be present throughout the elements and is that

which joins them together in their manifold ways. The God's, the elements and the inner life of the human soul are seen 'of equal weight to each', i.e. are independent and equal realities, but are parts of the One.

The idea of the One that produced the Many, which I will consider as a generalisation of the "Principle of Plenitude" defined by Lovejoy (1936), first began to be developed, as a **philosophical** concept, in the western world, during the Greek and Roman periods. With the pre-Socratics, the approach to understanding the One was based on elementary **sense-perception**; with the Plato and Aristotle, the emphasis was on **ideas**. In this, the Principle of Plenitude is the primary idea through which the Many is explained as emanating from 'The One'. Plato (429-347 BC) is considered to be one of the first to formulate a conception of the world in which the Many (the plenitude) emanated from the One (Lovejoy 1936, p. 52). Plato is renowned for his theory of 'Ideas' or 'Forms' from which the created world was emanated. This theory is presented in *The Republic* and then applied to the problem of creation in *Timaeus*.

In *The Republic*, Plato proposes 'The Idea of the Good', like the Sun, may be seen to be the One Source of all existent things:

We say that there are many particular things that are beautiful, and many that are good, and so on... and we go on to speak of 'beauty-in-itself', and 'goodness-in itself', and so on for all the sets of particular things which we have regarded as many; and we proceed to posit by contrast a single Form [*eidōs*], which is unique, in each case, and call it 'what really is'... The Sun, I think you will agree, not only makes the things we see visible, but causes the processes of generation, growth and nourishment, without itself being such a process... The good therefore may be said to be the source not only of the intelligibility of the objects of knowledge, but also of their being and reality, yet it is not itself that reality, but beyond it and superior to it in dignity and power.

(Plato 1987, pp 306-309)

Clearly, then, the Forms are the causes and sources of reality. Like the Sun which radiates light, encouraging generation and growth, the Forms are the centres from which all of reality emanates.

Plato proceeds to integrate all Forms into the 'Form of all Forms', or the 'Idea of all Ideas'. He calls this the 'Form of the Good'. For him, this is a self-sufficient reality, from out of which all existents come into being; it is The One, the Absolute and transcendent reality; the Perfect Fullness which produces all other kinds of reality. For Plato this is identifiable with God.

In *The Timaeus*, Plato, allowing the friend of Socrates speak from him, contemplated the *motive* as to why God created the World. Why should he do so if he was already self-sufficient and therefore perfect?

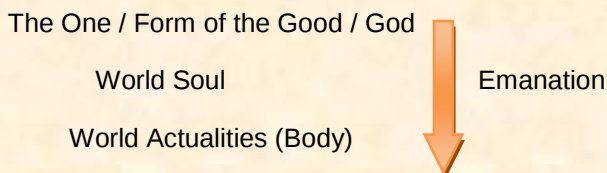
Timaeus: Let me tell you then why the creator made this world of generation. He was good, and the good can never have any jealousy of anything. And being free from jealousy, he desired that all things should be as like himself as they could be. This is in the truest sense the origin of creation and of the world, as we shall do well in believing on the testimony of wise men: God desired that all things should be good and nothing bad, so far as this was attainable... For which reason, when he was framing the universe, he put intelligence in soul, and soul in body, that he might be the creator of a work which was by nature fairest and best. Wherefore, using the language of probability, we may say that the world became a living creature truly endowed with soul and intelligence by the providence of God.

(Plato 2009b)

In these passages, Plato is trying to find a reason for the creation of other kinds of reality if the source of that reality, the One, the Form of the Good, is already perfect. The argument is that as God, or the One, being 'good', is perfect it cannot be 'jealous' and therefore cannot remain just as the One; it must contain and generate the Many, otherwise it could not be 'Full' or 'Perfect'. A perfect being, after all, must include all possibilities. As Lovejoy pointed out, this is the notion where *Self-Sufficing Perfection transforms to Self-Transcending Fecundity (Creativity)*. This is the **Principle of Plenitude**. This conception argues for the *realisation of Ideal Possibilities into Actuality*.

Furthermore, from out of this Plato creates a threefold structure to reality, or to the World. It is evident from the text that Plato was not just talking about human nature but the World as such when he said that he (God) 'put intelligence in soul and soul in body'. The intelligence is the set of all Forms that exist in the One, which in turn emanates Soul (of the World) and then the Body (of the World, or Nature). This leads to a cosmic structure like the following:

Fig 2.1



Plato is primarily concerned with how the One produced Many. To explore the Principle of Continuity, however, we need to turn to Aristotle.

To begin with, Aristotle (384-322 BC) formulated a conception of the creative One in terms of what he called the Unmoved Mover (*Metaphysics XII, chapter 7*):

The first mover, then, of necessity exists; and in so far as it is a necessity, it is good, and [is] in this sense a first principle... God's essential actuality is life most good and eternal. We may say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God; for this *is* God.

(Aristotle in Ackrill 1993, p. 328)

For Aristotle, this first principle was the One eternal being which brought all other being into existence (i.e. being that is 'moved') whilst itself being 'unmoved', i.e. un-created by anything else. In this sense, he can be seen to affirm an aspect of the Principle of Plenitude: the eternal One being that which is 'most good' and must of necessity create (move the other) because of this. Just as Plato's God created because it was 'good' and 'lacked jealousy', Aristotle's God created because it is 'most good'. The creation of nature, or the World more generally, then becomes linked to an ethical principle. *The Unmoved Mover, the One, then is an Ethical Principle which creates nature out of its own inherent moral necessity.*

Moreover, in his *History of Animals*, Aristotle added the Principle of Continuity to that of Plenitude: all beings were linked into a system where there is at least one similarity with another being. This leads to the notion of the **Scale of Nature**. In this conception, each being is not only linked to other beings (the Principle of Continuity), but there is also a Principle of Gradation which defines the Scale of Nature, i.e. there is an ascending degree of power from lower to the higher levels:

Nature proceeds little by little from things lifeless to animal life in such a way that it is impossible to determine the exact line of demarcation, nor on which side thereof an intermediate form should lie. Thus, next after lifeless things in the upward scale comes the plant, and of plants one will differ from another as to its amount of apparent vitality; and, in a word, the whole genus of plants, whilst it is devoid of life as compared with an animal, is endowed with life as compared with other corporeal entities. Indeed, as we just remarked, there is observed in plants a **continuous scale of ascent** towards the animal... In regard to sensibility, some animals give no indication whatsoever of it, whilst others indicate it but indistinctly.

(Aristotle 2009, book VIII, part I) (My emphasis)

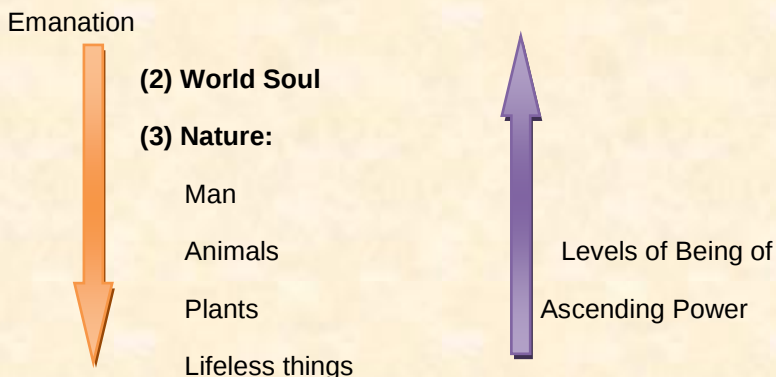
In his *Metaphysics, Book I (A)*, Aristotle adds kinds of abilities to that of continuity:

The animals other than man live by appearances and memories, and have but little of connected experience; but the human race lives also by art and reasonings. (Aristotle 1992, p. 255)

We can see then in Aristotle the emergence of a specific structure to the nature of reality based on the continuity and gradation of powers. These powers determine the form of the Kingdoms of Nature: human, animal, plant and the lifeless. Adding Plato's and Aristotle's ideas together, I would like to depict this as follows:

Fig 2.2

(1) The One (Perfect Fullness) / The Form of the Good



For Aristotle, however, this is not a 'chain' as Lovejoy called it, but merely a system for understanding reality. It is not merely an interpretation of a system of reality where there is **continuity**; there are also differences in the kinds or **grades/levels**: plants have life as well as substance (in common with inanimate objects); animals have memories and experience in addition; man has all these and 'art' and 'reasoning'.

After Plato and Aristotle, the conception of the World began to take on a more specific form, a very distinct cosmic structure: reality is composed of a Creative One, the Form of the Good, which brings forth the structure of the **scale of nature**, with continuity and gradation, all of which has its origin in an ethical principle. *The Principle of Plenitude becomes the ethical principle of the creation of Nature and Humanity that have continuity and ascending levels of powers.*

(3) Medieval Thought: From Idea to Rational Faith

In some respects the medieval period can be seen as a shift away from the independent thought of the Greeks towards a more faith based approach. This embedding of the way the relationship between the One Spirit and the Many of Nature was conceived is philosophical in many respects, but the aim of scholars of that time was always to find compatibility between the philosophical ideas of the Greeks and scripture (Magee 1998, p. 49, Steiner 1973). In this sense, the approach may be considered as an example of what Kuhn (1970) called *normal science*. In this, the fundamental core of a 'paradigm', is not tested, but details of the accepted way of thinking are worked out. In the context of late antiquity and the Middle Ages, the core concepts were those determined by biblical scripture and only those Greek philosophical concepts were accepted that were seen to be compatible. If push came to shove, it would be scripture that would decide what was correct; the measure of truth was the bible.

An example from within the dominant paradigm of the time was that of 'man being an image of God' (*Imago Dei*) and sometimes 'nature as an image of God'. Taken from scripture, this notion helps to understand the theoretical framework within which scholars of the Middle Ages operated. It helps because they can be wrongly accused of anthropomorphisms concerning their conception of the Divine: that observation of the human condition may merely lead to a conception of God, the One, on the basis of the human state. Whilst this may have happened to some extent, it is important to realise that, from a historical perspective, the exact opposite was thought to be the case: man is an image of God, not God an image of man. A more accurate term for the way they understood what they were doing might be '*Deo-morphism*'. Within the framework they were working, they felt justified in reading off, and explaining, the nature of God from man because we are an image of Him. Similar things could be said concerning Nature: as Nature is the outpouring of God, a manifestation of Him, we are then correct in reading some of His character from the creation.

Moreover, during late Antiquity and the Middle Ages, the conceptualisation of Plato's Forms appears to have been embedded in that of the story of *Genesis*. In the process, God and the Ideas in God's mind became distinguishable notions. The Form of the Good, being the unity of all Forms, became the Ideas through which the One created and were not to be identified with Him.

In late antiquity, with the Judaic Philosopher, Philo of Alexandria (c 15 BC – 50 AD), in his work '*On the Creation*', a commentary on *Genesis*, we can

see a representative of this way of thinking. With him there was a blending of the Platonic and Aristotelian philosophy with biblical scripture. He appears to have added a universal mind to that of the Forms. Philo saw Forms, or Ideas, as plans within the mind of God, just like the plan of a city in the mind of an architect before it is made:

IV (16) for God, as apprehending beforehand, as a God must do, that there could not exist a good imitation without a good model, and that of the things perceptible to the external senses nothing could be faultless which was not fashioned with reference to some archetypal idea conceived by the intellect, when he had determined to create this visible world, previously formed that one which is perceptible only by the intellect, in order that so using an incorporeal model formed as far as possible on the image of God, he might then make this corporeal world, a younger likeness of the elder creation, which should embrace as many different genera perceptible to the external senses, as the other world contains of those which are visible only to the intellect.

VI (25) Accordingly he [Moses], when recording the creation of man, in words which follow, asserts expressly, that he was made in the image of God—and if the image be a part of the image, then manifestly so is the entire form, namely, the whole of this world perceptible by the external senses, which is a greater imitation of the divine image than the human form is. It is manifest also, that the archetypal seal, which we call that world which is perceptible only to the intellect, must itself be the archetypal model, the idea of ideas, the Reason of God.
(Philo 2009)

Humanity and the World were, for Philo, images of the Ideas that were pre-existent in the mind of the One. As we will see later, this 'image notion' appears in various guises throughout the history of the 'Great Chain of Being'. In this case, being 'made in the image of God', which Philo derived from his study of Moses, is a notion in which all the species of the World are images of the Ideas in the mind of God, not of God himself. For Philo, the rich diversity of which nature is composed can be classified under different genera, or kinds of things, it is these kinds which were represented in the mind of God before the actual creation of the multiplicity of different individuals who belonged to these kinds. The individuals were not in the mind of God but the generic types to which they belonged. Later on we will look at the interpretation in which humanity is an image of God Himself, an idea which the Latin scholars referred to as *Imago Dei*.

The archetypal seal which Philo refers to is that part of the creation that the human being has access to through thought. He contrasts this with that part of creation that is available to the senses, which he also conceives as an image of God. Through thought, however, God's reason can be perceived. The archetypal seal is the way God's Ideas, and the Idea of Ideas, or his Plans, can manifest to the human intellect. On the other hand, it is through the senses that the human being can become aware of the diversity of God's creation, as the Many of Nature; and it is through thought that we can be cognisant of His Ideas as the unity behind them. Thought and perception, for Philo, become the two sides of his cosmic epistemology through which we can know the spiritual One and the Many of Nature of the Great Chain of Being. Both thought and perception gave access to these two images of God's creation.

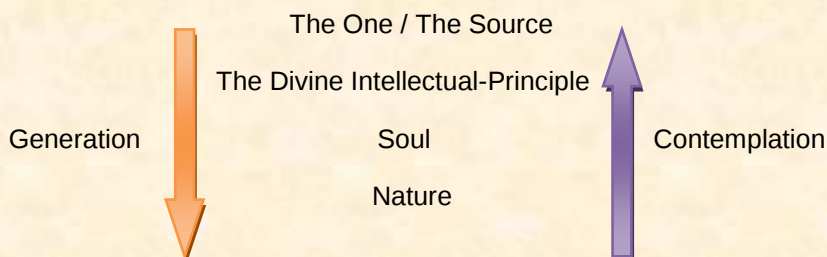
Plotinus (205-70 AD), also living in the time of late antiquity, is considered to be one of the founders of *Neo-Platonism* (Gerson 2008). He systematised the Great Chain of Being and integrated it into Judaic theology in a similar fashion to later Christian theologians:

The One is all things and no one of them; the source of all things is not all things; all things are its possession- running back, so to speak, to it... in what is to be thought of as the primal act of generation... its exuberance has produced the new: this product has turned again to its begetter and been filled and has become its contemplator and so an Intellectual-Principle... it is simultaneously Intellectual-Principle and Being; and, attaining resemblance in virtue of this vision, it repeats the act of the One in pouring forth a vast power. This second outflow is a Form or Idea representing the Divine Intellect as the Divine Intellect represented its own prior, The One... Soul arises as the idea and act of the motionless Intellectual-Principle - which itself sprang from its own motionless prior [the One] - ... It takes fullness by looking to its source; but it generates its image by adopting another, a downward, movement. This image of Soul is Sense and Nature, the vegetal principle. Nothing, however, is completely severed from its prior.

(Plotinus 2008, *Enneads* V, 2nd tractate)

The additional concept here, to those of Plato and Aristotle, is that of the Intellectual-Principle, which acts as a contemplator of the One and as the generator of Soul. The Soul in turn produces Nature:

Fig 3.1



The process of emanation is, in turn, from the One, through the Intellectual-Principle and Soul to Nature. I interpret this, not merely as a way of explaining, but also as an ontology, a theory of reality, where there is a One that is the ultimate source of all that exists. Interesting also is the notion that each level is an image of the one before: the Intellectual Principle is an image of the One, the Soul an image of the Intellectual Principle, and Nature an image of Soul. Ultimately, then, Nature, and the whole of the created world is an image of the Divine One.

Augustine (354-439 AD), a Christian theologian, conceptualised the One as a threefold unity. He drew some of his basic ideas from the Old Testament, in particular the notion that man is made in the image of God: “So God created man in his *own* image, in the image of God created he him; male and female created he them” ([The First Book of] Moses, *Genesis*, chapter 1, 27). He did not, however, interpret this idea in a literal manner; he contemplated this in relationship to human inner experience. He also developed the idea of the threefold unity of Father, Son and Holy Spirit. On the basis of this he did not interpret the One as undifferentiated, as was the case with Plotinus. Augustine, in keeping with the notion of the Trinity argued:

6. Behold now, the Trinity appears unto me in an enigma, which Thou, O my God, art, since Thou, O Father, in the Beginning of our wisdom—Which is Your Wisdom, born of Yourself, equal and co-eternal unto You—that is, in Your Son, hast created heaven and earth... And under the name of God, I now held the Father, **who** made these things; and under the name of the Beginning, the Son, **in whom** He made these things; and believing, as I did, that my God was the Trinity, I sought further in His holy **words**, and behold, Your Spirit

was borne over the waters. Behold the Trinity, O my God, Father, Son, and Holy Ghost—the Creator of all creation.

(Augustine 2009, Book XIII, ch VI))(My bold)

12. Who can understand the omnipotent Trinity?... I could wish that men would consider three things which are within themselves... The three things I speak of are: **to be, to know, and to will**... In these three functions, therefore, let him who can see how integral a life is; for there is one life, one mind, one essence... But when he discovers and can say anything about any one of these, let him not think that he has thereby discovered what is immutable above them all, which is immutably and knows immutably and wills immutably. But whether there is a Trinity there because these three functions exist in the one God,.. the Infinite is in itself its own Selfsame object--at once one and many. (Augustine 2009, Book XIII, ch XI) (My emphasis)

This trinity of Augustine is the creative One of Plotinus but seen in three different functional roles of explanation. The Father aspect is the Who of creation, the Son is the In Whom, or Through Whom, the World was created, comparable in some respects to the *Demiurge*, and the Holy Spirit is interpreted as the words of creation, that may be somewhat akin to Plato's Forms. In Aristotelian terms this could be understood as the material cause (that from out of which something is made), effective cause (that through which something is made) and the form cause (that which is the pattern of generation). Each of these can be perceived to play an important role in any kind of explanation, even in current scientific terms (Deutsch 1997), but in this case embedded in a Christian cultural frame.

For Augustine, the comparative method of his epistemology is between what lies within oneself and that of the trinity. This became an important element in his attempt to understand the relation between the creative One of the spirit and the created Many of nature. It is in our own self-experience, he argues, that we can find the evidence for the substantiation of the cosmic principles as well as the cosmic structure of the Great Chain of Being. Augustine was aware, however, that the three things found in the human were not exactly the same as that in the trinity. Nature, including the human being, is a finite reality, whilst God is infinite; humanity is a created and dependent being, whilst God is uncreated and independent being. But there is continuity between the two: there is one essence, God is the One and the

Many, although the latter is diminished in Power and the former is omnipotent.

This theme of 'man as image of God' was elaborated on by Pseudo-Dionysius (ca 500). As science does today, Dionysius uses symbolic representations as a means to represent reality. This 'representationalism' clearly is meant to stand for spiritual realities, i.e., realities other than physical ones. This is not altogether different from when physics uses mathematical symbols to stand for physical realities:

Again, if anyone condemns these representations as incongruous, suggesting that it is disgraceful to fashion such base images of the divine and most holy Orders, it is sufficient to answer that the most holy Mysteries are set forth in two modes: one, by means of similar and sacred representations akin to their nature, and the other through unlike forms designed with every possible discordance and difference. For example, the mystical traditions of the enlightening Word sometimes celebrate the Sublime Blessedness of the Superessential ONE as Word, and Wisdom, and Essence; proclaiming the Intellect and Wisdom of God both essentially, as the Source of being, and also as the true Cause of existence; and they make it equivalent to Light, and call It Life.
(Dionysius 2009, ch II)

The similarities between symbol and reality are based on some human experience of the sense world: experiences of light and life are seen as symbolic of the Word, Wisdom and Essence of the One. The One, in this sense, is not a mere uniformity, rather it is a threefold unity developed on the basis of sense-experience. This experience is spiritualised to become the equivalent of the One, the Source of all being and existence. Just as Augustine made equivalences between the One and humanities' **inner self-observation**, Dionysius found equivalences between a **nature** epistemology and an epistemology of the spiritual. Augustine found **inner** equivalences, Dionysius found **outer** ones. It must be added that this form of 'representationalism' was not entirely of the same character as that which came later with Kant and natural science. For Dionysius, it was a method through which one could come closer to the divine and *participate* in it as a reality and not merely *represent* it.

Dionysius did not stop there, he went on to develop a kind of scientific systems theory, or hierarchy, of spiritual realities, or Beings, which were co-operative with the One in the World's creation:

Now the Beauty of God, being unific, good, and the Source of all perfection, is wholly free from dissimilarity, and bestows its own Light upon each according to his merit; and in the most divine Mysteries perfects them in accordance with the unchangeable fashioning of those who are being perfected harmoniously to Itself.

(Dionysius 2009, ch III, p. 157)

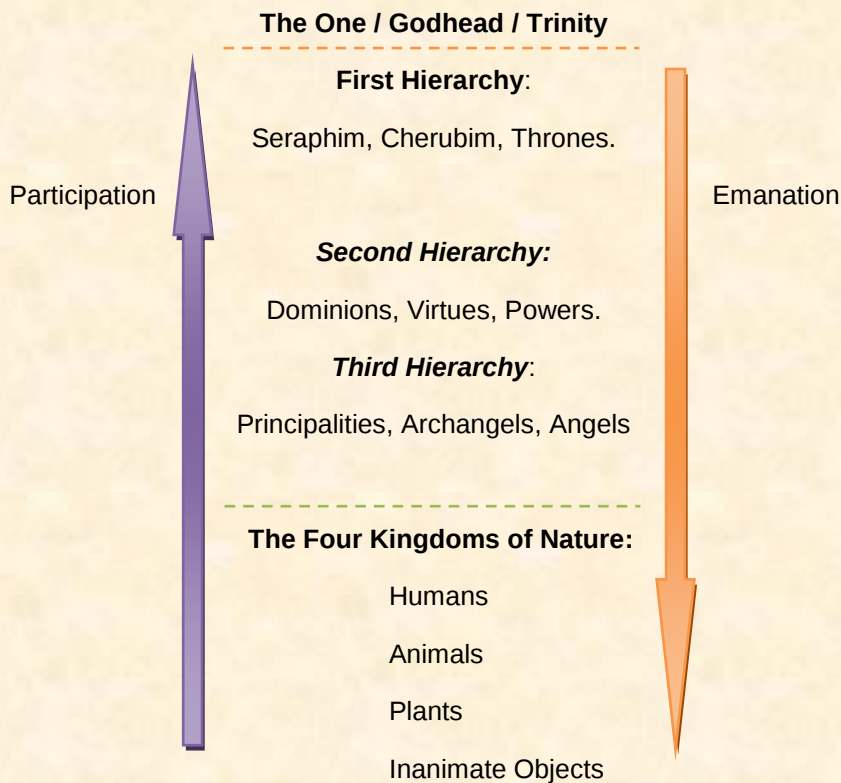
On this account the holy ranks of the Celestial Beings are present with and participate in the Divine Principle in a degree far surpassing all those things which merely exist, and irrational living creatures, and rational human beings... they naturally have more abundant communion with Him... and they receive the Primal Radiance in a pure and immaterial manner, adapting themselves to this in a life wholly intellectual.

(Dionysius 2009, ch IV, p. 160)

Dionysius may be interpreted here as trying to develop a kind of systems theory of the spiritual spheres. The **hierarchical principle**, which, as we will see, leads to a cosmic hierarchical structure, is determined by the *level of participation* a being has in the Godhead as the Source of all existents. The Celestial Beings are those which he later refers to as ‘angels’; all those that merely exist are rocks and minerals; irrational creatures are animals; whilst rationality belongs to humans. One can see in this an affirmation of the Aristotle’s ‘Scale of Nature’, as well as his principle of gradation, but extended to the spiritual hierarchies and embedded in a Christian theology.

From out of this ‘hierarchical principle’, it becomes evident that a cosmic structure entails a unified system involving not only the kingdoms of nature, but also humanity and celestial beings derived from the *level of participation*. Not only do all beings emanate from the One, they also have differing levels, or degrees, of ‘perfection’ in their basic ontology. He goes on, in chapters VI to IX, to outline a system of angelic hierarchies. This can then be unified with his conception of the One Godhead, with those of his system of nature:

Fig 3.2



This ‘principle of participation’, indicated by Dionysius, may be interpreted as his attempt to define the existential and knowledge connection between the One and the individual human. Imitation of God, likeness, perception and participation became the key words for his science of the spiritual that is not unlike the ‘correspondence theory of truth’ where the thoughts we think have to correspond to our perceptions for them to be true. The difference is, however, that for Dionysius the problem was not just how to know the truth, but also how to participate in it as a reality. For him, the correspondence is between what lives, or should live, in the human being and what is in God. The imitation process, for him, was also a pathway to spiritual unification and redemption. A unified ontology, as it were, between humanity, the beings of

nature, the celestial hierarchies and the Source, bound up with a unifying epistemology that leads to it, was his main concern.

Eriugena (c 810-c 877) addressed the question of the creative process in his writings on *The Divisions of Nature (Periphyseon)*. He made extensive use of an approach that can be interpreted as a form of **scientific logic**, which is an aspect of the explanatory content that lies beneath the religious cultural frame of his time. One can see in his approach an attempt to explore the realm of logical possibility as applied to the creation. Eriugena logically defined 'Nature' not just in terms of the created objects of the World, but also the means by which they were created. The latter of these was God. He begins with a fourfold logic which describes the divisions of nature: 1) that which is creating but not created; 2) that which is creating but is created; (3) that which is not creating and created and 4) that which is neither creating nor created. The first of these he defines as God, which he then proceeds to describe in its activities:

...the Creative nature permits nothing outside itself because outside it nothing can be, yet everything which it has created and creates it contains within itself, but in such a way that it itself is other, because it is superessential, than what it creates within itself

(Eriugena 2009, *Periphyseon*, III.675c)

It follows that we ought not to understand God and the creature as two things distinct from one another, but as one and the same. For both the creature, by subsisting, is in God; and God, by manifesting himself, in a marvellous and ineffable manner creates himself in the creature.

(Eriugena 2009, *Periphyseon*, III. 675c)

It can be seen in this that Eriugena affirms both the transcendence and immanence of God. Unlike the Platonic God in *The Republic*, who transcends the created World, for Eriugena, God became a part of his own creation. Moreover, God's immanence in the World is coupled with the World's immanence in God. There is an identity of God and the created World even though God is more than, and originator of, the World. It is in this sense that He can be said to transcend the World and yet be its creator, but can God then be knowable if He is transcendent:

For just as God Himself, in Himself, is beyond all creation is grasped by no intellect, so also *ousia* ["*essentia*" or "*being*"] considered in the

innermost recesses of the creation made by Him and existing in Him, is incomprehensible. (Eriugena 2009, *Periphyseon*, III. 678c)

The God of Eriugena, the One source of all being, is in its *essence* inaccessible to human knowledge. He affirms the notion of the One source for all existence, but places it outside our ability to know it: neither the essences of creation nor the Divinity in itself can be understood. In this sense, it is arguable that place is made for faith, religion, but not for testing out such ideas for oneself. Whilst it may be acknowledged that there is a high degree of paradigm logic involved in his deductions, which may be deemed scientific in that sense, it eventually leads him to a view which today would seem to be outside the provinces of scientific testability.

Aquinas (1225-74 AD) was in agreement with much of the theses from Dionysius and Augustine. He was also convinced that his approach to the sacred, the spiritual, was a science: "Sacred doctrine is a science" (Aquinas 2009a, art 2).

It is worth noting at this point the apparent problem concerned with the process of emanation from the Source, the One. Aquinas discussed the issue as to whether or not creation from 'nothing' was possible, he answered in the affirmative:

We must consider not only the emanation of a particular being from a particular agent, but also the emanation of all being from the universal cause, which is God; and this emanation we designate by the name of creation. Now what proceeds by particular emanation, is not presupposed to that emanation; as when a man is generated, he was not before, but man is made from "not-man," and white from "not-white". Hence if the emanation of the whole universal being from the first principle be considered, it is impossible that any being should be presupposed before this emanation. For nothing is the same as no being. Therefore as the generation of a man is from the "not-being", which is "not-man," so creation, which is the emanation of all being, is from the "not-being" which is "nothing." (Aquinas 2009b, art 1)

Everyone desires the perfection of that which for its own sake he wills and loves: for the things we love for their own sakes, we wish... to be multiplied as much as possible... God in willing himself wills all the things that are **in himself**; but all things in a certain manner pre-

exist in God by their types (*rationes*) God, therefore, in willing himself wills other things. (Aquinas in Lovejoy 1936, p. 73)(My bold)

The first of these quotes may raise problems because of the meaning of the term 'nothing' and its implication for how to explain something through nothing. But this suggests that this 'nothing' was meant in a very particular sense, namely no **pre-existent** something. Clearly, for Aquinas, God was the cause of **all being**, and he himself existed, but not as a created being. God, for Aquinas, originated existence, all being, he did not form being from some other per-existent being that did not have its origin in the One. The emanation, for him, was not a modification, but an origination.

The philosophical problem he faced was how to reconcile the being that is the creative source for all that exists with the notion of the Demiurge (Plato) who creates from out of pre-existing matter. Whilst the latter is a possibility at some point in creation, it is entirely incompatible with a being that creates **all** existents, including matter. The Demiurge idea, on the other hand, presumes that matter has an origin that is not of God. If that were the case, God, the One Source, cannot be the One source, which is a logical impossibility and would undermine the Principle of Plenitude of the Great Chain of Being. In this sense, Aquinas created a more coherent position for emanation from the One; strictly speaking, it was not creation from 'nothing', but the total creation of All from the One. Matter was conceived as a part of creation, not as eternally existing independently from the creative activities of God.

Aquinas can also be seen here to affirm the Principle of Plenitude, based on God's love. This may be contrasted to Plato's conviction of the One 'lacking in envy', or Aristotle's God who is the 'most good'. It is also evident in the above that Aquinas saw the process of emanation as being a kind of threefold activity. Firstly, there is the already mentioned '**Love**', secondly there is the notion of God's '**Will**' and, finally, that creation occurs according to pre-existent 'types', or 'rationes', i.e., '**Ideas**'. It is on this basis that, according to Aquinas, God creates, or emanates all of existence. As He 'wills' himself, and all things are contained within him, He therefore wills the World. The Self-Willing Love based on Ideas becomes World-Willing; Self-Creating-Existence transforms into World-Creating Existence.

The comparison with human nature stands out. As considered earlier with Augustine, the human being may be thought to consist of thinking, feeling and willing which can be compared reasonably with the inner life of Aquinas'

God: Ideas, Love and Will respectively. As the human being is an 'image' of God (*Imago Dei*), as it was conceived at the time, the qualities of God were inferred from the human being's self-experience (Armstrong 1999). The argument 'from comparison' is fundamental to every science that has ever existed, whether that be physics, biology or psychology, the process of unifying seemingly disparate phenomena can only be done on the basis of comparison. What is unusual to modern ears is the comparison of the human inner life with that of the inner life of the Divine. Part of the reason for this, I think, is that we are not used to *scientifically* contemplating our own inner life. Consequent on the development of modern science, and influence of logical empiricism, and its outreach into culture, materialistic science no longer considers the contents of introspection to be objective.

Furthermore, in the context of Middle Age thought, the inner life of the human being was conceptualised under the paradigm (Kuhn 1970) of man as a microcosm. This committed the researchers of the time to operate within this specific logical framework. Given the principle that 'God created man in his image', the only **logical** conclusion from this is that the nature of the human being reflected that of the Divine; as such the qualities of God could therefore be read off from our own nature. The scientific practice of paradigm logic made this the only possible conclusion.

There was, naturally, much more to God than the human being. As the above quotes suggest, Aquinas thought that God created all existence as such, whereas the human being could not. After all, according to this thinking, we are the image, not the real thing. One may say that, for this world view, the Divine, God, the One, created, or emanated, all being on the basis of love, ideas and will, but transformed to the level of the infinite. This 'universalising' on the grounds of comparison is a common activity of science where sets of individual phenomena are unified under a universal law of nature.

By the late Middle Ages, the world view of the western world was that expressed poetically by Dante (1265-1321) in his *Divine Comedy* (1310-14/1993). According to a recent researcher, Dante was: "Universally acknowledged as the literary embodiment of the moral, religious and philosophical ideals of the late 13th and early 14th centuries" (Blackburn 2005, p. 87). In this, Dante presents the view that particular places in the Universe are correlated with the One, the Celestial Hierarchies, and the Kingdoms of Nature. Each type of being in this cosmic structure having its 'proper place':

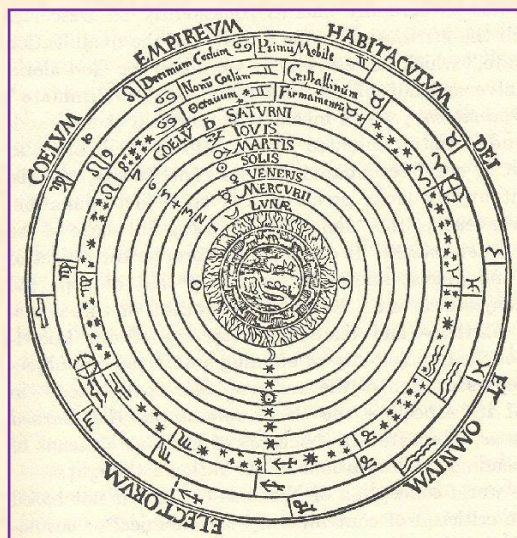
So long as the whole sensible universe remained thus limited and boxed-in, and so long as the planet occupied by man, whatever its spatial position, was still assigned a unique biological, moral and religious status, the aesthetically and practically distinctive character of the medieval cosmical scheme remained.

If the sun is the analogue of God the Father, the sphere of the fixed stars... is manifestly the sensible counterpart of the Son, the intermediate region of the planets being assigned to the Holy Ghost.

(Lovejoy 1936, pp. 104-06)

In this type of cosmic structure, reality was associated with the level of participation a being had. This level of participation was not merely about reality, but also levels of goodness and spatial closeness to perfection: beings lower down the scale participate to a lower degree in the moral goodness of the One. In this, the basic ontology of Plato and Aristotle was unified with the story of the World's creation from genesis. In the process, the **temporal** structure of the creation story was transformed into the **spatial** structure of the cosmos. This is thought to have occurred through the work of Philo of Alexandria, Anselm of Laon (d 1117 AD) and Aquinas (Grant 1978, pp. 275-285), which was then represented by Dante. In this picture, the Universe was constructed around a series of concentric spheres within which the seven then known planets (which included the Sun) and the stars were embedded, the centre of which was the Earth. As has been pointed out by Grant (1999), this was later depicted by Peter Apian in his *Liber Cosmographicus* (1524):

Fig 3.3



The outermost heaven, called the empyrean, became identified with the spatial home of God, and the angels, and can be associated with the Platonic Forms and the World Soul. This was the source and spatial location of absolute perfection. The next heaven down, and less perfect, was the aqueous sphere, which was added due to the biblical expression: ‘waters above the firmament (stars)’ (Genesis 1:7); and a third heaven which consisted of a series of further spheres which included the fixed stars and the planets, including the Earth. Thus ten concentric spheres were present within the three heavens. The later Copernican cosmology, however, challenged aspects of this and issued in, over the next few centuries, a series of problems with the Great Chain of Being and attempts to compensate for them.

(4) Renaissance and Absolutism: Faith, Science and Politics

The Renaissance (ca 1400-1650 AD) has been described as a time in which there was a diminishing role for the clergy, in which there was a rising element in the individual's relationship to spiritual convictions without the mediation of the priest; it was a movement away from authority and towards individual interpretation (Stevenson 2002, p. 170). The Renaissance saw the emergence of Modern Science, Humanism and the Reformation which incorporated this **individualism**, in differing degrees, into our relationship to nature, ourselves and God.

In contrast to this individualism, there was the counter movement of what may be called an 'Age of **Absolutism**' (ca 1650-1800 AD) manifest in the Counter-Reformation and in the principle of the 'Divine Right of Kings'. The contradictory natures of individualism and absolutism have an impact on the conceptualisation of the Great Chain of Being and the place of the human being in it. It was during this time that the Great Chain of Being, as a theory of reality (ontology) was more deeply embedded in ethics, political philosophy and social structure.

The 15th century saw the beginning of a new era in the western world and brought with it doubts and problems to the Great Chain of Being. These were sometimes compensated for with new ideas which tried to modify the dominant paradigm, but later, in the 18th and 19th centuries, this system came to be replaced by the materialistic sciences based on sense-experience.

Galileo Galilei (1564-1642) represents a movement away from faith based reason and towards an empirical science derived from sense-experience and the individualised interpretation of the bible:

I think that in discussions of physical problems we ought to begin not from the authority of scriptural passages but from sense-experiences and necessary demonstrations; for the holy Bible and the phenomena of nature proceed alike from the divine Word the former as the dictate of the Holy Ghost and the latter as the observant executrix of God's commands... But Nature, on the other hand, is inexorable and immutable; she never transgresses the laws imposed upon her, or cares a whit whether her abstruse reasons and methods of operation are understandable to men. For that reason it appears that nothing physical which sense-experience sets before our eyes, or which necessary demonstrations prove to us, ought to be called in

question (much less condemned) upon the testimony of biblical passages which may have some different meaning beneath their words. For the Bible is not chained in every expression to conditions as strict as those which govern all physical effects; nor is God any less excellently revealed in Nature's actions than in the sacred statements of the Bible. Perhaps this is what Tertullian meant by these words:

"We conclude that God is known first through Nature, and then again, more particularly, by doctrine, by Nature in His works, and by doctrine in His revealed word." (Galileo Galilei 1615/2009)

Essentially this is an argument for knowledge of sense experience independent from religion. It provided Galileo with the foundations of a world view determined not by scripture, but by knowledge of nature. Scripture, for Galileo, was much more open to interpretation than was evidence from the senses. For that reason, not only are physical problems best determined by the evidence of the senses, and reason, God is also better known through Nature than scripture.

The importance of this way of thinking for the 'Great Chain of Being' is that it affected the way the structure of the cosmos was conceptualised. One of the difficulties of the spiritual ontology of the Middle Ages, is that the Cosmic Structure was determined through **faith**-determined reason and not observation, as the quote from Galileo suggests. As shown in the last chapter, part of this was that the spiritual and natural hierarchy, and its implicit value system, came to be identified with specific cosmological locations. If then the concepts of cosmological locations were challenged, through **observation**-determined reason, then so was the spiritual ontology. The basic cosmic structure of the Great Chain of Being, derived from the cosmic principles, began to be questioned by this and by that which came to be called the 'Copernican revolution':

In the aftermath of the 16th-century Copernican revolution (based on the theories of the Polish astronomer Copernicus), in which man's view of the cosmos was radically altered — *i.e.*, the Earth was no longer seen as the centre of the cosmos but, instead, merely as a planet of a solar system that is a very small part of a galaxy in an apparently infinite universe—the concepts of angels and demons no longer seemed appropriate'. (Fredericksen 2008)

The medieval conception of the universe located the Earth at the centre of creation. Humanity in light of this had a special ‘place’, biologically, morally and religiously. But the view of Copernicus (1473-1543) put the Sun in the centre, thus changing humanity’s ‘place’, biologically, morally and religiously, in the cosmic structure. Lovejoy interprets this in the opposite sense, in that it was to “remove man from the centre of things was [in effect] to raise him from his low estate” (Lovejoy 1936, p. 104).

Whatever the case, the Copernican revolution is considered to have put doubts on the whole medieval system. From the perspective of the Great Chain of Being it is not clear, however, why this should be the case. By placing the Sun in the centre, by analogy, one is placing the Father in the centre. If the Father God is the centre of all creation, as it was for the Great Chain of Being conceptions, then placing Him in the centre of the physical universe would have been a natural conclusion.

What this new astronomy also did not do was challenge the nature of the Principle of Plenitude nor the part of the Cosmic Structure concerned with the four kingdoms of nature that were derived from the principles of continuity and gradation. Gabriel Powel, as an affirmation of Aristotle’s *Scale of Nature*, contended in *The Resolved Christian* (1616, p. 2):

There are four sorts of Creatures in the world.... The first have essence or being only, as the earth, the water, the fire, the air, the Sun and the Moon. The second have essence and life, which are called vegetative, as herbs, trees, and all plants. The third have essence, life, and sense, or feeling, as fishes, fowls, and all beasts. The fourth have essence, life, sense, and reason, as Man.

(in Patrides 2009, p. 436)(My modernisation)

The logic of this ascribed a ‘place’ for humanity above that of the other kingdoms of nature. This **ontology** of beings, came to be called the ‘**scale of nature**’, or **scale *natura***, and can be expressed as:

Fig 4.1

Man	Essence	Life	Sense	Reason
Animal	Essence	Life	Sense	
Plant	Essence	Life		
Mineral	Essence			

This particular aspect of the Great Chain of Being is not dependent on the 'cosmic' place question; it is a scheme that can hold no matter Earth's place in the solar system. This aspect was entirely terrestrial and could, at the time, still be used to determine moral, social and religious 'place' here on Earth by those who wished to do so.

In the context of the Great Chain of Being, then, 'place', had significance not only for existence, but also for moral value, social station and economics. In a sense, they were tied together to form one continuous chain in which a specific 'place' in reality corresponded to a specific place in the moral, social and economic hierarchy.

In fact, the four kingdoms of nature, which corresponded to four levels of reality, were themselves thought to observe "degree, priority and place," more or less in the manner argued by the English educator and author Henry Peacham (1576-1643) in *The Complete Gentleman* (1622, pp. 1-2):

If we consider rightly the Frame of the whole Universe and Method of the all-creating Wisdom in her work; as creating the forms of things infinitely diverse, so according to Dignity of Essence or Virtue in effect, we must acknowledge the same to hold a Sovereignty, and transcendent predominance, as well of Rule of Place each over either. Among the heavenly bodies we see the Nobler Orbs, and of greatest influence to be raised aloft, the less effectual, depressed. Of Elements, the *Fire* the most pure and operative to hold the highest place; in compound bodies, of things as well sensible as insensible, there runs a vein of Excellence proceeding from the Form, ennobling (in the same kind) some other above the rest. The Lion we say is King of Beasts, the Eagle chief of Birds; the Whale and Whirl-pool among Fishes, *Jupiter's Oak* the *Forests King*. Among Flowers, we most admire and esteem the Rose: Among Fruit, the Pomeroy and Queen-apple; among Stones, we value above all the Diamond....

Finally, within the rung occupied by Man are a number of interlocking orders reducible—as in Johann Gerhard's detailed exposition—to three: "The Ecclesiastical, Political, and Economical: The First, of the Church; the Second, of the Common-wealth; the Third of the private family.

(In Patrides 2009, p. 436)(My modernisation)

Peacham's book was written with the intention of educating the young gentleman of Elizabethan England in order that he may lead his life in the

‘proper’ direction and know his proper ‘place’. Here we see not only an ontological and moral hierarchy in the general cosmic structure, there are also internal rankings on the levels of the elements, beasts, birds, fish, trees, flowers, fruit and stones. The hierarchy also extends to the religious, political and economic spheres. This association of levels of reality with religious, political and economic order was not unusual at the time; it was more or less seen as the natural order of things. Even morally, as the quote shows, different beings were not just different in the level of their reality, but also in their moral value, their closeness to perfection, measured in terms of their proximity to the Divine Perfect One, God.

It was, however, according to Lovejoy, a view which developed into a **static** cosmic structure which had its direct parallels in religion, politics and the social life. It must be born in mind, however, that this supposed static structure of reality was probably only thought to be the case after the creation. I do not think that any of the authors referred to would not know about the days of creation as represented in *Genesis*. The creation there is clearly of a temporal nature. After the period of the six (or seven) days of creation, though, the created universe was considered to have remained the same in its basic structure: all inanimate objects, plants, animals, humans, stars, planets, etc, were supposed to have had their ‘proper’ place in the hierarchy from after those days of creation. There was also a definite time sequence to them. One can also observe the creation idea celebrated in Milton’s (1609- 1674) *Paradise Lost* (1667) and later in the Enlightenment with Haydn’s (1732-1809) *Creation* (1798).

Moreover, during the so-called time of Absolutism, the philosophy of reality, the cosmic structure, began to have implications for the philosophy of the social. According to Lovejoy (1936), this ‘static’ philosophy was supported by the philosophical ‘Absolutism’ of Spinoza (1632-77) and Leibniz (1646-1716). The former of these he described as believing in “the principle of plenitude in its most uncompromising form and had represented it as a necessity in the strict logical sense” (Lovejoy, 1936, p. 155):

PROP. XXIX. Nothing in the universe is contingent, but all things are conditioned to exist and operate in a particular manner by the necessity of the divine nature.

PROP. XXXIII. Things could not have been brought into being by God in any manner or in any order different from that which has in fact obtained.

Note II. As these things could not have been brought into being by God in any but the actual way and order which has obtained; and as the truth of this proposition follows from the supreme perfection of God; we can have no sound reason for persuading ourselves to believe that God did not wish to create all the things which were in his intellect, and to create them in the same perfection as he had understood them. (Spinoza 1677)

It would appear, from the logic of his argument, that Spinoza was convinced that every kind of existence had its root in the eternal order and were an image of God's perfection. This would mean that the actualisation of all possibilities that existed in the mind of God was a **necessary** one. Consequently, the creation could not be other than it is: every possibility, which is in the mind of God, must be an actuality. It follows that if God is unchangeable and all possibilities are actualities, then the created world is also unchangeable in its **essence** (essence as opposed to its superficial appearances). If this is the case, and if the created world is an image of a perfect God, then the world must be a perfect place, with every being having its 'proper place'. This follows from the logical relationships of the argument. *If this becomes a thesis about what exists in the World, and is then transferred to the social sphere, this leads to a fixed socio-political structure.* Under this conception, the implication is that every evil is only apparent and not ultimate – every being, plant, animal or man has their 'proper place' in the order of things, no matter the difficulties.

For the human being in the social sphere, this meant that the order of life is as it should be, as it is ordained by a perfect God. Strictly speaking, this implies that not only things should be as they are, but that it simply is not possible to change the essential nature of social reality as they are actualisations of God's necessity.

Leibniz also argued for the idea that God was perfect and that the World is a creation of this perfect being:

43. It is true, furthermore, that in God is found not only the source of existences, but also that of essences, in so far as they are real. In other words, he is the source of whatever there is real in the possible. This is because the Understanding of God is in the region of eternal truths or of the ideas upon which they depend, and because without him there would be nothing real in the possibilities of things, and not only would nothing be existent, nothing would be even possible.

55. This is the cause for the existence of the greatest good; namely, that the wisdom of God permits him to know it, his goodness causes him to choose it, and his power enables him to produce it.

58. Through this means has been obtained the greatest possible variety, together with the greatest order that may be; that is to say, through this means has been obtained the greatest possible perfection.
(Leibniz 1715)

For Leibniz, the only restriction on this idea of God and his creation being a 'necessity', was that the possibilities to be realised had to be compatible, he even coined the phrase 'compossibility' as a criterion for 'compatible possibilities'.

One can see from this that, if Lovejoys' interpretation is correct, there would be some very serious problems concerning the human social life and our relationship to nature. The implication of this was that each being was destined, by God, to occupy a specific place in life, i.e. a natural-social-moral hierarchy with no change possible, or required, as it was already perfect. To challenge this was to question God's perfection. Such a picture had its equivalent in the real social life and not just its philosophy. The 'Divine Right of Kings', is the direct social correlate of the Great Chain of Being, with the King being the One, and the rest of society being under his unquestionable rule.

Leibniz's actual position in this, however, is ambiguous and it remains an open question as to whether or not Lovejoy's interpretation is correct:

Furthermore, it must be recognised that there is a perpetual and most free progress of the whole universe towards consummation of the universal beauty and perfection of the works of God, so that it is always advancing towards greater cultivation.

(Leibniz in Strickland 2006, p. 64)

However, **if** the cosmic structure is a **necessary** one, and based entirely on the present, **then** there simply would be no possibility that reality could be other than what it is. In the social sphere, the human being could not do other than God's will. If that is that case then there would be no reason to exhort humanity to imitate his perfection: we would have to be morally perfect, we could not do otherwise. But the last of these quotes suggests that Leibniz's is more evolutionary, more temporal, than Lovejoy would allow.

For Leibniz, the World is a progress towards perfection; it is not already perfect; it is advancing, not static. It is possible, however, that this could have been meant in the sense that the World is as perfect as it could be **for now** and that the advancing perfection of the World is not necessarily incompatible with a more perfect state. The current perfection could very well have been as far as was possible for the moment.

An advocate of absolutism in the social sphere of the time was Bossuet (1627-1704), the tutor to the Dauphin (the French prince) from 1670 to 1681 and appointed the Bishop of Meaux in 1682. In his *Politics Derived from Holy Writ*, he forged a connection between religious hierarchy and social hierarchy. In this, he made an argument for a form of absolutism in the political sphere with an explicit connection to the divine order of things:

[3] It appears from all this that the person of the king is sacred, and that to attack him in any way is sacrilege. God has the kings anointed by his prophets with the holy unction in like manner as he has bishops and altars anointed.

[13] Finally, let us put together the things so great and so august which we have said about royal authority. Behold an immense people united in a single person; behold this holy power, paternal and absolute; behold the secret cause which governs the whole body of the state, contained in a single head: you see the image of God in the king, and you have the idea of royal majesty. God is holiness itself, goodness itself, and power itself. In these things lies the majesty of God. In the image of these things lies the majesty of the prince.

(Bossuet 2009, arts 3 & 13)

It can be seen here how Bossuet tries to forge a connection between religious ontology, i.e. faith-determined convictions about reality, and social structure. In this he proposes a similarity between God and the King: God rules over heaven and the King rules over his domain. As God power is absolute in heaven, and as the King is an image of God, so is his power Earth absolute. The only control over the King is that he should behave as perfectly as God as possible and be a just and fair ruler. Were he not to do so, he would be punished by God, not the people for: "The prince need render account of his acts to no one" (Bossuet, art 8). The only control then over the monarch was a moral one, but this is located in God, not in the people.

Such absolutism can also be found in James I (1566-1625), King of England (1603-1625):

The state of monarchy is the supremest thing upon earth, for kings are not only God's lieutenants upon earth and sit upon God's throne, but even by God himself they are called gods. There be three principal [comparisons] that illustrate the state of monarchy: one taken out of the word of God, and the two other out of the grounds of policy and philosophy. In the Scriptures kings are called gods, and so their power after a certain relation compared to the Divine power. Kings are also compared to fathers of families; for a king is *truly parens patriae* [parent of the country], the politic father of his people. And lastly, kings are compared to the head of this microcosm of the body of man.

(James I 1610)

This identification of the king with God served the purpose of establishing an absolutist rule on Earth, just as God is the absolute ruler in heaven. If this connection between the cosmic structure and the structure of the political sphere is deemed to be a necessary one, then it is at this point that the significance of the phrase the 'Great **Chain** of Being' becomes clear. From the beginning of its conceptualisation, there were always the continuous links between the grades, or levels, of being ascending the scale of nature, and up through the levels of the celestial hierarchies to the summit, the One source of all being, God. This image of the chain provides a powerful metaphor for how the interpretation became rigidified into a fixed system. By the 17th century, the initial picture that conveyed how reality was tied together was converted into a socio-political structure that allowed no movement. The image of a chain, hanging down, as it were, from the Perfect One, that created the Perfect Many, to the lowest of the low, admits no change for the individual links. This was an interpretation of the 'Cosmic Structure' that was not present in the earlier versions. But it became so by the 17th century through the absolutist interpretation. By this time, the people, animals, plants and minerals, which were the links in the Chain of Being, were set in their place, incapable of social improvement or, indeed, evolution. After all, if we live in the "best of all possible worlds" as Leibniz claimed, why would one need change?

Such absolutism was challenged by the philosophy of John Locke (1632-1704). He approached the whole question of the Great Chain of Being from an entirely different perspective, namely that of empiricism and libertarian philosophy. In this sense, his views may be considered to be more in favour

of the renaissance philosophy of empiricism and individualism. For him, the former of these includes not only the experience of outer things, but also of inner realities. This makes his interpretation of empiricism quite different from how it was conceived in the late 19th and early 20th centuries, as we shall see. This led Locke to understand the Great Chain of Being from the empiricist's perspective of *human self-experience* rather than through the *logical postulates* of rationalism, as was the case with Spinoza and Leibniz:

To show, therefore, that we are capable of *knowing*, i.e. *being certain that there is a God...* we need go no further than ourselves... Next, it is evident that what had its being and beginning from another must also have all that which is in and belongs to its being from another too. All the powers it has must be owing to and received from the same source. This eternal source, then, of all being must also be the source and original of all power: and so *this eternal being must also be the most powerful... there is an eternal, most powerful and most knowing being*, which whether anyone will please to call *God*, it matters not... There are but two sorts of beings in the world that man knows or conceives... *First*, such as are purely material, without sense, perception, or thought... *Secondly*, sensible, thinking, perceiving, beings, such as we find ourselves to be.

(Locke 1690/1991, pp 330-333)

This self-experience of the human being is the start for what then becomes a process of logical deduction of the One source of all existents. Whilst this view converges with that of many aspects of the Greek philosophers and the Middle Age theologians, the approach has more of a scientific tenure about its method. This involves a conjunction of the empirical element, introduced here though Galileo, extended to inner experience, in addition to that of outer observation, and that of an independent rational logic, rather than the faith-based approach of the medieval times. His argument is that, assuming that the human being can find perception and knowing inside themselves, and that they can observe inanimate objects outwardly, and that each of these cannot come from that which does not exist, they must have had a common source. This is a source, which he admits 'it matters not', we may call God. This is none other than the One source of Plato and Plotinus but arrived at by empirical and logical means *free of religious authority*: 'it matters not' what we call it. By the 20th century, this inner aspect of empiricism disappeared from much of philosophy and leads to a naturalistic approach to the Great Chain of Being whereby all levels of reality are thereby ultimately explained by outer observable realities.

Locke's empiricism has another consequence for the Great Chain of Being. For him, the human being learns through experience, knowledge is not acquired through pre-determined ideas. Consequently, this implies that the human being is neither fixed in their learning nor in their 'place' in life. Change was possible, humanity is at liberty to improve its station, i.e., there is no fixed place in the Great Chain of Being. For some, Locke is therefore seen as the philosopher of liberty and, in that sense, the father of the American and French revolutions (Magee 1998). Such a philosophy of liberty is not compatible with a fixed social structure derived from an absolutist version of the Great Chain of Being. However, as we will see in the following chapters, a philosophy of liberty is thought to be compatible with an evolutionary interpretation.

(5) The Enlightenment: Independent Science and Religion

The 'Enlightenment' occurred around the same time as that stream of thought referred to as 'Romanticism' (Stevenson 2002). Both had a contribution to make to the debate about the 'Great Chain of Being' which ultimately led to its eclipse, at least in some circles. This period, whilst having antecedents, started to take on prominence from around the mid 18th century. It is called the Enlightenment because it is thought that that was when human beings began to emerge from the darkness of religious and state authority into the light of science. To be fair, one could also see it the other way around: from the perspective of some of the proponents of the 'Great Chain of Being' humanity's vision of the World began to darken to the idea of the Divine One, the source of all being. Looked at historically, the age of light was conceivably also the beginning of an age of darkness. This was a gradual process which occurred over the succeeding one hundred and fifty years.

The age of enlightenment can be characterised as an accelerated movement away from absolutist authority, in religion, governance and knowledge, and towards individual autonomy, the use of free scientific reason and empirical evidence in all spheres, democracy and the secular society (Grayling 2008, pp. ix-xxix). As such, the enlightenment principles can be seen as being in fundamental contradiction to the interpretation of the Great Chain of Being as a *fixed structure* that represents the 'best of all possible worlds' (Leibniz). Enlightenment principles are also fundamentally opposed to an absolutist view of religion and of the state in so far as they follow the same hierarchical pattern of the 'chain' that binds reality together. There could be no autonomy or liberty for such a view or any movement possible for the individual links in the chain.

Within this age of enlightenment there may be considered to be two basic challenges to the Great Chain of Being. The first is a philosophical one, which will be the focus of the discussion; the second is a social one which I will briefly mention. The social challenge is basically the idea that *if* social change did occur then it implies that the Great Chain of Being cannot be rigid. This follows from the fact that, according to Lovejoy's interpretation of Spinoza and Leibniz, *if* the structure of being was a *necessary* one, **then it could not be other than it is**. If that is the case then not only is social change undesirable, it is also impossible. If, however, social change was shown to be possible, as indeed it in was in the French Revolution of 1789, then the structure of reality cannot be a necessary one. If that is the case, there can be no Great *Chain* of Being as such; at least, not in the social sphere.

One of the great drivers of the Enlightenment was the French compendium of scientific knowledge the *Encyclopédie* (1751-1780) of Diderot (1713-84) and D'Alembert (1717-83), the editors (Magee 1998, Grayling 2008). This great tome of knowledge, thirty five volumes of it, was a part of the wider cultural context within which the Great Chain of Being can be seen to be embedded and with which it was, in some degree, in tension. The *Encyclopédie* was widely published and was a popular work intended to educate the public in the new science, based on Newton (1642-1727), and the social philosophy of Locke (1632-1704); it was empiricist, anti-authoritarian and was committed to the liberty of the individual (Magee 1998, pp. 124/5). It is in these senses that the tension with the Great Chain of Being may be perceived. The empiricist element is in contrast to the interpretation of the Great Chain of Being based on the faith-determined reason of the Middle Ages. Reason was not foreign to the Middle Age conception of the world, but it was subservient to the needs of religious conviction. Reason in the Enlightenment, however, freed itself from this religious determinism and was applied to the evidence of the senses and used as an argument for the independence of the individual. A scientifically autonomous individual, however, cannot be easily fitted into a system in which all beings have their proper place in a 'perfect' and 'fixed' system of reality. The same could be said for the free social individual.

It is during this time that the Great Chain of Being became, what Lovejoy called, 'temporalised' and then replaced by a naturalistic view. This can be seen in a number of different ways. With Kant, the Great Chain of Being was conceptualised as a **mechanical** process that has occurred over evolutionary time. God is considered to be the source of all reality that brings about the cosmic structure in a series of stages. For Hegel, the time process is a derivative of the **Ideas** within God's mind and which can be discovered through a religion-free investigation of human Ideas. Goethe saw the source of reality as being the spiritual Archetypes which were based on an understanding of nature as a process. For him, **life** was the model of reality rather than Newtonian mechanics. Schiller interpreted the Great Chain of Being from the perspective of **human creativity**, hence suggesting that the human being is an active participant in the production of the cosmic structure rather than a mere link in the cosmic chain. With Darwin, however, we see a replacement of the understanding of a spiritual process with a **natural** one based on evolutionary time.

From an artistic perspective, it has to be said, the idea of the Great Chain of Being, expressed as gradation, continuity, the unity of all existence and

the wholeness of God, was still very much alive, as can be seen from this poetic presentation by Alexander Pope (1688-1744):

237 Vast chain of being, which from God began,
238 Natures ethereal, human, angel, man,
239 Beast, bird, fish, insect! What no eye can see,
240 No glass can reach! From infinite to thee,
241 From thee to nothing!--On superior pow'rs
242 Were we to press, inferior might on ours:
243 Or in the full creation leave a void,
244 Where, one step broken, the great scale's destroy'd:
245 From nature's chain whatever link you strike,
246 Tenth or ten thousandth, breaks the chain alike.
247 And, if each system in gradation roll
248 Alike essential to th' amazing whole,
249 The least confusion but in one, not all
250 That system only, but the whole must fall.

(Pope 1733, Epistle I, VIII)

From the 18th century onwards, however, there were many changes in the sciences, religion, philosophy and the social life. Each of these had aspects which questioned, either directly or indirectly, the Great Chain of Being and provided the background for a more flexible, or dynamic, interpretation derived from pure reason (Kant, Hegel), the empirical sciences and reflective of the creative contribution of human beings to the nature of reality (Goethe, Schiller).

Kant (1724-1804) questioned the static nature of the Great Chain of Being. In *Universal Natural History and Theory of the Heavens* (1755), basing his ideas on the mechanical theories of Newton (1642-1727), Kant proposed, contra Leibniz, that divine creativity unfolds **over time** rather than once and for all time (Formigari 2003). The picture portrayed by Leibniz, as shown, was the complete match of the possible with the actual, with the exception of incompatible possibilities. The static universe of Leibniz was replaced by, what Lovejoy called, the 'temporalised version' of the Great Chain of Being (Lovejoy 1936, p. 242). Time became incorporated into the vision of the emanation from the One:

However, if we consider that nature and the eternal laws prescribed for substances in their reciprocal relationships are not self-sufficient, necessary principles with no connection to God, and, for that very reason, we see that because nature demonstrates so much harmony and order in what it produces by universal laws, **the essential natures of all things must have their common origin in one particular Original Essence**, and that for this reason nature must reveal nothing but mutual interrelationships and harmony, **because its properties originate in one single Highest Intelligence...** Thus, there is present a **Being of all beings**, an Infinite Intelligence and Self-sufficient Wisdom, from which nature, even in its potentiality, draws its origin according to the whole embodiment of its purposes... The more perfect nature is in its developments, the better its universal laws lead to order and harmony, then the more certain the proof of the Godhead from which nature derives these relationships.

*the world gives evidence of a **mechanical** development from the general natural laws as the origin of its arrangement and, secondly, that the manner of the mechanical development which we have presented is the true one.*

(Kant 1755, part 2, section 8)(My bold)(Original italics)

Thus, everything in the total extent of nature holds together in an **uninterrupted series of** stages... The perfections of God have clearly revealed themselves at our levels and are no less beautiful in the lowest classes than in the more lofty ones.

(Kant 1755, part 3, appendix) (My Bold)

Kant acknowledges the One, God, who is the ultimate source of existence, the origin of all the essences of things. For him, the self-sufficient 'Being of all beings', implants its laws into nature, which then unfolds in a self-

developed **series of stages**. The Principle of Plenitude is still present here, but in a modified form. Instead of the creative process being based on 'lack of envy' (Plato) or 'love' (Dionysius) or 'necessity' (Spinoza, Leibniz), it is the 'design' of the self-sufficient God, who implants essences into nature. The implication of this for the Great Chain of Being is that dynamism was inserted into it, an 'evolutionary perspective', albeit a mechanical one. Emanation of this Design occurs gradually over time.

This does not, however, refute the Great Chain of Being as such. It merely questions the process by means of which emanation occurred. It does reject the notion that the cosmic structure is fixed and with that it may turn out that the links in the chain may not be fixed in their place after all, ontologically, morally and socially.

What Kant's view does do, however, is create an opening whereby the One may no longer be needed as a conception of the Divine. Whilst this was not his intention, he inadvertently made God unnecessary. His view is fundamentally a 'Deist' position; that God implanted laws into nature which then led to the World's unfolding without further involvement of the Divine. God was a designer, but he was not a participant once the World got going. What this theory does is create a situation in which the only the laws of nature are needed to understand its operation and unfolding. But God, for a scientific materialist, as we will see later, would not be a required part of an evolutionary explanation.

Hegel (1770-1831), in his books *Logic*, *Philosophy of Religion* and *Philosophy of Nature*, created a systems theory very much akin to the Great Chain of Being, but based on his Idea principle. For our purposes, this may be called a **science of Ideas**; it certainly was no mere belief in the divinity. He did not try to promote a natural theology which saw God's design in nature; rather he wanted to discern the divine in the Idea itself. From a certain perspective, Hegel's position is the exact opposite of natural theology which made outer sense observations of nature; he on the other hand made inner observations of the Idea. Hegel's understanding of the Idea was not just the Idea as it manifests to human awareness, but the Idea as an objective absolute reality, something which existed in the outer World independently of whether or not someone was thinking it. In that respect Hegel's concept of the Idea is similar to Plato's theory of 'Forms':

We shall, in the first place, start from Being. But Being, in its natural aspect, presents itself to view as a Being of infinite variety, a World in all its plenitude. And this World may be regarded in two ways: first as a collection of innumerable unconnected facts; and second as a

collection of innumerable unconnected facts in mutual relation, giving evidence of design. The first aspect is emphasised in the Cosmological proof; the latter in proofs of Natural Theology. Suppose now that this fullness of being passes under the agency of thought. Then it is stripped of its isolation and un-connectedness, and viewed as a universal and absolutely necessary being which determines itself and acts by general purpose or laws. And this necessary and self-determined being, different from the being at the commencement, is God.
(Hegel 1875/1975, p. 80)

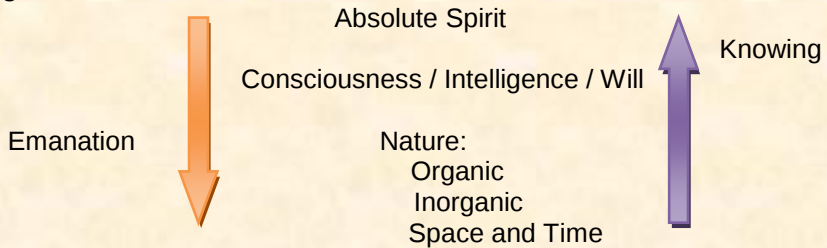
This is the manner in which the Absolute becomes actual or for itself, becomes Spirit, and God is thus the result of philosophy. It becomes apparent, however, that this is not merely a result, but is something which eternally creates itself, and is that which precedes all else... Nature, finite Spirit, the world of consciousness, of intelligence, and of will, are embodiments of the divine Idea, but they are definite shapes, special modes of the appearance of the Idea, forms, in which the Idea has not yet penetrated to itself, so as to be absolute Spirit.
(Hegel 2009a)

Nature is to be viewed as a **system of stages**, in which one stage necessarily arises from the other and is the truth closest to the other from which it results, though not in such a way that the one would naturally generate the other, but rather in the inner idea which constitutes the ground of nature... Nature is in itself a living whole. The idea as nature is: (1) as universal, ideal being outside of itself space and time; (2) as real and mutual being apart from itself particular or material existence, - inorganic nature; (3) as living actuality, organic nature.
(Hegel 2009b)(My emphasis)

Hegel's approach to the whole question of the Great Chain of Being is one based on pure thought. Instead of using cosmological proofs or the design argument of natural theology, both of which are dependent on making sense-observations, he wants to make an argument derived from the *intrinsic nature of the Idea*. In this approach, he makes the distinction between the Absolute spirit, God, and finite spirit: nature, consciousness and intelligence. The Absolute spirit he regards as the eternally self-creating Idea, which then manifests outwardly as the specialised forms of the Idea in nature. Nature, for, him, is the outward manifestation, or actualisation, of the Idea in specialised form. Nature is a divine Idea manifest as appearance. The way that he describes these two forms of the Idea show that Hegel's

Absolute spirit is essentially the Principle of Plenitude, the One Source. Nature, on the other hand, is the Many, the plenitude itself. His view is, obviously, a 'temporalised' view of the Great Chain of Being in that he sees nature occurring in a series of stages, a logical sequence of the finite, or specialised, Idea over historical time. His system can be depicted as:

Fig 5.1



For Hegel, the Chain of Being is the realisation of the Absolute Spirit as Finite Spirit over historical time, as manifest in the plenitude and various forms of nature. These have different degrees of reality and are set in a hierarchical, or systems, structure, just as was formulated through the Principles of Continuity and Gradation. Through the human being, and the preceding stages of nature, the Absolute Spirit attains to self-consciousness; the Idea becomes aware of itself as Idea. Knowledge of nature and knowledge of self is the historical process through which the One, God, attains knowledge of nature and knowledge of itself. The act of human knowledge plays a central role in which the divine One comes to this knowledge of its own "Chain of Being".

Voltaire (1694-1778), critiqued the Leibnizian idea of the "best possible worlds", and therefore the static interpretation of the Great Chain of Being, through a parody called "*Candide*". The story revolves around a youth called "Candide" who lived in the castle of "the most noble Baron of Thunder-ten-tronckh" and is the pupil of a "Master Pangloss". At some point of the story, Candide makes a journey to Portugal with his master where he is held partly responsible for an earthquake and is punished (there actually was a very significant earthquake in Lisbon in 1755, in which an estimated 60,000 died and where much destruction occurred. Voltaire was no doubt aware of this):

Master Pangloss taught the metaphysico-theologo-cosmolonigology. He could prove to admiration that there is no effect without a cause; and, that in this best of all possible worlds, the Baron's castle was the

most magnificent of all castles, and My Lady the best of all possible baronesses.

"It is demonstrable," said he, "that things cannot be otherwise than as they are; for as all things have been created for some end, they must necessarily be created for the best end. Observe, for instance, the nose is formed for spectacles, therefore we wear spectacles. The legs are visibly designed for stockings, accordingly we wear stockings. Stones were made to be hewn and to construct castles, therefore My Lord has a magnificent castle; for the greatest baron in the province ought to be the best lodged. Swine were intended to be eaten, therefore we eat pork all the year round: and they, who assert that everything is right, do not express themselves correctly; they should say that everything is best."

Candide, amazed, terrified, confounded, astonished, all bloody, and trembling from head to foot, said to himself, "If this is the best of all possible worlds, what are the others? If I had only been whipped, I could have put up with it, as I did among the Bulgarians; but, not withstanding, oh my dear Pangloss! My beloved master! Thou greatest of philosophers! That ever I should live to see thee hanged, without knowing for what!"
(Voltaire 1759)

The reference to Leibniz is in two respects. The most obvious one is through the concept of "the best of all possible worlds". The second is that Leibniz was a counsellor at the court of John Frederick, the duke of Braunschweig-Lüneburg, who became the duke of Hannover. Leibniz, it would appear, is represented in the figure of Master Pangloss.

Voltaire's criticism consists in making the contrast between Leibniz's notion of "the best of all possible worlds" and our actual **experience** of reality. If this really is the best of all possible worlds, how is that there is so much suffering exists and for such superstitious reasons? Not only that, but he implies the implicit sycophancy of Pangloss's (Leibniz's) conceptualising the world in such a way that it merely supports the Baron's position in life rather than it being a genuine philosophical stance.

By the end of the 18th century, as Lovejoy indicates, other interpretations of the Great Chain of Being challenged the 'static' interpretation in favour of a 'dynamic' one. If man is an image of God, and as God is creative, therefore man must also be creative and not just a static product:

the man who, as moral agent or artist, would imitate God, must do so by being himself "creative"... Man's high calling was to add something of his own to creation, to enrich the sum of things, and thus, in his finite fashion, consciously to collaborate in the fulfilment of the Universal Design. (Lovejoy 1936, p. 296)

For this interpretation the human being cannot be a mere creation, forever fixed as a link in the chain of being. Being an image of the creative principle, of the creative One, humanity can add new moral and artistic products to an ongoing creative process. Not only did the Great Chain of Being become 'temporalised', the human being was conceived as a co-creator who not only could change the 'evolutionary' process, but could also evolve him or herself through its artistic and moral products.

With Goethe (1749-1832), a fully formed philosophy of the creative process will not be found. However, many of his aphoristic ideas presaged many of those to come in the following centuries, whilst at the same time maintaining a connection with Greek thought. His concept of the Archetype, or Idea, can in some respects be seen as equivalent to the One, the Principle of Plenitude, but also as having an evolutionary perspective that was to be taken up by Darwin, in a different way, in the next century:

The General and the Special fall together, the Special is the General that appears under various conditions... What is the General? The Single case. What is the Special? Millions of cases... In natural science one cannot speak of certain problems as belonging together unless one calls on metaphysics to help... [The Archetype is]: Ideal-Real-Symbolic. [It is the] Ideal as the last Knowable; real as known; symbolic, because it grasps all cases; identical with all cases.

Goethe (1982, Band 5, pp 369-370)(My translation)

The Idea is eternal and single; that we use the plural is not well done. All that we can become aware and speak of are only Manifestations of the Idea.

Goethe (1982, Band 5, p 379) (My translation)

He stands before a background, where the Creator had spread out the World-All, from him goes out a spiritual activity.

Goethe (1982, Band 5, pp 492-93) (My translation)

For Goethe, the Idea is an all embracing eternal One; it is the source for all of the World's manifestations. Linking the first and the last of these quotes, the Idea can be interpreted as being embedded in the Creator just as the Intellectual-Principle of Plotinus was incorporated in the Divine Godhead. In Goethe's thought, then, the Principle of Plenitude, which brings forth the Many, is the eternal single Idea in the mind of the Creator.

Goethe is well known not only for his dramatic work (*Faust*) but also his activities in the area of science (see his *Naturwissenschaftlichen Schriften Bände I-V*, 1883-97/1982). In particular, his views on organic development are relevant in this context. Moreover, he sees dynamism in Nature generally, one that would not sit easily with a 'fixed' cosmic structure:

[Nature] All in her is eternal life, becoming, movement, and yet she moves not onward. She is eternally transformed, and there is not one moment stopping her. For 'stay' she has no concept, and she has set her curse on standstill. Yet she is firm. Her steps are measured, her exceptions rare, immutable her laws. (Goethe 1978, p. 13)

The living dynamism in Goethe's ideas is particular to the observable change in nature. The 'eternal transformation' is at odds with the "Lebnizian" notion of a 'fixed' cosmic structure; and there is more than a hint of an evolutionary perspective to the World's proceedings. Yet there is a unity which lies in her immutable laws. Nature may move eternally onward in her manifestations, but the underlying Idea, the One, is always the same. The Idea, or Archetype, for Goethe, appears to be the creative source for the eternally becoming manifestations of Nature. They were, according to the first quote above, in fact **identical**. Nature, as Goethe conceived her, was both creative and created. In her creative aspect she is the source of all existents that move in a process of endless becoming; in her created aspect, she was that endless becoming. For Goethe, then, the Principle of Plenitude was the creative Archetype that is at one with the manifestations that it produces. In that sense, both producer, the One, and product, the Many of Nature, are united in an 'evolutionary' process. There is no 'fixity' in Goethe's cosmic structure, but there is a stable unity, the Idea, which contained eternal possibilities of creation.

Schiller (1759-1805), was another advocate of humanity being a creative being and who is linked with the development of the World:

Since the world is developed in time, or change, the perfection of the faculty that places men in relation with the world will necessarily

be the greatest possible mutability and extensiveness. Since personality is permanence in change, the perfection of this faculty, which must be opposed to change, will be the greatest possible freedom of action (autonomy) and intensity... Therefore his culture will consist, first, in placing his receptivity on contact with the world in the greatest number of points possible, and in raising passivity to the highest exponent on the side of feeling; secondly, in procuring for the determining faculty the greatest possible amount of independence, in relation to the receptive power, and in raising activity to the highest degree on the side of reason. By the union of these two qualities man will associate the highest degree of self-spontaneity (autonomy) and of freedom with the fullest **plenitude of existence** and instead of abandoning himself to the world so as to get lost in it, he will rather absorb it in himself, with all the infinitude of its phenomena, and subject it to the unity of his reason.

(Schiller 1795, Letter XIII)(My Bold)

Schiller adds the free, autonomous, creativity of the human being to the developing process of the World. Acknowledging the dual sidedness of human nature, permanence and mutability (change), he considers the cultural education of man as a kind of absorption followed by creation through 'self-spontaneity'. The 'plenitude of existence' is a clear reference to the creative process of the One, the Principle through which the plenitude, the multiplicity, comes into being as the World's phenomena for humanity to perceive. This is received by the personality and in turn acted upon by the free creativity of reason.

Schiller engages with the paradigm logic of the Great Chain of Being, but wants to transcend the rather static interpretation advocated by Spinoza and Leibniz. In fact, it would be fair to say that the inclusion of the ideas of freedom and creativity brought a new dimension into its conceptualisation. His view is an interpretation far more logically coherent with the idea of 'man as an image of God': for this way of thinking, neither God nor humanity is fixed, permanent, and unchangeable; both have permanence and creativity as inherent characteristics. In this view, the Great Chain of Being may be conceived as being in an ongoing developmental dynamic between the creativity and permanence. The cosmic structure, consequently, is also thereby a dynamic evolutionary process with the free creativity of the human being as a part of this. For this interpretation, there can be no fixed ontological, social or political reality with human beings as mere immutable links in a chain.

There was a further development of this 'temporalisation' of the Great Chain of Being. Schelling (1775-1854), in particular, questioned the notion that the Principle of Plenitude was perfect from the beginning:

I posit God [says Schelling] as the first and the last, as the Alpha and the Omega; but as Alpha he is not what he is as Omega, and in so far as he is only the one – God 'in an eminent sense' – he cannot be the other God, in the same sense, or, strictness, be called God. For in that case, let it be expressly said, the unevolved (unentfaltete) God, *Deus implicus*, would already be what, as Omega, the *Deus explicus*, is. (Schelling in Lovejoy, 1936, p. 323)

With this, not only is the cosmic structure in the process of evolution, it is also the divine One, the Principle of Plenitude, that is in evolution. In this case, the implicate and the explicate, the Principle of Plenitude and the Plenitude itself, are joined together in the becoming of the World. There is no absolute permanence, neither in cosmic principle nor in cosmic order, only evolution. This was more like a 'Great *Movement* of Being' than a fixed 'Great *Chain* of Being', God, the Spirit is not perfect but evolving.

The 'fixity' of the 'cosmic structure' was further questioned, indirectly, through the ideas of Darwin (1809-82) and Darwinism generally. During much of the previous centuries, the majority view was that species were eternally the same, that God created them at the beginning to be of a certain kind and would remain so. Based as it was on Plato's theory of Forms, the Middle Age view logically precluded transitions between Forms (Ruse 1981, p. 3). Darwin, however, in his *Origin of Species*, put forward a view that explained how species can evolve from out of the *entirely natural laws* of variability, inheritance and natural selection:

These laws... being Growth with Reproduction; Inheritance... Variability from the indirect and direct action of the external conditions of life, and from use and disuse; a Ratio of Increase so as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less improved forms... whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved. (Darwin 1859/1985, p. 459)

Apart from passing reference to “several powers, having been originally breathed into a few forms” (Darwin 1859/1985, p. 459), there is no explicit usage of the Principle of Plenitude as had been conceptualised, in various ways, in the centuries preceding. Gone is the use of the One, the Divine source of all existence, as an explanation of the World’s becoming. Instead, the source of the plenitude, the variety of life’s forms, was considered from a naturalistic perspective.

Likewise, the notion that species, as an emanation of an eternally ‘fixed’ idea in the mind of God, is replaced by the idea that life forms evolve over time, species can change from one kind of being to another. This is a clear refutation of the notion of a fixed cosmic form at the level of the individual species.

By the end of the 19th century, the Great Chain of Being appears to have largely disappeared from scientific discourse; all discussion of nature from then on being framed within a naturalistic paradigm. The Principle of Plenitude, as a concept which explained the emanation of the Many from the One, as a **spiritual** ontogeny, was replaced by the laws of nature. The Principles of Continuity and Gradation, however, continued to live on, but within a new ontological paradigm, that of scientific naturalism: continuity and gradation between life forms were seen as *natural processes* and not deriving from the Divine One. Likewise, the Great Chain of Being was replaced by a naturalistic ‘Tree of Evolution’, a cosmic structure, whose character was dynamic and not fixed; and was produced by entirely natural laws.

There is, however, no sense in which the Great Chain of Being was **refuted**; it was simply **replaced** as a means of explanation in science. Maybe it was even progressively seen as superfluous to an increasingly *natural* science. Each of the three ideas, the Principle of Plenitude, the Principle of Continuity and the Principle of Gradation, were certainly tested and modified throughout history, but none of them were shown to be ‘wrong’ in any absolute sense. What is, perhaps, closer to the truth is that of simple **theory replacement**. The growing professional body of science started using naturalistic explanations instead of spiritual ones. As I will show in the next chapter, the various gradations and complexities of nature began to be explained in entirely physical terms with the One spirit playing no part in the process.

(6) An Age of Emergence: From Science to Ideas

Just as the idea of the Great Chain of Being was being gradually eclipsed, by a naturalistic approach to understanding the creation of the Many through the One, there appeared a new vision of reality called 'emergence', a theory in which the World has gone through a series of new emerging levels of reality (Stephan 1992, Popper 1977, Wheeler 2006). This is a view that has developed over the last one hundred and forty years or so. There are many different interpretations of this, but, in general, there are three basic positions considered in this chapter. One of which is 'physicalist' and the other 'naturalistic', both of which operate without recourse to conceptions of the Divine, or spiritual, **Source**. The third position does refer to the spiritual source which I will return to in the next chapter. There is a position that, in some ways, lies between physicalism and naturalism on the one hand, and 'spiritism' on the other, a view in which a metaphysical reality is either referred to or implied, but without specific spiritual convictions being explicitly expressed.

It may be observed, however, that there are many structural similarities between the principles of explanation in emergence and those in emanationism. This is true no matter the ontology held, be that physicalism, naturalism, 'spiritism' or metaphysical realism. Where emanationism searched for the Divine One, emergentism largely looks for 'unified laws' or 'theories of everything'; where emanationism saw gradation and continuity, emergentism perceives levels of explanation. Each one of these is functionally equivalent for the principles of explanation, as I will show.

The philosophy of emergence has a history dating back to at least the 19th century. Stephan (1992) connects this with the works of John Stuart Mill (1843) and Alexander Bain (1870). It is later, however, in the early 1920s, that emergent evolution reached a certain prominence with writers like Alexander (1920), Broad (1923) and Morgan (1923). These early emergentists were primarily interested in questions about the nature of reality in that they were concerned with what kinds of things could be said to exist and in what way. The new kinds of "things" that emerge in evolution are called "Emergents" and are distinguishable from "Resultants", the latter of which are those kinds of things that can be explained through "mechanistic interpretation" and "algebraic summation" (Morgan 1923, p. 8). An example of a resultant might be where the sum of two masses is simply the addition of their quantities. Emergents, on the other hand, are new kinds of things that cannot, supposedly, be explained by mechanistic interpretation or summation. Prime examples of emergents included life and mind, which

appear to be qualities that cannot be explained by merely adding physical properties like electric charge, motion, mass, or through their interactions.

In general, the early emergentists tried to distance themselves from strict materialism on the one hand, and 'spiritism' on the other. What they tried to argue was that new emergents could arise in evolution and that these were not explicable by the physical base from which they arose. The emergents had the *physical as their base*, but once having emerged they were independent. On the other hand, these emergents were not to be explained through some supernatural, vitalistic, or "extra-natural", Divine Power, but were seen as "natural" (Morgan 1923, p. 2). In this sense, emergentism was an attempt to be "naturalistic" but not mechanistic.

It is almost a logical inevitability that that given the traditional emanationist conception, that the natural World emanated from God, that someone would come up with the notion that something like the reverse had happened: that God had really emerged from nature. Whilst for most of the early emergentists this was not the primary point of their theory, for thinkers like Alexander (1920), Morgan (1923) and Smuts (1926) this was the only possible conclusion for scientific empiricism if it is to come to some kind of reconciliation with spirituality as a real existent phenomenon. For this interpretation, emergentism is the exact opposite to emanationism: the Divine One is an emergent property of matter, and is a derivative of the empirical, sense-based, approach to explaining the World. For emanationism, reality is emanated by the Divine One, and is a consequence of rationality (Hegel) or of rationality embedded in faith (Aquinas, Augustine, Dionysius) or inner empiricism (Locke).

Alexander in particular saw the emergence of deity from space-time and the scale of nature rather than the reverse:

Within the all-embracing stuff of Space-Time, the universe exhibits an emergence in Time of successive levels of finite existences, each with its characteristic empirical quality. The highest of these empirical qualities is mind or consciousness. Deity [is the] next higher **empirical** quality to the highest we know; and, as shall presently be observed, at any level of existence there is a next higher empirical quality which stands towards the lower quality as deity stands towards mind. (Alexander 1920/50, p. 345)

In the hierarchy of qualities the next higher quality to the highest attained is deity. God is the whole universe engaged in process towards the emergence of this new quality, and religion is the sentiment in us that we are drawn towards him, and caught in the movement of the world to a higher level of existence. (Alexander 1920/50, p. 429)

In trying to work up towards deity which, it must be remembered, is an emergent quality of the highest natural systems that we know, i.e. some human persons, let us start from Mr. Alexander's space-time... He says that "God as actually possessing deity does not exist but is an ideal, is always becoming; but God as the whole universe tending towards deity does exist". (Morgan 1923 pp. 25-34)

What just now I am anxious to emphasise is that on our view, be it right or wrong, when we reach the quality of deity we attain to the level of natural reality which is the fullest and richest of all that we know. It comprises more than there is at any other level; the more is emergent and not only resultant; it involves the less of all other levels; on the less the more is built; by the more the less, right-down to the least, is transformed. All this we accept on the basis of what we deem to be a purely **naturalistic** interpretation. Morgan 1923, p. 205)(My emphasis).

For Alexander and Morgan, the emergent procession was from space-time, through biology to mind and then deity. The attempt was not to deny the spiritual but rather to redefine it in accordance with the recent discoveries of science and through a form of epistemology that Morgan called 'naturalistic interpretation'. This was a time when evolutionary theory, relativity and quantum physics were in the ascendant over religious convictions concerning the origin of the Many from the One. The question for Alexander was how to reconcile what he considered to be an empirical fact, namely the existence of human freedom, morality and evil, with a scientific world view. The latter of these presented the evolution of the World as a time sequence with successively new stages of emergent properties. By this conception, Alexander and Morgan needed to argue for the

emergence of deity on a similar basis. God then became a part of the natural procession of reality that came about only after the previous stages of existence. God was no longer the necessary pre-existent and transcendent source of the whole of Nature. In a curious act of role reversal, God is now the product rather than the producer of Nature and who was conceptualised on the basis of what might be called a 'naturalistic spiritualism'. Such views of the emergence of spirit from nature have been more recently represented by Freeman (2001) in his theory of consciousness in '*God as an Emergent Property*', and by Hay and Nye (2006) in their educational philosophy in '*The Spirit of the Child*'.

The view of the emergence of Deity from Nature was succeeded, however, by a theory which dispensed with divine emergence and focussed on the evolutionary appearance of the levels of reality of Nature only. This was a later stage of the philosophy of emergence which began in 1926 with the "Sixth International Congress of Philosophy". This position was the predominant view which lasted until 1961 with the appearance of Nagel's (1961) "The Structure of Science". This phase of the history of emergence coincided with the appearance and development of **logical empiricism (logical positivism)**, which lasted from the 1920's till around the 1960's. In this historical context, emergentism was considered from a largely epistemological / logical perspective. It can be said that this was a discussion about the logical problem of how one theory could be explained by another, rather than about the nature of reality.

Moreover, logical empiricism rejected the reality of entities beyond sense-perception, including that of inner empiricism. This philosophy focussed on the relationship between the evidence of the outer senses and logic. As such, there was no pathway possible here to a Divine One as everything deemed to be beyond sense perception was considered to be meaningless. Clearly this view would reject any theory of emergence which had God as the 'unobservable' *nisus*, or driving force, of evolution. The task of logic in this context was merely to find a way of explaining the levels of reality that seemed to be evident to the senses. For this philosophy, there is no pathway to the Divine One either through sense-based empiricism or through thought.

A further phase of the philosophy of emergence started with the appearance of "*The Self and Its Brain*" (Popper & Eccles 1977) which issued in new discussions about the reality questions of emergent evolution. This has lasted to this day with many publications in philosophy of science literature. The last fifteen years or so have seen a gradual increase in trying

to understand the various kinds of emergents in new ways from the perspective of what exists. As described by Van Gulick (2001), this may be a historic development of *extraordinary science* as defined by Kuhn (1962/70). This period, he claims, may be understood as a testing of the boundaries of *normal science* and the issuing in of a new paradigm.

The first interpretation of this new paradigm is the tendency towards a supposed "**physicalist consensus**" (Papineau 2001). Papineau describes how there appears to have been a general acceptance that emergent phenomena, like life and mind, are not special forces, but are rather caused by physical forces; that even when emergent phenomena are accepted, there is a "contemporary agreement on the completeness of physics" (Papineau 2001, p. 32). This is the idea that **ultimately** the only things that can be said to exist are physical things; all emergents are, in various ways, explicable by them as mere complex arrangements of fundamental physical objects and relationships. It can be perceived in this an attempt to conceptualise the One as being of a physical nature that is the equivalent to the Divine One in emanationism. For this view, the One is a **physical** unity which causes the other more complex forms of reality to emerge which, however, do not have their own kinds of reality or causation. Such a philosophical stance is often called **reductive physicalism**.

Another way that emergence has been approached, is that some philosophers, for example, Dupré (1993) and Silberstein (2001), and some scientists, for instance, Harman *et al* (1994) and Thompson *et al* (1991), have embraced a view of reality in which nature is diversity of reality, a view called **pluralism**. The discussions now are usually framed in terms of whether or not it is scientific to accept emergents as requiring explanations that are not derived from "the physical". This follows from the fact that pluralism, and also holism, can imply non-physical explanations. For this position, the 'scale of nature' is a genuine diversity of the levels of reality, not one in which the physical is all that exists. This view is still naturalistic in that no attempt is made to explain the cosmic structure in terms of a spiritual One, rather it simply recognises that nature, with its levels of reality, is more than the physical. The 'scale of nature', for this position, is a set of many genuine layers of reality, not just a complex arrangement of the physical.

Furthermore, during the history of emergence, the basic criteria for what counts as an important emergent were outlined. There is a wide spectrum of possible emergents: the physical, life, the sentient, the cognitive and the social. The basic question is: what attributes would these need in order to qualify as emergents? Different authors have made some suggestions for

these criteria (Alexander 1920; Morgan 1926; Nagel 1974; Popper 1977), indicating three basic notions:

- (1) Unpredictability
- (2) Novelty
- (3) Levels of Development

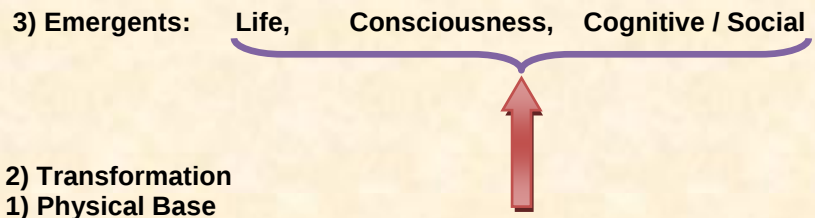
In respect of the nature of reality, the implication would be that each of these could be a possible unique kind or level. They would be novel features of the universe as well as being unpredictable from the other levels of reality:

Emergentism presents the world not only as an evolutionary process but also as a *layered structure* - a hierarchically organised system of levels of properties, each level is emergent from and dependent on the one below. (Kim 1992, p. 122)

Arthur Koestler... described each 'level' as having a Janus - like relationship to the others. To that immediately below it, it was unitary (or, as he named it, a holon), while to that above it, it was an assemblage of components. The ontological unity of the universe consists not of a pyramid of levels, but of a nested hierarchy of holons. (Rose 1997, pp. 92-94)

The kind of emergents described by Kim is a form of reductive physicalism. In this interpretation, physical entities are bases from which and through which the emergents come to be. This view sees emergence as being dependent on lower levels of structure. With this definition, emergent properties are not causally independent but are effects of more fundamental physical causes, in other words they lack any kind of causal efficacy. This could be modelled in the following way:

Fig 6.1



The arrow indicates the direction of emergence. For physical emergentism, the creative base is the set of all physical entities, causes, properties and laws. Looked at like this, emergents like life, consciousness and cognition are emergents with regard to the fundamental physical reality. Kim (1992, p. 122) calls this the thesis of 'Ultimate Physicalist Ontology'. For physicalist emergentism, emergents can only arise when the appropriate physical base conditions are present.

For this view, the explanatory equivalent to the Divine One is the set of all physical laws and entities, etc. From out of this arises a set of distinct levels of reality but which are ultimately to be explained by the physical. For pluralism, however, these new kinds, or levels, or reality are independent, once having emerged. For either position the cosmic principles and the cosmic structure begins to reappear in a new, naturalistic, form.

Taking a more pluralist perspective, as exemplified by Rose (1997), many authors have described a layered structure to reality in which each level has a degree of independence (Medawar 1974; Popper 1977; Harris 1991):

Fig 6.2

4) Cognitive / Social
3) Psychological
2) Biological
1) Physical

Whilst not identical in all respects to the Cosmic Structure of the Great Chain of Being, the *scale natura* of emanationism, there is a significant level of resemblance to the Principle of Gradation which distinguishes the kingdoms of nature from Aristotle and Dionysius to Powel and Peacham. For these, it was reason (the cognitive / social) that distinguished humanity from animals; sense (the psychological) that made animals different from plants; and life (the biological) that differentiated plants from minerals (those that have mere existence). One can see in this notion an approximation to the *scale of nature* as derived from the Principles of Gradation and Continuity. The above figure explicitly represents gradation, but, implicitly, continuity is also present as each level includes, i.e. is linked to, the one

below. As such the cognitive / social, the human, level, is linked to all the levels below in a continuum.

Interestingly, it is largely in popular science that a different approach to emergence from physicalism and naturalism has been proposed. It is a group of views I will call **potentialist emergentism** (or metaphysical emergentism) (Aristotle in Ackrill 1992, p. 143). These views are usually, but not unequivocally, incompatible with the usual form of physicalism. There are a number of different terminologies and interpretations of this. Bohm and Peat (1987), Davies (1992), Goodwin (1994), and Harré (1993) can be interpreted as advocating a kind of potentialist emergentism which is a part of a world view that accepts that ultimate reality is in a metaphysical domain. I shall model this in the following way:

Fig 6.3

1) Potential

2) Transformation:

3) Actual: physical, life, sentience cognitive / social



These views have in common the idea that the ultimate, or fundamental, reality transcends that of the physical that we normally associate with the concerns of the natural sciences. For physicalist emergentism, in contrast, the process of emergence is from the physical to the physical; for metaphysical emergentism the creative process is from the transcendental potential to the physical. In a sense, for most kinds of potentialist emergentism, the transcendental potential generates and becomes the immanent.

There lies in this way of thinking a step from emergentism back towards emanationism. The Potential serves a similar explanatory role to the One, but without the implied divinity or spirituality. Perhaps the Potentialities are more like the Forms (Plato), or the Intellectual-Principle (Plotinus), or Aquinas's *rationes*. Whatever the case, the Potentialities act as the One from out of which the Many has emerged.

The idea of Creative Potentials, that I have proposed elsewhere (Rose 2007), is similar to a variety of notions which have been explored by a number of authors. Boden (1990, 1994, 1996, 1998) has referred to 'conceptual space'; Bohm (1994) the 'implicate order'; Dawkins (1992)

'genetic space'; Dennett (1995) 'design space'; Goodwin (1994) the 'morphogenetic field'; Harré (1993) 'powers'; Ingold (1990, 2000) 'generative potentials'; Popper (1990) to the 'world of propensities'. Whilst these seem quite different ideas on the surface, there are some very fundamental similarities which I attempt to identify with the idea of potentiality:

Each elementary particle has a set of different **potential** properties, only one of which can be realised in a stable universe... The laws of elementary particle physics do not choose among these configurations, they merely allow them as different possibilities. This means that the properties of the elementary particles are in the end influenced by the history and state of the whole universe.

(Smolin 1997, pp 55-57)(My emphasis)

the goal of scientific explanation is... to explain what is observed as a specific actualisation of the **possible** by particular conditions.

(Goodwin 1994, p. 80/1)(My Emphasis)

The [evolutionary] ancestor is a tiny creature, a single dot. Although the ancestor's body is a dot, like a bacterium in the primeval slime, hidden inside it is the **potential** for branching.

(Dawkins 1991, p. 57) (My emphasis)

To understand this [creativity] we need the notion of conceptual space... The dimensions of conceptual space are the organising principles that unify and give the structure to a given domain of thinking... it is the generative system that underlies that domain and defines a certain range of **possibilities**: chess moves, or chemical structures, or jazz melodies.

(Boden 1998, p. 26) (My emphasis)

the genesis of the social form lies in the transformative **potentials** of the field, constitutive of persons as intentional agents, that intervene between genes or culture and manifest social behaviour.

(Ingold 1990, p. 221) (My emphasis)

The common theme in these quotes is Oneness and Potentiality. It could be said that, in this sense, here is a re-invention of the Principle of Plenitude. In each case, the source of the creative process is the Potentiality that unifies the multiplicity of different phenomena. This is also the case no matter what kind of reality that is being described: be that in terms of the cosmological physical (Smolin): the biological (Goodwin, Dawkins); the

cognitive (Boden): or the social (Ingold). Each of these types of Potentialities are not unlike Plato's Forms, Aquinas's *rationes* or Goethe's Archetypes in so far as they are the creative One from out of which these kinds of realities are generated. The difference being that these Potentialities are not fixed for all time, but allow for the possibility of evolution.

This could then be linked to the earlier discussion in this chapter where the **scale of nature** was re-created. Putting together the Potentiality idea, as the creative source of all existents, with the fact that it is inclusive of the types of realities indicated in Fig 6.2, we have a modern version of the Great Chain of Being, with the exception of the 'celestial beings'. We have Potentiality as the One and the levels of reality as the 'scale of nature' as first outlined by Aristotle. I shall describe these as being in a kind of having particular dimensions:

Fig 6.4

- 1) Potentialities as the One**
- 2) Conditions of Transformation / Realisation**



- 3) Actualities as the Many:**
 - 4) Cognitive / Social
 - 3) Psychological
 - 2) Biological
 - 1) Physical

In this sense, it would be fair to say that modern emergentism recapitulates some aspects of emanationism. The One is represented as a unified Potentiality that can bring forth the many in an ongoing evolutionary process. But to this point, no spirit is implied, or even an all embracing and all creating Mind, only 'Ideas' are mentioned that go beyond the normal empirical concerns of natural science. The natural scientific approach to the Great Chain of Being has in that sense transcended itself and again become a metaphysical philosophy of emanation.

(7) An Age of Convergence: Science and Spirituality

It is in contemporary debates about the relationship between science, religion and spirituality where one finds discussions about the possibility of a Universal Mind as the creative source of the Great Chain of Being, rather than just ideas or potentialities. In some ways, one could suggest that the last twenty years or so have seen a resurgence of many of the investigations that were around before science split from religion in the mid to late 19th century. That was a time when natural philosophers, 'scientists', tended to stop operating within the paradigm of the Great Chain of Being. Today, there are many scientists and theologians who are attempting to re-address some of the issues prevalent in the Great Chain of Being, but in a modern, and sometimes scientific, form.

It is possible that the 'Age of Convergence', covering much of the last century, will lead to a new reconciliation between science and spirituality. I will consider this question in the context of today's discussions of the Great Chain of Being. I will show that some scientists and natural theologians use ideas from science and philosophy in order to re-formulate their religion and thereby re-conceptualise the Great Chain of Being. Ideas like spiritual science (Steiner); evolution (Whitehead, Teilhard); the laws of physics (Davies); holistic science/philosophy (Harris); thermodynamics (Polkinghorne), field theory (Fox & Sheldrake); phase space (Ward) and representational theory (McGrath) are used in this process of re-interpretation.

Steiner (1861-1925) attempted to cultivate a science of the spirit which he called anthroposophy. It is on this basis that he tried to develop a concept of reality beyond that normally accepted by the natural sciences. Most of his writings are from the late 19th and early 20th centuries and he was himself educated at a time when the Great Chain of Being was still around to some extent, but gradually being succeeded by a natural science increasingly divorced from considerations of the spirit. It is highly likely that his ideas would have been framed with the Great Chain of Being in mind:

Even though Scholasticism withdrew from human knowledge a part of existence and assigned this part to 'faith', yet Scholasticism set up a world-system marked by a unified (monistic) constitution, stretching from the Godhead and the divine to the details of nature. I thus set Scholasticism higher than Kantianism.

(Steiner 1920/83, footnote, p. 22)

The reference to the Great Chain of Being seems clear with the threefold division of the cosmic structure of: the Godhead, the divine (angelic hierarchies) and nature, being evident. I am not claiming, however, that Steiner obtained his ideas from other thinkers who preceded him. He always argued that his ideas were based on his own spiritual research. I must also mention that I am not trying to evaluate his research procedure; rather my main intent is merely to compare Steiner's **ideas** with others of a similar character in cultural history rather than show how he got them. It is the explanatory content that I wish to examine, not his methods.

Just to note at this point, Steiner was opposed to the implicit nominalism in Kant, i.e. the view that ideas are mere names in the human mind rather than being of the 'things in themselves': "Kantianism brings Nominalism to its fullest development, its final conclusion" (Steiner 1920/83, p. 99) . This is significant at this point because Steiner was convinced that nominalism separated the human being from knowing and participating in Spirit and Nature because it denied the reality of ideas and perception through which we know them. As we will see, Steiner tried to develop a world view in which the human being could have experience of spirit and nature as *realities*; for that to be the case, he argued that ideas and perception were the two sides of reality through which they were known (Steiner 1894, 1920/83).

In many respects, as I will show, Steiner's ideas can be related quite well to the fundamental principles and structure of the Great Chain of Being. I will describe how he utilised ideas comparable to the principles of plenitude, continuity and gradation; and developed a view of cosmic structure very closely correlated to that of the full version of the Great Chain of Being. His ideas support in many respects those of some other authors throughout the history of this notion, particularly those who advocated individual human creativity, like Schiller and Goethe. He utilises an ethical principle of creation not unlike that of Plato; in agreement with Aristotle he advocates a *scale of nature*; like Dionysius (cf later Fox & Sheldrake) he argued for a system of celestial (spiritual) beings; he used the notion of the archetypes in some ways associated, but not identical, with Plato's Forms, Plotinus' Intellectual-Principle, Aquinas' *rationes*, Hegel's 'Idea' and Goethe's 'Archetypes'; and he cultivated a form of *Imago Dei* in threefold way (Augustine) (see later McGrath). But he also developed a science of the thinking which he conceptualised as a **spiritual** activity itself. I will show, though, that his interpretation of the Great Chain of Being was an evolutionary one and not static, in agreement with Goethe, Schiller, Schelling and Whitehead; and that in this there is room for the freedom of the individual within the structure of reality. His approach was fundamentally an extension of natural science,

and consequently his ideas are comparable, to some extent, with those of the ages of emergence and convergence. He did, however, formulate a more diverse epistemology (theory of knowledge), which included an epistemology of the spirit, a theory of how to know and participate in the spirit, and not just believe in it.

To begin with, one can perceive in Steiner's ideas a re-interpretation of the argument from the *Timaeus*, using an ethical principle as the locus of creation:

Once, at the beginning of evolution, there was the Divine consciousness. It was there in its infinity. Therewith we stand at the beginning of existence. This Divine consciousness first forms copies of itself. In what way do the copies differ from the Divine consciousness? In that they are many, whilst the Divine consciousness is one. Further, in that they are empty, whilst the Divine consciousness is full of content, so that in the first place the copies exist as a multiplicity, and further they are empty, just as our empty Ego was confronted by a Divine Ego that contained a whole world. But this empty Ego becomes the stage where the Divine contents which are divided into two opposing camps continually unite, and because the empty consciousness is continually bringing about adjustment it becomes more and more filled with what was originally in the Divine consciousness. Thus evolution proceeds in such a way that the individual consciousness becomes filled with what in the beginning was contained in the Divine consciousness. This is brought about through the perpetual adjustment of individuals.

Has the Divine consciousness need of this for its own development? So ask many who do not quite understand the meaning of life. Does the Divine consciousness need this for its own perfection, for its own development? No, the Divine consciousness does not need it. It has everything within itself. **But the Divine consciousness is not egoistic.** It wishes that an infinite number of beings may have the same content as itself. But these beings must first fulfil the law, so that they may have the Divine consciousness within them and that thereby the Divine consciousness may be multiplied. That which existed at the beginning of world-evolution as unity then appears in multiplicity, but in course of time it falls away again on the path of complete permeation with Divinity. (Steiner 1912, Lecture 2)(My emphasis)

For Steiner the whole of cosmic evolution was brought about by this 'cosmic altruism', this 'lack of egoism' (see Timaeus' 'lack of jealousy'). Like the earlier conceptions, from ancient Greece to late antiquity, the Divine Consciousness was ethically perfect and did not need the creation for itself. But due to this, it could not be egotistical, because, if it had been it would not have been perfect. Perfection implies completeness, or fullness, which means that it would necessarily create the 'Other' for the Other's sake. Also, because the Divine Consciousness is perfect, it would want the 'Other' to obtain perfection, like itself. In Steiner's interpretation, Divine Creation was brought about by Divine Altruism. For Steiner, this is an evolutionary process so the Divine Consciousness can only do this over time; which it does through first producing the empty form of its own consciousness which subsequently becomes filled with Divine content over time. Thus Steiner's concept of the Divine Consciousness, or Divine Ego, plays the equivalent role to the One of the Great Chain of Being, but with the difference that it is a temporalised, evolutionary interpretation. Steiner's idea of the Divine Consciousness is the One that emanates the Many over evolutionary time.

Steiner's argument, however, is not based on a religious belief system; rather it is embedded in an epistemology that includes the spiritual as a domain that can be explored through experience. In his earlier works in particular, he advocated **thinking** as the first form of spiritual experience and which needed concepts to understand it just as sense experience does. In a sense, Steiner's spiritual epistemology includes a form of inner empiricism to accompany the outer empiricism of the natural sciences. Through this experience of thinking, he argued, it is possible to develop knowledge of the spiritual world as such:

In thinking, we are given that element which embraces our particular individuality and makes it one with the cosmos. In that we sense and feel (and also perceive), we are single entities; in that we think, we are the All-One Being that pervades everything. (Steiner 1963, pp 108/9)

In his thinking therefore, man takes hold of the primordial Being (Urwesen) pervading all humanity. A life within reality filled with the content of thought is at the same time a life within God... The God that is assumed through abstract conclusions is nothing but a human being transplanted into the Beyond. (Steiner 1963, p. 264)

Thinking then, for Steiner, is the means through which the human being can find unity with the One which, in his words, is the 'All-One Being' that

'pervades everything'. In doing this, he is attempting to bring a scientific principle to understanding the spirit. Sense perception and feeling give only isolated, individual, experiences to the world, thinking, on the other hand has this element of universality through which we can experience the One that pervades everything. In this way, Steiner can be interpreted as trying to find a way to give epistemic foundations to the Principle of Plenitude. The One, that emanates the Many, can be approached through an inner experience, and knowledge, of thinking. Instead of either a religious or scientific belief of the One, either as a divine reality or as a unified 'theory of everything' respectively, Steiner advocates a knowing of it in **thinking**.

This thinking, though, for him, was not just an activity of the human mind; it involved, in the first place, a form of participation in the divine, or God. This 'Urwesen', or Original Being, was a centre within which human thinking activity took place. For him, this thinking is a form of unification with the 'All-One Being', something which could be experienced and not just speculated about. When ideas derived from such an experience were enacted, this he understands as further participation in divine reality.

Steiner can be seen here to be trying to remain true to the scientific spirit. Accepting his own form of scientific epistemology, as the unification of experience with ideas, shows that Steiner conceptualises the 'world of ideas' as being one with God, or the 'All-One Being', with which the world of experience needs to be unified if it is to be true and counted as real. He does not want a theory of the Divine which cannot be experienced as that would not be scientific, it would, in the end, lead to another kind of sophisticated belief system that is outside of human testability. Even a rational belief, rather than a mere blind belief, still leaves itself open to the critique that such convictions are unknowable. Steiner would not have wanted that.

Moreover, Steiner's epistemology allows for the possibility that the spirit, God, or the 'All-One Being, can be scientifically known and *experienced* through thinking and unified with the world of outer experience. In that sense, he was trying to unify a scientific knowing of the inner 'world of spirit' with the scientific knowing of outer sense perception. For him, knowledge was not just about making *representations* of the outer World, but primarily concerned with the development of the human being so that the Worlds of Spirit and Nature can be *experienced* and *participated* in as *realities*. His epistemology therefore puts reality before representation. For him, representation only has meaning in the context of our participation in the reality of Spirit and Nature (Steiner 1920/83, pp 111/2).

Furthermore, Steiner does not merely to come to an understanding of the 'All-One Being', he wants also to consider it as a **reality**. He does this by arguing that the image of the One, God, can be found in the human 'I', which for him is the individualised spiritual kernel of each human being. If we can experience our own 'I' as a spiritual reality, and not just as a concept, then we have some justification for the universal 'I' or All-One Being as a reality:

Fichte may at this point supplement Aristotle. A formula along Aristotelian lines may be reached to the effect that everything about us, including all things belonging to the invisible worlds, necessarily calls for a material reality to correspond to a form-reality. To Aristotle the Idea of God is a pure actuality, a pure act, that is, an act in which actuality... possesses the power to produce its own reality...

The image of this pure actuality lies in man himself, when by the process of pure thought he attains the idea of the 'I'... When we grasp the 'I' in pure thought we are in a centre where pure thought produces its own essential 'matter'. When we apprehend the 'I' in pure thought, a threefold 'I' is at hand; a pure 'I' belonging to the *universalia ante rem*; an 'I' wherein we ourselves are, belonging to the *universalia in re*; and an 'I' which we comprehend and which belongs to the *universalia post rem*. But here we must especially note that, in this case, we rise to a true apprehension of the 'I', the threefold 'I' becomes merged into one. The 'I' lives within itself; it produces its own concept and lives within as a reality. (Steiner 1929, pp. 50/1)

The experience of the 'I' then is, for Steiner, an image of God (*Imago Dei*). The 'I' produces its own concept and lives in it as a reality. This is what makes the 'knowing' of the 'I' different from the knowing of the reality of the world. For the human being, the rest of our knowing consists in the perception of beings other than ourselves of which we can gain concepts. In the case of knowing the 'I', the knower and the known are One, a unity. The 'I' exists prior to the process of knowing *ante rem* (meaning prior to being in the World); then its own idea is actively brought forth by itself in thinking and in this activity we experience reality *in re* (meaning being in reality); which is then experienced as Idea in consciousness *post rem* (meaning being in our consciousness, in thought).

In this sense, there is a kind of self-completion, or self-realisation, which is an image of the perfect and absolute self-sufficient One which emanates all existence. This One, however, is not merely transcendent, *ante rem*, but is

also immanent, *in re*, and can appear as an idea in the human mind as well as an image reality of itself in the human 'I'. The human 'I', however, is only an image and cannot generate other realities than itself: it is a knower not a producer of the World; it can transform that which already exists, but not generate the fundamental substance and structure of reality. It experiences reality in so far as it experiences agency in the production of its own self-concept. The One, God, on the other hand produces all reality, including itself and its own self-concept, Self – Form, as well as the Forms of all other existents. For Steiner, the One is that All-One Being which 'thinks' all Forms and produces them as realities. For him, the One is a unity with the 'Intellectual Principle' (Plotinus), the Forms (Plato), the *rationes* (Aquinas); this creates itself and the Many.

It is also in this sense that Steiner differs from Hegel. Steiner's primary focus, to begin with, is the **activity** of thought, not the **content** as was the case with Hegel. It is because of this that the act of creation seems more understandable for Steiner: the ideas in the human mind are an act of creation through which ideas came to consciousness. In this sense, the human mind models the Divine Mind more closely, *Imageo Dei*. God, for Steiner, is not only the set of Ideas in his mind, but also the activity through which they came into being. The human mind is a model for this in the distinction between the activity of thought and the ideas that it brings forth. Hegel, however, seemed to consider only the Ideas of God and the ideas of humanity, these are the *rationes* of Aquinas, or the Forms of Plato, or the Intellectual-Principle of Plotinus. Steiner added to these the *activity* of thought through which they were produced.

Furthermore, Steiner, basing his ideas on Goethe, formulated the Forms as the **Archetypes** through which the world was created. He then locates these in world which he calls 'spiritland':

It must above all be emphasised that this world [spiritland] is woven out of substance of which human thought exists... But thought, as it exists in earthly man, is only a shadow picture, a phantom of its true being. As the shadow of an object on the wall is related to the real object which throws the shadow, so is the thought that makes its appearance through the human brain is related to the being in the Spiritland which corresponds to this thought...

There are to be seen in this world, first the spiritual archetypes of all things and beings which are present in the physical and soul worlds... the physical things and beings are images of those archetypes.

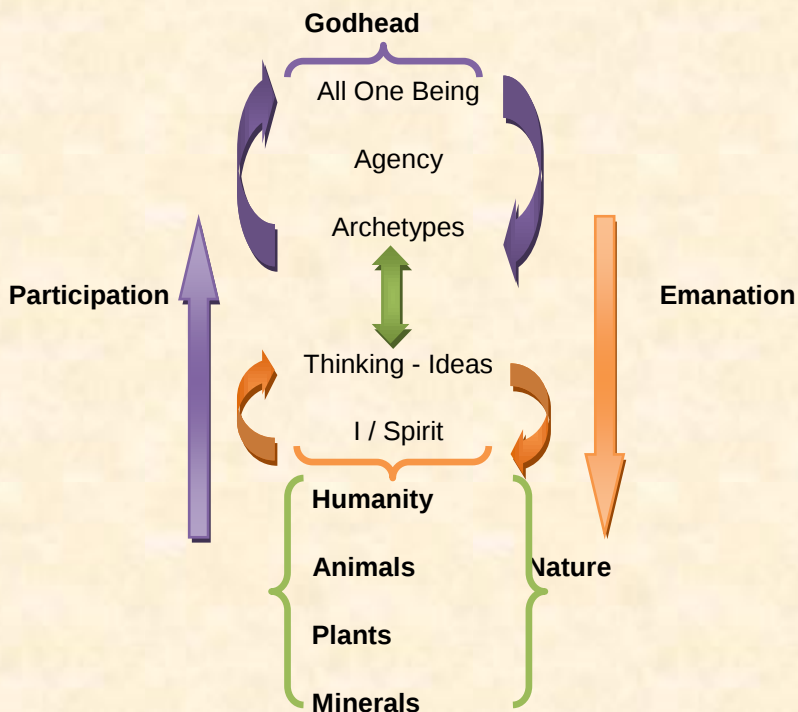
The archetypes in their true form are very unlike their material images. They are, however, just as unlike their shadows, the abstract thoughts. In the spiritual world everything is in continuous, mobile activity; ceaselessly creating.... For the archetypes are *creative beings*. They are the master builders of all that comes into being in the physical world and the soul-world. Their forms change rapidly; and in each archetype lies the possibility of assuming myriads of specialised forms. (Steiner 1970, pp 91/2)

Steiner goes on to outline the seven archetypes that create the world: physical, life, soul, ordering and grouping, intentions, world-order and life-kernels. It is from out of these, and in their many combinations, which the beings of the world are created. These, again, are equivalent to the 'Intellectual Principle' (Plotinus), the Forms (Plato) and the *rationes* (Aquinas).

The similarity to Plato's cave and Sun analogies is striking: thoughts are like shadows and objects are images of the archetypes (Plato's Forms). There are some differences though: for Steiner the archetypes are not just transcendent, they can also become immanent; they are not just plans but also realities (although Plato does allow something of this with his demiurge idea); they are not singular, static, pictures of reality, but have myriad possibilities and are dynamic. In this sense, Steiner can be interpreted as re-inventing the Principle of Plenitude: the One who, on the basis of its 'Intellectual-Principle' is Self-Creating and Other-Creating.

Putting these ideas together, we depict Steiner's ideas of a world system as follows:

Fig 7.1



He also opens the possibility of there being Gradation and Continuity, not in the Spinozian or Leibnizian sense, where all possibilities are realised, but that there are Levels of Reality, corresponding to the levels of the archetypes. It will be recalled from the discussion on emergence that the notion of levels is inclusive of the principles of Gradation and Continuity. Steiner's idea of the archetypes of ordering and grouping, intentions, world-order and life-kernels are interpreted as higher level archetypes; the unity of these is sometimes referred to as the higher spiritual world, or higher devachan. These are those archetypes through which different lower archetypes are integrated in a being. The unity of these latter archetypes is sometimes called the lower spiritual world or lower devachan. It is in this sense that the different kingdoms of nature of Aristotle (see earlier discussion) are produced, each with a different level to the others as well as being linked through a common property:

Now imagine the inner being of a Divinity that has in this way created a universe, with itself as the centre. If, for example, you imagine yourself as the central point in this room, surrounded not by these six surfaces of walls, ceiling and floor, but by a hollow globe that reflects its content, you will see yourself, as the central point, reflected on all sides, everywhere. In like manner you can picture a Divinity as a central will, reflected on all sides, and the mirror is both image of Divinity and the universe. For what is a universe? Nothing but a mirror of the essential nature of Divinity.

In a **graded series of beings**, in infinite diversity, the Godhead appears in the kingdom, and the separate entities are distinguished from one another in the sense of spiritual science by their *names*. An observer at a stage of existence sufficiently lofty to look upon all these separate entities as “emanations,” or “outpourings,” of the Divine is able to give these entities their *names*, to give each manifestation of the Divine its *name*.
(Steiner 1907/2009)(My bold)

For Steiner, the Godhead poured itself out in a series of emanations, or grades of being; the created World is an image of this and is in this sense divine. This system of Gradation and Continuity shows itself in a diagram from another lecture cycle (Steiner 1912, p. 153) (My modification):

Fig 7.2

	Human	Animal	Plant	Mineral
Higher Spiritual World				I / Spirit
Lower Spiritual World			I / Spirit	Soul
Soul World		I / Spirit	Soul	Life
Physical World	I / Spirit Soul Life Physical	Soul Life Physical	Life Physical	Physical

It seems that, for Steiner, the Principle of Continuity was at least present in some degree in his ideas. Considering the part of the table concerned with the physical world, the continuity lies in the fact that each of the levels going up the table has one common feature, or link, with the one below. The human being, being at the top of the bottom part of the table, has a common link with each of the levels below. Going down the table, humans have soul in common with animals; animals have life in common with plants, whilst plants have the physical in common with minerals.

For Steiner, in addition, every being of nature has the four aspects of spirit, soul, life and physical, the difference being only to do with where those kinds of reality are located. As can be seen from the diagram, he also defines four levels to the cosmic structure, the physical world, the soul world and the two parts of the spiritual world, the higher and the lower. Each of the beings of nature are ascribed with each of the levels of reality, but are embedded in the cosmic structure in different ways. The main point here though is that there is another aspect to Steiner's use of the Principle of Continuity in that it reaches into other levels of reality and in that way joins up with the Principle of Gradation.

Clearly, though, in the physical world, each being has a characteristic which distinguishes it from the one below. This aspect shows the usual aspect of Principle of Gradation. It must be noted, however, that Steiner was not committed to the translation of all possibilities into all actualities, or even that of compossibles Leibnizian fashion; rather he recognised continuity and gradation where he thought it scientifically justifiable.

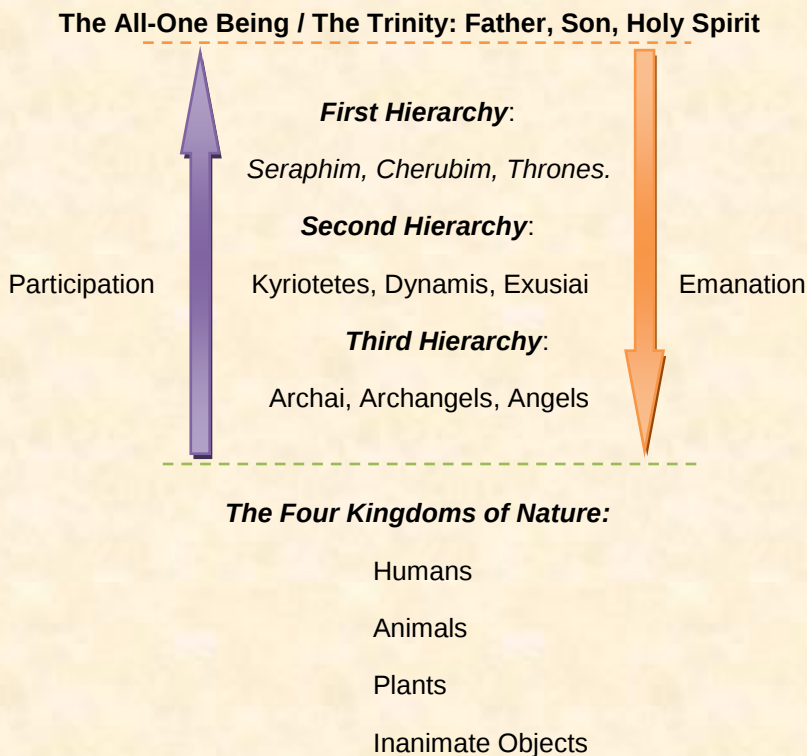
Steiner also advocated a Dionysian conception of the Celestial Beings, seeing the 'angelic hierarchies' as the creative realities of the Universe:

From out [of] this highest Godhead, this most exalted Trinity, stream forth the plans for a new cosmic system... the plan of it [the World] had grown within the divine threefold Unity. But the threefold Unity has need of Beings to execute its plan. These Beings must first prepare themselves for the task. The Beings who, are so to speak, nearest God Himself, who, as is beautifully expressed in Christian Western Esotericism, 'bask in the light of God's countenance,' are the Seraphim, Cherubim and Thrones... Seraphim is a name which for those who understand it in its true sense, even in that of ancient Hebrew Esotericism, has always signified that the task of the Seraphim was to receive from the Trinity the highest ideas and aims for a system of worlds. The Cherubim, the next lower rank of the Hierarchies, had the task of building up in wisdom the aims and ideas which they received from the higher gods. Thus the Cherubim are spirits of highest wisdom, who understood how to transpose into workable plans, the inspirations given to them by the Seraphim. And the Thrones, the third grade of the Hierarchies, counting from above, had the task — naturally very figuratively expressed — of putting things into action, so that what had been thought out in Wisdom — these lofty cosmic thoughts which the Seraphim had received from the

Gods, and which the Cherubim had pondered over, should be transformed into active reality. (Steiner 2009, Lecture 5)

We can see in this description and further elaboration of the ideas of Dionysius, which, in conjunction with other ideas of Steiner (1912) can be modelled as follows:

Fig 7.3



Some would no doubt interpret this as a return to the Christian angelology of late antiquity and the Middle Ages. But also Steiner makes clear reference to other supposedly religious belief systems, through identifying "that highest Divinity of which we find mention by almost all nations as the threefold Divinity — as Brahma, Shiva, Vishnu, as Father, Word, and Holy

Ghost” (Steiner 2009, Lecture 5). This cross-cultural link, between Christianity and Hinduism, may appear to some that he was re-inventing religion. However, below this *cultural frame* is the *explanatory content* which attempts to explain the Many as it is produced by the One. As explained in chapter 1, it is important within the history of ideas to differentiate between the “cultural frame” of an explanation and the “explanatory content”. The cultural frame of an explanation may well be spiritual, but the explanatory content may not be. It is in this latter sense that an explanation may be scientific and philosophical. I interpret the above quote in this sense, just because the cultural frame of the explanation has some connotations with religion, it does not mean that it is not also scientific.

If we focus on the continuity of Steiner’s **ideas** (see chapter 1), this description of the “Celestial Beings”, who produce the World, may be interpreted as attempting to maintain a coherent “paradigm” (Kuhn 1970). The “All-One Being” that is one with its Archetypes, looked at entirely logically, needs to do two things: maintain its own existence and create and maintain the existence of the Other (for example nature). Logically, these two dimensions of the One correspond to the transcendent and the immanent. The Celestial Beings, or the Hierarchies, play the explanatory role of the immanent **agents** of creation; they are the **cause** of the World, whereas the One, which, for Steiner, is the unified Trinity, produces the Plans, the **content**, from out of which the World is made. Just as natural science needs content and causes in its principles of explanation, so does Steiner’s spiritual science.

These ideas can be put together with his other works where he elaborates on the Hierarchies and their relationships to the kingdoms of nature (Steiner 1912/ 1992). Here he can be interpreted as trying to cultivate a unified world view in which there is an allowance not just for the empirical activity of natural science, but also of spiritual science. Being convinced, as he was, that the spiritual can be first experienced in thinking, and that therefore spiritual science can be first carried out in the domain of “knowing thinking”, his approach to the hierarchies can be considered from that perspective.

That is not to say that one must stop there. Steiner also proposed that it was possible to go beyond knowledge based on sense perception and, indeed, beyond knowledge of thinking. For him, though, thinking played a central role in all forms of knowledge, even that of spiritual knowledge. However, his knowing of thinking can give a unique insight into how, and in what sense, Steiner was doing science. If we see this science also from the

perspective of its **idea content**, just as we have considered the Great Chain of Being in its idea content, then it is just as open to evaluation as any other science or philosophy.

But Steiner's approach was not just about ideas, or archetypes, his view incorporated the integration of the three dimensions of the human being, thinking, feeling and willing into the experience of the spirit in connection with the world:

My action will be "good" if my intuition, immersed in love, exists in the right way within the relationship between things; this can be experienced intuitively; "bad" if this is not the case... To *live* in love of the action and to *let live*, having an understanding of the other person's will, is the fundamental principle of *free human beings*.

(Steiner 1963, pp. 177-181)

The concept of intuition Steiner (1963, pp 162/3) earlier defined as: "*Intuition* is a conscious experience of a purely spiritual content, taking place in the sphere of pure spirit. Only through intuition can the reality of thinking be grasped". This integration of "thinking intuition" with action (the will) and love (as a feeling), is crucial to Steiner's cosmology. For him, the human being is not just a thinking being, but also a being of feeling and will. From the perspective of the Great Chain of Being, this means that human beings can participate in the spirit, the One Source, or the "All-One-Being", in their thinking, feeling and willing. From that perspective, he would have been in agreement with McGrath (see later), Aquinas and Augustine.

Steiner's view of the Great Chain of Being is one in which there is ontological structure, but it is not fixed, it is evolutionary. All beings, for Steiner, can evolve to higher levels of reality. Concomitantly, the moral value of a being cannot be determined solely by its current state of development, but has to be seen in terms of its evolutionary potential. For humans, *in fact all beings*, there is no fixed moral or political structure to be derived from the ontological structure; such structures are, he would argue, all subject to the evolution. It is **we** who decide how to act on the basis of what he calls "Ethical Individualism":

Ethical individualism, therefore, is the crowning of that edifice to which Darwin and Haeckel aspired for natural science. It is the spiritualised science of evolution carried over into moral life... Ethical individualism, then, cannot be opposed to natural science when the latter is properly understood; observation shows *freedom* to be the

perfect form of human conduct. This freedom must be attributed to the human will, insofar as this will brings purely ideal intuitions to realisation. For these do not come about through external necessity, but exist through themselves. (Steiner 1963, pp. 213-15)

For Steiner, this spiritualised evolution can be seen as a further development of the scientific theory of evolution. What natural science shows, in its interpretation of evolution, is that **organic** life can bring forth something new: it can originate new forms and species over time. Steiner's view consists in recognising that every individual human being has the ability to **originate** new **moral** concepts based on freedom. In this way **biological** evolution transforms to **moral** evolution. For him, this is the driving force for a spiritual evolution where there is no eternally fixed structure, contra Leibniz and Spinoza. For Steiner, the Great **Chain** of Being has metamorphosed into the Great **Evolution** of Being within which all beings, natural and spiritual, participate.

Other thinkers of the 20th century also proposed a spiritual understanding of the World very much comparable to the Great Chain of Being but reinterpreted from the perspective of the concurrent science. Whitehead (1861-1947) is generally considered to be the founder of *Process Theology*, a view in which God evolves as well as Nature. He draws on evolutionary thinking in his conceptualisation of the Divine One. In this he promotes a philosophy in which God is, at least in part, within the temporal process and subject to **evolution**:

The general relationships of eternal objects to each other, relationships of diversity and pattern, are their relationships in God's conceptual realisation. Apart from this realisation, there is mere isolation indistinguishable from nonentity... Restriction is the price of value. There cannot be value without antecedent standards of value, to discriminate the acceptance or rejection of what is before the envisaging mode of activity. Thus there is an antecedent limitation among values, introducing contraries, grades and oppositions... It is as true to say that God is permanent and the World fluent, as that the World is permanent and God Fluent... It is as true to say that God creates the World, as that the World creates God... The consequent nature of God is conscious; and it is the realisation of the actual world in the unity of nature, and through the transformation of his wisdom. The primordial nature is conceptual; the consequent nature is the weaving of God's physical feelings upon his primordial concepts.

(Whitehead in Jones 2007, p. 6-12)

For Whitehead, God is the Source of reality, or of Nature, who limits himself through a process Whitehead call 'concrecence'. The 'eternal objects' are relationships in God's conceptual realisation, somewhat like Plato's Forms and Aquinas' *rationes*. This concrecence is where the Absolute limits itself in the production of nature; it designates how the infinite becomes finite through specialisation. It achieves this through what he calls 'antecedent value'; this is how God decides what and how to create; he decides what is of greater and lesser value and creates on this basis.

Whitehead's God is equivalent to the Principle of Plenitude, who ultimately, through a process of self-limitation, creates nature through 'contraries, grades and oppositions' based on value. The similarity to the Principles of Continuity and Gradation is not hard to see. However, unlike the Platonic concept of a changeless absolute, Whitehead's God is not only the transcendent creator of the World, but He also changes and is created by the World. God and World are one, even though God is the primordial, the original, producer; he also has a consequent nature, that is, he is also the product of the creation. Whitehead's view of the Great Chain of Being is a 'temporalised' one, where not only Nature is subject to change, but so also is the Principle of Plenitude, the One source of existence. In this sense, Whitehead can be interpreted as integrating an evolutionary perspective not only into Nature but also into God. For him, God is just as evolutionary as Nature not some Perfect Absolute incapable of change.

Teilhard de Chardin (1881-1955) also attempted to unify his religious convictions with his science. Being a Jesuit priest and a palaeontologist his synthesis was based on rational faith coupled with empiricism. His method of approach was more determined, ostensibly, by his science; hence the title of his book *The Phenomenon of Man*, as it concentrated on and depicted the phenomenological evolution of the human being from a seemingly naturalistic perspective. His thinking, however, was suffused with a striving to find the Christian dimension within his conclusions and he searched in each detail to find the synergy between his science and faith. Consequently, his view of the process of creation is like a mixture of emanationism and emergentism:

There is only one way in which our minds can integrate into a coherent picture of noogenesis these two essential properties of the autonomous centre of all centres, and that is to resume and complement our Principle of Emergence. In the light of our experience it is abundantly clear that emergence in the course of

evolution can only happen successively and with mechanical-dependence on what precedes it. First the grouping of the elements; then the manifestation of soul, whose operation only betrays, from the point of view of energy, a more and more complex and sublimated involution of the powers transmitted by the chains of elements... And it is in the very same way that Omega itself is discovered to us at the end of the whole processus, inasmuch as in it the movement of synthesis culminates.(Teilhard 1947, The Attributes of the Omega Point)

As early as in St. Paul and St. John we read that to create, to fulfil and to purify the world is, for God, to unify it by uniting it organically with himself. How does he unify it? By partially immersing himself in things, by becoming 'element', and then, from this point of vantage in the heart of matter, assuming the control and leadership of what we now call evolution. Christ, principle of universal vitality because sprung up as man among men, put himself in the position (maintained ever since) to subdue under himself, to purify, to direct and super-animate the general ascent of consciousnesses into which he inserted himself.
(Teilhard 1947, Epilogue, I Axes of Belief)

Unlike the God of the *Neo-Platonists*, for whom God is a transcendent reality who emanated the World and is distinct from it, Teilhard's God **became** the World, by 'becoming element'. God dwells in all beings as the 'Within' of things and who drives the evolution of the World from his immanence. Therefore, God is the World but who is forever trying to evolve to higher stages of being until a final stage of evolution which Teilhard calls the Omega point.

At first sight Teilhard's view appears to be a form of spiritual emergentism. It may be recalled from the previous chapter that Alexander and Morgan conceptualised God, or the spirit, as an emergent feature of a natural process; a process in which there is no God at the beginning of the evolution of the World, but who may well be at the culminating point. Teilhard's position has an element of this approach in that God became nature. However, for him, God created the elements, life, mind and spirit which he *subsequently* identified with in that succession in the evolution of the World. This succession of levels consists in cosmogenesis (the development of the physical aspects of the universe), phylogenesis (the development of the living species of the universe) and noogenesis which he sees as the evolution of knowledge, or mind, synthesised by love (in this context he also referred to Christogenesis). The Omega point is the

culmination of this evolution. In this sense, Teilhard's position combines emanationism with emergentism: rather than the World emanating from God (emanationism), or God emerging from the World (spiritual emergentism); first the World emanated from God, who then became the World, and then from which God emerged in a series of evolutionary levels. The Whole World is then synthesised into this final stage of the Omega point. This, for Teilhard, is the Perfect and Divine One to which all evolution is converging and is the explanatory equivalent of the One of Plato and Plotinus but set at the end of the World in rather than at the beginning. This is also coupled with an idea akin to the 'scale of nature' but set into an evolutionary time sequence with Christ at the summit.

Davies (1946-) is a well known populariser of science who has tried to reconceive ideas connected with the Great Chain of Being using the laws of physics:

I belong to a group of scientists who do not subscribe to a conventional religion but nevertheless deny that the universe is a purposeless accident... There must be a deeper explanation. Whether one wishes to call that deeper level "God" is a matter of taste and definition.
(Davies 1992, p.16)

But with transcendent laws one has the beginning of an explanation for why the universe is as it is. The idea of transcendent laws of physics is the modern counterpart of Plato's realm of perfect Forms which acted as blueprints for the construction of the fleeting shadow-world of our perceptions.
(Davies 1992, pp. 90-92)

The essential feature is that something of *value* emerges as a result of processing according to some ingenious pre-existing set of rules. These rules look as *if* they are the product of intelligent design. I do not see how that can be denied... My own inclination is to suppose that qualities such as ingenuity, economy, beauty, and so on have a transcendent reality.
(Davies 1992, p. 214)

As will be seen, Davies is a transitional figure to the ones soon to be discussed, but he can be observed to belong more on the side of natural theology than on that of emergentism. Although he does not commit himself to any particular kind of religion, he is clearly inclined to accept the idea of a God-like entity as a deeper level of explanation to that provided merely by the laws of physics. These laws, however, he connects with the transcendent Forms of Plato which act, conjointly, as the One Source from

out of which the World's complexity (the Many) has emerged. In this sense, Davies can be seen as coming to a basic form of natural theology, albeit one not associated with a specific creed, on the basis of scientific laws. These laws, interpreted as transcendent realities, incline him to accept a source of reality that is not accessible to the empirical side of science, but to scientific reason. It is this transcendence of the laws of science which, for him, is a step on from mere emergence theory. This transcendence, as we have seen, is often associated with the nature of God. Moreover, for Davies, values like beauty, and I suppose truth and goodness too, are additional transcendental realities to those of the laws of physics. In a sense, this is a further step towards Plato's 'Form of the Good' which includes all other Forms and from out of which the diversity of the World emanates. Davies' God, the One that is the Source of the Many, is a union of the transcendental **laws** of physics and transcendental **values**, the latter of which give a deeper explanation to existence. Davies has re-invented the Principle of Plenitude on the basis of the laws of physics and transcendental values.

Harris, in contrast, uses arguments from a holistic philosophy in order to re-interpret the conceptualisation of God and therewith the Principle of Plenitude. Writing about a **scale of nature** based on emergence theory he says:

Of such a scale three characteristics need emphasis: (i) it is in principle absolutely complete; (ii) its completeness involves total explication in absolute self-consciousness; (iii) the final phase, like all others, must transcend and at the same time include and comprehend all its predecessors... the sum total of all its parts... Consequently, it answers to the definition of God derived from Anselm and Aquinas, and formulated by Descartes and Spinoza, as a perfect being... it is what generates and determines the nature of every entity, and its activity is nothing more nor less than its own self-differentiation in the spatio-temporal world. But its ultimate realization is a transcendent comprehension and self-conscious realization of the whole. It is thus all-creative, all-powerful, as well as all-knowing and absolutely self-complete... Thus all natural activity is the process of God's creation, and all nature is God's self-revelation. (Harris 1991, pp. 171/2)

This philosophy of wholeness Harris uses to re-consider issues from the history of the ideas we have been considering. The basic thinking behind this is a **concept of the whole** as applied to emergence in evolution. He describes the various wholes that have emerged in evolution, the physical,

biotic, mentality and reflection, and argues that each of the later phases includes, in some ways, its predecessors. The **logic** he derives from this is that the evolutionary trend is always towards greater wholeness and inclusion. He follows this to its natural, but logical, conclusion. The ultimate conception that he can conceive is the unity, the wholeness, or all being and knowledge. This ultimate, or absolute, he identifies as the God. This, he suggests, is the concept of God advocated by Spinoza, amongst others.

This then is the same notion of the One, the Principle of Plenitude that has come down the ages. His view is more evolutionary than that of Spinoza and Leibniz; it is a theory of emergent evolution that includes a divinity, the One Source, as the origin of all being. At the same time, it is in agreement with an understanding of the Godhead being both transcendent and immanent and it has to be so because of its holistic philosophy: to be a whole, God cannot be outside his creation but must also include it. This is a re-conceptualisation of the Principle of Plenitude on the basis of holistic philosophy. But this view differs from Whitehead in that the One is a perfect reality that merely unfolds its nature over time without itself changing. For Harris, Nature evolves but God doesn't. It is a temporalised view of Nature but not of the Divine.

Polkinghorne (1946 -), one time physicist and now natural theologian, accepts many of the discoveries of science and tries to integrate them into his conception of the divine order from out of which the world, for him, was created:

The act of creation is a continuing process. We reject the deistic idea that God simply lit the blue touch paper to set off the big bang and then left the world to its own devices... The Christian understanding is that the cosmos is not self-sustaining but is kept in being by a continuous act of will by the creator... In the much wider cosmic history that we are able to survey, the actualisation of the potentiality with which matter is endowed, exhibited by the coming-to-be of complex organisation through the evolving process of the world, is a sign of God's unending spoken creative word.

(Polkinghorne 1988, pp. 54/5)

I wish to look to God as the creator of the Noetic world... Just as the Platonic world contains both forms of truth and forms of beauty, integrated in the form of the Good, so the Noetic world of which I am trying to speak will include, along with mathematical truth, aesthetic and moral truth, integrated in love. Also, the scope of creative activity

of the 'potentialities and potencies of God'... God is not to be found in the Noetic world. At best it contains his energies... but not his essence, it is part of his creative act but not his very self.

(Polkinghorne 1988, pp. 77-80)

Unlike the conceptions of the Great Chain of Being advocated by Spinoza and Leibniz, where the cosmic structure appears to be fixed, Polkinghorne argues, using modern scientific ideas from cosmology and evolution, for Being and Becoming as part of the creation. The notions of necessity and chance he derives from thermodynamics which he tries to show how they are required for all forms of evolution in the cosmos. Necessity he sees as required for the foundation of being and as equivalent to that aspect of God that is 'eternal' and unchangeable, the Absolute God, the foundation upon which a world can be built and without which the world would disintegrate. Chance, on the other hand, he sees as being needed for creating new possibilities in an ever evolving world that is open to innovation and emergence. For him, this corresponds to that part of God that is constantly creative in the world, the immanent God.

Polkinghorne also differentiates the Ideas, Forms, from God, the One. Unlike the notion of potentialities found in emergence theories, there is, for Polkinghorne, the need for a God in the explanation of creation. For him, the Noetic world, the unity of all Forms, Ideas or Potentialities, is a creation as much as cosmic evolution is. He asserts that the Forms 'cohere' in God; they are the energies of his being. Arguably, Polkinghorne is searching to find the One that explains the Many, with the latter this time being the many Forms. In a sense, then, he is attempting to adhere to the scientific principle of the One that explains the Many; that is the One from out of which the Many was produced, but using modern scientific terminology and ideas. Due to his use of ideas from thermodynamics, i.e. necessity and chance, he is committed to the idea of a God who is also immanent in the World and not merely a transcendent 'Otherness'. Thermodynamics, in a general sense, is defined by being and becoming; applying these ideas to God, then he must also be characterised by being and becoming. A science of nature, for this way of thinking, becomes a science of God. It what is almost a reverse of Middle Age thought, where faith determined science, here we have an example where, to some extent, science determines faith.

Likewise, Matthew Fox and Rupert Sheldrake have made explicit use of scientific conceptions to re-invent the Great Chain of Being. Particularly Sheldrake extends the conceptions of fields, for example the gravitational

and electromagnetic fields, to that of fields of life and consciousness, and on to Angels as fields. Drawing on the angel hierarchy of Dionysius they say:

RUPERT: What Dionysius says here is related to the Neoplatonic conception of emanations from the One, the source from which all things flow out... MATTHEW:... The idea of everything emanating from a source is fine; that's certainly the image I get from the creation story.
(Fox & Sheldrake 1997, p. 32)

RUPERT: To continue with the idea of hierarchy, an important thing about the organisation of natural holarchies is that they can be thought of as levels of organisation by fields. I call these morphic fields, the fields that determine the form and organisation of the system... Insofar as we see angels as organised holarchically, perhaps we can see them as associated with angel fields. Angels themselves could be thought of as a particular manifestation of the activity of those fields, just as photons are a particular way to of thinking about the activity of these fields, the energy, carried in electromagnetic fields.
(Fox & Sheldrake 1997, pp. 39/40)

The acceptance of the One from which everything emanates is fairly evident, but the linkage to physical field theory is an interesting attempt to make scientific the conception of the angels. Dionysius referred to the use of 'revelation' and 'symbolisation', Fox and Sheldrake try to integrate the scientific concept of fields with the 'field of influence' of angelic consciousness. This notion is a particular development from Sheldrake's earlier work on what he calls the 'morphic fields' (Sheldrake 1981/87; 1990). There he considers the way gravitational and electromagnetic fields are extended in space, beyond the boundaries of the objects that they surround, and he argues that there is something like a 'field of life', a 'morphic field', which surrounds living objects. Likewise, he claims that there are similar fields of consciousness which extend beyond the boundaries of bodies. Each of these fields are then conceptualised as being nested within each other and are extended from the smallest atomic particles to the cosmos as a whole. Angels, as fields of Awareness, are integrated within this nested set of fields, i.e. into what he calls a holarchy. In this way, the Dionysian angelic hierarchy is transformed by the scientific concept of fields and thereby one aspect of the Great Chain of Being is re-invented. Plato's 'World Soul' and Dionysius' three ranks of angels have become 'Activities of Fields of Consciousness' which form and organise the World System, i.e. Nature.

Ward (1958 -) has attempted to unify the scientific concept of 'phase space' with that of religious conviction. In doing so he has, arguably, reformulated the Principle of Plenitude from the Great Chain of Being:

The reason God cannot be brought into being is that God is the necessary condition for anything being brought into being. There is something like what mathematicians call "phase space", a space of logical possibility that contains all possible states and that, therefore, cannot be other than it is (because the set of all possible things is exhaustive and cannot be added to or subtracted from). It is necessarily actual and is unique in being self-existent, in not deriving its existence from another Being both actual and conscious, it knows what possible states are good and can be the source of their actuality.

(Ward 2008, p. 13)

But why should some possibilities be actualised?.. The supremely good follows from its own possibility just because it has, as John Leslie has put it, "intrinsic ethical requiredness". The supreme good is necessarily actualised, in the perfection of the Divine Being itself. But there are other factors that do not quite have this element of absolute necessity. For instance, if love and cooperation are greater goods, a Cosmic Consciousness will also have good reason to actualise other conscious beings whom it can love and cooperate with.

(Ward 2008, pp 26/7)

The scientific conception of "phase space", that contains all possible states, plays the same role as Plato's 'Forms', Plotinus' 'Intellectual-Principle' and Aquinas' *rationes*. This link between a scientific idea and a spiritual world view may be considered, by some, as an attempt to give authority to religion in a scientific age. However, it is arguable that the notion of "phase space" plays an equivalent explanatory role in both. Rather than it being a question of authority, it may be better seen as equivalence. For this spiritual / scientific World conception, it is the 'Perfect Mind' that contains all these possibilities in "phase space". This is identified as the One, the Source, God. This "Absolute necessity" (Leibniz), is the self-sufficient Ground which, out of love (cf the 'lack of envy', *Timaeus*), created, on the basis of conscious choice, all the other beings of the World. For Ward, the Principle of Plenitude is that Cosmic Consciousness which contains all possibilities and which actualises the World's diversity through absolute necessity (Leibniz) and conscious choice, grounded in love.

McGrath (1953 -) can be interpreted as using and extending the scientific epistemology, i.e. the representational theory of truth, and cultivating an equivalent *participatory* theory of truth, beauty and goodness embedded in our experience of God. In attempting to invent a new kind of natural theology, he re-considers the Augustinian notion that humanity is:

Made in the in the image of God... This is the long standing view that the *imago Dei*, designates the human capacity to reason – or, more accurately, to conform mentally to the patterns established by the divine *Logos* within creation – and hence to discern God, albeit partially and imperfectly. (McGrath 2008, pp 190/1)

It is in this sense that, for McGrath, the human beings can participate in the creation in a **thinking** way. But he goes on to extend this notion to the human experience of **affective** response and **enactive** interaction:

We have emphasised that natural theology is about *perceiving* nature in a certain way... This suggests a triad of truth, beauty and goodness... might constitute a helpful scheme around which to organise a theological engagement with nature... It reminds us that natural theology is not confined to **thinking about**, nature, but extends to being touched **emotionally** by nature, and **acting** upon and within nature. (McGrath 2008, pp. 221/2)(Original italics, my bold)

Natural theology, in a general sense, is an attempt to see signs of God, the One, in the workings of nature. The connection to the Great Chain of Being lies in that the human being is conceptualised as being an image of God, the One Source, who is a three (the trinity). The Trinitarian conception of Humanity and God can be interpreted as an extension of the representational theory of truth in that Humanity as an 'image of God' is therefore a representation of Him. An example of this notion is where the thoughts in the mind of the human being are representations of reality. McGrath's theory, however, sees humanity as also *participating* in the truth, beauty and goodness of the Divine. This involves a form of 'representation' (*imago Dei*) but also 'unification'. His ideas not only incorporate the scientific notion of representationalism, but also active unification and transformation. In this sense, the One of the Great Chain of Being is understood as a threefold reality which has its image in the human being and through which the latter can know and participate in the Scale of Nature.

One can see in these thinkers, then, a re-interpretation of the fundamental concepts of the Great Chain of Being. As well as Plato's 'lack of jealousy' and Aristotle's 'most good', we have Whitehead's 'standards of value', Polkinghorne's 'integrated in love', Ward's 'intrinsic ethical requiredness', which are seen as God's **ethical motivation** which brought forth the Universe. This is the One that is the Principle of Plenitude, the notion where *Self-Sufficing Perfection transforms to Self-Transcending Fecundity* (Lovejoy 1936). But we also have Steiner's spiritual science, Harris's conceptualisation of the 'scale of nature' (cf Aristotle), Fox and Sheldrake's 'celestial Beings' (cf Dionysius) as well as McGrath's Trinitarian idea (cf Augustine) of the cosmic system, to complete the re-creation of the idea of the Great Chain of Being.

For such thinkers, the *Imago Dei* has come full circle. The human being, as an image of the Divine One, is the creative source of its own moral and social life: just as the One created the system of the universe from an ethical principle, the human being may, on the basis of the free 'I' and ethical individualism, produce an image of this creative process in its moral, cultural and social life and in its relationship to nature. Arguably, then, the history of the Great Chain of Being shows that the *Ethical Self-Transcending Creativity of the One can be unified with the Ethical Self-Transcending Creativity of humanity and of the Kingdoms of Nature; thereby making Humanity and Nature active contributors to the evolution of the Cosmic Structure.*

I started this book with a brief consideration of some of the major issues facing the World today. In essence such issues are about how we relate to nature and other human beings. There is a tendency to see in such relationships that Nature and other people are utilities to be used rather than having their own intrinsic worth. This is a common theme in environmental philosophy where beings are considered to have either only extrinsic value, they have value in so far as they are useful to us; or they have intrinsic value, they have value in themselves and are not there just to be used. Such viewpoints influence our acts in the World and hence the motive for our creativity. All actions, in a sense, are creative deeds.

What this book has shown is that a great number of thinkers throughout history regard the human being, and potentially all Nature, as being an image of the creativity of a spiritual source. For these philosophers this creativity determines the **form of reality** (the cosmic structure) in which all beings live. As we have seen, the motive for this is an ethical one: creativity has its source in a moral motive to help the 'Other'. For such thinkers, it

would be entirely consistent that, as we humans are an image of such a process, our creative deeds in the World could be prompted by an **ethical motive**. From this perspective, the problems of climate change, peak oil, sustainability, economic, political and cultural issues may be addressed. From out of this ethical motive, such philosophers may think, we could create a form of reality, a **sustainable cosmic structure**, based on the **intrinsic value** and **creativity** of **all beings**.

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