

The World Perceived

*A Theological and Phenomenological
Approach to Thinking, Perceiving, and Living
In-the-World*

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*To my Father,
Alexander J. MacDonald
1929-2005*

All quotations from the Bible are taken from the Revised Standard Version, Catholic Edition; Catholic Biblical Association (Great Britain): *The Holy Bible: Revised Standard Version, Catholic Edition, Translated from the Original Tongues, Being the Version Set Forth A.D. 1611, Old and New Testament Revised A.D. 1881-1885 and A.D. 1901 (Apocrypha Revised A.D. 1894), Compared With the Most Ancient Authorities and Revised A.D. 1952 (Apocrypha Revised A.D. 1957)*. New York: National Council of Churches of Christ in the USA, 1997, c1994

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Preface

How are we to make sense of the Bible in the context of the modern world? To the modern world, the Bible is a text that has been taken out of its context, if there ever was one. However, the way in which the world *appears* to modern peoples today is no different from the way in which the world appeared to ancient peoples who lived during biblical times. In this book, I will be unpacking the importance of the way phenomena appear to us—the way in which the myriad phenomena of the world present themselves to our consciousness—and I will be attempting to illustrate how these phenomenal appearances can help us to place the Bible into its only proper context: the world itself.

We will be examining the appearances of phenomena scientifically, theologically, and philosophically; most especially, philosophically, because I have chosen to examine the appearances of the world *phenomenologically*. Phenomenology is a particular philosophy that will allow us to reexamine the way in which the world appears to us. This, I believe, can help us to see the world from a new perspective which can enable us to recapture the importance of the biblical teachings and make them relevant to our everyday lives.

Hopefully you will find the ideas and concepts set forth in this book easy to understand, although you may find the subject matter of a particular section to be intellectually challenging at times. I have attempted to write this book in such a way that anyone who is interested in the subjects of theology, philosophy, and science might enjoy a quick read, concerning what I believe to be a very interesting concept: that the way in which the world *appears* to us is far more meaningful than most people think. Appearances are a funny thing, we see the world every day and yet we hardly ever take notice of it. We take the world—and the way the world appears to us—for granted, because we are so familiar with it. It's my hope that, after having read this book, you, the reader, might begin to see the world in a new way; a way that will enable you to more fully appreciate the world around you.

It's often said that appearances can be deceiving; in fact, modern science often tells us that the appearances of phenomena *are* deceiving. Many intelligent, educated, thinking people believe that modern science, long ago, disproved the biblical view of the world; but I don't believe this. Modern science has never disproven the way in which the Bible describes the world to appear, nor has it ever disproven the way in which the world appears to us. Modern science simply presents us with its own particular view of the world, derived from its own particular perspective of the world. I believe the modern scientific view of the world is valid, but I don't believe it's the *only* valid perspective of the world. I believe that the biblical view of the world and our own observations of the phenomenal world are equally valid. In short, I don't think modern science has a lock on the truth.

I am certain that God—the Creator of the world—does not deceive us. And I believe that God created the phenomena of the world to appear to us as they do because our Creator intends, through these phenomenal appearances, to communicate (to us) true knowledge of himself, of ourselves, of the world, and of how we should live our lives in-community with others. When you have finished reading this book, it's my hope that you will realize (if you haven't already) that nothing in life—*nothing*—is more important than are the people with whom we share our lives. Our lives are very brief, and our lives are wasted if they are not spent helping others. Spending our lives helping others is a very simple concept, one that Christ himself taught us, and yet we can easily forget its importance. If we desire to gain our lives, we should be willing to lose them; and if we desire to be rich, we should be willing to become poor. We can be certain that the tighter our grasp on earthly things becomes, the easier they will slip through our fingers.

Introduction

The way we *perceive* the world is influenced by the way we *think* about the world, and there are three very important ways of thinking about the world: thinking scientifically, theologically, and philosophically. These three ways of thinking about the world, along with an introduction to the philosophy of phenomenology, will be the subjects of the first chapter of this book.

In the second chapter, we will be comparing the prescientific view of the world, which we find in the Bible, with the view of the world currently held by modern science. At the end of this second chapter, I will be introducing what I believe to be a way in which to reconcile the prescientific biblical view of the world with the modern scientific view of the world, which is for us to view the world *phenomenologically*.

The third chapter provides us with three examples taken from the prescientific/biblical view of the world which will demonstrate how they conflict with three similar examples taken from the modern scientific view of the world, concerning the same subjects: 1) Geocentric Cosmology versus Heliocentric Cosmology; 2) Creation versus Evolution; and 3) Absolute Time versus Relative Time. These three examples will act as case studies from which we can learn how our perception *of* the world is influenced by the conceptual schemes (or paradigms) we develop *about* the world. In this third chapter, I will also be presenting an alternative theological/phenomenological appearance-based conceptual scheme for making sense of the world, which we can use to reconcile the seemingly contradictory perspectives of the world given to us by modern science and the Bible.

The theological portion of the book begins in the fourth chapter, continues throughout the fifth, and concludes in the sixth. In the fourth chapter we will be unpacking the concept of a theology of appearances, exploring what it means to think of the world as a text, and examining the kinship between the phenomenological concept of the life-world and the Bible's presentation of the world.

In the fifth chapter, we will be exploring the Bible's presentation of the world, which comes to us through the human perspective. The Bible presents the *reality* of the world to us in a very human way, the same way as the world appears to us: as the lived-experience of being-in-the-world. Also in this fifth chapter, I will be using the parables of Christ (three parables, in particular, which are found only in the Gospel of St. Luke) as examples of how our lives—as we live them in-the-world—constitute (for us) our existential and experiential lived-reality. A philosophical examination of this lived-and-experienced reality will then follow, along with a brief presentation of an appearance-based ontology: being as purpose.

The sixth chapter concludes the book with a summarization of its main points. As the conclusion of the book, this chapter focuses upon how the theological and phenomenological way of thinking, perceiving, and living in-the-world can change—for the better—our everyday perception of the world, of ourselves, of our neighbors, of our world, and of our Creator, which can lead us to improve the way we choose to live our lives in-the-world.

Chapter One

How We Think About the World

What are Science, Theology, and Phenomenology?

In this chapter, we will be examining three ways of thinking about the world: thinking scientifically, theologically, and philosophically. All three of these ways of thinking about the world are logical and rational, and yet each way takes a different approach to *how* we should be thinking about the world. We will be looking at the scientific way of thinking first, then the theological, and lastly, the philosophical—specifically, the phenomenological—way of thinking. In philosophy, a way of thinking is called a *theory of knowledge*, or an *epistemology* (Greek: *episteme*, meaning: *knowledge*). All theories of knowledge, all ways of thinking, must have a basis, and our thinking is always based upon something we assume, but cannot necessarily prove, to be true. Ultimately, all reasoning is circular, because our thinking, as an extrapolation of these unproven assumptions, rests upon what we have already assumed, but cannot necessarily prove, to be true. For example, if one assumes that only the natural, physical world exists, then one's way of thinking—one's epistemology—can never allow for that which exists, or for that which might exist, outside of nature (i.e., the supernatural). Assuming the natural, physical world as all that exists is an unproven assumption; one cannot logically and rationally prove that nothing exists beyond the natural, physical world.

Modern science assumes the physical world to exist in reality: to modern science the world is physically and objectively *real*. This may strike us as an odd thing to assume because, after all, isn't it obvious to us that the world is physically real? However, some religions (e.g., Hinduism, Buddhism) assume that the world is *not* physically real. The world, to these religious ways of thinking, is an illusion. The epistemological question to ask here is: How can we *know*? Is the world real, or

is the world an illusion? Philosophically, the world could either be objectively real or the world could be a subjective illusion, but what we think the world is depends, first of all, upon that which we assume to be true about the world before we begin thinking about the world.

Science, theology, and philosophy are ways of thinking about the world that are each based upon certain assumptions about the world. None of these ways of thinking are capable of giving us a complete knowledge of the world; these are simply ways of thinking that enable us to gain a limited measure of knowledge about the world. The way we decide to think about the world can affect the way in which we perceive the world, and how we perceive the world can affect how we choose to act in the world. Of the three ways of thinking about the world we are studying here—the scientific, theological, and phenomenological—the scientific and the theological ways of thinking are the most popular of the three. Many people choose to think about the world either scientifically or theologically, and many people often use some combination of both. We will examine these two ways of thinking first, then we will examine the philosophical (specifically, the phenomenological) way of thinking, which is unfamiliar to most people. Let's begin now our study of these three different ways of thinking about the world.

What is Science?

Science can be thought of as knowledge of the natural, physical world (the word: *science* comes from the Latin: *scientia*, meaning: *knowledge*). A good definition of science is: "The observation, identification, description, experimental investigation, and theoretical explanation of phenomena."¹ When science is engaged in, scientists are using their rational ability to think in order to gain knowledge of the phenomena of the world. Scientists do this in order to gain a better understanding of the world, and to better make sense of the world we live in. What we, today, call *science*, was, for centuries, called *natural philosophy*.

Science (or natural philosophy) seeks only natural causes in order to explain the myriad phenomena of the (physical) world. Science has a naturalistic epistemological basis: scientists assume the physical world to be real, and they assume that the myriad phenomena of the world have natural, physical explanations. The method used by scien-

¹ *American Heritage Dictionary*, Fourth Edition (New York: Houghton Mifflin, 2001)

tists to conduct their investigations of the world (i.e., their *methodology*) begins with this naturalistic epistemological starting point. Science cannot legitimately claim that nothing exists beyond the natural physical world, because science—due to its prior assumptions and epistemological basis—is not concerned with that which it has chosen not to study. Science excludes from its thinking anything that may or may not exist beyond the natural world. The prior assumptions of science concern only the natural world; anything that may exist beyond the natural world is, for science, unknowable.

People have been doing science since ancient times; most especially, the Mesopotamians, the Egyptians, the Greeks, and the Romans. It was, however, the logical and scientific thinking of the ancient Greek philosophers which had the greatest influence upon both Western philosophy and science. The ancient Greek philosophers devoted much thought to the natural world; they speculated upon what the world was made of, as well as how the world could have come to exist. The two major figures of ancient Greek philosophy were Plato and Aristotle, and each of these two men preferred—but did not use exclusively—two different methods of reasoning concerning the investigation of the world: Plato preferred *deduction* and Aristotle preferred *induction*. In my opinion, Plato's philosophy is more of a deductive/subjective socio-religious philosophy, whereas Aristotle's philosophy is more of an inductive/objective natural philosophy.

Over the centuries, both science and philosophy have continued to place a greater emphasis upon either the deductive or the inductive method of reasoning and investigation, but have usually made use of some combination of both methods in order to gain true knowledge of the world. The deductive method begins by first developing intellectual conceptualizations that can explain the phenomena of the world (i.e., conceptual schemes, or theories) and the observations of phenomena are then fitted into the intellectual conceptualizations, which were developed *prior* to the observations of phenomena (this is what is known as *a priori* reasoning). The inductive method is *empirical* (i.e., it is dependent upon sense perceptions) and begins by first making observations of the phenomena of the world; only after first making these observations does it then begin to develop its intellectual conceptualizations (i.e., conceptual schemes or theories), which might provide an adequate explanation of these empirical observations (this is what is known as *a posteriori* reasoning).

Both Plato and Aristotle were searching for truths about the world of phenomenal experience; they were attempting to gain true

knowledge (Greek: *episteme*) of the world that was universal, necessary, and certain (i.e., knowledge of the world that would be true for all people). Their philosophical opponents, the Sophists, did not believe that true knowledge (in the universal, necessary, and certain sense) could be gained at all; rather, they believed that people could have only a particular, contingent, and uncertain *opinion* (Greek: *doxa*) of the phenomenal world.

In modern times, both science and philosophy have tended to side with Plato and Aristotle in believing that universal, necessary and certain truths about the world (the *reality* of the world) can be known (in an objective sense). But this understanding of knowledge has recently been challenged by postmodern philosophy (i.e., *postmodernism*), which takes the side of the ancient Sophists (the opponents of Plato and Aristotle) in believing that we can have various opinions and perspectives of truth and reality (in the subjective sense), but never universal, necessary, and certain knowledge of the world.

A universal, necessary, and certain knowledge of the world is knowledge that is true for all people, in all times, and in all places. Opinion, as a *type* of knowledge, is knowledge of the world that *may not* be true for all people, in all times, and in all places. The first type of knowledge is an objectively based knowledge whereas the latter is a subjectively based type of knowledge. Modern science has an objectively based theory of knowledge (i.e., epistemology) because science is concerned with the observation, identification, and description of objective phenomena. Modern science has little-to-no interest in subjective phenomena, because it is difficult (or even impossible) to observe, identify, and describe, subjective phenomena.

What many people don't realize is how dependent modern science is upon that which is subjective. The very basis of modern scientific objectivity itself is the subjective nature of the individual scientist's subjective, conscious, human *experience* of the objective phenomena of the world they observe, study, and subsequently describe as *reality*. As James McCarthy points out: "The fact is that the very act of recognizing reality as such, which is the *sine qua non* of all scientific thought, is itself a development of the intellect not verifiable in the data of sensory experience."² Modern science seeks to discover the objective reality behind our subjective experiential perception of the appearances of phenomena, and yet science—as *human* knowledge

² James F. McCarthy, *The Science of Historical Theology* (Rockford: TAN Books, 1976) p. 41

of our world—is always mediated by the subjective experience of objective phenomena encountered by the conscious human observer: the *perception* of objective phenomena as experienced by the scientist.

Like all thought, scientific thought is the product of the subjective human intellect. In fact, throughout the history of modern science, science has often explained phenomena by utilizing deductive, *a priori*, subjectively-based, idealized thought experiments (e.g., Galileo's frictionless motion; Newton's empty space; Einstein's relative time), which were not dependent upon empirical observation and experiments, which could have led to different (inductive, *a posteriori*, objectively-based) explanations of the same phenomena.

One of the most important figures in the history of modern science was Francis Bacon (1561-1626) who (like Aristotle) preferred the inductive method of gaining scientific knowledge of the world. Bacon (wisely) recognized that the human mind held certain *preconceptions* of the world that influence all scientific investigation, research, and experimentation. An important contribution of Bacon's inductive method was to point out the need for scientists, before they even begin their study of the phenomena of the world, to first identify their preconceptions of the world and to then set them aside, in order to allow the raw, empirical data of experience to be studied with a mind that is as neutral and presuppositionless as humanly possible. Bacon's inductive method of doing science is known as: *Baconian Empiricism*.

Another major figure in the history of modern science, and probably the most influential, was Rene Descartes (1596-1650) who (like Plato) preferred the deductive method of gaining scientific knowledge of the world. Descartes thought that the human mind was the best guide to understanding phenomena. The mind could form the ideas, concepts, and theories (especially mathematical theories) that were best able to explain the phenomena of the world. Descartes believed that scientific experiments and data gathering were valuable means of gaining true knowledge of the world, but thought these inductive methods inferior to deductive reasoning. Descartes thought that the mind's ability to *reason* about the world was the best way to gain universal, necessary and certain knowledge of the world. Descartes' deductive method of doing science is known as: *Cartesian Rationalism*.

In fact, although emphasis is often placed upon either one or the other of these two methods, the knowledge we have of the natural world is gained through a *synthesis* of the inductive/empiricist method and the deductive/rationalist method. Modern science, since Descartes, has tended toward the deductive/rationalist method, and to-

day's modern science puts great store in deductive theories and in the experiments that (supposedly) prove such theories to be true. Deductive theories are first conceptualized *as theories* in the mind of the scientist (possibly as idealized thought experiments), which are based upon unproven assumptions. Experiments are later designed (according to these theoretical assumptions) and undertaken in order to validate (empirically) the deductively-based theory.

If the experimental results match the results predicted by the theories, then the experiments are accepted as (and asserted as) proof the deductive-based theories are correct, and it is assumed that modern science has discovered universal, necessary, and certain truths about the natural world. What popular science writers don't often tell the public, however, is that there are probably other theories and other experiments that will, at some future time, provide even better explanations of phenomena and obtain even better experimental results than do the current deductive-based theories, which are (supposedly) giving us universal, necessary, and certain knowledge of the world. Few people realize how likely it is that many of the currently held modern scientific explanations of the natural world *may not* be true explanations of the world at all.

Let's examine the chain of reasoning undertaken by modern science in order to validate its deductively-based theories about the natural world by using experiments that are designed to prove these theories true. In logic, if A is true, then it follows *necessarily* that B is true as well. But it is logically invalid to claim that if B is true, then it follows *necessarily* that A is true as well. Yet most modern scientific truth-claims about reality are based upon just this sort of invalid deductive reasoning.³ As Steven Goldman puts it:

"The founders of modern science, searching for universal truths of nature, were well aware of a problem with using experiments to validate universal knowledge claims. Aristotle's logical writings identify Af-

³ For example, theory A is given as an explanation of the world and predicts the occurrence of phenomenon B. An experiment is designed to detect phenomenon B and phenomenon B is observed. But although phenomenon B occurs as predicted it is not *necessarily* the case that theory A is the only possible explanation of the world, or for the occurrence of phenomenon B. It is *possible* theory A is a correct explanation of the world, but theory A is not *necessarily* correct. To assert the observation of the occurrence of phenomenon B as proof that theory A is *necessarily* correct is known in logic as committing the fallacy of *Affirming the Consequent*. Yet this is precisely what modern science so often does when making truth-claims about reality.

firming the Consequent (called by some Affirming the Antecedent!) as an invalid form of deductive inference. The experimental method in fact employs just this form of inference. It follows that the truth of what is claimed to be a universal theory, a universal law of nature, cannot be deductively certain. Scientific theories may be presented deductively, but they incorporate a deductive logical ‘flaw’”⁴

Because of this “flaw” the history of modern science is virtually littered with abandoned theories, once touted as the only, true, scientific explanations of the reality of the physical world; theories that have since been replaced by (what modern science now believes to be) more correct theories. Even today, the modern scientific definitions and theoretical explanations of reality that are put forth as universal laws of nature, which most of us think of as unshakable scientific facts, are subject to major revision (or total rejection) at some future time.

Communities of scientists often use theories to create frameworks, conceptual schemes, or paradigms, by which they can organize and make sense of the data of observation and experimentation. Much like the picture on the box of a jigsaw puzzle, frameworks, paradigms, and conceptual schemes help scientists to fit the data of observation and experimentation into an overall theoretical “picture” of the world. This helps them to make sense of the data, and it is within these conceptual schemes, or paradigms, that *normal science* is carried out. Normal science—that is, doing the work of science within a particular theoretical view of the world (i.e., working within a paradigm)—continues to be done until some of the data becomes anomalous, not fitting anywhere within the current working paradigm (i.e., the overall world-picture), which becomes problematic for some scientists (usually the younger scientists) within the scientific community. Such paradigmatic anomalies, like puzzle pieces that don’t fit anywhere within the puzzle, can lead to a major revision, or total overthrow, of the currently reigning paradigm. This *scientific revolution* can then lead to the creation of an entirely new conceptual scheme—a new and improved

⁴ Steven L. Goldman, *Science Wars: What Scientists Know and How They Know It* (Chantilly: The Teaching Company LTD, 2006) Course Guidebook (Part 1), p10.

world-picture—which solves the problematic anomalies by making better sense of the vast majority of the data.⁵

Of special interest to us here is the science of *cosmology*. Scientific theories of cosmology, by necessity, go far beyond all known scientific data or facts, because cosmological theories demand some sort of unifying conceptualization in order to help us understand *the world* (Greek: *cosmos*; Latin: *universus*) as *a unified whole*. Theories of cosmology, because they attempt to deal with the world as a unified whole, must go beyond the physical sciences and into the realm of *metaphysics* (from the Greek: *meta*, meaning: *beyond, beside, or after*; and *phusis*, meaning: *physical*) which (traditionally) belongs to theology and philosophy. As philosopher and ethicist Mary Midgely explains:

“Without this unifying urge, science would be nothing but mindless, meaningless collecting [of facts]...this is why the sciences continually go beyond everybody’s direct experience, and does so in directions that quickly diverge from that of common sense. . . inevitably in the end they require metaphysics, the attempt to see the world as a whole, to harmonize [the facts]... these intellectual constructions present problems of belief which are often quite as difficult as those of religion, and which can call for equally strenuous efforts of faith. This happens at present over relativity, over the size and expansion of the universe, over quantum mechanics, over evolution and many other matters.”⁶

This is why so many people have chosen to believe in science instead of religion: modern science presents what appears (to these people) to be a better explanation of the universe than does religion. The modern scientific explanation is seen as having been proven factually *true*, whereas the religious explanation has not. In fact, many people see modern science as having proven the religious explanation of the universe factually *false*.

People who put their faith in modern science instead of religion have something of a quasi-religious faith in the modern scientific explanation of the world *as a whole* (i.e., as a universe/cosmos), and even though all modern scientific explanations of the universe are not yet

⁵ See Thomas Kuhn, *The Structure of Scientific Revolutions*, Second Edition (Chicago: University of Chicago Press, 1970).

⁶ Mary Midgely, *Evolution as a Religion*, (London: Routledge, 1985, 2002) p. 120

in, these people have little doubt that the remaining scientific explanations will be forthcoming. The one thing they are certain of is that modern science has proven the religious explanation of the world false, because only science is capable of telling them what *reality* is.

Science, especially *applied science* (i.e., *technology*), is remarkable in its ability to gain and put to use its practical knowledge of the natural world. Science is not, however—and should not be thought of as being—the *only* valid source of true knowledge of reality. Science has its area of study and expertise—a valid area—yet other fields of knowledge are also valid, and these fields are also legitimate sources of a true knowledge of reality; knowledge that science, by its very nature, is unable to provide for us. The danger we face today is one of an *imperial* science; a science that considers itself to be the only valid *authority* regarding true knowledge of the world and reality. As we will see throughout this work, the philosophy of phenomenology (along with theology) can be an important corrective to this imperialistic trend in modern science.

The founder of phenomenology, Edmund Husserl (1859-1938), was well aware of the dangers posed by an imperialistic modern science. As Dermot Moran tells us:

“Husserl embarked on writing *The Crisis of European Sciences* in an attempt to alert the world to the increasing danger of the collapse of the genuinely scientific and philosophical outlook which had marked the progress of the West since the time of the Greeks. Husserl was here diagnosing and opposing what he considered the disastrous social consequences of a science which espoused reductive scientism and naïve empiricism. He also opposed what he regarded as the misguided, deformed rationalism, a consequence of the Enlightenment, which naturalized the spirit and settled for a naïve objectivism, and did not notice the very subjectivity which made genuine rational objectivity possible.”⁷

One of the most important figures of the twentieth century, Pope John Paul II (also a phenomenologist), was similarly concerned with the

⁷ Dermot Moran, *Introduction to Phenomenology* (London: Routledge, 2000, 2004) p. 180

potential dangers that we—as a society—face if we allow science to become our only valid source of truth and knowledge:

“Another threat to be reckoned with is scientism. This is the philosophical notion which refuses to admit the validity of forms of knowledge other than those of the positive sciences; and it relegates religious, theological, ethical and aesthetic knowledge to the realm of mere fantasy . . . scientism . . . dismisses values as mere products of the emotions and rejects the notion of being in order to clear the way for pure and simple facticity. Science would thus be poised to dominate all aspects of human life through technological progress.”⁸

We should take such warnings very seriously. The problems we face in our world today require knowledge of the world that goes beyond the abilities of modern science. We must be willing to seek and acquire knowledge from other fields of knowledge (e.g., the humanities) in addition to science, so that we can better understand both the world and our place in it. Theology is an important field of human knowledge that we should allow to make its own contributions to the treasury of human knowledge, and to the betterment of human society; therefore it is to *theology* that we turn next.

What is Theology?

Our English word *theology* comes from two Greek words: *theos* (meaning: God) and *logos* (meaning: the study of). Theology is the study, or the *science* (i.e., *knowledge*), of God. Theology differs from both science and philosophy in that theology does not depend upon solely upon *reason* in its quest to gain knowledge of God. Theology certainly utilizes reason in order to gain knowledge of God, but theology also depends upon (supernatural) divine *revelation* as its main source of knowledge about God. Theology requires faith in what God has revealed to humankind about himself, and theologians believe this revealed knowledge to be true knowledge of God.

⁸ John Paul II, *Fides et Ratio*, 88

Theology uses this divinely revealed knowledge of God, which reason alone could not attain, to form its understanding of God by placing revelation *above* reason. Theology reasons deductively from the general knowledge of what has been supernaturally revealed (by God) to a particular knowledge of God and of God's will for humankind, which is deduced (often speculatively) by reasoning upon this divine revelation. St. Thomas Aquinas said that: "It was necessary for man's salvation that there should be a knowledge revealed by God besides philosophical science built up by human reason...it was necessary for the salvation of man that certain truths which exceed human reason should be made known to him by divine revelation."⁹

In doing theology, theologians make use of their human power of rational thought in order to better understand these divinely revealed truths. Theology, however, does not depend upon these revealed truths alone; it also depends upon *faith* in this divine knowledge, which has been revealed to humanity by God. The theologian *believes* this divine revelation to be true knowledge of God and of salvation. Having faith in God's revealed truths doesn't require us to cease from thinking; rather, the opposite is true: our faith requires us to make rational sense of—to understand—divine revelation by using our human ability to reason. As Ludwig Ott explains: "As a science of faith it [theology] seeks by human reason to penetrate the content and the context of the supernatural system of truth and to understand this as far as possible...Richard of St. Victor [expresses this] with the words...Let us hasten from faith to knowledge. Let us endeavor so far as we can, to understand that which we believe."¹⁰

Catholic theology considers both the unwritten apostolic teachings (i.e., tradition) and scripture (i.e., the Bible) to be two streams of divinely revealed knowledge flowing from God to humankind. This divine knowledge has been given to humankind from one Source (God) through two streams of communication: scripture and tradition. Christian (Catholic) theology is based upon the scriptures *along with* the unwritten traditions of the apostles and their successors. As the Second Vatican Council explained it:

"Sacred tradition and sacred scripture, then, are bound closely together, and communicate one with the other. Flowing from the same divine well-spring,

⁹ Thomas Aquinas, *Summa Theologica*, (I, 1, 1)

¹⁰ Ludwig Ott, *Fundamentals of Catholic Dogma*, (Rockford: TAN Books, 1960, 1974) p. 3

both of them merge, in a sense, and move towards the same goal. Sacred scripture is the utterance of God put down as it is in writing under the influence of the holy Spirit. And tradition transmits in its entirety the word of God which has been entrusted to the apostles by Christ the Lord and the holy Spirit; it transmits it to the successors of the apostles so that, enlightened by the Spirit of truth, they may faithfully preserve, expound and disseminate it by their preaching.”¹¹

The Christian *theory of knowledge* (i.e., *epistemology*) is based upon God as he is known to us through his *word*; that is, as God has revealed himself to us in both scripture (written) and oral (unwritten) apostolic tradition. Christians believe that God has revealed himself (and the way of salvation) to people throughout human history, and Christians believe that this revealed knowledge is true knowledge of God (and of the world). Theology is a field of knowledge (i.e., a science) that is grounded upon faith in God and his word; as Etienne Gilson puts it: “Sacred Science [theology] has, then, for its basis faith in a revelation made by God to the apostles and prophets. This revelation confers upon these apostles and prophets a divine, therefore unshakable, authority; and theology rests primarily upon our faith in the authority of those who have spoken in order to teach us this revelation.”¹²

This revelation of the apostles and prophets is contained in both scripture and tradition, and yet it is scripture—the written word of God—which holds the highest place in theology. It is upon this *written* word that theology depends most of all: “Theology therefore depends, first and foremost, upon the body of writings inspired by God and which we call *Sacra Scriptura*, Holy Scripture.”¹³ It is the task of the theologian to rationally understand the revelation of God to humankind contained in the writings of the Bible and to construct (for society) rational and practical explanations of these truths: “By the science of the word of God which he constructs, the theologian simply explains, with the aid of natural reason, what has been revealed.”¹⁴

¹¹ Dogmatic Constitution on Divine Revelation (*Dei Verbum*) 2, 9

¹² Etienne Gilson, *The Christian Philosophy of St. Thomas Aquinas*, (Notre Dame: University of Notre Dame Press, 1956, 2002) p. 13

¹³ *ibid.*, p. 13

¹⁴ *ibid.*

Philosophy is very useful to the theologian, because philosophy, as a way of thinking, provides the assistance needed to better understand and explain these revealed truths. Most of the better known theologians have used some sort of philosophical framework as a guide to making rational sense of the Bible and in constructing their theologies. For example, St. Augustine used the philosophy of Plotinus (a Neo-Platonic framework); St. Thomas Aquinas used the philosophy of Aristotle (an Aristotelian framework); and, more recently, Leonardo Boff has used the philosophy of Karl Marx (a Marxist framework). Philosophy can be helpful to the theologian by providing an intellectual framework for theological thinking, but philosophical frameworks are useful only as tools that aid the theologian in constructing better theological explanations of biblical and theological truths, as Aquinas put it: "This science [theology] can in a sense depend upon the philosophical sciences, not as though it stood in need of them, but only in order to make its teachings clearer."¹⁵ In this work, we will be utilizing the philosophy of phenomenology as a philosophical framework in the construction of a theology of appearances, and this theology can help us to gain a new perspective of God, of ourselves, of our neighbors, and of our world.

Theology has two basic forms: *systematic* and *biblical*. Systematic theology is deductive in its approach to constructing a theology, whereas biblical theology takes an inductive approach. In this work we will be doing biblical, as opposed to systematic, theology. Our approach to doing theology will be to view the Bible as a narrative: the Bible will be seen as communicating God's truths and the way of our salvation to us in narrative form. Yet another approach to doing theology is the *moral* theological approach, wherein we search out the moral teachings of scripture in order to learn the way that God desires for us to live our lives. We will be doing some of this type of (moral) theology as well.

Our task will be to better understand the biblical text as it applies to us today. We will be carefully examining what the biblical narrative is telling us about the world, about God, about ourselves, about others, and about how we should live our lives in-the-world. As we saw in the previous section above (*What is Science?*), many people today think of modern science as the only valid source of true (objective) knowledge of our world; I believe this view of science stands in need of correction by theology (as well as by all other fields of human knowledge).

¹⁵ *Summa Theologica*, I, 1, 5

Theology has true knowledge of our world to offer our society, and yet, as we have seen, theology is also dependent upon faith in the biblical narrative. But, as we saw above, modern science has its own narratives; many of which (e.g., relativity, cosmology, and evolution) also require some element of faith in order to be believed. All such narratives—whether theological or scientific—are, in fact, overarching *metanarratives*, which provide us with an all-encompassing view of *the world as a unified whole* (i.e., cosmos, or universe).

The main purpose of this work will be to demonstrate that the theological/phenomenological view of the world (a theology of appearances) can provide us with an alternative way of perceiving and understanding the world, which is able to counter the imperialistic trend we observe in today's modern science. The vast majority of modern people still hold to some form of religious/theological view of the world, yet they maintain their hold on the modern scientific view of the world. Because the modern scientific view of the world is considered (by many people) to be the only, factually true perception and understanding of the world, this modern situation tends to create tension and conflict by pitting science against religion, scientific *fact* against religious *faith*, and nonbelievers against believers. But I think that both science and religion (i.e., theology) are appropriate and legitimate fields of human knowledge, and that they are each best understood as presenting their own particular, unique, and equally valid perspectives of the world. I think humanity is best served when each of these two fields of human knowledge and inquiry are *working-together* in cooperation with one another for the betterment of our world, the only world we can ever truly know and understand.

Theology provides us with a way of perceiving and understanding the world (and the human person) that is very different from the modern scientific way of perceiving and understanding the world, because theology is able to look *beyond* the physical world. Science, or natural philosophy, concentrates only upon the *physical* (Greek: *physis*) world whereas theology is able to focus upon that which is *beyond* (Greek: *meta*; Latin: *supra*) nature: the metaphysical, or supernatural. A theological view of the world empowers us to transcend the natural physical world by providing us with the ability to live our lives with purpose and meaning, as well as providing us with a divine goal toward which to strive.

Philosophically, this way of thinking about our world is considered Platonic because, in Plato's thinking, God (or the gods) provided people with divine moral standards, which transcend the moral stan-

dards devised by mortals (i.e., humankind). If there is no God, then it's only rational to assume that humankind can set its own standards for moral and ethical behavior. And if people are to set their own standards, then it's also logical to assume that whatever person, or group of persons, has the most *power* can decree how people should live. Theology acknowledges and presupposes the existence of an omnipotent Creator-God (who transcends the world he has created) and believes that he has revealed and communicated to us the knowledge of how we should live our lives.

Good theologians know that when we attempt to live our lives without acknowledging God's existence, when we attempt to live our lives apart from the knowledge God has revealed to us, we are only leading ourselves toward our own destruction. Theological knowledge is a much different *kind* of knowledge than is scientific knowledge, but it is also a very important (and often overlooked) kind of knowledge. When it comes to questions of human purpose, meaning, ethics, and morals, theological knowledge is, perhaps, even more important than is any other type of human knowledge, because theology is able to provide cogent answers to these most important life-questions.

Theologically speaking, God's revelation has been progressively revealed to humankind throughout history. Most importantly, in the fullness of time, God's revelation has come to us in the person of Jesus of Nazareth who was—and who *is*—the Christ, the Son of God. As Pope John Paul II has told us:

*"The chief purpose of theology is to provide an understanding of revelation and the content of faith. The very heart of theological enquiry will thus be the contemplation of the mystery of the Triune God. The approach to this mystery begins with reflection upon the mystery of the Incarnation of the Son of God: his coming as a man, his going to his passion and death, a mystery issuing in his glorious resurrection and ascension to the right hand of the Father, whence he would send the Spirit of truth to bring his Church to birth and give her growth."*¹⁶

Christ is central to Christian theology, and it is in the life and teachings of Christ that we find the most profound truths about our

¹⁶ *Fides et Ratio*, 93 (emphasis in original)

world, the most important truths about how we should perceive our world, and the best guidance for how we should live our lives in-the-world. Christian theology is *based* upon Christ: his birth, life, ministry, death, resurrection, and his ascension into heaven. And the Christian's faith in Christ is (ultimately) based upon the testimony of others, testimonies which state that Christ was born, lived, ministered, was crucified, resurrected, and has ascended. Our faith is a rational faith based upon historical evidence and testimony; testimony that is most clearly and accurately recorded for us in the four gospels of the New Testament.

Placing our faith in what others have communicated to us, through their written accounts about the people who have lived and the events which have occurred, in the past—trusting in written accounts of the past—is both rational and reasonable. All of us, at some point, need to place our faith—our trust—in someone's account of the past, and the New Testament's validity as a historical source document is without parallel amongst all ancient historical writings. As we continue throughout this work, we will be assuming that the New Testament accounts of the life of Christ are valid and accurate accounts of what Christ himself actually said and did. All of Christian theology hinges upon Christ and apart from him we have nothing.

All of us place our faith in others and in their words, so it is certainly reasonable for anyone—especially for those of the Christian faith (and for Christian theology)—to trust in the gospel accounts of the life of Christ. This act of faith and trust in others' accounts of persons and events of the distant past is similar to our act to reasonably trust someone's account of persons and events of the more recent past, which we more readily do. We trust what scientists tell us about the world, even though we haven't directly experienced the phenomena they tell us about; likewise we should trust what the Bible tells us about the world, even though we cannot directly experience (for ourselves) the people and events it relates to us..

The subject matter of science and theology are very different, yet the human desire for knowledge and the power of the human mind to reason is the same for both. The field of human knowledge that is devoted to knowledge itself and to the ability of the human mind to reason and to make sense of the world is known as *philosophy* (from the Greek: *philos*, meaning: *love*; and *sophia*, meaning: *wisdom*) and it is to the particular philosophy known as *phenomenology* that we turn next.

What is Phenomenology?

The word *phenomenology* comes from the combination of two Greek words: *phainomenon* (meaning: *to appear*) and *logos* (meaning: *the study of*). Phenomenology can be defined as: the study of how the world appears to us as conscious human observers; how we consciously perceive the phenomena of the world immediately through our senses. Phenomenology is described by Dermot Moran as “the attempt to get at the truth of matters, to describe *phenomena*, in the broadest sense as whatever appears in the manner in which it appears, that is as it manifests itself to consciousness, to the experiencer...phenomenology [as a philosophy] was seen as reviving our living contact with reality”.¹⁷ Phenomenology is a way of looking at—a way of thinking about—the world as-it-appears to us. It provides us with a philosophical conceptual scheme, or interpretive framework, we can use to help us reason about and make sense of our world.

The philosophy of phenomenology was conceived of and developed by Edmund Husserl (1859-1938). Husserl developed a concept called transcendental phenomenology, which can be described as a bracketing-off of our presuppositions in order to attain a *presuppositionless awareness* of the world. Although much impressed with the development and the discoveries of modern science, Husserl recognized that much of the thinking done by modern scientists was abstract thinking, and he realized how abstract thinking had led many scientists into (what Husserl called) *intellectual-play*. In other words, Husserl was concerned with how the abstract scientific mind-set could lead one away from the concrete experiential awareness of the world we (as conscious observers) have. Husserl knew the scientific mind-set could lead one away from the very real world of our experience into an abstract intellectual-play “world” that exists only in the minds of the scientists.

Husserl also noted that modern science, since Descartes, had simply presupposed the world as-it-appears to us. Modern science is so busy trying to figure the world out that it has neglected to appreciate our direct experience of the world. Husserl thought we should lay aside (or bracket-off) the abstract, intellectual-play, scientific categories of thought, which we have grown so accustomed to, and begin to see, experience, and think of the world as-it-appears, or as the world presents itself to us. Husserl was interested in how the conscious mind

¹⁷ Dermot Moran, *Introduction to Phenomenology*, (London: Routledge, 2000, 2004) pp. 4-5

experienced the phenomena of the world (through the senses) before we can even begin to *reason* about the world. Husserl's concept of bracketing can be defined as "the suspension (bracketing-off) of the presuppositions and abstractions implicit in the sciences, such as 'matter of fact', 'physical cause/effect relationship', 'material object'; by purifying one's perspective in this way, one is able to see things as they actually appear to consciousness."¹⁸ Phenomenology begins with the presentation of (objective) phenomena to the (subjective) consciousness of the perceiving subject. This perception of phenomena by the conscious mind of the observer creates a *field of interaction* between the observing subject and the objective phenomena of the world. It is this field of interaction, this consciously experienced world of phenomena, which Husserl called the *life-world* (German: *lebenswelt*).

The life-world is experienced at every moment of life, and by thinking phenomenologically we can begin to see our world—the world of experience—as-it-appears to us. We can begin to allow our conscious perception of the world to reveal itself to us for what it is: the pre-given life-world that is prior to any and all intellectual conceptualizations of, or scientific theories about, the world of phenomena. As phenomenologist Maurice Merleau-Ponty explains, phenomenology is "a philosophy for which the world is 'already there' before reflection begins—as 'an inalienable presence; and all its efforts are concentrated upon re-achieving a direct and primitive contact with the world, and endowing that contact with a philosophical status. It is a philosophy which shall be a 'rigorous science', but it also offers an account of space, time, and the world as we 'live' them."¹⁹

A phenomenological approach to doing philosophy, or to thinking about our world, begins with our observation of the world as-we-experience-it and as-it-appears to us. When we begin to view the world phenomenologically, the first thing we may notice is that we presuppose countless ideas, theories, opinions, interpretations, and facts concerning the world of phenomena, as well as how firmly established in our minds these presuppositions have become. We are heavily-laden with presupposed notions about the world, and, if we wish to view the world phenomenologically, we will need to recognize what these presuppositions are, attempt to lay them aside, and experience the world as-it-presents-itself to us.

¹⁸ *Dictionary of Philosophy*, Peter Angeles, editor (New York: Barnes and Noble, 1981) p. 27

¹⁹ Maurice Merleau-Ponty, *Phenomenology of Perception*, (London: Routledge, 1945, 1962) p. vii

It is not possible for us to attain a completely neutral or entirely presuppositionless perspective of the world, but it is possible for us to at least begin to approach our experience of the world phenomenologically (i.e., as-it-appears to us), unfiltered by our presuppositions. Modern science—despite its claims to pure, rational, objectivity—is, as we saw above, based upon the subjective *experience* of the objective world. Phenomenology, by leading us back to our conscious human experience of the world, reveals the subjectivity upon which modern science is based: “The whole universe of science is built upon the world as directly experienced, and if we want to subject science itself to rigorous scrutiny and arrive at a precise assessment of its meaning and scope, we must begin by reawakening the basic experience of the world of which science is a second order experience.”²⁰

Before one can even begin doing science one must first consciously experience the world of phenomena. Much of modern science is based upon logical deduction, therefore it is interested in developing subjective intellectual assumptions about (and intellectual conceptualizations of) the consciously experienced world of phenomena. Modern science conducts observations and experiments in order to prove that its abstract intellectual assumptions and theories about the world are true of the concrete physical world of experience.

The world is often presented to us by modern science in an overly objective, reductionist, abstract, and intellectual manner without science ever acknowledging that the world we experience is the only pre-given context and the only possible horizon of our lives (and of our scientific endeavors). But people are not simply *intellectual* beings who analyze the world and construct theories about it, we are—first and foremost—*embodied* beings, perceiving and experiencing our lives in-the-world. Merleau-Ponty explains:

“Perception is not a science of the world, it is not even an act, a deliberate taking up of a position; it is the background from which all acts stand out, and is presupposed by them. The world is not an object such that I have in my possession the law of its making; it is the natural setting of, and field for, all my thoughts and all my explicit perceptions.”²¹

²⁰ *ibid.*, p. ix

²¹ *ibid.*, p. xi-xii

As conscious observers who experience the world, our perception of phenomenal appearances is the starting point of all phenomenological thinking. Phenomenology, as developed by Husserl, was seen as a radically inductive philosophy that sought to describe the pure appearances of phenomena to consciousness apart from the presupposed scientific descriptions of phenomena. All of us, from our earliest years, have learned from various authorities (especially scientific authorities) how phenomena and their appearances are to be correctly described. Such presupposed descriptions, Husserl realized, are impossible to completely set aside:

“Husserl’s science of pure description very quickly ran aground on the problem of interpretation. Description on its own is seen to be highly prejudiced, culturally and historically biased, and so on, and description as such must be carefully interrogated (perhaps even with a ‘hermeneutics of suspicion’ to invoke Paul Ricoeur’s phrase). Even Husserl eventually had to concede that his attempts to found an absolutely presuppositionless first philosophy—phenomenology—had ended in failure.”²²

Although Husserl’s purely presuppositionless experience of phenomena is not possible, his quest for a pure, conscious, experiential awareness of the world opened the way for new ways of thinking about perception, the conscious awareness of the subject, and the objective world we experience. It also led to the realization that there is no neutrality regarding our perceptions: all facts are interpreted facts, and all descriptions of phenomenal appearances are interpretations of phenomenal appearances.

The philosophy of phenomenology led some phenomenologists into existentialist thought (e.g., Jean-Paul Sartre) and others into thinking about language and hermeneutics (e.g., Hans-Gorge Gadamer). Phenomenology was, therefore, a foundational form of postmodern philosophy. (Postmodern thought is oriented toward the *subjective*, whereas modern philosophy is oriented more toward the *objective*.) Husserl’s focus on the perceptual experience of objective phenomena by the conscious subject was a new and radical way of thinking; a di-

²² Dermot Moran, *Introduction to Phenomenology*, p. 189

rect challenge to modern philosophy and to the radically objectivist presuppositions of modern scientific thought.

The philosophical contribution of phenomenology, which is of most concern to us here, is for us to consider how we, as conscious subjects, perceive the world and what the appearances of phenomena may mean to us in a theological context. We will also be making use of phenomenology's critique of modernist philosophy and the radically objectivist presuppositions of modern scientific thought. In this work, I will be attempting to offer a new way of perceiving the world; a perception of the world very different from the way in which the world is perceived by modern science. This phenomenological way of viewing the world—of viewing the world as-it-appears to us—is just as valid, just as true, and just as *real* for us as is any *reality* that modern science might claim to have discovered underlying the appearances of phenomena. It is to this theological/phenomenological interpretation of the world and to how the phenomenal world appears to us that we turn next.

How Do Theology and Phenomenology Work-Together?

Both theology and phenomenology deal with the appearances of phenomena and the subject's experiential observation and perception of these phenomenal appearances. Modern science explains reality as that which underlies and gives rise to these appearances, defining physical reality as that which exists beneath and beyond our conscious, perceptual experience of phenomena. Modern science often dismisses the appearances of phenomena because it does not consider these appearances to be real (e.g., the earth *only appears* to be motionless; life *only appears* to have been designed; time *only appears* to pass at the same rate universally).

The world *as-it-appears* (to us) is our main concern here. Why *do* phenomena appear to us as they do? Is there some purpose for these appearances? Or are appearances simply a façade, an illusory and superficial veil needing to be lifted by modern scientific inquiry in order to reveal (to us) the true reality of phenomena? Phenomenology is valuable to us here because it begins its thinking about the world of phenomena with the way in which phenomena appears to us in our lived-experience of being-in-the-world. Thinking phenomenologically allows us to see the world apart from our modern, scientific, presup-

posed notions about the myriad phenomena we perceive and experience every moment of our lives.

Theology is also valuable to us here because, as we have seen, a totally presuppositionless experience of the world is not possible for us: some thought construct, some interpretive framework, some conceptual scheme, is already in place before can begin to reason and attempt to make sense of the world. In this way, theology and phenomenology are very different: theology *has* imposed meaning upon the world (deductively, through the sources of divine revelation) whereas phenomenology *has not*. Both seek to better understand the appearances of phenomena, whereas modern science seeks a reality—an objective, physical substructure—which exists behind these appearances, and asserts this reality as the only, true reality.

Because phenomenology seeks to understand the world of appearances as it is experienced by the conscious observer apart from the presuppositions of modern science (e.g., abstract concepts, or intellectual constructs), phenomenology can be thought of as being both postscientific and prescientific. Theology gives us a prescientific interpretation of the world and its phenomena and it also has a deductively based interpretive framework which explains what things are and why they exist. Phenomenology has an inductively based conceptual scheme it uses to explore how things appear to us, but not why they exist. When used as a philosophical framework for theology, phenomenology enables us to focus our attention and build our theological superstructure upon the foundation of *the world as-it-appears to us* as conscious, rational, people of faith.

Christian theology (and, in general, all of Western intellectual thought) has been heavily influenced by Greek philosophy and its particularly rationalistic approach to thinking. This, in itself, is not problematic, because what Greek philosophy recognized—that human thinking is rational—remains valid for us today. Yet the use of such a rationalist approach in constructing a theology does not allow us to fully appreciate, or to fully make sense of, divine revelation. Revelation came—not to the Greeks—but to the Semitic peoples of the land of Palestine (who later became known as the Jewish peoples of the Israelite nation; many of whom later accepted the revelation of God in Christ and became followers of Jesus Christ).

All people have the power of reason and rational thought, and yet all people do not communicate their thoughts to one another in the same ways. It is true that we all speak, listen, write, or draw in order to communicate our thoughts, but *what* we are speaking, writing, or

drawing varies accordingly from culture to culture. Ancient Middle Eastern cultures communicated (much more so than we of the Western intellectual tradition do) by way of story, or narrative. We will find ourselves much better able to understand the truths of revelation when we recognize that God, in his wisdom, communicated his truths (to us) in the form of a narrative (story) and not a theological/philosophical discourse.

To think, or to reason, about our faith is what theology is, and yet we need not be bound to the Western style of rationalization in order to do so. We cannot, and we should not, attempt to escape from rational thought altogether (e.g., the law of non-contradiction) because God has gifted us with the ability to reason; therefore we should make use of this ability. And yet we must allow our thinking to go beyond a mere rationalization and systemization of our faith (and of God) which would transform theology into yet another form of abstract intellectual-play. Our thinking about our faith (and about God) should begin at the beginning: with the revelation of the world as-it-appears to us (apart from our presupposed Western philosophical traditions), and we should translate this revelation into right actions and right living in-the-world.

Throughout the Bible we encounter *stories* through which God communicates his truths to us. Through these stories we can learn what it is that God would have us to know about himself, about ourselves, about how we should relate to others, and about our world. In this work, we will be allowing ourselves to view the world as-it-presents-itself to us in scripture: as a world created by God to be a home for us to live in, a home in which everything has function, meaning, and purpose; a world which has a direction and a final goal, and a world in which all things (beings) are an expression of God. The stories found in scripture present us with a perception of the world with which we are all very familiar, because this *same world* presents itself to us at every moment: a world which is abundantly furnished with people, animals, plants, rocks, rain, stars, rivers, mountains, clouds; in short, the world of phenomena as-they-appear to our conscious, human, existential experience of living—*being*—in-the-world.

Toward a Phenomenological/Theological Theory of Being

In philosophy, the study of *being* is called *ontology* (“Greek: *onta*, meaning: *the really existing things, true reality*; and *logos*, meaning: *the*

study of, the theory which accounts for"²³). Catholic theology has been tied to the Aristotelian ontological categories of Greek philosophy for centuries. The theology of St. Thomas Aquinas in particular, which has become the *sine qua non* of Catholic theology, is tied to the ancient Greek metaphysical/philosophical categories used by Aristotle. And whenever we think about God and the phenomenal world from this Thomistic theological perspective we must use the metaphysical categories of: *being*, *act-of-being*, *substance*, *accident*, *form*, and *matter*. These categories can be helpful to us in making sense of the world we perceive, and they can also help us to understand how all things are created and upheld by God our Creator. However, the theology of St. Thomas (along with its Aristotelian categories), as great as it is, is not the only way to think theologically and metaphysically about God and the world. Philosophical frameworks and categories of thought are inescapable, but we do have a choice about which frameworks and which categories can best enable us to reason about our faith and to reason about our God, in whom we believe.

When we reason by making use of the Thomistic/Aristotelian philosophical and metaphysical categories of *being*, *act-of-being*, *substance*, *accident*, *form*, and *matter* we are thinking about the phenomena we perceive and experience as existing in-the-world. We are thinking about what phenomena *are* in reality (the *objective* physical reality of phenomena), we are thinking about what phenomena *are* as-they-appear to our consciousness (the *subjective* perceptual reality of phenomena). The metaphysical terms *being* and *act-of-being* refer to that which *exists* (as-it-appears to our senses) as particular *things* (*beings*) as well as that *action* by which things can be said to *exist* at all (*act-of-being*). In theology, all *things* (*beings*) exist (and subsist) by virtue of the creative and sustaining *being* of God (God's *act-of-being*) who alone is pure being and pure existence. We find a similar way of thinking about the phenomena of the world, and of God our Creator, expressed in scripture:

"[F]or in him [God] all things [*beings*] were created . . . all things [*beings*] were created through him [God's *act-of-being*] and for him [God]. He [God] is before all things [*beings*], and in him [God] all things [*beings*]

²³ Peter Angeles, *Dictionary of Philosophy*, (New York: Barnes and Noble Books, 1981) (emphasis in original)

hold together [God's *act-of-being*]" (Colossians 1:16-17).²⁴

The metaphysical term *substance* is used to denote those things (or *beings*) we perceive (by way of our sense perceptions) and experience in-the-world as *wholes*, which can be defined as *particular* things. The term *substance* denotes a thing (*being*) we can identify as an individual or particular thing. The term *accident* is used to describe the characteristics of the *substance* which appear to our senses: a particular thing's shape, size, color, weight, place, and position. Every *substance*, or thing, *is* what it *is* by virtue of its *form* and a being's *form* is the internal organizing principle (or structure) directing it to become what it is to *be*.

All things (beings) have *form*, and a thing's form directs it toward its *end purpose* or *goal* (Greek: *telos*); what each particular thing is to be. The metaphysical term *matter* denotes that which is *a state of potentiality* upon which *form* acts in order to *individuate* each particular *substance* (*thing*, or *being*) from its general categorization (example: one *particular* oak tree as opposed to all oak trees *in general*). *Matter* apart from form essentially cannot exist; a thing's being or existence as-a-thing is determined by its form, and a thing *is* because both matter and form *work-together* in order for a substance (being) to be.²⁵

This rather complicated, arcane, and, I think, outmoded, Greek philosophical approach to the metaphysical categorization of our conscious experience of the phenomenal world, which was later adopted by Catholic theology, is explained well by Terence Nichols, and is worth quoting here at length:

"Both Platonic and Aristotelian [philosophers] thought of individual things, from dust motes to humans, as composed of matter and form. Matter was not what we now think of as matter: it was a purely amorphous, passive potency, with the capacity to receive form. It was the (substantial) form of a thing

²⁴ St. Paul (in this passage of scripture taken from his *Letter to the Colossians*) is here referring to Christ (in particular) as the Creator and Sustainer of all creation. I have taken the liberty of here referring to Christ as God (in the more general sense) as the Creator and Sustainer of all creation in order to clarify the subject at hand. As Christians we believe the one God exists eternally in three divine Persons: Father, Son, and Holy Spirit.

²⁵ In this section (on the various metaphysical categories) I have simplified the much more detailed explanation given by Etienne Gilson in: *The Christian Philosophy of St. Thomas Aquinas* (see pp. 29-36) and I refer the interested reader to that excellent work.

that made it the kind of thing it was: a rock, a piece of gold, a rose, a horse, a human being. Form did not mean external shape; it meant the internal organizing structure of a thing. For gold, it would be what makes gold gold and not another metal, like lead. For a plant, a horse, a human, it was tantamount to the soul: the internal principle that made a thing what it was. Any individual existent thing, then, from a rock to a person, was a composite of both form and matter. The presence of internal form was critical. For inherent in the form was also a goal, an inbuilt end (called the final cause), which directed the entity toward its goal. For an acorn, this would be to become an oak, to flourish and to leave progeny. For a baby, it would be to become an adult human being.”²⁶

This ancient method of categorizing phenomena metaphysically is unfamiliar to most people today (except for philosophers and Catholic theologians) and, although it is somewhat helpful, it is also (I think) unnecessarily complicated, arcane, and outdated. I believe phenomenology can be of much greater assistance to theology in making better sense of the phenomenal world than the ancient Greek philosophy can.

We perceive phenomena directly as phenomenally whole forms (e.g., trees, rivers, animals, or people) and these phenomenal wholes are things that are; things that exist as wholes forms: *beings*. Our experience of things as wholes in-the-world is dependent upon our sense perceptions of the world, which are created by our minds and our bodies *working-together* in order to produce (in us) the conscious experience of living and being-in-the-world. We find ourselves alive and in-the-world as conscious, living, objective/subjective phenomena: we exist objectively and we perceive subjectively. Our perception of the phenomenal world is a dynamic synthesis, the interaction between objective phenomena and the experiential subjectivity of consciousness. This interaction, or field of interaction, between the world's presentation of itself (to us) and our conscious perception of the world (what Husserl called: the *life-world*) is *being* (or *act-of-being*) in the truest sense.

We cannot escape from this dynamic synthesis of objective and subjective, because it is *the dynamism of existence*: it is *pure being*. God

²⁶ Terence L. Nichols, *The Sacred Cosmos* (Grand Rapids: Brazos Press, 2003) p.41

exists eternally in three persons (Father, Son, and Holy Spirit); he exists eternally, both objectively and subjectively; he exists (objectively and eternally) and he perceives (subjectively and eternally) his own existence. God exists eternally in a triune interpersonal relationship: one God in three divine Persons. In like manner, God created the (objective) world as a world which, since its creation, has always been, now is, and always will be perceived (subjectively) by the triune God.

There has never been a time when the phenomena of the world have gone unperceived. The phenomenon that is *the world* has always existed as a phenomenon perceived by the Creator of the world; the world being perceived as both objectively and subjectively *real*. In fact, it is only within this dynamic existential field of interaction (between subject and object) that anything can be said to *exist* (or to have *being*) in any real sense at all. And because God exists both objectively and subjectively, the entire world he created exists both objectively and subjectively as well.

God's creation of the world of phenomena was not simply a fashioning of a home for his creation (although it was that as well); God's creation of the world was, and is, an expression of his own being, of his own existence (within the dynamism of his triune nature), and the entire world of experience we encounter is an expression of God's living and eternal *being-in-action*. From the beginning of the world, a bare, objective, unperceived, brute phenomenon has not existed: everything (every *being*) created by God is upheld, sustained, and perceived immediately by the Creator-God. Our Creator-God endowed certain beings (human beings) with conscious perception, reason, and emotions by which they, too, could participate in the eternal being (being-in-action) of God, who exists eternally within the dynamic relational matrix of the Trinity.

Apart from God's own perception of the phenomenon of the world, the scriptures tell us that the creation of the world was not *finished* until after the sixth day of creation when conscious beings capable of perception—and created in the Creator's own image and likeness—were created: "Let us make man in our image, after our likeness" (Genesis 1:26)²⁷ and he rested from his work of creation on the seventh day, "Thus the heavens and the earth were finished, and all the host of them. And on the seventh day God *finished* his work which he had done, and he rested on the seventh day from all his work which he

²⁷ In this passage, we see the dynamic relationship which exists eternally within the Trinity: "Let *us* make man in *our* image, after *our* likeness" (emphasis added).

had done" (Genesis 2:2, emphasis added). The world was not "finished" until the objectively existent phenomena of the world could exist subjectively in the conscious, perceptual, lived-experiences of those beings who were themselves the very image and likeness of God: *human* beings.

According to the Bible, there has never been a time, not since the finished creation of the world, when the world has gone unperceived by human beings.²⁸ Our world was created by God as *a world perceived*. In order for us to think properly about our world, we must recognize that both the phenomenal world and we ourselves always *exist together* within a synergic matrix of objectivity and subjectivity. Ultimately, objective phenomena cannot be said to exist apart from the subjective perception of objective phenomena; nor can subjective phenomena be said to exist apart from objective phenomena. Consider these questions: "If no one were there to perceive it, would time still exist?" "If a tree fell in the forest and no one was there to hear it, would it still make a sound?" In the dynamic world of our experience, these sorts of hypothetical, abstract, intellectual questions are simply pointless. The world we *know* is a world which we can and do perceive; and we cannot know or perceive any world but this world.

Both the existential world of phenomena which present themselves to us and we ourselves—who exist and perceive the existential presentation of the world of phenomena—are the creational expressions of the very being of the Creator-God, who exists within the eternal, relational, synergic matrix of the Trinity. Our existence is continually upheld by the Creator-God within this objective/subjective triune relational matrix. And like the triune God, both we ourselves and the phenomenal world exist (within this dynamic relational matrix) as the living synergy of objectivity and subjectivity. Any attempt to separate the two (objective and subjective) becomes an abstract, intellectual construct which does not correspond to the real world that we experience.

The myriad phenomena of the world present themselves to us as *wholes*; we don't perceive them as substances having accident, form, and matter. In order to think metaphysically about phenomena we may wish to break phenomena down into these sorts of manageable metaphysical categorizations, but we should not imagine that these categorizations present us with a true picture of reality; this is an ab-

²⁸ The world is perceived by all conscious beings, such as animals, but we are mainly concerned here with *human* perception because it is the most God-like.

stract philosophical conceptualization of phenomena (i.e., intellectual-play). Modern science, in a similar way, breaks phenomena down into its constituent physical parts and presents us with us a picture of (what is asserted by science to be) the true (objective) reality behind the (subjective) appearances of phenomena. This, too, is simply an abstract, intellectual-play conceptualization of phenomena.

Neither a metaphysical nor a scientific presentation (or picture) of reality should replace in our minds the very real and true perception of phenomena as-they-appear-to-us and as-we-experience them to be. It is only within the dynamic experiential matrix of objective/subjective relational synergy (existing eternally within the Trinity) that any phenomenon can be said to have any reality, in the ontological sense, whatsoever.

It is as beings created in the image and likeness of the triune God that we *live* in the world of phenomena. The world was created for us to be lived in as our existential home, and a world which also functions as the backdrop and horizon of our embodied human existence. Everything that occurs in our lives occurs in-the-world, and there is no abstracting or separating our embodied existence from the context of the world. God created both the world and humankind to exist together, and he intentionally created the world to be perceived by us as-it-appears to us. It is only by perceiving our world as God desires for us to perceive it which can enable us to truly understand the purpose God has for our being-in-the-world and for the existence of the world itself.

Theology and phenomenology can work-together in order to give us a better perspective, or a better view, of our world; most especially, a better perspective than is the view of the world presented to us by modern science, which many of us (whether intentionally or not) have adopted. In the next section, we will be examining two very different views of the world: the prescientific (biblical) view and the modern scientific view. We will be using the theological/phenomenological method as the means by which to better understanding the world God has created, to discover what view of the world God would desire for us to have, and to learn why this is the view of the world we should have.

Chapter Two

The Prescientific (Biblical) and Modern Scientific Views of the World

Introduction

In this chapter, we will be examining two distinctly different views of the world: the prescientific (biblical) view and the modern scientific view. These two ways of perceiving the world differ dramatically, and yet both views describe, or attempt to describe, the world in which we live. Many people believe that modern science has disproven the biblical view of the world, because the biblical view of the world is *prescientific*: it describes the world as it was understood before the rise of modern science.

I don't believe the Bible's view of the world is incorrect simply because it describes the world differently from the way in which modern science describes it; I believe both views have their place. What is important for us to understand is that the modern scientific view of the world is not the only correct view of the world. Science, as a field of human knowledge, can only tell us certain things about the world. Likewise, the Bible can only tell us certain things about the world. But, because these two views *are* so dramatically different, it's not uncommon for some people to dismiss one view and hold to the other—believing the one view to be far superior to the other.

As we will see in this chapter, these two views of the world (the biblical and the modern scientific) do appear to contradict one another, but I think it's possible for us to understand our world better by incorporating both of these views and by allowing each view to provide us with its own particular *kind* of knowledge, which will enable us to form a better over-all view of the world.

The Prescientific (Biblical) View of the World

Before the advent of modern science, people's views of the world were based upon sense perceptions, and this sensually perceived experience of living-in-the-world gave prescientific peoples (what they believed to be) true and accurate knowledge of the world. This sensory-based perception of the world quite naturally developed into a way of thinking about, ordering, and making sense of *the world* as a whole. Prescientific peoples perceived the world (or the earth) to be firm and un-moving, and, in the heavens, they perceived the motions of the sun, moon, stars, and planets. From the regular motions of these celestial bodies, they were able to order and regulate their lives in time, on earth, and in-the-world.

The Bible—written, as it was, during the many centuries before the rise of modern science—presents us with precisely this type of prescientific view of the world. The biblical writers present the world to us as-it-appeared to them, along with their sensory-based conclusions about what these phenomenal appearances suggested to them concerning the reality of the world. Also, God had revealed (to the biblical writers) truths about the world that were consistent with these sensory-based observations and conclusions. Most modern commentators on the Bible attribute the biblical writers' view of the world, and their conclusions about the world, to the biblical writers having thought within a prescientific frame of reference.

The revelations of God's truths about the world, which came to (and through) these writers, is caught up within this prescientific way of thinking about the world, and this fact raises good and important questions regarding the validity of the biblical revelation in the minds of most modern people. If the Bible presents God's revealed truths about the world from within a prescientific intellectual framework, then the question is: If this prescientific conception of the world is now proven by modern science to be false, how then can we place our trust in this revelation? This question has perplexed many people since the rise of modern science, especially since the Church's controversy with Galileo and the Copernican Revolution. In fact, both the Church and the Bible have never recovered from the blows (to their credibility) they received from the hands modern science (during the sixteenth century), when science (supposedly) proved the biblical view of the (physical) world to be false.

The biblical view of the world was the (prescientific) view of both the Hebrews (in the Old Testament) and the early Christians (in the

New Testament). This view of the world perceived the earth as being stable, unmovable, and supported (by columns). Water was thought to be both below (fresh waters) and surrounding (the seas) the earth and, additionally, water was also thought to exist above the sky; the sky having windows (or floodgates) which would open and allow the rains to fall. The sky (or the firmament) above, with the heavenly bodies (the sun, moon, and stars) in motion, was seen as a great dome over the earth; above this dome of the sky was the abode of God and his holy angels; and beneath the earth there was thought to exist a realm of the dead (*Sheol*). We will examine each of these biblical revelations, perceptions, and prescientific conclusions about the world (as-it-appeared to the biblical writers) in the following order: *The Abode of God*; *The Firmament*; *The Waters Above and Below the Firmament*; *The Stable and Unmovable Earth*; and *Sheol*.

Heaven: The Abode of God

In the Old Testament, the word *heaven* (Hebrew: *samayim*) has two meanings: 1) *the sky above the earth*, and, 2) *the abode of God*. The Bible tells us the abode (or throne) of God is in heaven, above the earth: “The LORD looks down from heaven, he sees all the sons of men; from where he sits enthroned he looks forth on all the inhabitants of the earth, he who fashions the hearts of them all, and observes all their deeds” (Psalm 33:13-14). The Bible often refers to God as dwelling *above* the earth (see Gen. 11:4-5; Job. 22:14; Ps. 29:10, 33:13; Is. 40:22; Amos 9:6; Acts 1: 9-11).

When we consider the perspective of ancient, prescientific peoples, who were using their sense perceptions *of* the world as a basis for their knowledge *about* the world, it is reasonable that they would deduce theories about the world from the way in which the world appeared to them. The sky seems (when compared to the earth) to be incorruptible and eternal, due to its seemingly timeless and changeless appearance. The lighter, airier nature of the sky—with its daytime sunlit blue and its nighttime star-studded black—makes it appear endless and eternal. The only changes perceived in the sky are the movements of clouds and the regular motions of the celestial bodies: the sun, moon, planets, and stars, which are, likewise, seemingly eternal.

Prescientific peoples knew that—for generations—the sky, with its celestial bodies in their regular motions, had existed just as it al-

ways had for all peoples in all times. From this timeless and unchanging nature of the heavens, ancient peoples must have easily conceived the idea of the heavens as being the *abode of the divine* (e.g., God, or the gods). The biblical writers, being prescientific people, could have easily imagined a realm above the sky where the LORD was enthroned; but God also revealed the truth of the existence of this realm to the biblical writers. For the biblical writers, this was not simply a deduction from prescientific appearances: the way the world appeared to them was supported by divine revelation.

It would not be unreasonable for prescientific peoples to have deduced the existence of a heavenly realm of the divine from their perceptions of the world as-it-appeared to them. What *does* seem unreasonable to us today (living, as we do, in the era of modern science) is that God, who knows everything about the world, would convey information about the world that was known (by him) to be false (i.e., scientifically untrue). But is this information false? One of the truths which God has conveyed to us (through the biblical writers) concerning the heavens is that the Creator-God is distinct from—both *above* and *beyond*—the created world. When we look beyond ourselves, when we look beyond our world, we are looking up and away from the world; when we look to the sky and beyond, we are looking toward heaven, and toward God.

The Bible tells us the ancient Hebrews believed the LORD was present everywhere in the world, and not only in heaven. They believed that, because God is the Creator of the world, he is especially present *above* and *beyond* the created world. Solomon declared that even the highest heaven could not contain the presence of God: “But will God indeed dwell on the earth? Behold, heaven and the highest heaven cannot contain thee; how much less this house which I have built!” (1 Kings 8:27). And the Psalmist proclaimed there was no place, either in heaven or on earth, in which God’s presence was not also there:

“Whither shall I go from thy Spirit? Or whither shall I flee from thy presence? If I ascend to heaven, thou art there! If I make my bed in Sheol, thou art there! If I take the wings of the morning and dwell in the uttermost parts of the sea, even there thy hand shall lead me, and thy right hand shall hold me” (Psalm 139:7-10).

The Firmament

The Bible refers to the sky as *the firmament*, which is a translation of a Hebrew word (*raqiya*) meaning: *the expanse of the sky*. We find the firmament mentioned in the very beginning of the Bible, in the story of the creation of the world:

“And God said, ‘Let there be a firmament in the midst of the waters, and let it separate the waters from the waters.’ And God made the firmament and separated the waters which were under the firmament from the waters which were above the firmament. And it was so. And God called the firmament Heaven. And there was evening and there was morning, a second day” (Genesis 1:6-8).

The firmament is *the heavens* or *the sky*, and within the firmament God creates the heavenly lights (the sun, moon, and stars) that move and winged creatures that fly (see Genesis 1:14, 20). This understanding of the sky as a great expanse (or a great dome) above the earth is based upon the way the sky *appeared* to prescientific peoples. And the sky appeared to them the same as it appears to us: the sky appears to exist above the earth and surrounds it as far as the eye can see. The sky is the very limit of our horizon in every direction (i.e., 360 degrees) except down. The sky is unreachable, and the heavenly bodies (the sun, moon, planets, and stars) appear to be very distant; an indication to us that the sky’s limit is very far away indeed. The sky was seen by prescientific peoples (as it still appears to us) as a sort of tent or shelter (a dome) beneath which all of our activities take place. The Bible explains this understanding of the sky quite explicitly: “It is he who sits above the circle of the earth, and its inhabitants are like grasshoppers; who stretches out the heavens like a curtain, and spreads them like a tent to dwell in” (Isaiah 40:22). Seen as such, the sky is, in fact, *the ceiling* (Latin: *caelum*, meaning: *sky*, or *heaven*) of our world; the only existential world-home we perceive.

The Waters Above and Below the Firmament

The Bible presents us with a rather unusual view of the world: we are told there are waters existing *above* the firmament of the sky:

“And God said, ‘Let there be a firmament in the midst of the waters, and let it separate the waters from the waters.’ And God made the firmament and separated the waters which were under the firmament from the waters which were above the firmament. And it was so. And God called the firmament Heaven. And there was evening and there was morning, a second day” (Genesis 1:6-8).

Even long after the creation event, the Bible presents the existence of these waters, which are above the firmament: “Praise him, you highest heavens, and you waters above the heavens!” (Psalm 148:4). From the perspective of prescientific peoples, who relied so heavily upon their senses to tell them about the world, it makes sense that they would think of *rain* as being *water from above*. But the Hebrews also had, in addition to their senses, knowledge of the world revealed to them by God, which verified their sensory-based observations of the world.

We find God, in the creation story of Genesis, creating the world with waters both *above* and *below* the sky (Genesis 1:6-8). Additionally, we find there was *a mist* coming up from the earth to water the ground, because the LORD had not yet caused it to rain (see Genesis 2:4-6). Rain first appears in conjunction with God’s sending the waters of a great flood upon the earth in order to destroy every living thing (Genesis 6-7). When God sends this flood of waters upon the earth, the water comes from both *below* and *above* the earth:

“In the six hundredth year of Noah’s life, in the second month, on the seventeenth day of the month, on that day all the fountains of the great deep burst forth, and the windows of the heavens were opened. And rain fell upon the earth forty days and forty nights” (Genesis 7:11-12).

When the flood was abated, “the fountains of the deep and the windows of the heavens were closed, the rain from the heavens was restrained” (Genesis 8:2). From these last two passages we can understand the opening and closing of “the windows of the heavens” to mean the beginning and ending of the great fall of rain. The “fountains of the great deep” are the waters of, in, and below the earth (e.g., oceans, seas, rivers, streams, and springs).

The prescientific peoples of biblical times (who relied so heavily upon their sense perceptions) were also aware that *clouds* brought forth the rains, as the biblical writers themselves demonstrate: “If the clouds are full of rain, they empty themselves on the earth; and if a tree falls to the south or to the north, in the place where the tree falls, there it will lie.” (Eccles. 11:3; see also 1 Kings 18:44-45; Ps. 147:8; Prov. 16:15; Is. 5:6; Zech. 10:1). The phrase “the waters which were above the firmament” is a figure of speech used for the rain, which, from a sensory based perception of the world, comes from *above*, or *out of* the sky.

The Stable and Immovable Earth

In the Bible, the earth is presented (to us) as being *unmovable* and *steadfast*: “[T]remble before him, all the earth; yea, the world stands firm, never to be moved (1 Chron. 16:30; see also Ps. 93:1). The earth was perceived by the Hebrews as the firm ground upon which they lived-out their lives. The earth is that which is beneath us at all times, and it is that without which we would have no stability whatsoever. Everything and everyone rests *upon* the earth; the earth being much like a platform (or stage) upon which we exist.

With the exception of the heavens, the earth encompasses all that we see, and it is bounded only by the horizon of the earth’s meeting with the sky. The biblical revelation tells us: “In the beginning God created the heavens and the earth” (Gen. 1:1), and what the biblical writers are telling us here is that God, in creating the world, has created two distinctly different (yet equally important) phenomena—the heavens and the earth—which, together, forms (for us) one *horizon of existence* in-the-world. The earth and sky together provides us with an overarching framework (or background) for living-in-the-world, and it is within this world of *earth and sky together* that all phenomena are contextualized. For this reason, we might call the phenomenon of earth-and-sky-together: a *metaphenomenon*.

The biblical writers also tell us why the earth is steadfast and immovable: because God has set the earth upon *pillars*: “He [God] raises up the poor from the dust; he lifts the needy from the ash heap, to make them sit with princes and inherit a seat of honor. For the pillars of the earth are the Lord’s, and on them he has set the world” (1 Sam. 2:8; see also Job 9:6, 38:6; Ps. 75:4; 1 Sam. 2:8; 1 Chron. 16:30).

This biblical understanding of the earth's foundations having been set upon pillars (to insure its stability) is certainly a prescientific view of the world, and yet the Bible also offers a very common sense (and sensory-based) explanation for this understanding: "Hear, you mountains, the controversy of the Lord, and you enduring foundations of the earth" (Mic. 6:2a). The Bible presents the mountains of the earth *in conjunction with* the deep foundations of the earth: "In his hand are the depths of the earth; the heights of the mountains are his also" (Ps. 95:4). From the perspective of prescientific people, the mountains are the visible uprisings of the deep foundations of the earth, the pillars upon which the earth (or the ground) ultimately rests.

The LORD put this question to Job: "Where were you when I laid the foundation of the earth? Tell me, if you have understanding. Who determined its measurements—surely you know! Or who stretched the line upon it? On what were its bases sunk, or who laid its cornerstone?" (Job 38:4-6). For prescientific peoples the earth was firmly situated beneath their feet, and just as they would construct a building upon a firm foundation, the Lord also constructed the earth upon a firm foundation. The mountains are the visible evidence of the existence (beneath the earth) of the invisible pillars, which support the ground and provide the earth with its firm foundation. The mountains, much like icebergs, appear to us as the visible (upper) portions of the much larger pillars, most of which remains concealed beneath the ground.

Sheol

In the Old Testament, the Bible presents us with the Hebrew concept of *Sheol* (Hebrew: *Sh'ol*), *the abode of the dead*, which is synonymous with both *death* and *the grave*: "Like sheep they are appointed for Sheol; Death shall be their shepherd; straight to the grave they descend, and their form shall waste away; Sheol shall be their home" (Ps. 49:14). The ancient Hebrews believed the abode of the dead (i.e., Sheol) existed beneath the earth: "As the cloud fades and vanishes, so he who goes down to Sheol does not come up; he returns no more to his house, nor does his place know him any more" (Job 7:9-10; see also Num. 16:28-34).

The earth, with its myriad forms of life, appeared to ancient peoples as *corruptible* and *ever-changing*—especially in comparison to the heavens. When plants, animals, and people die, they decay and go

into the earth, or the ground. And it was very common for ancient peoples to bury their dead in the ground. It's not hard for us to imagine prescientific peoples, guided by their sense perceptions, drawing the conclusion that—somewhere beneath the earth—an *abode of the dead* existed.

We can see here the perceptive nature of prescientific peoples at work. All living things die, decay, and ultimately make their way down into (or beneath) the earth. This is a view of the world based upon sensory perceptions and, as such, it is a very reasonable view. It's only natural the ancient Hebrews would develop (logically) the concept of an underworld of the dead beneath the ground because this is where they perceived all living things to (eventually) go. More importantly, God had also revealed to the Hebrews the very real existence—beneath the earth—of an abode of the dead (i.e., Sheol).

The Hebrews thought of the abode of the dead as the place where all of the dead go, regardless of their deeds. The first time the concept of Sheol is mentioned in the Bible is when Jacob is told that his son Joseph had died: "All his sons and all his daughters rose up to comfort him; but he [Jacob] refused to be comforted, and said, 'No, I shall go down to Sheol to my son, mourning.' Thus his father wept for him" (Gen. 37:35). Both Jacob and his son were righteous, but Sheol was their final destination. Sheol is also the final destination of the unrighteous: "The wicked shall depart to Sheol, all the nations that forget God" (Ps. 9:17).

When the Hebrews translated their scriptures into Greek (i.e., the Septuagint), the word *Sheol* was translated into the Greek word *Hades* which represents a very similar conceptualization of the *abode of the dead*. For example, the Old Testament passage: "For thou dost not give me up to Sheol, or let thy godly one see the Pit" (Ps. 16:10) is repeated in the New Testament (relying upon the Greek Septuagint translation) and reads: "For thou wilt not abandon my soul to Hades, nor let thy Holy One see corruption" (Acts 2:27).

In a very important New Testament passage, Christ himself gives us an excellent picture of the Hebrew conception of *Sheol* (or *Hades*) as being the abode of both the *righteous* and the *unrighteous* dead. This passage is found in the sixteenth chapter of the Gospel of St. Luke and is known to us as the story of The Rich Man and Lazarus. It is worth quoting the story here in full:

"There was a rich man, who was clothed in purple and fine linen and who feasted sumptuously every

day. And at his gate lay a poor man named Lazarus, full of sores, who desired to be fed with what fell from the rich man's table; moreover the dogs came and licked his sores. The poor man died and was carried by the angels to Abraham's bosom. The rich man also died and was buried; and in Hades, being in torment, he lifted up his eyes, and saw Abraham far off and Lazarus in his bosom. And he called out, 'Father Abraham, have mercy upon me, and send Lazarus to dip the end of his finger in water and cool my tongue; for I am in anguish in this flame.' But Abraham said, 'Son, remember that you in your lifetime received your good things, and Lazarus in like manner evil things; but now he is comforted here, and you are in anguish. And besides all this, between us and you a great chasm has been fixed, in order that those who would pass from here to you may not be able, and none may cross from there to us.' And he said, 'Then I beg you, father, to send him to my father's house, for I have five brothers, so that he may warn them, lest they also come into this place of torment.' But Abraham said, 'They have Moses and the prophets; let them hear them.' And he said, 'No, father Abraham; but if some one goes to them from the dead, they will repent.' He said to him, 'If they do not hear Moses and the prophets, neither will they be convinced if some one should rise from the dead' (Luke 16:19-31).

In this passage—which, we should note, is not given to us as a parable but as a real event—we find both the righteous Lazarus and the unrighteous Rich Man residing in the abode of the dead. Yet there is an important distinction made between *Abraham's bosom* where Lazarus is comforted and *Hades* where the Rich Man is in torment. Both men appear to be within close proximity of one another (the Rich Man can *see* Lazarus) and within this realm of the dead there is a great chasm, which has been fixed in order to separate those who are in torment from those who are comforted. This passage of scripture gives us an excellent visual image of the Hebrew conception of Sheol: the abode of the dead. We see the righteous dead in what we would consider Heaven and the unrighteous dead in what we would consider Hell, and yet both groups of people (or departed souls) are in Sheol,

the abode of the dead—which, to the ancient Hebrews, existed beneath the earth.

The Prescientific Awareness of Teleology

The Hebrew conception of the world is prescientific, and we find this prescientific view of the world throughout the Bible. It is very similar to the prescientific views of the world once held by common people, philosophers, natural philosophers (i.e., scientists), scholars, and theologians the world over for many centuries. In the West, even after modern science had come of age, this same prescientific view of the world continued to be held by the Catholic Church. However, both the Church (with its biblically and religiously based worldview) and the (earlier) Greek thinkers (especially Aristotle and Plato) also thought of the world *teleologically*, meaning they thought of the world as having a goal, an end, a function; a purpose toward which it was being directed. This teleological way of viewing the world is quite rational; for example, there is an observably evident *goal* (i.e., *maturity*) toward which all living things develop. When prescientific people observed the growth of living things (e.g., people, plants, animals) they observed all living organisms as being directed, in some unseen fashion, toward their mature, fully developed forms.

Religious and philosophical thinkers developed many and various explanations for the possible ultimate cause for the design and purpose of life. And these thinkers were, for the most part, in agreement that our world—especially life—was ordered and directed toward certain *ends* or *goals*. The thirteenth century Catholic philosopher and theologian Thomas Aquinas (1225-1274)—who was so heavily influenced by the philosophy of Aristotle—reasoned that the existence of the world, with its inherent teleology, must connote the existence of an ultimate being (God) who was (in Aristotle's terms) the first cause which directed all things (phenomena) toward their various ends (i.e., the Aristotelian concept of *form*.) On this aspect of Aquinas' philosophy, Gilson comments: "It is impossible that contrary and disparate things should be in accord and reconciled within the same order, either always or very often, unless there exists a being governing them and causing them, collectively or individually, to tend towards one determined end."²⁹

²⁹ Etienne Gilson, *The Christian Philosophy of St. Thomas Aquinas*, p.75

Ancient peoples' sensory-based perception of the phenomenal world made them very aware that the world—especially life—had inherent design, function, direction, and determined ends. To attempt to give an explanation for this apparent design and function is to engage in *teleological* thinking. It's to be expected that ancient peoples would engage in thinking (or reasoning) teleologically because they so readily observed the design, functionality, growth, and direction of all living things. Mary Midgley explains how such teleological thinking can act as an explanation:

*"Teleological is the name of a kind of explanation, namely, one that works by mentioning a function—not, for instance, by mentioning a cause...All talk of function is therefore in any case teleological. It is about design. What relation this fact may have to the possible presence of a designer is a separate question."*³⁰

The world, as it was observed in prescientific times, was a world which appeared to be functional (as a whole) and directed (somehow) toward a goal. That some prescientific peoples would, from this observation of the world, conclude (reasonably) that such design and function indicated the presence of a guiding intelligence, or of a Creator of the world, should not surprise us.

The natural world we observe today is no different from the natural world observed by ancient peoples. Many intelligent people today find God to be a perfectly rational explanation for the order, design, and function found in living organisms and throughout the physical world. Others, who, for whatever reasons, choose not to believe in God as a rational explanation for the existence of the world, or for the order, design, and direction inherent in all living organisms, still find it necessary to find some sort of answer to the question of why order, function, and purpose appear so evidently in the world. People must think teleologically about the world, regardless of what view of the world they may hold, because the world we observe requires a teleological explanation.

Modern people, who are not easily given to believing in God as a valid explanation for the existence of life, usually adopt the explana-

³⁰ Mary Midgley, *Science as Salvation* (London: Routledge, 1993) p.11

tion given to them by modern science: evolution by natural selection. This provides them with an adequate *narrative explanation* for the obviously teleological nature of the world, as well as providing them with a *scientific alternative* to the hypothesis of God the Creator. But either way, whether one is religious or not, we all require some sort of narrative teleological explanation for the order, design, direction, and function we so readily observe in our world. The narrative explanations we choose to accept—whether religious or scientific—are stories, narratives, and myths which function as over-all explanatory narratives of the world, helping us to better understand the world. And we cannot understand the world without the use of some type of narrative explanation of the world; as Midgley puts it: “We have a choice of what myths, what visions we will use to help us understand the physical world. We do not have a choice of understanding it without using any myths or visions at all.”³¹

The Modern Scientific View of the World

Science—especially modern science—pursues objective knowledge of the natural world and properly seeks only natural and material physical causes in order to explain the phenomena of the natural world. Because the task of science is to seek only natural and material explanations for phenomena, modern science explains all natural phenomena *naturalistically* (i.e., as being governed by naturally occurring processes, forces, and laws) and *materialistically* (i.e., all natural phenomena are (ultimately) some form of matter/energy in space/time). This naturalistic and materialistic (or modern scientific) view of the world has become increasingly discontent to allow any other points of view (especially the supernatural and the subjective) to be considered true but its own. Modern science presents us with the scientific facts about the natural physical world, and these facts, to modern science, are beyond dispute: scientific facts are considered the only true facts, the only true descriptions of reality, and the only true explanations of our world.

The scientific view of the world is the prevailing worldview of modern times; if we want knowledge of the world, or if we want knowledge of the phenomena of the world, then we look to modern science for the answers. If *reality* and *truth* have any meaning to those of us

³¹ *ibid.*, p.13

living in the modern world they have a *scientific* meaning, because there is nothing in the physical world that modern science has not measured, weighed, quantified, examined, and given a factual, scientific definition and explanation. Modern science has given us both *universal* and *particular* knowledge of the world, and, in today's modern world, most everyone agrees that the facts and theories of modern science give us true knowledge of the world (i.e., cosmos/universe) and its phenomena. Modern science has provided humanity with its first, factually correct, *cosmology* (or *ordered sense* of the world).

The scientific presentation of an ordered view of the world is presented to us by the science of cosmology: the scientific study of the world (cosmos/universe) in which we find ourselves. Our English word *cosmology* comes from two Greek words: *kosmos*, meaning: *the world* (in the sense of *an ordered world*, rather than simply: *the earth*); and *logos*, meaning: *the study of*. Cosmology, this *study of the world*, is the science of the greater world in which we live: the earth, moon, sun, planets, stars, and galaxies; cosmology presents us with the scientific truths about this greater world we live in. Cosmology accurately presents our world (cosmos/universe) to us by providing us with factual data about our world. In our day, if someone wants to *know* what the phenomenal world *is*, people believe that science alone is capable of giving them the correct answers.

In the section above, we examined how the Bible presents the world to us, how the world appeared to prescientific peoples, and how these ancient peoples made (ordered) sense of the world. In this section, about the modern scientific view of the world, we will be examining how the world appears to modern peoples who have adopted the modern scientific worldview.

Science has long sought after the fundamental *matter* or *stuff* of which all that exists is ultimately composed. The *atomist* theory of the existence of such fundamental matter (i.e., *atoms*; the Greek word: *atomos*, meaning: *that which is indivisible*) was central to the philosophies of the ancient Greek philosophers Democritus and Epicurus. Modern science presents us with a view of the world in which all things are composed of matter/energy (matter and energy being different and interchangeable forms of the same fundamental stuff). *Matter* is thought of as that which has *mass* and occupies *space*; and *energy* is thought of as the (active or stored) *power* to do work.

Albert Einstein recognized that matter (which has mass) also has energy, and that energy (which has the power to do work) also has mass. His famous equation $E=mc^2$ (energy equals mass multiplied by

the speed of light squared) demonstrated the *equivalency* of mass and energy, and can be thought of simply as $E = m$ (energy = mass). At present, there is no, definite, scientific conclusion as to what, exactly, the fundamental stuff of which the physical universe consists actually *is*. The atom, once thought to be indivisible, was discovered to be made up of much smaller particles (protons, neutrons, and electrons) and these particles are now thought to be made up of even smaller particles (e.g., quarks, leptons) which are themselves made up of small fractions of electrical charges of matter/energy. Presently *quarks* are thought to be the most elementary particles.

Modern science theorizes that everything—matter, energy, space, time—expanded into existence spontaneously from a point of virtual nonexistence (i.e., from *no place* at *no time*). Louis Bernstein explains: “The big bang did not occur anywhere in space, nor did it have an origin in time, because initially space and time did not exist. Instead, our current view of the big bang is that spacetime and energy were initially combined in an infinitely dense and infinitely hot state.”³²

According to modern science, quarks—considered the most fundamental particles of matter/energy—emerged spontaneously (and inexplicably) from this expansion of matter/energy/space/time. Astronomer David Levy tells us:

“At a particular instant roughly 12 to 15 billion years ago, all the matter and energy we can observe, concentrated in a region smaller than a dime, began to expand and cool at an incredibly rapid rate. By the time the temperature had dropped to 100 million times that of the Sun’s core, the forces of nature assumed their present properties, and the elementary particles known as quarks roamed freely in a sea of energy. When the universe had expanded an additional 1,000 times, all the matter we can measure filled a region the size of the solar system.”³³

Out of this primordial sea of matter/energy, quarks emerged spontaneously (due to the forces of nature) and, eventually, developed into the simpler, lighter elements of hydrogen and helium. From this gaseous mixture, stellar masses (stars) eventually coalesced, and it

³² Louis Bernstein, *The Scientific American Book of the Cosmos*, David Levy, ed. (New York: Random House, 1995) p. 70

³³ David Levy, *ibid.*, p.35

was within these stellar nurseries that all of the ninety-two naturally occurring elements of matter/energy³⁴ were formed by natural forces and processes.

The vast cosmic ocean that is our universe consists of matter/energy and space/time. The basic ninety-two naturally occurring elements, along with the many and various chemical combinations thereof, give us all that we observe to exist in the universe. Out of this primordial mixture of gases and dust, the forces of nature formed the many suns, planets, moons, comets, asteroids, which have developed (naturally) into the many and various types of solar systems, and, on a much larger scale, the many galaxies.

Our own solar system is made up of an average star orbited by an array of planets, occupying one arm of an average spiral galaxy. Our home planet, the earth, coalesced out of this mixture of gas and dust; also, contained within this mixture, were all of the naturally occurring elements necessary for the formation of an environment suitable for complex life to evolve. "The origin of life remains a mystery"³⁵ but modern science believes that life must have arisen due to some (as yet unknown) natural process of chemical self-organization, according to the laws and forces of nature, and that it has since evolved (by natural selection) into the myriad forms of complex life we now observe.

A good, brief, presentation of the modern scientific view of our world is given to us by popular author Kenneth C. Davis:

"If you didn't feel insignificant before, get used to it now. This book will make you realize what a tiny mote in space we, a few humans living on Earth, actually are. We exist in a rather small corner of the universe—one small planet orbiting our star alongside billions of other stars tucked inside an ordinary galaxy moving through the vast universe filled with hundreds of other galaxies—all of it moving through space."³⁶

³⁴ Of the 109 known elements, "The first 92 elements occur in nature (with a few exceptions: astatine, atomic number 85; technetium, atomic number 43; and some other elements are artificial although their artificiality is debated); the remaining elements have been artificially created in laboratory particle accelerators" *New York Public Library Science Desk Reference* (New York: Stonesong Press, 1995) p. 238

³⁵ Stuart A. Kauffman, *Intelligent Thought, Science Versus the Intelligent Design Movement* (New York: Vintage, 2006) p. 174

³⁶ Kenneth C. Davis, *Don't Know Much About The Universe*, (New York: HarperCollins, 2001) p. 79

Space, atmosphere, earth, water; this is *the world* as seen from the modern scientific perspective, which has been developed by the intelligent inhabitants of planet earth. *Space* is the vast cosmic ocean in which galaxies, quasars, nebulae, stars, and planets exist. The *atmosphere* is a thin layer of gases shielding our home planet from harmful radiation, providing the necessary air that we breathe, and allowing for the formation of precipitation. The *earth* is made up of many various layers and has tectonic plates, which make the ground both stable and dynamic. *Water* forms in the atmosphere and gives the earth its hydrologic cycle, providing a balance of water in the atmosphere, oceans, rivers, streams, and springs under the ground. By taking a closer look at each of these four components of the world (i.e., *space, atmosphere, earth, water*) we can get a better understanding of our world as viewed from the modern scientific perspective.³⁷

Space

Space can be thought of as: *that which mass occupies*. If something *is*, or if something *exists* (physically), then it can be said to have mass and to exist *in* space: matter is that which occupies space. When we look into the night sky, we observe countless stars existing in the black emptiness of space; these stars are large masses which exist in space. On earth, we think of space as being that in which nothing exists (except for molecules and dust particles). For example, my computer occupies a space on my desk that was empty before I placed it there. My computer is now taking up the empty space that previously existed on my desk. But in the modern scientific cosmological sense, space is conceived of very differently. The earth, for example, is not simply taking up empty space; nor is the sun. According to the currently reigning theory of relativity, both space and time are conjoined into one and the same thing: *spacetime*. Modern science tells us that spacetime has measurable, quantifiable, physical properties: spacetime is said to have a *physical* existence. As physicist Paul Davies explains: “Space and time, as it turns out, are not simply ‘there’ as an unchanging backdrop

³⁷ This will also allow us to compare and contrast the similar, but very different, four components of the prescientific biblical view of the world (i.e., the abode of God; the firmament; the earth; and Sheol).

to nature; they are physical things, mutable and malleable, and, no less than matter, subject to physical law.”³⁸

The sun, because it is the most massive celestial object in the solar system, causes a distortion in (or a warping of) the *fabric* of spacetime. This gravitational curvature of spacetime causes the many planets of the solar system to follow their particular orbits of the sun, the (larger) mass of the sun having distorted the fabric of spacetime around the (much smaller) planets. This is the same type of gravitational phenomenon by which the earth’s moon is caught in earth’s orbit. The earth is more massive than the moon and causes more of a distortion in spacetime than does the moon and the moon (as the less massive of the two objects) is caught in the curvature of spacetime created by the more massive earth. Similarly, everything upon the earth is drawn toward the earth’s center-of-mass due to the earth’s displacement of spacetime.

Space (or *spacetime*) is seemingly infinite; scientists have discovered innumerable celestial objects in spacetime, and modern science currently holds to the theory that the universe is infinite, yet bounded, due to the curvature (or geometry) of spacetime. As incredible as it may seem, only time and natural processes have produced the precise placement and constitution of our home planet (with its moon) producing the exact conditions necessary for complex life to have evolved. (Earth is also the only planet known to have such complex forms of life.) How likely was it for this spontaneous expansion of spacetime and matter/energy to have developed in such a way as to have provided the opportunity for complex life to have evolved on earth? The mathematical probabilities of complex life having evolved anywhere in the universe besides the earth is virtually zero.³⁹

Atmosphere

Earth’s atmosphere consists almost entirely of nitrogen and oxygen, along with smaller (trace) amounts of various other gases. “Though the Earth’s atmosphere extends 1,500 miles (2,414 kilometers) above

³⁸ Paul Davies, *About Time, Einstein’s Unfinished Revolution*, (New York: Simon and Schuster, 1995, 2005) p. 16

³⁹ See: Peter Ward and Donald Brownlee, *Rare Earth, Why Complex Life is Uncommon in the Universe*, (New York: Copernicus Books, 2000, 2004)

the surface, the greatest bulk of the gases (about 75 percent) reside within 10 miles (16 kilometers) of the Earth's surface."⁴⁰

The atmosphere, which is a relatively thin layer of gases, provides all living organisms on earth the necessary protection from solar radiation and the breathable air so necessary for survival. The first (and lowest) layer of the atmosphere (extending a mere seven miles above the earth) is called the *Troposphere*; above this is the *Stratosphere* (seven to thirty miles above the earth); above this is the *Mesosphere* (thirty to fifty-five miles above the earth); above this is the *Thermosphere* (55-435 miles above the earth); and above this is the *Exosphere* extending from 435 miles above the surface of the earth to the uppermost fringe of the atmosphere where the atmosphere meets space-time. Yet another layer of the earth's atmosphere, which overlaps some of the other layers, is known as the *Ionosphere*: "A layer that overlaps many of the other layers is the ionosphere, from 30-250 miles (48-402 kilometers), as part of the upper mesosphere and lower thermosphere. The ionosphere is part of the atmosphere in which air is ionized by such factors as the Sun's ultraviolet radiation. Layers within the ionosphere are also responsible for reflecting radio waves and are important for long distant communication."⁴¹

The characteristic blue color of our sky is due to the light waves from the sun being scattered by air and water molecules in the earth's atmosphere. This scattering breaks the longer *white* waves of light coming from the sun into much shorter *blue* wavelengths of light, which scatter profusely within the atmosphere. The longer *red* wavelengths of light visible at sunrise and sunset are due the white light waves traveling through a larger volume of air coming (as these waves are) through the atmosphere at a sharper angle, producing the earth's characteristic reddish-tinted sunrises and sunsets.

The earth's weather occurs within the atmosphere and is caused by many factors, such as: the atmospheric pressure, low and high pressure air masses, winds, water vapor in the air, heating (by the sun), cooling, convection, and condensation (turning water vapor into liquid water, and, in cold air, into solid water, or ice). Our atmosphere is a very important, if not the most important, feature of our planet: the earth's atmosphere provides the air and water so essential for life, and protects life from harmful cosmic radiation. The atmosphere is the earth's life-providing layer above the ground we live upon, and its life-

⁴⁰ *New York Public Library Science Desk Reference*, (New York: Stonesong Press, 1995) p. 420

⁴¹ *ibid.*, p. 422

protecting barrier from both the harsh cold of space and the burning radiation of the sun.

Earth and Water

The earth itself is made up of three distinct layers: *crust*, *mantle*, and *core*. The earth's *crust* is the uppermost layer upon which we live and, of the three layers, the crust is the coolest and thinnest layer, a layer which is only three to seven miles thick and consists (mostly) of nine of the naturally occurring elements⁴². The earth's *mantle* makes up the largest portion of the earth (being some 1,800 miles thick) and is made up of both the upper (the asthenosphere) and the lower (the mesosphere) mantle sections. The upper portion of the mantle is more fluid and it is only about 200 miles thick, whereas the larger, lower section of the mantle is solid and makes up the remaining 1,600 miles of the mantle's thickness.

The section of the upper mantle that meets with the crust is very hot and very active, and is thought responsible for the movements of the crustal (tectonic) plates, which rest upon it, and for continental drift. The *core* of the earth is 2,200 miles thick and is made up of both outer and inner core sections; the outer core being about 800 miles thick and the inner core being about 1,400 miles thick. The entire core is thought to consist mostly of iron (with some amount of nickel) and is thought to be both extremely dense (3 million atmospheres) and extremely hot (7,000—9,000 degrees Fahrenheit; nearly as hot as the surface of the sun).⁴³

Although most of us think of the earth as being the land upon which we live, seventy percent of the earth's surface is covered by *ocean*. The vast oceans of the world actually make the earth something of a water-planet. The earth's oceans cover some 145 million square miles at an average depth of 2.5 miles. This overwhelmingly vast amount of water, heated by the Sun, gives rise to the earth's weather, providing the land with its much needed water. Without the oceans, life on earth could not exist. "The upper ocean comprises 2 percent of

⁴² The nine elements are: Oxygen (45%); Silicon (27%); Aluminum (8%); Iron (5.8%); Calcium (5.1%); Magnesium (2.8%); Sodium (2.3%); Potassium (1.7%); Hydrogen (1.5%); and trace amounts of other elements).

⁴³ *The New York Public Library Science Desk Reference*, (New York: Stonesong Press, 1995) p. 377

the ocean's volume and contains most marine life..."⁴⁴ Those of us who live upon land can often forget the incredible variety of marine life which exists on our planet: the earth's oceans are teeming with life, all of which lays beyond our sight, beneath the ocean's surface.

How Phenomenology Can Help Us to Reconcile These Two Conflicting Views of the World

When we compare the prescientific (biblical) and modern scientific views of the world, we recognize immediately how dramatically different these two views are. The prescientific (biblical) view of the world is the view Christian theology is based upon but, to most modern thinkers, this view is thought to be primitive and outdated; therefore it is no longer considered credible. To the modern mind, the modern scientific view of the world is very sensible; it makes sense to us because it is a modern, scientific, rational and factual explanation of the world.

The modern scientific view of the world can, however, seem a bit *too* rational, due to its overly objective, naturalistic, materialistic, and reductionistic tendencies. In a similar way, the biblical/theological view can seem a bit *too* subjective, because it presents us with a supernatural view of the world that goes far beyond our rational, objective, scientific abilities and by going far beyond our modern sensibilities as well. Not that theology requires us to disengage our rational and perceptual abilities, but because the theological view of the world requires faith (or belief) in a God who is beyond nature, a God who reveals knowledge about the world transcending our rational and perceptual abilities (whereas the modern scientific view does not).

By looking at the world *phenomenologically* we will be better able to understand the proper roles of both science and theology in helping us to make sense of our world. Neither theology nor modern science *alone* can tell us all we need to know about our world, and neither of these two fields of knowledge will function properly apart from the other. It may seem as though God, in his providence, has now brought us to a time during which modern science and theology present two irreconcilable views of the world, but, in his providence, God has also provided us with a way to reconcile these two distinctly different views of the world. Both theology and science are fields of knowledge

⁴⁴ *ibid.*, p.395

requiring on-going intellectual progress in order for the knowledge both fields possess to be expanded, improved upon, and presented in a way that is relevant to the times in which we live.

Neither science nor theology can be stuck in the past; both must always be making continual progress. Neither God nor the physical world have been explained to such an extent that any thinking person can be satisfied that each of these two fields of knowledge has pronounced the last word on their respective subjects. Theology has hardly exhausted the study of God. Even St. Thomas Aquinas, the author of the greatest work of theology ever produced (the *Summa Theologica*), after having experienced an ecstatic vision of God, said: "Such secrets have been revealed to me that all I have written now appears to be of little value."⁴⁵ Even modern science is incapable of giving us truly satisfactory answers to the most important cosmological questions of all: What is the universe? How did the universe come to exist? Where is the universe going? Why does the universe exist at all? Does the universe have a goal, a reason, or a purpose for existing?

Phenomenology gives us a philosophical perspective which we can use to better understand the world and to better understand the roles of both theology and science: perceiving the world *as-it-appears*. The world as-it-appears and as-it-presents-itself (to us) *is* the world we live in. It is a world of green grass, blue sky, sunshine, clouds, rain, flowers, mountains, rivers, family, friends, and love. It is also a world of darkness, pain, loneliness, anger, sorrow, hunger, greed, hatred, war, suffering, sickness, and death. *This* is the world we live in, the only world we can ever truly know.

What possible point could there be to the study of God and to the study of the natural world if such studies do not provide us with the *wisdom* we need in order to better understand ourselves, our families, our friends, our neighbors, and our world? Viewing the world as-it-appears to us enables us to cut through the abstract, philosophical, theological, and scientific theorizing, which gives us so little knowledge that is of any practical value and imparts to us no wisdom whatsoever. A knowledge based upon theoretical abstractions can offer us very little of practical value, because abstract intellectual theories can-

⁴⁵ "On 6 December, 1273, he [Aquinas] laid aside his pen and would write no more. That day he experienced an unusually long ecstasy during Mass; what was revealed to him we can only surmise from his reply to Father Reginald, who urged him to continue his writings: 'I can do no more. Such secrets have been revealed to me that all I have written now appears to be of little value'." See <http://www.malaspinga.org/aquinast.htm>

not enable us to become better people or help us to make our world a better place.

The founder of phenomenology, Edmund Husserl, considered such abstract reasoning to be (what he called) *intellectual-play*. Intellectual-play, whether philosophical, theological, or scientific, removes us from the concrete world of our lived-experience by taking us off into an abstract world of intellectuality. This abstract world of intellectuality is a mentally constructed world wholly divorced from the real world in which we live. This is not the world of imagination, because imagination still *images* and *corresponds to* the world we experience. Intellectual knowledge becomes intellectual-play when abstract theories about the world, which no longer correspond to the world, are thought of as accurately representing the world. The abstract intellectual-play world can be thought of (mistakenly) as being just as real as is the world of our experience, when in fact the intellectual-play world simply replaces the real world with an abstract, intellectually constructed world which can become more *real* to the intellect than is the concrete world of lived-experience. Abstract, intellectual-play, theoretical knowledge is knowledge for the sake of knowledge; knowledge with no real practical value or application to the concrete world of everyday life.

Theology delves off into abstract intellectual-play subjects, such as: the nature of God, predestination, and free will; and yet there are no satisfactory answers to the questions which inevitably arise from this type of abstract (theological) thinking. Questions such as: How can God predestine anyone to obtain salvation when people are free-will agents? Don't people have a choice to obey or not obey his will? If a person is predestined to salvation, is that person saved regardless of their actions? But the only satisfactory answers to these sorts of questions are practical, everyday answers that apply to the real world in which we live. Ultimately, we cannot know how God works (providentially) through the free-will of human agents; but, since we *can* know that God's grace has been extended to us through Christ, we should follow Christ's teachings (and his example) if we wish to be saved.

Likewise, modern science delves into abstract, intellectual-play subjects, such as the origins of the universe and the origins of life, yet there are no, final, satisfactory answers to the questions which arise from this type of abstract (scientific) thinking. Questions such as: If all spacetime and matter/energy were once condensed into an infinitesimally small point before the big bang occurred, how can this point be said to have been in any *place* at any *time*? If we believe life began by

spontaneous chemical combinations, then why can't we find evidence that this did (or even can) take place? The only satisfactory answers to these sorts of questions are practical, everyday answers that apply to the real world in which we live. We do not know how the universe began, but we do know the universe—and the earth, our home planet—exists; therefore we should take care of it. We ultimately cannot know how life began, but we *do* know that life exists; therefore we should concentrate on living our lives better by caring for life.

It's not wrong to reason about theological matters (such as God's providence and predestination), and neither is it wrong to reason about scientific matters (such as the origins of the universe and life). What *is* wrong is when this reasoning becomes so intellectual and so abstract that it no longer corresponds to our perception and our experience of the world. Phenomenology is a helpful corrective to intellectual-play theorizing because, as a philosophy, phenomenology emphasizes conscious perception over abstract thought. Thinking about our world phenomenologically allows the world itself—the world we perceive and experience through our senses—to shape our thinking about the world. We should not allow an abstract, intellectually constructed world we can neither perceive nor experience to replace the world we do perceive and experience every moment of our lives.

Phenomenology can help us to reconcile the prescientific theological/biblical view of the world with the modern scientific view of the world by encouraging us to accept *both* views of the world as being true-for-us and by allowing us to focusing our thinking upon the *appearances* of phenomena. More than simply a reconciliation of these two conflicting views, phenomenology offers a corrective to the modern scientific view by emphasizing the direct appearances of phenomena to the conscious subject over abstract intellectual-play scientific theories, which purport to explain the unperceived and unexperienced causes that give rise to appearances. What is more real to us, our perceptions and experiences of phenomena *as-they-appear* to us, or the scientifically explained, yet unperceived and unexperienced, *causes* of these phenomenal appearances? Does one view of the world have to be right and the other view wrong? Or could it be that both ways of looking at the world, both ways of trying to understand the world, are true-for-us? (In so far as any human way of attempting to penetrate and understand the incredibly complex phenomenon that is *the world* can be said to be true at all.)

Modern science, in exalting the objective empirical study of the world, has seemingly lost touch with (and developed a disdain for) the

world's subjective truths, which are equally as important to us as are its objective truths. Truth is more than abstract, mathematically-based, scientific conceptualizations of the world. We should never allow these sorts of abstract conceptualizations of the world (although important intellectual achievements) to influence our thinking to such an extent that we would discount our perceptions of the world we experience. Subjectively-based experiential truth-claims are just as important for us as are objectively-based scientific truth-claims (especially since, as we've already seen, science itself is based upon human subjectivity).

As a postmodern philosophy, phenomenology is able to critique both modern philosophy and modern science, yet we cannot allow this critique to go too far: we should acknowledge the truths of modern thinking (with its emphasis upon logic, reason, and objectivity) *while at the same time* acknowledging the truths of postmodern thinking (with its emphasis upon story, emotion, and subjectivity). Postmodern philosophy can err by neglecting or discounting the truths of modern philosophy and science, just as modern philosophy and science can err by discounting the truths of postmodern philosophy. What is needed is for these two, very different, ways of thinking to be complimentary to one another, to be corrective of one another, and to be *working-together*.

The so-called "war between science and religion", which has been going on for the past 400 years, has, in the thinking of most intelligent and educated people, been won long ago by modern science. The prescientific biblical worldview is ridiculed by modern people who *know* that modern science presents them with a scientific and factual view of the world, which is thought (by so many) to be the only truth about the reality of the world. The Bible's prescientific view of the world is seen as having been based upon faulty, appearance-based information, which was extrapolated into an imaginative and mythological worldview no longer credible to intelligent, modern thinkers. But what if modern science has *not* been able to prove (entirely) its particular view of the world true, or to disprove (entirely) the biblical view of the world? What if the worldview of the Bible (based, as it is, upon the supernatural revelation of the Creator of the world) is beyond the abilities of science (as a limited field of human knowledge) to disprove? What if, even though much of what modern science has discovered about the world is true, some important scientific theories about the world are, for all practical purposes, meaningless for us in the daily living-out of our lives? Or, worse yet, what if such scientific theories are detrimental to our perception and our understanding of the world?

Phenomenology—by focusing upon the world’s presentation of itself to human consciousness—enables us to concentrate our thinking, not only upon the (objective) phenomena of the world, but also upon ourselves as (subjective) conscious observers of the (objective) phenomenal world. As I mentioned above, God has always existed both subjectively and objectively: God (eternally and subjectively) perceives his own (objective) existence, and the world he created was *finished* only when beings who were able to consciously (subjectively) perceive the (objective) phenomenal world were created. If, as we have seen, subjectivity is what makes objectivity possible, then I think we can also say that objectivity is that which makes subjectivity possible (the objective and the subjective work-together in presenting the world to us, and we can never completely separate the two). We are objective/subjective beings and the world is an objective/subjective world perceived

Modern science often overlooks the subjective nature of the scientific enterprise, but the scientist herself is bound by her own consciously perceived (subjective) experience of the (objective) phenomena of the natural world. Modern scientists do not hesitate to define and delimit reality for those of us who are not scientists; and yet, as McCarthy points out, “the fact is that the very act of recognizing reality as such, which is the *sin qua non* of all scientific thought, is itself a development of the intellect not verifiable in the data of sensory experience.”⁴⁶ Objective reality is defined and delimited by science, but we must keep in mind that these definitions and delimitations of reality are subjectively-based: they are founded upon the presuppositions and intellectual assumptions held by the scientists.

To consciously perceive objective reality is to participate in an experience, and all experience is subjective experience. But here we can see how the objective and the subjective work-together (i.e., synergize) in order to provide us with a complete and total perception of the phenomenal world: the subjective phenomenon of conscious human experience is as dependent upon the existence of objective phenomena as objective phenomena is dependent upon (and can only be said to exist by virtue of) the phenomenon of subjective conscious human experience. Modern science can go too far in its thinking by declaring that only objective reality exists and by saying that the conscious perceptions of the mind are simply the physical, material, and

⁴⁶ McCarthy, *The Science of Historical Theology*, (Rockford: TAN Books, 1976) p. 41, (emphasis in original).

chemical actions of the brain. Postmodern philosophy can go too far by saying that there is no single, objectively true, reality and that the objective reality espoused by modern science is simply the socially constructed “reality” of a particular community of scientists (who believe that only one particular definition of reality (theirs) is acceptable).

Both the modern scientific and the postmodern philosophical theories of reality can be taken to their respectively absurd conclusions (as all thinking can be) yet both can teach us important truths about our world; and we dare not dismiss either. Likewise, it’s important for us to learn what theology has to teach us, and we dismiss theological knowledge at our own peril. Aside from the possibility that, by neglecting God’s revealed truths, we may lose our souls, it is important for us to learn from theology how we should live our lives, because living our lives in this world demands that we share in the common life of all humanity.

Whether we choose to live well or choose to live poorly, is a decision that we must make: it’s up to us to decide how we will live and, according to the Bible, our decision will affect the eternal destinies of our souls. Our existence, our being-in-the-world, was not our choice to make—we are here—the decision we must make is to choose how we will live our lives. Our lives are inextricably intertwined with the lives of everyone around us, and how we choose to live our lives impacts them as well as us. And, despite the fact that modern science would discount such a notion, it may even be true that how we choose to live our lives in-the-world will, in fact, affect the destinies of our eternal souls. Christ’s parable of the rich man who decided to build larger barns (in order to store-up his many goods) is a warning to those of us who have far more material goods than we actually need, yet think little about the needs of others who are much less fortunate. And we ignore his words at our own peril:

“And he told them a parable, saying, “The land of a rich man brought forth plentifully; and he thought to himself, ‘What shall I do, for I have nowhere to store my crops?’ And he said, ‘I will do this: I will pull down my barns, and build larger ones; and there I will store all my grain and my goods. And I will say to my soul, Soul, you have ample goods laid up for many years; take your ease, eat, drink, be merry.’ But God said to him, ‘Fool! This night your soul is required of you; and the things you have prepared, whose will they be?’ So

is he who lays up treasure for himself, and is not rich toward God" (Luke 12:16-21).

All of the science and philosophy in the world cannot give us the moral and theological insight that is offered to us in the Bible; especially in the words of Christ that are found in the Gospels. The Bible offers much more than a primitive, outdated, and prescientific account of the world: the Bible proclaims to us a supernaturally revealed knowledge of the world, of ourselves, and of the Creator of the world; knowledge revealed to humankind by the Creator himself.

A plethora of books have been written in the past hundred years proclaiming that intelligent people can no longer believe in the Bible, or in God, because modern science has disproven the biblical understanding of the world and the revelation of God. A plethora of books has also been written in the past hundred years proclaiming that, in order for intelligent people of faith to continue to believe in both the biblical revelation, and in God, accommodations with modern science must be made. These types of books break down into two camps: either the Bible must bend to modern science, or modern science must bend to the Bible. Yet neither of these two choices is correct, and neither is necessary for intelligent people to adopt in order to believe in modern science, the Bible, and God.

It is possible for both modern science and the Bible to have true knowledge (within their respective fields), because all truth is our Creator's truth. However, the worldviews established by both modern science and the Bible are, in many ways, contradictory. In the next section, we will be taking a close look at three examples of these contradictory views of the world with the hope that, by looking at these three views phenomenologically, we can come closer to a view of the world that is true-for-us both scientifically and theologically.

Because we live during a time when modern science seems to have all but put to rest the biblical and theological notions of knowledge and truth, the section which follows will seem, at times, to be somewhat hostile to modern scientific thought and theories. Nevertheless, we should remain confident that both science and religion can coexist as realms of human knowledge given to us by our Creator in order for humankind to be better able to make sense of God and the world. Both theology and science are in need of correction at times, because, as human persons, we can never reach a point at which we can confidently say that we have gained all knowledge. What we know (or what we *think* we know) about the world influences how we perce-

ive the world. Both modern science and religion exert powerful influences upon people's perceptions of the world we live in, and it is to the subject of *perceiving* and *viewing* the world that we turn next.

Chapter Three

Three Examples of Conflicting Views of the World (Modern Science versus Religion)

Introduction

In this chapter, we will be examining three conflicting ways of viewing the world: the geocentric versus the heliocentric universe, creation versus evolution, and absolute time versus relative time. Two of these three views are currently held (by the scientific community) as true knowledge of the world: evolution by natural selection and the relativity of time. The first view we will be examining—the heliocentric view of the universe—is no longer held by the scientific community as true knowledge of the world, although modern science does retain (as true) an important element of this view: the heliocentric view of the solar system. By examining the differences, contrasts, and conflicts between the modern scientific way of viewing the world and the worldview of religion, the Bible, and theology we will discover two very different ways of perceiving the same three phenomena: the cosmos, life, and time.

Our main purpose here will be to think-through these competing views of the world and to ask ourselves why these views differ so dramatically. Is one view true and the other false? How can we know? Why does it matter which view of the world we hold? This chapter is, I think, the most important; because it shows us working, practical examples of how, by thinking phenomenologically, we are able to reconcile the scientific and religious worldviews. Recognizing how phenomenal appearances present themselves to our lived-experience (as conscious human persons) is a means to gaining a better understanding of our world.

The Geocentric versus the Heliocentric View

Of the three conflicting modern scientific and religious views of the world we are examining in this chapter, the geocentric worldview versus the heliocentric worldview would seem to offer us the least amount of conflict. The Bible presents an earth-centered (geocentric) worldview and modern science has proven, long ago, the earth orbits the sun in a (heliocentric) solar system of planets. It would seem that modern science was right and the Bible wrong. End of conflict. We rarely think about the conflict that once raged between these two dramatically different views of the world, but there was never a greater conflict between the religious and the scientific views of the world than that conflict which took place (during the sixteenth century) between the geocentric and the heliocentric conceptualizations of the universe.

This conflict, in which the modern scientific view prevailed, resulted in what Thomas Kuhn has called “a revolution in ideas, a transformation in man’s conception of the universe and of his own relation to it”⁴⁷ This revolution—the Copernican Revolution—was a major shift away from a view of the world wherein the world (and humankind) was seen as having a central place in the universe (geocentric) toward a new view of the world wherein the world (and humankind) was seen as not having a central place in the universe (heliocentric). The heliocentric view, which prevailed in this conflict, proved (scientifically) that the earth revolved around the sun and that the sun was the central point of *a solar system* of planets (one of these planets being our world: the earth).

This major shift in people’s perception of their world and their place in the universe had tremendous consequences for how we, today, perceive our world, ourselves, our neighbors, and our God. Yet few people today think much about the Copernican Revolution and the revolutionary new way of looking at the world that it gave rise to. We all learned about it in school; we all know the sun is at the center of our solar system; and we all know something of how modern science was, in this case, proven to have been factually correct contra religion, the Bible, and the Church. The victory of the modern scientific heliocentric view of the world over the prescientific religious/biblical geo-

⁴⁷ Thomas Kuhn, *The Copernican Revolution*, (MJF Books, New York, 1957, 1985) p. 1

centric view is still thought of as the greatest single example of the triumph of reason over faith and of science over religion.

The sixteenth century conflict between the modern scientific heliocentric view of the world and the religious, biblical, and theological (appearance-based) geocentric view was between the intellectuals in both camps. One group of scientists and theologians was arguing—basing their argument upon observations and mathematical calculations—that, contrary to appearances, the earth was orbiting a stationary sun (as were the other planets). Another group of scientists and theologians was arguing—basing their argument upon observation, mathematical calculation, appearance to sense perception, and the Bible—for the sun's motion around a stationary earth. From our point of view, now some 400 years distant from the outset of this conflict, it can be difficult for us to imagine the intense controversy that once raged between the long-held geocentric cosmology and the newly developed heliocentric cosmology. Let's examine now these two very different and contradictory ways of perceiving the world.

The Geocentric View

The geocentric theory was not unscientific; it was, in fact, the reigning scientific paradigm used by astronomers and cosmologists for centuries (having been developed, as it was, long before the rise of modern science). The science of the stars (or *astronomy*) was, during the many centuries before the Copernican Revolution, based upon observations of the heavenly bodies, the motions of which had been observed and recorded by the Babylonians, the Egyptians, the Greeks, and the Romans. These ancient observations and calculations, made by working within geocentric cosmological frameworks, were later developed into the scientific, but still geocentric, cosmology of Ptolemy who, by utilizing a geometrical method by which one could better calculate the motions of the heavenly bodies, developed a complex geocentric system of the heavens, which became ancient astronomy's standard model for more than 1,400 years, until it was overthrown by the heliocentric system of Copernicus during the sixteenth century.

Ptolemy, who lived during the second century of the Christian era, was considered the greatest astronomer and astronomical authority of ancient times. Ptolemy's major scientific contribution, as John North puts it, was that: "Ptolemy was *uniquely* responsible for building up astronomy from a coherent set of first principles. With the help of

his predecessor's ideas, he was able to conjecture as to how the heavenly bodies moved in space. Having found the parameters of the models by fitting them to observation, he could then predict the phenomena that would be seen, as the consequences of his geometrical assumptions. In short, where others had found patterns of repetition, Ptolemy gave reasons for those patterns. With Ptolemy, astronomy had come of age."⁴⁸

The Ptolemaic astronomical model of the cosmos was geocentric, but it was also scientific: his model adequately explained (mathematically) the motions of the celestial bodies. Ptolemy's geocentric model was also in accord with the appearances of celestial phenomena as observed from the earth. Both educated and uneducated alike believed the earth to be the center of the universe and the heavenly bodies to be in motion about the earth; this was both the way the world appeared to be and how science explained (factually and accurately) the world to be in reality.

Since the time of Aristotle, the geocentric universe was basically conceived of as being made up of two large spheres: the *inner* sphere of the earth and an *outer* sphere of fixed stars rotating about the earth. This conception of the universe also required many additional (translucent) spheres, which were located between the earth and the outermost sphere of fixed stars, in order to account for the motions of the sun, the moon, and the many planets (the erratic behavior of which was problematic). In fact, as Edward Harrison tells us: "Altogether, 56 concentric spheres were needed to explain the planetary motions and the rotation of the outermost sphere of stars."⁴⁹

In order to account for the erratic behavior of the planets (e.g., retrograde motion, variable luminosity) it was theorized that each planet revolved around a point (called an *epicycle*) within its own particular planetary sphere, while the planetary sphere itself rotated around the earth (called a *deferent*). However, even the use of these theoretical points, and the mathematical calculations based upon them, could not account for the anomalous and erratic behavior of the planets within the geocentric cosmological paradigm.

To this (already complicated) theory, Ptolemy added yet another complex mathematical concept in order to account for the problematic motions of the planets: the idea that one could move (or displace) the

⁴⁸ John North, *The Norton History of Astronomy and Cosmology*, (W.W. Norton: New York, 1994) p. 120 (emphasis in original)

⁴⁹ Edward R. Harrison, *Cosmology*, (Cambridge University Press: Cambridge, 1981, 1985) p. 74

theoretical center point of the sphere of the planet about which the planet was thought to rotate. Ptolemy called this new off-center point about which the planet rotated an *equant* (or *an equalizing point*). But, although this mathematical solution did better account for the planets' irregular behavior, the equant failed to solve the problem of the planets and made Ptolemy's system even more complicated than it already was. This was a mathematical solution that worked well enough, but few scientists believed that this was actually how the planets moved in space. It was the Ptolemaic concept of the equant, more than anything else, that most bothered astronomers; especially Copernicus, because, although the equant was a mathematical solution to the problem of the planets, it seemed intellectually contrived and added evermore complexity to (what was) a very complex astronomical system. Copernicus, an astronomer and a mathematician, thought that simpler solutions to the problematic anomalies within Ptolemy's geocentric astronomical model must be found.

The Heliocentric View

The modern scientific view of the earth's rotating upon its axis and its orbiting of the sun needs little explanation because we are all very familiar with it, having learned it as children. Many of us, however, are not as familiar with just how powerful the overthrow of the (centuries-old) geocentric view by the heliocentric view really was.

Nicholas Copernicus is credited with displacing the geocentric view of the universe, but the earth-centered conception of the universe was being questioned by many scientists long before Copernicus (1473-1543) was even born. Copernicus himself was certainly a man of his times, and the times in which he lived were marked by rapid change and progress (periods of history we now call the Renaissance and the Reformation).

The times during which Copernicus lived were marked by a great reawakening of interest in the arts, the sciences, philosophy, religion, politics, and social theory. The fundamental changes in people's thinking in these areas wrought a new world: the modern world we know today owes its very existence to the people of that era. One of the major changes during this era, known as the Renaissance, was an increase in the people's willingness to challenge the authority of the Church, which came to fruition during the Protestant Reformation.

This is why the triumph of the heliocentric view of the universe over the geocentric view is thought of as being the greatest single example of the triumph of science over religion: it can be thought of as having been the triumph of *reason* over the *authority* of both the Church and the Bible. Churchmen took their stand upon biblical revelation, regarding the controversy, whereas men of reason and science looked for rational evidence, facts, and mathematical certainty, rather than relying upon faith in what the Church and the Bible had to say about it.

The thought that the earth might rotate and orbit the sun were not new ideas when Copernicus' famous book *De Revolutionibus Caelestium* (1543) was published. The Greek philosopher Hereclides (fourth century B.C.) was the first person known to have suggested the concept of a rotating earth in order to explain the motions of the heavens, and the Greek philosopher Aristarcus (third century B.C.) thought that the sun was at the center of a sphere of stars with the earth in orbit around the sun.⁵⁰

Copernicus was, however, the first *modern* thinker to put forward—in writing—a mathematical system which described a rotating earth orbiting a stationary and centrally located sun. His system, however, was just as complicated as Ptolemy's and it could not account for the erratic motions of the planets any better than did Ptolemy's. But the Copernican conception of a rotating earth revolving around a central sun provided the impetus for a scientific and intellectual revolution in how scientists began to think about the motions of celestial bodies. Copernicus' work was complex and mathematical; written, as it was, for those professional astronomers who studied the heavens mathematically and scientifically. The revolution Copernicus began in the science of astronomy later culminated in the works of other men of science and astronomy, such as Kepler and Galileo, who began thinking and working within the new heliocentric conceptual scheme.

Kepler discovered that the planets orbited the sun in *elliptical* orbits rather than *circular* orbits (with epicycles), which were required by the systems of both Ptolemy and Copernicus. Galileo, with his discoveries of the mountains and craters of the moon and of the moons of Jupiter (made through his use of the recently invented telescope), along with his book *Dialogue Concerning Two Great World Systems* (1632), which was a heliocentric polemic against the geocentric system of Ptolemy, greatly furthered the heliocentric cause. Many other

⁵⁰ See: Thomas Kuhn, *The Copernican Revolution*, p.42

astronomers also worked within the new heliocentric paradigm begun by Copernicus, and these scientists were, over time, successful in resolving the many issues within astronomy Copernicus had not been able to resolve, especially the problem of the planets. The heliocentric view of the solar system we have today is due to the diligent mathematical and scientific efforts of these followers of Copernicus who, in building upon, furthering, and correcting the work of Copernicus, gave us a better, more true to physical reality, picture of the world and of the universe.

The Copernican Revolution—named in honor of the scientist who made the revolution possible—was, by the time of Galileo’s death in 1642, complete, and the geocentric notion of an earth-centered universe was all but dead. The heliocentric view had been proven correct (i.e., scientifically and mathematically) beyond any reasonable doubt, and the vast majority of scientists, scholars, and intellectuals had begun to view the world in this totally new way. This new way of viewing the world—begun by astronomers concerned about the minutia of anomalous behaviors displayed by the planets—had set the West upon an entirely new intellectual course.

How These Two Views of the World Conflict and Contrast

It’s difficult for modern people to imagine the earth as being the center of the universe, but, for thousands of years, this is what people thought was true—in reality—about the world. And why shouldn’t they have believed this to be true? Is this not the way our world appears to us? It would be difficult, based on the way the world appears, for anyone to imagine that our world was only one of many similar planets, orbiting stars similar to our own sun, existing throughout an infinite void of space. The fact that people were able to think outside the geocentric box at all is indeed a great accomplishment of the human ability to reason.

The modern scientific view of the world is not, however, totally modern; this same sort of view was first expressed by the ancient Greek philosophers (i.e., Democritus, Leucippus) known as *the atomists*. The atomists believed everything was ultimately made up of *atoms*, or *indivisible units* of matter. Much like our modern scientists, the atomists were more interested in the atoms of matter, which made up the appearances of phenomena, than they were in the appearances of phenomena themselves. They sought to lift the veil of ordinary ap-

pearances in order to uncover the truth of what phenomena were in reality—just as the scientists of our day seek to do.

The atomists believed (philosophically) that only matter (atoms) and the void (space) existed. All physical objects were thought to be made up of atoms existing in the infinite void of space. This ancient philosophy, which had been lost and forgotten by the West, was rediscovered (found in the works of the atomists Epicurus and Lucretius) during the Renaissance, which inspired some thinkers (e.g., Giordano Bruno) to recognize its relevance to the new Copernican heliocentric paradigm. As Thomas Kuhn explains:

“Since Copernicanism also destroyed the earth’s uniqueness, abolished the terrestrial-celestial distinction, and suggested the infinity of the universe, the atomists’ infinite void provided a natural home for Copernicus’ solar system, or rather, for many solar systems...atomism proved the most effective and far-reaching of the several intellectual currents which, during the seventeenth century, transformed the finite Copernican cosmos into an infinite and multipolated universe.”⁵¹

This infinite universe, thought to be populated with innumerable worlds—the earth being only one, small, speck of a planet existing in the vast emptiness of space—is the modern scientific view of the universe we have today. The discovery (over 400 years ago) of the earth’s rotation on its axis and of its revolution around the sun has changed the way we perceived our world, ourselves, our neighbors, and our God. The Church was not against the Copernican heliocentric conceptualization of the cosmos because it wasn’t a workable mathematical astronomical theory, the theory—by itself—was not problematic, the Church was against the Copernican redefinition of the universe as being true *in reality*, because the Church knew that moral and ethical confusion could result if people began believing in the (heliocentric-based) *insignificance* of the world, of humanity, and of God.

If the theory alone had been used by scientists as an abstract, intellectual, and mathematical tool for calculating planetary motion, the Church would not have resisted it so vehemently (many Church sponsored universities were, at the time, using the heliocentric theory in

⁵¹ Thomas Kuhn, *The Copernican Revolution*, p. 237

precisely this manner). The problems with the Church began when the heliocentric theory was put forth by modern science as being the true reality of the world. The Church realized the moral and ethical danger humankind would face if people accepted the tenets of heliocentrism as truths about the world: people would likely begin thinking of both themselves and the world, not as the special creation and concern of the Creator, but as purposeless matter existing within an infinite and equally purposeless void of space. The Church was also faced with another very serious problem in that the Bible proclaimed—as truth and in reality—both the stability of the earth and the motion of the sun:

“[T]remble before him, all the earth; yea, the world stands firm, never to be moved” (1 Chronicles 16:30).

“In them [the heavens] he has set a tent for the sun, which comes forth like a bridegroom leaving his chamber, and like a strong man runs its course with joy. Its rising is from the end of the heavens, and its circuit to the end of them; and there is nothing hid from its heat” (Psalm 19:4-6).

Both the Catholic Church and the Protestant Reformers stood firm in their belief that the Bible—as the inerrant and infallible (written) Word of God—gave them true knowledge of the world: the Bible could not be wrong about the sun’s motion and the stability of the earth.

The Christian faith was, at this time, being assaulted on two fronts: the first being the introduction of a new worldview wherein both the world and humankind were no longer perceived as being at the center of the universe (and as the center of our Creator-God’s attention) and the second being that the Bible is wrong in its description of the world. Although we, today, think very little of this matter, at the time, there was no greater issue facing the Christian faith. Those of us, today, who are of the Christian faith, and who believe that what the Bible says is true, are required, in some way, to reconcile the facts about our world presented to us by modern science with the presentation of the world we find in the Bible. This is usually done by saying that God communicated truth (in scripture) to prescientific peoples by communicating these truths to them within an overall prescientific framework. In other words, it would not have made sense for God to

have spoken to prescientific peoples of the movement of the earth around the sun because, to prescientific peoples, the sun appeared to be in motion around the earth.

More liberally minded Christian believers argue that the Bible is not so much the inspired and inerrant word of God as it is the words of prescientific men who wrote during prescientific times. And these men only wrote what they believed to be true about the world, including the stability of the earth and the motion of the sun. The Church and the Reformers believed that the Bible, because it was God's word, could not be wrong in its description of the world. Yet they eventually acknowledged that the modern scientific (heliocentric) description of the universe was correct, and they were forced to fall back upon weak arguments (such as those described above) in order to explain why the biblical view of the world was (scientifically) incorrect. The Bible, the Church says today, is inerrant only regarding that which pertains to salvation and morals, but not inerrant regarding its description of the world (cosmos/universe).

I think these types of arguments are a poor defense of the Bible's presentation of the world, and I believe a much better argument must be made in order to defend the Bible as God's written word; an argument which can show that the Bible is correct regarding salvation, morals *and* its description of the world we live in. In fact, I believe these truths about the world are so inextricably bound together that they must be believed *as a whole* or they are not to be believed at all. God created the physical world, and he created it with morality and salvation in mind. The world is not neutral.

The physical world is not a brute fact; the world is the very expression of the Creator himself. And the way in which the world appears to us is exactly the way in which our Creator has intended for it to appear to us. It was his intention for the world to appear to us as it does and in the way in which it does for a purpose that is greater than the world; a purpose that is beyond the abilities of modern science to discover.

The Practical Value of Cosmologies

The way in which we perceive the world (universe/cosmos) always has value; the question is: How much practical value does our particular view of the world have? As we've seen, the geocentric cosmology had great practical value, because it saw both the world and human-

kind as the central focus of the universe, and of the Creator of the universe. In contrast, the heliocentric cosmology displaced this human-and-earth-centered view with a new cosmological view in which everything was perceived as being random conglomerations of matter existing in an infinite void of space.

The heliocentric cosmology did not, however, hold true for very long. It soon became obvious to scientists that our sun, an ordinary star, was at the center of a solar system of planets, but not at the center of the universe. Newton soon developed his theories of gravity and celestial mechanics, providing modern science with the natural, physical law basis upon which all later cosmological schemes were modeled, and scientists later realized that our solar system was located within an arm of a spiral galaxy, concluding that the solar system itself was also in motion around the center of our galaxy. Scientists now know that multitudes of galaxies exist, and all of these galaxies (including our own galaxy: the Milky Way) are in motion (accelerating apart from one another) due to the expansion of spacetime since the big bang.

If we think about it, what sort of practical value does the modern scientific cosmology have for us? How are our lives different knowing that the earth rotates on its axis and revolves around the sun? How are our lives different knowing that our solar system orbits the center of our galaxy? Modern science has uncovered the mechanics of the solar system, but is this knowledge of the world, brought about by the Copernican Revolution, of any, real, practical value to us? Except for the professional astronomers, who were seeking to better explain and calculate the movements of the stars and the planets, what practical good for humanity has ever come to us through this particular way of viewing the world? We know by what mechanical means the earth has night and day, summer and winter, but does this knowledge change, for the better, the way we live our daily lives?

The scientific revolution brought about by the Copernican heliocentric cosmology did in fact affect the way modern people saw their place in the world, and it also affected their thinking about how they should live their lives in the world. The revolution had a detrimental effect upon people, because it seemed as though science had proven that the Bible contains inaccurate knowledge of the world, and because it reintroduced an atomistic view of the world (the rational basis of which was seen as a more certain basis for knowledge than was faith in God's revelation).

We accept the heliocentric model of the solar system as true, or as a true explanation of what the world is in reality, and yet no one has

ever perceived the solar system to appear the way in which modern science describes it to appear. We've all seen artists' (as-seen-from-a-distance) conceptions of our solar-system illustrated for us in science textbooks, and perhaps many of us have also seen models of the solar system in museums, but no one has ever actually perceived the solar system in this way.⁵² For all *practical* purposes, the modern scientific conception of the solar system is somewhat of an abstract, intellectual-play, and mathematically deduced conceptualization of how the solar system would appear to us *if* we were able to perceive it.

We do, however, have the ability to perceive the sun, earth, moon, stars, and planets from our earth-bound perspective, and, although it is imperceptible to us, we have learned to accept, intellectually, the heliocentric model of the solar system, and we are able use it as a framework by which we can make sense of the motions of the heavenly bodies we perceive. We are able to perceive the motion of the earth, rather than the motion of the sun, by intellectual conceptualization more so than by actual sense perception. The data is the same for both the geocentric and the heliocentric models, it is the interpretation (or explanation) of this data which alters our view (or perspective) of the world by allowing us to fit this data into whichever world-model seems best to us.

The fact that there are no valid reasons for reasonably doubting the scientific accuracy of the heliocentric model of the solar system has lent credence to other, more abstract, intellectual-play, imaginative scientific theories and models of the cosmos which are similarly imperceptible to us (e.g., the theory of evolution, the relativity of time, multidimensional spacetime, and the various string "theories"). The heliocentric model of the solar system was a very successful use of scientific and mathematical knowledge, and it provided humankind with an accurate description of the physical world we live in. This is why the old geocentric model of the universe was discarded by science, and why it was also (eventually) discarded by both the Catholic Church and the Protestant Reformers. The Copernican Revolution's victory of reason and science over faith and religion, concerning our world's place in the universe, has been forgotten by many Christians, but it has never been forgotten by those who place their trust—not in God—but in reason and science.

⁵² In fact, at the distance from which it would be necessary to view the entire solar system, all we would see is one bright star with a lot of (what appear to be) other stars around it.

The Copernican Revolution helped to birth the modern era, an era which has a characteristic preference for reason over religion, science over superstition, individual liberty over hierarchical authority, intellect over emotion, and the objective over the subjective. Modern science has played a major role in shaping the modern way of thinking and the modern world we live in. It's hard for us to imagine the world without the many benefits of modern science, which we so often take for granted, and of the scientific advancements and technological achievements which have become important parts of our everyday lives. But is scientific knowledge of the world the only valid knowledge of the world?

Phenomenology can be helpful to us by providing us with a new way of perceiving the world, a new way of thinking about the world, and a new way of perceiving and thinking about ourselves. Whereas modern science concentrates almost exclusively upon discovering the objective truths about our world, phenomenology concentrates almost exclusively upon discovering the subjective truths about our world. Scientific knowledge is not, however, totally objective: scientific theories are subjectively-based intellectual constructs developed as possible explanations of (objective) phenomena as they are experienced (subjectively) by the scientists.

When modern science tells us that it has discovered an objective fact about a particular phenomenon, what science is actually telling us is that scientists have experienced a perception of a phenomenon and have decided that this particular perceptual experience—the scientific experience—is the only valid experience which anyone can (or should) have of this phenomenon. But like everyone else, modern scientists, too, have their own presuppositions, which they bring to their subjective (perceptual) experiences of objective phenomena, and these presuppositions influence both their perceptual experiences of phenomena and their interpretations of these experiences. In short, modern science is neither as neutral nor as objective as we might imagine it to be.

Phenomenology can help us to recognize the role of the conscious observer as an active participant in the synergic relationship between objective phenomena and subjective experience. The subjective truth and reality of our own perceptual experience of phenomena, though perhaps different from the scientific community's experience, is just as true-for-us as is the objective truth and reality of the scientific community's experience of phenomena. As we saw above, the objective nature of phenomena and the subjective perception of phenomena

work-together in order to present our world to us as *a unity of experience*.

The world is not simply an assortment of brute facts, which can be collected and catalogued by science; the world is an existential synergy between the observer and the observed. The phenomenon that is *the world* is at all times being lived-in and experienced-by conscious beings who are themselves subjectively experienced objective phenomena. Ultimate reality cannot be identified and classified as such by science, because the knowledge of ultimate existential reality is beyond the capabilities of human reason and knowledge. Truth and existential reality can only find an ultimate basis in God the Creator, who is both *objective* in his (eternal) being and *subjective* in his (eternal) perception of his being. It is he who is the ultimate ground of all being, of all existence. The world exists and is real because he created it, he brought it into being, and he sustains it. The created world exists as he does: as a dynamic synergy of objective and subjective being. Yet, whereas the Creator's being is eternal, the being of all created things is temporal.

When we think about our perception of phenomena as-they-appear to us, what we are thinking about is how the phenomenal world presents itself to our conscious experience as subjective observers. For example, if we think about how the phenomenon of the sun appears to us, apart from any presupposed theories about the sun, the sun appears to be in motion around the earth: it appears to rise in the morning, traverse the sky throughout the day, and to set in the evening. Dermot Moran, speaking of the phenomenologist Hans-Georg Gadamer, tells us:

"His real claim is that scientific truth is not the whole of truth. In agreement with the later Husserl, Gadamer holds that the Copernican discovery of the motion of the earth does not negate the truth-for-us of the rising and setting of the sun: 'the truth that science tells us is relative to a specific attitude toward the world and cannot claim to be the whole.' Truth cannot be limited to what can be gained through the application of scientific method."⁵³

⁵³ Dermot Moran, *Introduction to Phenomenology*, (London: Routledge, 2000, 2004) p. 266

Because the sun *appears* (to us) to be in motion, this *phenomenological truth* is just as valid a truth about the world as is the *scientific truth* that the earth rotates upon its axis and orbits the sun. I think we could go even further and say that, because the sun always appears to be in motion, and because the earth always appears to be motionless, this truth-of-appearances is an even more important truth (for us) than is the scientific truth that the earth is in motion while the sun remains motionless. As for practical value, the geocentric cosmology is of far greater value to us: the earth is the only perspective from which humanity can directly perceive the world. The heliocentric cosmology offers us little-to-nothing of practical value; it is correct in its explanation of the mechanics of the solar system, but this mechanical knowledge is of no practical use to anyone (except professional astronomers, cosmologists, and scientists—especially at NASA). The discovery of celestial mechanics was certainly a great intellectual achievement, but I fail to see how the attainment of this particular knowledge of the world has ever been directly responsible for any real-world benefits to humankind.

Theologically speaking, God, who is the Creator of the world, created and ordered the world so that we who bare his image should perceive the world as he desires for us to perceive it. The sun, moon, stars, and planets were created, and their motions ordered, so that we could order our earthy lives according to the times and seasons set by them:

“And God said, ‘Let there be lights in the firmament of the heavens to separate the day from the night; and let them be for signs and for seasons and for days and years, and let them be lights in the firmament of the heavens to give light upon the earth.’ And it was so. And God made the two great lights, the greater light to rule the day, and the lesser light to rule the night; he made the stars also. And God set them in the firmament of the heavens to give light upon the earth, to rule over the day and over the night, and to separate the light from the darkness. And God saw that it was good” (Genesis 1:14-18).

The motions of the celestial bodies enable humankind (and all conscious beings) to live *ordered lives* in accordance with our perceptions of these regular celestial motions. The regular motions of these celestial bodies give us the perception of existing in a world of *ordered*

time: days, nights, months, seasons, and years. This regularity is of such great practical importance to us that we hardly ever give it any thought, yet it is the temporal background for our embodied existence in-the-world. The regular motions of the sun, moon, and stars continue as they always have, and by their regular motions we are enabled to order our lives today, and to order our lives tomorrow, just as we ordered our lives yesterday.

The fact that modern science has discovered the mechanics of this celestial “clock” is of no real practical importance to us. For example, we speak not of the rotation of the earth, but of the rising and setting of the sun. This perceptual awareness of our world enables us to live our lives in-the-world. It is as though the Creator has designed the solar system knowing that we would need this sense of order and of ordered time as the temporal background for living-in-the-world.

The bottom line of this is that we have a choice to make: Will we choose to think of our world as an intellectual-play conceptualization of the world, which we can imagine but never perceive, or will we choose to think of our world as-it-appears to us, which is exactly the way we perceive it to be? We’ve been told by modern science that reality is not that which appears to us but that which underlies phenomenal appearances. We’ve been told that modern science is able to pull back the veil of appearances and reveal to us the true reality of the world. But is this really the case? Do our senses deceive us? Are our senses unable to recognize the true reality of the phenomenal world? Or could it be that our senses do receive the presentation of the reality of the phenomenal world exactly the way in which they are supposed to and that the way in which the world appears to us is reality?

If God created the world so that the objective phenomena of the world were created in order to be perceived by observing subjects, then perhaps the true reality of the world, which we can know and experience, is the synergic matrix of experiential interaction which exists between objective phenomena and subjective perception; an objective/subjective reality which exists continually. The attempts of modern science to define reality as being only that which exists objectively fall into subjectivity every time a scientist claims to have discovered (or to have uncovered) such an objective reality, because the very recognition of objective reality as such is an activity of the subjective, experiential, conscious perception of the scientist.

Modern science often ignores the subjective and presents that which is objective as the only true reality. And when it comes to our subjective conscious perception of *the experience* of objective reality,

modern science often ignores experience, because modern science considers experience to be irrelevant or worse: deceptive and untrustworthy. But is it irrelevant or untrustworthy for us to perceive the sun as moving across the sky, as it appears (to us) to be doing each and every day? Could this perception of the sun's motion actually be more relevant, more trustworthy, and more practical for us than is the modern scientific mental image of the solar system as presented to us in artists' conceptions of the objectively true (mechanical) reality of a world that no one can actually perceive?

We need not doubt the modern scientific discovery of the earth's rotation upon its axis and its journey around the sun; we simply need to ask ourselves: What difference does this scientific knowledge really make? Have we become better people, now that we know these cosmological truths? Theologically, it would be absurd to think that God had allowed the thousands of generations of peoples who lived before the advent of modern science to have lived-out their lives in-the-world with a faulty (or deceptive) knowledge of the world simply because they relied upon their sense perceptions, thinking the world was—in reality—as it appeared to them: earth-centered (i.e., the sun appeared to move while the earth appeared to remain motionless). And, to make matters worse, are we suppose to believe that God then codified this *faulty* (or deceptive) knowledge of the world by revealing it to humankind (in the Bible) as *truth*? Since God cannot lie, I think we can be assured that the biblical description of the motion of the sun was not a deceptive concession made to prescientific peoples by a God who knew, all along, that the sun didn't move; rather, the biblical description of the phenomenon of the sun's motion has always been, now is, and always will be a true description of the phenomenal world.

Thinking about the world as-it-appears enables us to say, along with Gadamer, that: "The truth that science tells us is relative to a specific attitude toward the world and cannot claim to be the whole."⁵⁴ All thinking is based upon certain assumptions, presuppositions, and perspectives, and modern scientific thinking is based upon the assumptions and presuppositions of naturalism, materialism, and rationalism; therefore the modern scientific definition of truth is (unsurprisingly) naturalistic, materialistic, and rationalistic (as well as reductionistic).

As we have already seen, modern science arose in the cultural milieu of the Renaissance and the Reformation, which vehemently re-

⁵⁴ *ibid.*

sisted the reigning irrational and supernatural (=superstitious) thinking that was so much a part of the Middle Ages. Enlightenment rationalism was the cultural force that brought about our modern society's acceptance of *truth* and *reality* as being only that which can be quantified and defined by modern scientific methods. Our culture unquestioningly accepts this scientific definition, although, historically speaking, this is a very recent interpretation of truth and reality. For millennia, cultures have made sense of the world via sense perceptions. But, in the modern era, this way of thinking about the world is considered faulty, because modern science has been so successful in separating us from the world of nature as-it-appears to us. Astronomer and anthropologist Anthony Aveni explains our modern-day separation from nature: "Modern Western culture willfully chose to separate nature from culture. It was a slow and delicate surgical separation, which began only twenty generations ago in the European Renaissance, and is not yet complete, although most will concede that we all live in a scientific world of rationalistic naturalism."⁵⁵

As for the practical value of the two cosmologies we have been examining here, it should be evident to us that any culture which thinks of the earth as the central focus of the universe, and as the concern of its Creator, allows the people within that culture to think better of themselves, of their neighbors, of all living things, of the world, and of God as the Creator of the world. A culture that embraces the materialistic naturalism of reductionist modern science can easily lead the people within that culture to believe they should think less of themselves, of their neighbors, of all living things, of the world, and of God. Practically speaking, we are much better off thinking of the earth as our home, and as the center of God's attention, than we are thinking of the earth as modern science would have us to think of it. As astronomer Carl Sagan once described the modern scientific perspective of our world: "Our planet is a lonely speck in the great enveloping cosmic darkness. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves."⁵⁶

Although we began this section by recognizing the importance of the conflict between the heliocentric and geocentric theories, modern science had, by the twentieth century, abandoned both cosmological theories. As we've seen, modern science soon discovered that it wasn't just the earth that was in motion: the sun, along with the entire solar

⁵⁵ Anthony Aveni, *Conversing with the Planets*, (Boulder: University Press of Colorado, 2002) p. 218

⁵⁶ Carl Sagan, *Pale Blue Dot*, (New York: Ballantine Books, 1997) p. 9

system, was also in motion orbiting the center of our galaxy, which was also in motion. Even today, modern science cannot explain what gravitational phenomenon exists at the centers of the galaxies, why the galaxies appear to be accelerating through spacetime, or how the galaxies are able to hold-together at all.

The theories of dark matter/energy and MOND (Modified Newtonian Dynamics) are postulated as attempts to explain how the galaxies can hold together, although (according to current physics) they lack the proper amount of (visible) matter necessary in order for them to do so. It seems that neither Newton's nor Einstein's theories of gravity are able to adequately account for this anomaly. And the phenomenon of *the galaxy* seems to be the quintessential celestial form found in the universe; there appear to be billions of them, and they are all in motion: both revolving about their centers and accelerating apart from one another through intergalactic space at thousands of kilometers per hour (this acceleration being yet another puzzling anomaly for scientists).

Some 400 years since Copernicus, a few scientists are now theorizing that—contrary to the atomist belief in a multitude of populated planets (like the earth) orbiting stars throughout the universe—the earth is likely the only planet in the universe populated with complex life forms. These scientists are slowly succeeding in returning the earth to the center of the universe, if not *physically* then *biologically* in a new sort of *bio-centric* theory of the universe:

“Ever since Polish astronomer Nicholas Copernicus plucked it from the center of the Universe and put it in orbit around the sun, Earth has been periodically trivialized. We have gone from the center of the Universe to a small planet orbiting a small, undistinguished star in an unremarkable region of the Milky Way galaxy—a view now formalized by the so-called Principle of Mediocrity, which holds that we are not the one planet with life but one of many...If it is found to be correct, however, the Rare Earth Hypothesis will reverse that decentering trend. What if the Earth, with its cargo of advanced animals, is virtually unique in this quadrant of the galaxy—the most diverse planet, say, in the nearest 10,000 light years? What if it is

utterly unique: the only planet with animals in this galaxy or even in the visible Universe?⁵⁷

“What if it [our world] is utterly unique: the only planet with animals in this galaxy or even in the visible Universe?” What if...? Indeed. And yet modern science, in its atomistic quest to uncover the building blocks of physical reality, continues to undermine trust in our sense perceptions of the phenomenal world. The many phenomena of our world appear to us as they do—in phenomenal forms—so that our world has order and form, so that our world will be sensible to all forms of complex life, and so that we may be able to live our lives in-the-world. If, however, reality appeared to us as the building blocks of matter/energy (quarks?), our world would appear to us as a sea of formless matter/energy in motion.

But what causes matter/energy to take the various forms that it does? Why are there only ninety-two naturally occurring elements? What causes formless matter/energy to take these—and only these—ninety-two naturally occurring forms? Why is the simplest element (hydrogen) also the most stable and most abundant element, while the most complex element (uranium) is rare and the most unstable—throwing off matter/energy as though it had reached some sort of density/form/matter/energy saturation point? Modern science doesn’t know.

In the modern scientific search for reality, in its quest to remove the veils of appearances which obscure physical phenomena, and in its revelation of the building blocks (or particle clouds) of the reality of the physical world, which is hidden from our view, modern science has neglected the very real world of phenomena as-they-appear (to us) in their myriad forms. These forms have meaning, and we should not allow modern science to so influence our thinking that we would reduce the world to being nothing more than matter/energy in motion.

Form and appearance are greatly underappreciated in today’s modern scientific way of looking at the world, and yet it is the forms and appearances of phenomena that we perceive throughout our lived-experience of being-in-the-world. It must be more than matter/energy in motion giving rise to these forms and appearances, it must also be *information*.

⁵⁷ See Peter Ward and Donald Brownlee, *Rare Earth, Why Complex Life is Uncommon in the Universe*, (New York: Copernicus Books, 2000, 2004) p. xxvii-xxviii

Information theory is now an important part of modern scientific thought and in no area of science is it more obviously necessary than in the study of life and its origins. Modern science has its currently reigning theory of how life (as-it-appears) came to exist on earth: the theory of biological evolution. This modern scientific theory concerning the origins and development of life is methodologically naturalistic (as any natural philosophy or science should be) and is therefore directly opposed to any supernatural explanation (e.g., the biblical account that God (who is beyond nature) is the Creator of all life). The scientific question today is: How did the information so necessary for the formation and the development of complex intelligent life arise from simple non-intelligent matter/energy?

Just as the Copernican Revolution in astronomy changed people's view of the world, of themselves, and of God, the Darwinian Revolution in biology has also changed people's view of the world, of God, and of themselves. But, unlike the Copernican Revolution, the theory of biological evolution hasn't yet been proven a scientific fact beyond any reasonable doubt (and it has now been over 150 years since the time of Darwin himself). Today, evolutionary theory is engaged in a struggle for its very survival as a viable scientific theory. The contrast and conflict between the naturalistic/evolutionary view of the world and the supernatural/creationist view of the world is the subject to which we turn next.

Creation versus Evolution

Introduction

The atomists believed the random collisions of atoms in the void of space gave rise the myriad forms of all things, including *living* things. I believe Aristotle was closer to the truth in his thinking of the *form* of all living things as being that which guides the development of each thing (being) toward maturity: an acorn carries within itself the form of the oak tree the acorn will become; a fetus carries within itself the guiding form of the mature adult the fetus will become. The Neo-Platonists believed that all beings—a great chain-of-being from inanimate matter to God himself—developed due to a *life-force* inherent within matter itself. All living beings were thought to have come into existence due to the unfolding of each particular being's preexisting

eternal form, the inherent pattern of the Life-Force, which determines each particular being's growth and development.

The atomist view bares a close resemblance to the modern scientific view because the combination of matter/energy, time, chance, and chemical law are seen as that which gives rise to all forms of life. The Aristotelian and Neo-Platonic views are both teleological, and both views have, what we, today, would consider to be, types of information theories which explain how forms of life take the particular forms that they do. But theories of teleology and information content are inadmissible in the modern scientific theory of biological evolution, which seeks to explain the appearance of design by random, material, natural, physical laws and processes. Due to their presupposed commitment to a naturalistic philosophy and methodology, the evolutionists are certain in their belief that a material, natural, chemical law-based explanation for both the origin and the development of life will be found; but to date, nothing has been found which supports this view.

Intelligent Design Theory claims that the order of high specific complexity (i.e., design) found in living things can only be explained by information, and that information denotes intelligence. This claim is obviously valid concerning what we might call man-made objects (e.g., a computer, a book, a cell phone) and yet, when it comes to *living* organisms, this claim is considered to be scientifically out-of-bounds. Modern science looks exclusively for the natural and material causes of natural phenomena; it doesn't look for intelligence. The only possible intelligent cause for the high order of specific complexity observed in living organisms must be called the Creator (or God) and the existence of a supernatural intelligence is beyond the purview of the natural sciences.

The controversy between creation and evolution, which has raged on for over 150 years, is very similar to the controversy between science and religion which arose during the Copernican Revolution. History will note both the winners and the losers of this controversy, just as history has noted the winners and losers of the controversies caused by the Copernican Revolution. Both of the controversies concerned science and religion because modern science had proclaimed a new, factual, and accurate view of the world over against what was perceived as being an ancient, outdated, prescientific, biblical, and religious view of the world. Let's begin now our study of creation and evolution by examining these radically different, contrasting, and conflicting, views of the living world.

Creation

Creation means, very simply, that all forms of life were *created* by God. The Bible, in the first chapter of Genesis, tells us: “In the beginning God *created* the heavens and the earth” (Genesis 1:1, emphasis added). By the command of the Creator-God, the earth brought forth all plants (1:11) and all land-dwelling creatures (1:24); the waters brought forth “swarms of living creatures” (1:20); all birds were created (1:20); and, finally, God created humankind (1:27).

The Genesis account of how, why, and when life came to exist in our world was told and written by people who lived ages ago, having come down to us in this biblical story-of-beginnings (Greek: *genesis*, meaning: *beginnings*). Written in the form of a historical narrative, the Genesis account of the creation of life is knowledge of the world (and of the past) which we could never have gained solely through our ability to reason. This knowledge comes to us (by way of the story-writers) as divine *revelation*: God, the Creator of life, has revealed and communicated to humankind the story of the creation of life, which provides us with true knowledge of the world (and of the past).

This revelation, of God’s creation of the living world, was also proclaimed by Christ when he said: “But from the beginning of creation, God made them male and female” (Mark 10:6). Christ is here affirming the reliability of the creation account, found in the Old Testament book of Genesis, concerning the origins of life and of humankind. It is a matter of religious faith to believe the scriptures contain knowledge that is specially revealed to humankind by God, and Christians are compelled to accept *as true* this knowledge (conveyed to us by way of special revelation) of God’s having created all life. To reject and deny God’s action in the creation of life is tantamount to the rejection of the Christian faith because, above all else, the Christian faith proclaims: God as Creator.

There are various Christian perspectives on God as Creator, and there are various interpretations of the biblical text concerning God’s creation of the world, and yet all would agree that God’s action is required in the creation of life. One Christian perspective is that of *theistic evolution*, which asserts that life has evolved in exactly the way in which modern science describes it to have evolved, with the important qualification that God must be considered the ultimate cause of life’s origins (a problem still unanswered by modern science) as well as the guiding force directing the evolution of all living organisms.

Another perspective is that of the *biblical literalist*, who believes that God created the world in exactly the way in which he is said (in the creation story of Genesis) to have created it: in six (twenty-four hour) days. A more recent Christian perspective of God's creation of life is that of the Intelligent Design Movement. Intelligent Design (ID) is a movement of scientists and intellectuals who think that the order of high specific complexity found in living organisms can only be explained by positing the existence of an intelligent designer (i.e., God the Creator).

Theistic evolution, although technically a creation position, is simply evolution with an added supernatural element, which modern science has willfully rejected: a life-force or a World-Soul. (Since we have already examined this type of life-force-guided evolution, in the previous section, we need not return to it here.) Intelligent Design, although technically a creation position, is based upon science and philosophy and does not rely upon the biblical revelation as a source of true knowledge. Intelligent Design can therefore be thought of as *theistic creation* or *design by an unknown intelligence*. Theologically, the biblical literalist comes closest to accepting the Bible as the best source of true knowledge concerning the creation of life. Biblical literalism, although adhered to by many intelligent people, is often thought of as the least intellectual position on creation, because it embraces the creation story of Genesis as true knowledge of the creation event and because it takes the details of the creation account *literally* as historical facts. Unfortunately, most intellectuals today think this level of trust in the Bible both credulous and naïve.

Creation is a theological perspective any way we look at it, and I believe that it's better for us to be theological (rather than scientific) whenever we attempt to explain creation. As we saw above, the Bible, in the book of Genesis, presents God as the Creator of the world and of all life. God is seen as *the agent* of creation: the *ultimate cause* for the existence of all created beings (whether animate or inanimate). Although unsatisfactory as a scientific explanation for the existence of life, creation is theologically and philosophically satisfying because it offers us a reason and a purpose for our existence, and because it offers us as a reasonable cause for existence itself.

I believe the Genesis story of creation should be read as revealing true knowledge of the creation of life, and I think that the biblical account of creation should be read as it was written: as the story of creation. We need not attempt to prove it literally (e.g., biblical literalism, creation-science), we should not read into the story something that is

not there (i.e., theistic evolution), and neither should we ignore it altogether (i.e., Intelligent Design); rather, we should trust the creation story of Genesis to give us true and sufficient knowledge of the creation of life as revealed to us by our Creator.

Evolution

Two naturalists: Charles Darwin and Alfred Wallace, working independently during the nineteenth century, each hit upon the idea of biological evolution (i.e., decent with modification via natural selection) as a possible (scientific) explanation for the diversity of life in the natural world. Earlier, during the eighteenth century, a scientific theory of evolution was also proposed by Jean-Baptiste Lamarck, who thought life's diversity was caused by the adaptation of the organism to its environment and the passing-on of these adaptive traits to its offspring. Although very similar to the Darwin-Wallace hypothesis, Lamarck's theory of evolution was very different, because he postulated that nature held within it a force (i.e., a life-force) which enabled organisms to develop from the very simple to the very complex (a sort of Neo-platonic World-Soul guiding the development of this great chain-of-being).

Evolution, in the Darwin-Wallace sense, did not require a hidden natural power or force to guide organisms from simple to ever greater complexity; their evolutionary theory suggested that such development had occurred solely by means of natural and material processes acting in accordance with physical laws. The natural and material process responsible for evolution—natural selection—can be described as: the ability of those individuals and populations most successful at surviving survived, while those less successful at surviving did not. Both Darwin and Wallace were influenced in their thinking on this point by their reading of *An Essay on Population* (1798) written by Thomas Malthus concerning population growth.

Darwin's *The Origin of Species* (1859) was a seminal work and it provided scientists who working in the life sciences with a new paradigm, a new way of making sense of the facts of observation. It is because of this work that Darwin (and not Wallace, who only wrote an essay on the subject) receives the credit for the modern scientific discovery of evolution via natural selection. Until Darwin, most scientists were convinced that some non-physical force (e.g., life-force, World-Soul) or some supernatural intelligence (e.g., Creator, God) was the

best explanation for the existence, complexity, design, and diversity of living organisms. Darwin's real genius was to propose that natural and material causes *alone* could scientifically explain the apparent design, complexity, and diversity of life, and it is for this reason that his theory was so readily accepted by the scientific community. Darwin's evolutionary paradigm has remained unto this day the best, working, modern scientific theory for the existence, diversity, complexity, development, and (apparent) design of all living organisms.

According to present-day modern science, however, the theory of evolution is not a working scientific *theory* at all; evolution is, as Ernst Mayr declares, a well proven *fact*: "Evolution is not merely an idea, a theory, or a concept, but is the name of a process in nature, the occurrence of which can be documented by mountains of evidence that nobody has been able to refute...Evolution is no longer a theory, it is simply a fact."⁵⁸

The modern scientific "fact" of evolution (supposedly) provides us with true knowledge of the history of life's natural origins, progression, and development. Modern science theorizes that life first originated from non-organic chemicals when inorganic matter self-organized into the organic molecules (e.g., amino acids and proteins) essential for life. Although origin-of-life theories are only speculative and theoretical, modern science theorizes that this self organization of inorganic chemicals into organic living organisms must not have been too difficult because it (apparently) did occur, when the time and conditions (on earth) were right. As Ernst Mayr explains it: "In spite of the theoretical advances that have been made toward solving the problem of the origin of life....the production of life cannot be too difficult, because it happened on Earth apparently as soon as conditions had become suitable for life, around 3.8 billion years ago."⁵⁹

Evolution is the natural process by which life, once originated, continually develops from this early, first stage, into all of the various forms of life that we observe existing today; or, if now extinct, which have once existed at some time in the distant past). The process of evolution is caused by natural selection, which was "discovered" by drawing inferences from two observations about the natural world: first, each individual within a species varies slightly from every other individual of the same species; and second, environmental conditions and demands control the population growth of a given species. Natural

⁵⁸ Ernst Mayr, *What Evolution Is*, (New York: Basic Books, 2001) p. 275

⁵⁹ *ibid.*, p. 43

selection occurs when: “Those differences that aid individuals to survive and reproduce are shared among members of a species, and those that do not are progressively eliminated.”⁶⁰

Natural selection is the means by which evolutionary change occurs in living organisms; from the simplest forms of life into ever more complex ones, life adapts itself for survival and reproduction only by means of this natural and material process. The fossil record is replete with the fossilized remains of organisms and gives us a window into the history of life on earth. These fossils reveal that thousands of different species of living organisms failed to survive and reproduce; evolutionary science also tells us that the fossil record gives us many examples of transitional forms, which link extant living species with species of the distant past.

The modern scientific “fact” of evolution has (supposedly) proven the common ancestry of all living organisms, and it provides us with a view of life by which we are enabled to see the interrelatedness of all living things. Change was occurring from the very beginnings of life, as simple organisms adapted, survived, and reproduced by passing on to their progeny the ability to endure the rigorous constraints of their environment. Evolution is the modern scientific (historical) truth concerning the progression and development of life on earth.

Conflicting Views of the Living World

Creation and evolution are antithetical views of the living world: either life was *created* by an intelligent Creator or life originated and *evolved* by natural/material processes. Evolution is thought (by many modern people) to be yet another rational, modern scientific nail being driven into the coffin of a dead (or dying) biblical faith. Having triumphed over the prescientific biblical cosmology with the Copernican Revolution, modern science was, by Darwin’s time, poised to bury the prescientific biblical anthropology as well. And along with it, the human need for salvation.

Modern science, in thinking that it had proven the fact of biological evolution, assumed it had disproven the biblical account concerning the creation of humankind, which is found in Genesis, and concluded that the biblical/theological Fall of Humankind was disproven

⁶⁰ Edward B. Harrison, *Cosmology*, p. 304

as well. The fact of evolution had seemingly proven there was no need for salvation, but the truth is things haven't really been going all that well for the modern scientific "fact" of evolution. To many intelligent people—including many scientists—the theory of evolution is beginning to look less and less like the objective, dispassionate, scientific truth about the history of life of earth. To these people, the theory of evolution is beginning to look a lot more like a very imaginative scientific creation story.

In order to illustrate some of the difficulties with which evolutionary theory struggles, we need only look at a recent book: *Intelligent Thought: Science versus the Intelligent Design Movement*,⁶¹ which was written in response to a legal decision⁶² concerning the teaching of Intelligent Design in public schools. The book is a collection of essays written by some of the leading defenders of biological evolutionary science, and yet none of these thinkers has managed to write anything even remotely resembling the fantastic claims made by the book's publisher (Vintage) and found on the book's back cover blurb:

"Evolutionary science lies at the heart of a modern understanding of the natural world. Darwin's theory has withstood 150 years of scientific scrutiny, and today it not only explains the origin and design of living things, but highlights the importance of a scientific understanding in our culture and in our lives."⁶³

The truth is that Darwin's theory of evolution is not accepted by the scientific community as an explanation for "the origin and design of living things" and neither is Neo-Darwinism. The truth is that modern science has no explanation for the origin of life, and it has only theories and speculations concerning the design of living things. Such is the sad state of affairs concerning the creation versus evolution controversy, which has continued for more than 150 years, with both sides asserting their particular positions, guarding their philosophical commitments, and attempting to persuade both scientists and the public that their position alone is correct.

⁶¹ *Intelligent Thought: Science versus the Intelligent Design Movement*, John Brockman, editor (New York: Vintage Books, 2006)

⁶² *Tammy Kitzmiller, et al. versus Dover Area School District, et al* (United States District Court for the Middle District of Pennsylvania, Case No. 04cv2688)

⁶³ *Intelligent Thought*, back cover

If the Darwinian Revolution had proven—beyond a reasonable doubt—its explanation for the origin and design of living things, then the vast majority of scientists, philosophers, theologians, and the public (even those of strong religious faith) would no doubt have accepted this explanation long ago. Had evolution truly proven its case, people would have adjusted their theologies and their biblical interpretations to fit the (new) evolutionary view of the world, just as people eventually did when science proved—beyond a reasonable doubt—the truth of the Copernican Revolution's discoveries of the motions of the earth and of the solar system of planets.

In fact, many religious people *have* accepted evolution as a scientific fact, and many religious people have also adjusted their biblical interpretations in order to fit the Darwinian theory of evolution. Likewise, many people also see God (the Creator) as the first cause and the guiding intelligence behind biological evolution's mechanism of natural selection (e.g., the theistic evolutionists). This is not, however, a full acceptance of the modern scientific theory of evolution, because the theory of evolution is naturalistic and materialistic, allowing for no supernatural, intelligent causes or effects. For science, the answers to the questions about life's origins and design are to be sought in nature alone. Likewise, those of religious faith who believe God is the Author and Creator of life do not seek natural and material explanations where none can be found.

Those who do not believe in evolution, those who believe that God is the Creator of life, have been accused of stopping their ears to the truths of modern science. They have chosen to believe in the creation myth of Genesis instead of the factual, scientific evidence which has been brought to bear against it. And nothing is more frustrating to those who are rationally, naturalistically, and scientifically minded than is the refusal of religious believers to abandon their prescientific mindsets in the face of (what is considered to be) irrefutable scientific evidence.

It's been over 150 years since Darwin first proposed his theory of evolution, and the scientific proofs of biological evolution—despite claims to the contrary—have not been produced. Modern science was able to prove that the earth rotated on its axis and revolved around the sun, but modern science has had great difficulty in proving that simple matter/energy, by obeying physical/chemical law, caused spontaneous chemical combinations which, over eons of time, have evolved into complex living organisms.

Biology has proven to be a much more difficult area of natural philosophy, or scientific study, than astronomy and cosmology ever was. And, as I've said, many people are beginning to see that the theory of evolution resembles a very imaginative (albeit scientific) creation story. It would appear that trying to explain (scientifically) the origin and biodiversity of organic life on earth is proving to be a lot more difficult than was explaining (scientifically) the motions of the celestial bodies. And this should be no surprise to us, considering the vast differences between the incredible complexity of life on earth and the (relative) simplicity of the motions of the celestial bodies.

Were Darwin alive today, he would no doubt be dismayed by the vast complexity modern science can now observe in just one, simple, living cell; the complexity of which was unknown in Darwin's time. In fact, it would seem that modern science has—inadvertently—met with much greater (albeit unintentional) success in falsifying the theory of evolution than it has in proving evolution's validity as a scientific theory, let alone a scientific fact (despite the hard-core evolutionist's claims to the contrary). The more knowledge science gains concerning life, the less likely it seems that life must have originated and evolved solely by natural/material processes. The high order of specific complexity observed in living organisms (e.g., the biochemical inner workings of the living cell) is quite unlike the simple order found in inorganic matter (e.g., crystalline structures) that are caused by natural/material processes. It seems the complexity of life is not determined by natural/material processes, but by information. And information *always* denotes intelligence.

Ever since the discovery of the DNA molecule (in the 1950's) modern science has been forced to deal with the scientific fact that all life is based upon a *coded sequence of information* containing instructions concerning the growth, development, and final mature forms which all living organisms will (ultimately) attain. The coded information found in the DNA molecule is analogous to the code used by modern computers. Computers function on the basis of a two digit code (called the *binary system*, which is made up of two digits: 1 and 0) that, when commanded by the codes created by programmers, is able to carry vast amounts of information and instructions. An entire (digital) virtual world can be constructed within a computer program simply on the basis of codes, developed by programmers, which command and control the computer's use of a two digit (binary) code.

The DNA molecule uses, so to speak, a *four* digit code, which is made up of four biochemical bases: adenine, thymine, guanine, and

cytosine. The various combinations of these four bases provide all of the information and instructions necessary for the growth and development of every living organism. If we can construct a virtual world within a computer program by using a two digit code, it's not hard for us to imagine the real world of complex living organisms having been constructed on the basis of a four digit code of biochemical bases. The question modern science has recently been forced to address is: How did such a code—a *language*—arise solely by natural/material physical processes acting upon simple inorganic matter?

Some evolutionists deny that the questions surrounding the origins of life have anything to do with evolution, but I believe these questions are simply extrapolations of the evolutionists own assumptions: only a natural/material explanation for the origin of life is to be sought after. And I think that if one accepts naturalistic/materialistic evolution as the scientific explanation for the design and development of living organisms, then one should agree that the origins of life must have been naturalistic and materialistic as well. Ultimately, evolution requires the belief in the ability of the most fundamental subatomic particles of matter/energy (quarks?) to spontaneously arrange into very simple atomic structures by natural propensity (gravity?), continue to develop into the most simple chemical elements (e.g., hydrogen, helium), to form eventually (due to gravity) into stars, which allows for the process of nuclear synthesis, causing these simple elements to synthesize into all ninety-two of the naturally occurring elements.

Furthermore, evolution requires one to believe that upon the deaths of these primeval stars (i.e., going supernova) these ninety-two naturally occurring elements were dispersed throughout the universe, where they later coalesced (due to gravity) into planets (like the earth), and that, over time, arising spontaneously (due to chemical law) from these inorganic elements, came the first primitive living organisms, which (eventually) developed into the myriad variety of all living organisms (including humankind). Evolution ultimately requires us to believe that quarks—given enough time—have developed into every form of life up-to-and-including human beings (having intelligence, consciousness, language, and emotions) solely by means of natural/material processes. And, according to evolution, all of this has occurred without either matter/energy or living organisms having any natural propensity to develop from simple to ever greater complexity, as if there were some sort of teleological cosmic goal, end, or purpose toward which this progression was being directed.

Although Darwinian evolution denies the existence of any innate force or teleological drive, which could cause life to progress (inevitably) from simple to ever greater complexity, Darwinism asserts, nevertheless, that life *has* progressed from simpler to ever more complex forms by means of natural selection. Darwinian evolution posits that life forms do progress from the simple to the complex, but that they need not always do so; it is possible that some forms will remain unchanged, or even *devolve* from complex to simpler forms.

In my thinking, it is an inescapable conclusion of Darwinian evolutionary thought that life must have originated from inorganic matter/energy, having (somehow) made the remarkable progression from simple to ever greater complexity. In short, although Darwin's evolutionary theory demands that no innate force or teleological drive be involved in order to accomplish this amazing progression, the fact remains that any evolutionary conceptual scheme must explain how the simplest element (i.e., hydrogen) eventually developed into the incredibly complex organism that is the human person; a highly complex living being with body, mind, will, and emotions.

Mary Midgely has given us an apt description of the modern scientific theory of evolution: "The theory of evolution is not just an inert piece of theoretical science. It is, and cannot help being, also a powerful folk-tale about human origins."⁶⁴ From this perspective, the *evolution versus creation* controversy is a controversy over which *story* of human origins (*Genesis* or *Evolution*) makes more sense to us, not which account of origins is *scientifically correct*. But let's think about it. Does it make more sense for us to believe that quarks, given enough time, can eventually develop into the human body, mind, will, and emotions? Or does it make more sense for us to believe that: "When God created man he made them in the likeness of God" (Gen. 5:1-2)? The question we seem to be faced with is: Which *story* will we choose as a conceptual scheme for making sense of the living world?

The irony here, for any rational, logically minded, modern thinker is that it is neither rational nor logical for us to think of human intelligence as having arisen from unintelligent matter/energy. Only intelligence can give rise to intelligence and information, and only intelligence can create the order of high specific complexity that we observe in all living organisms. So why is it that the belief in a supernatural intelligent being—a Creator-God—is thought of as a being such a primitive, superstitious, and prescientific belief that it needs to be re-

⁶⁴ Mary Midgely, *Evolution as a Religion*, (London: Routledge, 1985, 2002) p. 1

placed as-soon-as-possible by the advanced, rational, and modern scientific theory (or fact) of evolution? Are those who believe in a Creator simply uneducated, backwoods fundamentalists bent on taking us back to the Dark Ages before the advent of modern science? Or could it be they are simply rational, logical, thinking people who find little-to-no philosophical or scientific truth in biological evolution as a rational, valid, scientific explanation for the existence of life?

Phenomenology and the Practical Value of Our Views of the Living World

We are examining two very different ways of viewing the living world here, and each view raises important questions: Is life the meaningful creation of God? Or is life simply the result of purposeless, natural, and material development? The Bible presents the world-of-life to us as-it appears to us: as a multitude of creatures identifiable by their virtually unchanging, fully mature forms. We cannot consciously perceive the evolution of any living organisms. We *do* observe living organisms developing to maturity, and developing within species; but we *do not* observe living organisms developing from one species into another. Evolution's theory of purposeless development sounds like an oxymoron—all development denotes a purpose and a goal—yet Darwinian evolution rejects any function, purpose, end, or goal in the evolution of organic life forms. For evolution, there is no higher goal toward which life forms are developing, there are only blind natural forces driving life forms *outward* into the world and not *upward* toward any higher complexity.

According to evolution, the progression from simple to ever more complex forms is only a *seeming* progression. According to Ernst Mayr, the simplest form of life, the bacteria, may in fact be the most successful life form ever to have evolved: "Indeed, evolution seems highly progressive when we look at the lineage leading from bacteria to cellular protists, higher plants and animals, primates, and man. However, the earliest of these organisms, the bacteria, are just about the most successful of all organisms, with a total biomass that may well exceed that of all other organisms combined."⁶⁵ If an organism's success in reproduction and fitness to its environment is what evolution *is*, then

⁶⁵ Ernst Mayr, *What Evolution Is*, p. 278

bacteria can be thought of as the most fit and successful living organism in the world.

Many people mistakenly believe that Darwinism asserts the development of life from simple to ever greater complexity as the *goal* of natural selection, as if humans were some sort of natural and highest end result of (the process of) natural selection. Yet this teleological and goal-driven type of evolution is not Darwinism; Darwin repudiated a teleological explanation for life, because teleology requires some purposing agent in order to guide and direct life toward a higher goal, which must exist either within nature (e.g., life-force, World-Soul) or beyond nature (i.e., a supernatural Creator).

The modern scientific theory of evolution cannot make allowances for either unknown mysterious forces or a Creator: life must be seen as having developed purposelessly from nature alone without the benefit of any preordained plan, goal, or end in mind. Teleology—also referred to as *orthogenesis* (i.e., a direction of evolution toward a final goal by an intrinsic principle, or force)—has no place in Darwinian evolutionary theory, “orthogenesis and other teleological explanations of evolution [having] now been thoroughly refuted, and it has been shown that indeed natural selection is capable of producing all the adaptations that were formally attributed to orthogenesis.”⁶⁶

A view of the living world which allows for no purpose is, to say the least, a very dismal view. Evolutionary thinking has a strong tendency to cause one to view life as an insignificant event in the history of an insignificant planet that will (eventually) die an insignificant death. There is little significance without purpose. The modern scientific evolutionary model of the living world is, in this regard, not unlike the modern scientific cosmological view of the earth as an insignificant speck in the vast emptiness of space. The biblical view of the living world is thought to be prescientific and mythological, yet it does present the living world to us as-it-appears to us and as being invested with meaning and purpose. Rather than believing that humankind has descended from quarks and bacteria, the Bible presents humankind as having been created by God “in his own image, in the image of God he created him; male and female he created them” (Genesis 1:27). This view of life—especially human life—is wholly opposed to the evolutionary view of life.

Life is not a random occurrence on a random planet devoid of meaning and purpose, life is the creative act of God; the living world

⁶⁶ *ibid*, p. 275

being an expression of his very self. The practical value of the biblical view is vastly superior to that of the evolutionary view, because we know, intuitively, that our families, our friends, and our neighbors have meaning and purpose. We know that our lives are invested with meaning, and the biblical/theological view *confirms* this intuitive knowledge. We cannot observe, nor do we experience, the purposeless development of living organisms, which the evolutionary view envisions, because the modern scientific theory of evolution is an abstract intellectual-play conceptualization of the world, which has no correspondence to the real world of our lived-experience.

The Bible presents the living world as-it-appears to us, with each life form reproducing after its own *kind* (see Genesis 1: 20-25). This sort of typological classification is known as *essentialism* (i.e., living organisms belong to certain *classes* or *kinds*), and the typological classification of living organisms was, from ancient times until Darwin, always considered the best way to make sense of the living world. This is the way in which the living world appears to us: we observe living organisms as belonging to particular types, classes, or kinds. Darwinian evolution posits the slow transition over time from one species to another, although this is not a phenomenon we can observe. Phenomenology helps us to make better sense of our world because it helps us to focus upon the way in which world appears to us. And from the phenomenological perspective, evolution is simply a meaningless fact (or theory), because we do not perceive life forms developing from simple to ever greater complexity, nor do we observe the evolution of one species into another.

Evolution, then, is nothing more than an exercise in intellectual-play; a mental abstraction having no correspondence to the world of phenomena we experience. And there is very little of practical value that can be found in views of the world based upon abstract intellectual-play. If we allow ourselves to be convinced that the world is not as-it-appears to us, and that it is, rather, as we might *imagine* it to be, then we run the risk of misinterpreting and misunderstanding the only world that we can ever truly know: this world. And for all practical purposes, this world is the only world there is.

The living world does not appear (to us) to be *evolving* in any major sense of the term. We do observe minor variations (microevolution) within a species (e.g., breeds of dogs, cats, horses), but we do not observe the major variations (macroevolution) that evolutionary biology asserts: the evolution of one species into another (e.g., fish to amphibian, amphibian to reptile, reptile to bird). Species of living organ-

isms appear to be very stable: people are always people, dogs are always dogs, whales are always whales—there are no, major, observable, changes within any species. The minor variations within a species may be *called* evolution but, as Philip Johnson tells us, these minor variations do not necessarily imply all that the Darwinists would like for us to believe that they do:

“‘Evolution’ in Darwinist usage implies a completely naturalistic metaphysical system, in which matter evolved to its present state of organized complexity without any participation by a Creator. But ‘evolution’ also refers to much more modest concepts, such as microevolution and biological relationship. The tendency of dark moths to preponderate in a population when the background trees are dark therefore demonstrates evolution—and also demonstrates, by semantic transformation, the naturalistic descent of human beings from bacteria.”⁶⁷

The role of natural philosophy or science is, as we have seen, to posit natural explanations for the phenomena of the natural world. Supernatural explanations are, by definition, beyond the purview of science. This does not mean, however, that scientists are unable to conduct their scientific inquiries into the natural phenomena of the world *while at the same time* holding to the belief that not all phenomena can be explained naturalistically. Isaac Newton described the behavior of gravity scientifically, yet he also conceded that the force itself was (ultimately) unknown and possibly unknowable. In fact, he acknowledged that gravity was, perhaps, God’s way of holding the universe together.⁶⁸ Seeking natural explanations is an appropriate methodology for science, but to make a philosophical assumption that nature is all that exists is not *science* it is *philosophical naturalism*. Philosophical naturalism presupposes that nature is all that exists; therefore, for the philosophical naturalist, all natural phenomena can only be explained by recourse to natural phenomena obeying natural laws and there can be no God.

If biological evolution is, in fact, a philosophically naturalistic *ideology* and not science *per se*, then the creation versus evolution con-

⁶⁷ Philip Johnson, *Darwin on Trial*, (Downers Grove: Intervarsity Press, 1991, 1993) p. 153

⁶⁸ See Nancy R. Pearcey and Charles B. Thaxton, *The Soul Of Science*, (Wheaton: Crossway Books, 1994) p. 90

troversy is not really a matter of science versus religion, but of *ideology versus ideology*. We could even say that it's a matter of story versus story, myth versus myth, and faith versus faith. Evolutionists have accused those scientists who do not believe that all natural phenomena can be explained by recourse to natural explanations (such as those in the Intelligent Design Movement) of giving up on the scientific enterprise, because these scientists concede the fact that natural explanations *alone* are inadequate for dealing with the origin and development of life. Yet it is not unscientific to admit the fact that science will never be able to discover the causes of all natural phenomena. A scientist who acknowledges this fact takes a humble approach in doing science. But to think that science can discover the causes behind all natural phenomena and to think that science can identify these causes as the workings of nature alone is the opposite of humility: it is hubris.

Philosophical naturalism is an important component of the metaphysical belief-system known as *atomism*, which we examined above, and was this philosophy which led so many people to believe that our world was not unique, because there were many inhabited worlds. And it is this way of thinking which has led so many people to conclude (logically) that both our world and humankind are of little-to-no significance. Very simply, evolution is: *atomistic philosophy applied to biology*. Darwin's success was due to the fact that, because of his naturalistic and materialistic theory for the development of life, the entire cosmos was now explicable by recourse to the atomistic philosophy. Benjamin Wicker explains the atomistic nature of Darwinian evolutionary theory:

“Matter is the only reality; and by its random motion and cohesion, it creates the appearance of form (i.e., species). The complex unity, then, is the accidental result of the random variations of simple material constituents. The origin of species, therefore, is the random mutation of matter on the atomic level.”⁶⁹

Lest anyone think this is not what the Darwinists believe, and what they would have us to believe as well, consider the following statement made by Seth Lloyd, published recently in a book purporting to defend the truths of Darwinian evolution against the errors of the (upstart) Intelligent Design Movement:

⁶⁹ Benjamin Wicker, *Moral Darwinism*, (Downers Grove: Intervarsity Press, 2002) p. 217

“Atoms collide in every possible way until they form a wide variety of molecules, each selected for by the local concentration of atoms together with the laws of chemistry. Molecules, in turn, explore ever more complicated chemical reactions until they form a molecule capable of catalyzing its own production together with variation in its form: Such a form of proto-life is selected for merely by its ability to reproduce and adapt to different environmental conditions. Because of its ability to adapt to new surroundings, life explores a vast space of possible beings, until it arrives first at sexual reproduction and then at language.”⁷⁰

This is what the evolutionists would have us to believe: that atoms colliding randomly in the void—given chemical law and enough time—eventually become human beings, capable of communication through the use of language. If it weren’t for the fact that some people’s belief in evolution so seriously distorts their view of the world, this sort of talk—atoms developing into people—would be laughable. But it’s no laughing matter when people’s perceptions of the world become distorted by imaginative, abstract, intellectual-play theories about the world. People—both consciously and unconsciously—allow modern science to define reality abstractly, by dismissing and replacing the concrete reality of their lived-experience of the world with the imaginative, abstract, intellectual-play (scientific) theories about the world. It is, however, the consciously perceived experience of living our lives in-the-world that is *reality* to us in the truest sense of the word. Because the world we experience is the only world of which we can ever be consciously aware.

I think we are better off trying to understand life by viewing it as-we-perceive-it and as-it-appears to us than we are using imaginative scientific/historical stories about how life might have emerged from non-life, and about how simple organisms might have developed into more complex ones. Although the evolutionists are loath to discuss it, and although they react defensively when they are forced to do so, Darwin’s naturalistic and materialistic evolutionary theory leads, inevitably, to the logical, moral, and ethical conclusions of its premise: life is a competition for survival. For the evolutionists, life is simply

⁷⁰ Seth Lloyd in, *Intelligent Thought*, p. 189

animated matter, which, by blind and purposeless natural selection, becomes better adapted for the survival of certain populations made up of unique and individual organisms each living within their own particular environments. Individual organisms and the populations made up of them will *compete for survival* with other organisms and populations living within their environments—by any means necessary. This Darwinian “struggle for survival” is downplayed by evolutionists, yet they continue to emphasize it as one of the main features of evolution by natural selection.⁷¹

Evolutionists sometimes attempt to explain away the logical, moral, and ethical conclusions of this struggle by attributing the human sense of morality to a series of genetic improvements which have aided our survival, yet the struggle for survival remains an important piece of evolutionary theory, because survival is what evolution is all about. If evolution were true, then it would be just as sensible for natural selection to have favored genetic improvements that foster an *amoral* sense within us (in order to further the survival of our species) as it would for natural selection to foster a *moral* sense within us.

According to the atomistic evolutionary worldview, the truth is that it makes no difference whether white bits of matter/energy force black bits of matter/energy to sit in the back of the bus, or whether Nazi bits of matter/energy force Jewish and other undesirable bits of matter/energy into concentration camps. In fact it was Darwinism—in the form of Social Darwinism, during the 1920’s and 1930’s—which gave the modern scientific “stamp of approval” to the notion of racial superiority/inferiority (i.e., the eugenics movement; Greek: *eugenics*, meaning: *good genes*). Unfortunately, we have already seen a logical consequence of Darwin’s evolutionary theory (i.e., the Holocaust) and Darwinism has been having a very difficult time making much of a comeback since helping to create the moral sinkhole known as Social Darwinism, which was actually the high point of “success” in the out-working of the Darwinian evolutionary conceptual scheme.

Today the Darwinists are in a virtual panic, because the many anomalies that exist within the evolutionary paradigm are finally being made known to the public. The Darwinists, in their quest to make certain that evolution be taught in the public schools *as fact* have (unintentionally) exposed both themselves and their beliefs to the public. Philip Johnson tells us that: “As many more people outside the Biblical

⁷¹ See Nicholas Humphrey’s use of this term in, *ibid*, p. 61. See also Richard Dawkins use of the phrase “evolutionary arms race” (!) in, *ibid*, p. 99. The term “survival of the fittest” was coined by the evolutionary philosopher Herbert Spencer and not Charles Darwin.

fundamentalist camp learn how deeply committed Darwinists are to opposing theism of any sort, and how little support Darwinism finds in the scientific evidence, the Darwinists may wish that they had never left their sanctuaries.”⁷²

Philip Johnson is not a scientist, but he was a (Harvard trained) University of California (Berkley) law professor for over thirty years. Johnson knows bad reasoning when he sees it, and the exposure to the public (through his book, written during the 1980’s) of the Darwinists’ faulty logic was met with derision by the Darwinist community. Norman Macbeth (also a Harvard-trained lawyer) likewise took the Darwinists (Ernst Mayr in particular) to task (in his book, written during the 1970’s) for the faulty reasoning undergirding their error-ridden theory of evolution, and he urged them to come-clean with the public: “Perhaps they [the Darwinists] are reluctant to confess error. Perhaps they fear that the fundamentalists will gloat over their discomfiture. These would be human failings, but just the sort that one must resolutely put aside. I urge the Darwinists to take the public into their confidence by a full disclosure. They are not expected to be infallible, confession is good for the soul, and candor is always highly valued.”⁷³

Sadly, the Darwinists did not take Macbeth’s advice, and, a decade later, the Darwinists rejected Johnson’s critique of their poorly reasoned theory too. Now, over thirty years since Macbeth’s book came out, and over twenty years since Johnson’s, the Darwinists are more insistent than ever that their theory is correct. For them, evolution is a fact. But every day, more and more people—intelligent people—are beginning to realize that the imperial Darwinist emperor has very little rational clothing.

The future does not look very promising for Darwinian evolution, and the theory will likely be seen (historically) as yet another misguided scientific theory, which the scientific community itself finally repudiated—relegating it to the dustbin of scientific embarrassments.

⁷² Philip Johnson, *Darwin on Trial*, p. 146

⁷³ Norman Macbeth, *Darwin Retried: An Appeal to Reason*, (Harvard: The Harvard Commons Press, 1971) p. 150

Absolute Time versus Relative Time

Introduction

In this third (and final) example of how the modern scientific view and the prescientific (biblical) view of the world conflict, we will be examining the modern scientific concept of *relative time* and how it conflicts with the biblical concept of *absolute time*. Our main focus here (as it has been throughout this chapter will be to ask ourselves this question: Have we adopted an imaginary, abstract, intellectual-play view of the world in place of the way in which we experience the world? And, if we have, how has this altered the way in which we perceive the world?

Most of us are probably at least somewhat familiar with the modern concept of relative time. We have probably heard of time warps, of the possibility of time travel, of how time and space are considered one fabric of spacetime, and of time's being the fourth dimension. Many of us have also read about the hypothetical space traveler who, if she could travel from earth to the nearest star at nearly the speed of light, would, upon her return to earth, find that she had not aged as rapidly as had the people on earth, because, to her, time had run more slowly (due to her incredible speed) but, for the people on earth, time had run at the same rate that it normally does.

In many ways, I think this will be the most difficult of the three conflicting views we are studying in this chapter. It will be the most technically difficult, because we will need to become familiar with Einstein's (two) theories of relativity, and it will be the most philosophically difficult, because time, as a subject in itself, has always provoked a great deal of philosophical thought and speculation. But I also think this will be the most rewarding of the three conflicting views we are studying, because our perception of *time* is probably the most central characteristic of the human lived-experience of being-in-the-world.

Absolute Time

Isaac Newton thought of time as absolute. In his *Principia Mathematica* (1687), Newton wrote that: "Absolute, true, and mathematical time, of itself, and from its own nature, flows equably without relation to any-

thing external..."⁷⁴ This description of time is one in which, for the purpose of doing mathematical calculations, time is conceptualized as passing at the same rate for all observers, everywhere in the universe. This description of time is both an abstraction and a refinement (for mathematical purposes) of *our common-sense experience* of the phenomenon that we call *time*. It is this common-sense experience of time that we will consider as *absolute*, and we will be contrasting this absolute sense of time with the modern scientific concept of time's relativity. The modern scientific conception of the relativity of time is one in which time is seen as passing at different rates for different observers who are not in uniform motion relative to one another. In relativity theory, there are no observers who hold what could be called a privileged time, which would be considered an absolute, standard, or background time.

Newton's conception of absolute time—based, as it was, upon our common-sense experience of time—is very similar to the Bible's presentation of time: there is only one time, which is perceived equally (as such) by all observers. Newton was a theist, and he had "adopted [from mathematician Isaac Barrow] the idea that time and space are, respectively, the expressions of God's own eternity and omnipresence."⁷⁵ Time, according to the Bible, is commonsense, absolute, and eternal: "He [God] has made everything beautiful *in its time*; also he has put *eternity* into man's mind, yet so that he cannot find out what God has done *from the beginning to the end*" (Ecclesiastes 3:11, emphasis added). We find three characteristics of absolute time in this one passage: 1) Things occur *in time*, 2) God's *timeless* eternity, and, 3) A *linear* conception of time (i.e., as having both a beginning and an end).

For thousands of years, humankind perceived time naturally and phenomenologically by way of the observable, regular motions of the celestial bodies: *day and night* by the motion of the sun, *the lunar month* by the phases of the moon, and *the seasons* by the movements of the stars. This natural/phenomenological regulation and ordering of time is what we find in the Bible: "And God said, 'Let there be lights in the firmament of the heavens to separate the day from the night; and let them be for signs and for seasons and for days and years'" (Genesis 1:14).

⁷⁴ Quoted in, Edward Harrison, *Cosmology*, (London: Cambridge University Press, 1981, 1985) p. 128

⁷⁵ Nancy R. Pearcey and Charles B. Thaxton, *The Soul Of Science*, (Wheaton: Crossway Books, 1994) p. 90

This perception, of the regular motions of the celestial bodies, gave prescientific peoples their sense of time, which gave them the ability to order and regulate their lives according to the natural rhythms of their world. The Bible's presentation of time is prescientific, because time is not measured *mechanically* (i.e., by mechanical clock) but *naturally* by way of the motions of the celestial bodies (as perceived by conscious observers). For example, rather than keeping time by mechanical devices, the Bible (in the following passage) presents us with the keeping of time as marked by the movement of a shadow cast by the light of the sun blocked by a stationary object (i.e., a sundial):

“And Isaiah said, ‘This is the sign to you from the Lord, that the Lord will do the thing that he has promised: shall the shadow go forward ten steps, or go back ten steps?’ And Hezekiah answered, ‘It is an easy thing for the shadow to lengthen ten steps; rather let the shadow go back ten steps.’ And Isaiah the prophet cried to the Lord; and he brought the shadow back ten steps, by which the sun had declined on the dial of Ahaz” (2 Kings 20:9-11).

It's important for us to recognize the fact that our modern-day mechanical timekeeping devices (i.e., clocks), which have helped to create the modern scientific conception of time, are based upon the natural and regular motions of the celestial bodies (as perceived by human observers). As John Norton explains, it was the regular motions of the stars that allowed Egyptian astronomers to divide the night into twelve hours: “Evidence for this way of dividing the night comes from diagrams on the inside of coffin-lids from the Eleventh Dynasty (twenty-second century B.C.). Daylight was later divided into twelve hours, by analogy with the night. And so we were given the twenty-four hours of our day, from which even the ‘rational’ endeavors of Revolutionary France [which sought to impose a ten hour day] did not manage to disengage us.”⁷⁶

A very important point for us to keep in mind is that the concept of time, in any absolute sense, requires a *standard* by which to keep (or mark) time and the motions of the celestial bodies provide the standard basis for both natural and mechanical time keeping. Natural

⁷⁶ John North, *The Norton History of Astronomy and Cosmology*, p. 14-15

time, as marked by the perceived motions of the celestial bodies, provides a standard basis of time keeping for all observers. On a global scale, necessary adjustments have been made for observers in different locations throughout the world (i.e., the division of the world into *time zones*) and these adjustments in time keeping are based upon how people in different locations throughout the world perceive the motions of the celestial bodies. The consciously perceived motions of the celestial bodies give us a sense of natural time, because both our (subjective) conscious perception and (objective) celestial motion *work-together* (or *synergize*) in order to provide us with the awareness of natural time.

Natural time, as perceived from the perspective of earth-bound observers, has an absolute sense because it is the most basic sense in which time can be perceived. Mechanical time keeping, which is based upon natural time, has enabled scientists (especially physicists) to formulate mathematical equations (in which time is used abstractly) that give us true knowledge of the world, because they *correspond to* the reality of the world we perceive. For example, if a car travels sixty miles in one hour, the car can be said to have a *velocity* of sixty miles per hour.

To calculate the velocity of an object that is in motion, one simply divides *the distance* the object travels by *the time* it takes the object to travel that distance. Scientists use the equation: $V = d/t$ meaning: velocity (V) equals the distance (d) divided by the time (t) that it takes for the object to travel a certain (known) distance. What is important, in mathematical calculations of this sort, is that a *standard of measurement* be used in order for the equation to yield accurate results. In the example above, we have used *miles* as the standard for measuring *distance* and *hours* as the standard for measuring *time*. And in order to get an accurate measurement, the standards of measurement (whatever they may be) must be fixed (i.e., they cannot be allowed to change or vary).

Most of us probably take for granted the ability of science to use *measured time* to gain true and useful information about the world, such as that found in the example above. But until the invention of the mechanical clock, and its mechanical measurement of time, modern science, as we know it, could not have existed. *Time* is an important feature of the phenomenal world, and it's necessary for scientists to be able to measure time accurately in order for them to study the world. As theoretical physicist Richard Morris explains:

“The invention of the mechanical clock was one of the most significant developments that has taken place within Western society. As social historian Lewis Mumford points out, it was the clock that dissociated time from natural rhythms and ‘helped to create the belief in an independent world of mathematically measurable sequences’ that was so essential to the development of science. And it was the clock that made time into an abstract entity that could be contemplated in its own right as a sequence of hours, minutes and seconds.”⁷⁷

It’s no coincidence that the rise of modern science occurred not long after the invention of the mechanical clock. Time is an essential feature of our experience of living-in-the-world, and, in order to engage in science, one must be able to measure phenomena; especially *the motions* of physical phenomena.

It is motion, *together with* our perception of motion, which gives rise to the phenomenon that we call *time*. Without motion, and without our conscious perception of motion, the phenomenon of time would be imperceptible to us. Time is not simply our perception, nor is time simply motion: time is the synergy of (objective) motion with our (subjective) perception of motion (or change).

Both time and space can be thought of as absolute, because they *contextualize* all physical phenomena. For example, matter is that which we perceive to occupy a particular space at a particular time; and time is our perception of the motion of material objects from one particular space at one particular time to another particular space at another particular time. We can perceive physical objects in the world as being in motion, and scientists use time as the means by which to measure, calculate, and properly represent the motions of these physical objects through space.

Standards of measurement are, by definition, unchanging, this is why Isaac Newton conceived of both time and space as absolute. The ability of scientists to measure time and space by an absolute, unchanging standard made it possible to calculate the motion of matter through space making it possible for scientists to derive physical laws, which accurately described these motions, and allowed science to apply these descriptions universally.

⁷⁷ Richard Morris, *Time’s Arrows*, (New York: Simon and Schuster, 1985) p. 28

Relative Time

The modern scientific concept of relative time, which derives from Albert Einstein's theory of special relativity, has replaced the old Newtonian concept of absolute time—relativity is the modern scientific understanding of time. Einstein developed a conceptual scheme in which the velocity of a particular electromagnetic phenomenon (i.e., light) could be assumed as the constant (c) in the mathematical equation for the determination of velocities ($V = d/t$), and it is this *assumption* which has completely transformed the scientific understanding (and definition) of time.

Einstein was well aware of the physicist James Clerk Maxwell's equations, concerning wave mechanics and electromagnetic phenomena, which predicted that light waves traveling in a vacuum would not be affected by the speed of the source of those waves, and he realized there was a contradiction between Galileo's laws of motion (for the determination of both velocity and relative velocity) and the behavior of light. Galileo's law of motion for determining the velocity of a moving object is to divide the distance an object travels by the time it takes the object to travel that distance ($V = d/t$). As for Galileo's law for the determination of *relative* velocity, let's use an illustration: in order to determine the velocity of a person who is walking forward down the aisle of a moving train at three miles per hour, a train which is also in forward motion traveling at fifty miles per hour, we must add the velocities of both the person (v_1) and the train (v_2). This gives us the velocity of the person as being fifty-three miles per hour, as determined by what is called *the addition of velocities* ($V = v_1 + v_2$). This is considered *relative* motion because, although the person walking down the aisle of the train will perceive herself to be walking at three miles per hour, the person standing outside of the train will perceive her to be traveling at fifty-three miles per hour: the velocities are relative to the locations of the observers.

Einstein considered what might happen if one were to apply these two laws of motion to the electromagnetic phenomenon of light and he concluded that time itself must be relative. If the velocity (V) of light is assumed to be the constant (c) in the equation for the determination of velocities ($c = d/t$) then this constant cannot be changed. For example: a source of light, say the headlamp of a moving train, is moving at 100 miles per hour, and the speed of the source of this light (i.e., the speed of the train) cannot be added to the speed of the light itself (300,000 kilometers per second), because the light travels at a con-

stant velocity regardless of the velocity of the source of that light. In this particular case, involving the velocity of light, the law of the addition of velocities does not work. What Einstein realized was that light (c) would travel a greater distance (d) in the same amount of time (t). Normally, there would be a change (i.e., an increase) in velocity (v), but, since the velocity of light is assumed as the constant in the equation ($v = c$), it cannot change. With the velocity of light set as the constant, the only possible mathematical solution for the equation ($c = d/t$) was for Einstein to allow for time itself (t) to change. In order for the equation to work, the value of t cannot be absolute; it must be relative. Pearcey and Thaxton explain: "The theory of relativity results from a purely logical deduction. If the velocity of light is a universal constant, then when d changes, t has to change. It is strictly mathematical."⁷⁸

According to relativity, time must have varying increments depending upon the various locations, states of motion, and the differing perspectives of observers. No observational perspective is allowed to be absolute and time is relative, because the velocity of light is assumed as the constant. Relativity theory has no absolute frame of reference by which one can determine a standard (i.e., absolute) time for all observers.

In our example of relative motion above, the person walking forward at three miles per hour is moving at three miles per hour relative to the train. And the train itself is also in motion, moving forward at fifty miles per hour relative to the earth. Thus, to an observer on the ground, the velocity of the person walking down the aisle of the train is fifty-three miles per hour relative to this observer's position on the earth. There are no privileged frames of reference (such as our earth-based observer's) in relativity theory, by which we could determine absolute motion through time and space: all reference frames are equally valid and all observations are equally true.

Motion and the assumption of the velocity of light as the constant (in the equation for determining velocity) are the keys to understanding relative time. Let's consider what two observers, traveling in uniform (i.e., non-accelerated) motion (relative to one another), will, according to relativity, observe (hypothetically). Time increments will shorten or lengthen depending upon how one observer in one frame of reference perceives the clocks and rulers belonging to another observer, who is in a different frame of reference, traveling in uniform motion

⁷⁸ Nancy Pearcey and Charles Thaxton, *The Soul of Science*, p. 173

(relative to one another). Within an observer's own reference frame, time does not change. It is very important to keep this in point mind, because time increments do not lengthen or shorten within one's own frame of reference, regardless of its velocity. For example, all observers in all reference frames will always measure the velocity of light as being 300,000 kilometers per second. Time, to one observer, would only appear to dilate (i.e., the increments of measured time will either shorten or lengthen) when this observer, who is in one reference frame, perceives another observer, who is in a different reference frame, travelling (in uniform motion relative to the first observer) close to the speed of light. To the first observer, a clock within the second observer's frame of reference will appear to be running more slowly. To the first observer, the increments of time within this (observed) reference frame will appear to be lengthening when compared to the unchanged time increments within the first observer's own frame of reference. To the first observer, time appears to be slowing down within the reference frame of the second observer, who is traveling at nearly the velocity of light, although the second observer will perceive no such lengthening of time increments. According to relativity theory, this apparent lengthening and contracting of time increments also applies to increments of distance. For example, depending upon an observer's state of motion, a standard of measurement for distance, such as a ruler, will appear to lengthen or contract, just as time increments will also appear to lengthen or contract, depending upon how an observer in one reference frame perceives the clocks and rulers belonging to another observer in another reference frame.

The time dilation principle of relativity theory is simply a logical deduction, based upon the assumption of the velocity of light as a constant in the equation for determining velocity. If light is assumed as the constant, then, according to the laws of motion, the velocity of light cannot change; therefore both time and distance must change. Time, in relativity theory, has only one, possible, logical, and mathematical explanation: time cannot be absolute, time must be relative. As physicist Paul Davies explains: "Speed is distance traveled per unit of time, so the speed of light can only be constant in all reference frames if distances and intervals of time are somehow *different* for different observers, depending on their states of motion."⁷⁹

In Einstein's *general* theory of relativity, gravitation also affects time. Gravitation is not thought of as a *force* but as *curvatures* in the

⁷⁹ Paul Davies, *About Time*, (New York: Simon and Schuster, 1995, 2005) pp. 52-53

geometry of spacetime, which are caused by masses located within spacetime. For example, the earth revolves around the sun because the larger mass of the sun creates a large curvature of spacetime around the sun, which causes the smaller mass of the earth to be in a free-fall orbit around the sun. In relativity theory, the only absolutes are *acceleration* and *the velocity of light* (c), everything else—space, distance, time, and force—is relative to the observer’s perceptions, made from within the observer’s own reference frame, and is dependent upon the observer’s state of motion. Force is relative because gravity is not thought of as an invisible force, which acts at a distance, but as a curvature in the geometry of spacetime. In regions of intense gravity, such as black holes, large masses distort spacetime to such a degree that it causes time to slow down (i.e., the mechanical measurements of time increments lengthen). The black hole is a theoretical region of spacetime wherein time ceases to exist. The gravitational effect at the center of a black hole is infinite, and is thought to be “a boundary to time itself, an edge of infinity where time ceases to exist.”⁸⁰

For modern science, time (or spacetime) is treated as though it had physical properties. In spacetime, the mechanical measurements of time increments will lengthen—both as one’s velocity increases (close to the speed of light and as one’s distance from large masses (such as black holes) decreases. These time distortions are imperceptible in everyday life, but become readily apparent as one’s velocity approaches c and as one approaches the vicinity of a black hole. The modern scientific concept of time is one in which there is no absolute standard by which one can measure time in a universal sense. According to relativity theory, time and space cannot be absolute, because everything depends upon two (new) absolutes: *velocity* ($=c$) and *acceleration* ($=gravity$).

Phenomenology, Practical Value, and the Concept of Time

The modern scientific concept of relative time is an imaginative, abstract, intellectual-play theory which, as modern science acknowledges, has no correspondence to our perceptual experience of time. As physicist Paul Davies tells us: “Einstein’s time is seriously at odds with

⁸⁰ *ibid.*, p. 121

time as we human beings experience it...Einstein's time is inadequate to explain fully the physical universe and our perception of it."⁸¹

As such, the theory of relative time has no phenomenological basis whatsoever, because we can never experience time's being relative; therefore the theoretical concept of relative time has little-to-no practical value for us. The theory of relative time is, perhaps, the best example of an abstract, modern scientific theory based solely upon logical, mathematical deduction. The logically deductive basis of time's relativity purports to reveal universal, necessary, and certain truths about the reality of the phenomenal world; therefore the theory is (supposedly) capable of telling us what the phenomenon of time is *in reality*, contrary to how the phenomenon of time *appears* to us.

Although rather technical, the theory of relative time provides us with a good example of the differences between the modern scientific view of the world and the theological/biblical view. In this case, the modern scientific view of time has no correspondence to the world, and is such an abstraction of intellectual-play that it is virtually devoid of meaning. The theological/biblical view of time does, however, correspond to our commonsense perception of time, so much so that the physicists themselves, as Davies tells us, live-out their lives as if time were not relative: "In appropriating time for themselves, and abstracting it into a stark mathematical parameter, physicists have robbed it of much of its human content. The physicist will usually say, 'Ours is the *real* time—and all that there really is'...and then go about his or her work and daily life immersed in the complexities of human [commonsense] time like everyone else."⁸²

Time is objective motion (or change) as perceived by the subjective human consciousness, it is not the physical (material) characteristic of spacetime the physicists might imagine it to be. Rather than thinking of time and space as the background within which matter, motion, and human consciousness exist, the physicists, in order to do the mathematical calculations required of relativistic physics, think of time as if it has a physical (material) reality: "Space and time, as it turns out, are not simply 'there' as an unchanging backdrop to nature; they are *physical* things, mutable and malleable, and, no less than matter, subject to physical laws."⁸³

⁸¹ *ibid.*, p. 10

⁸² *ibid.*, p.275 (emphasis in original)

⁸³ *ibid.*, p.16 (emphasis in original)

But thinking of time as if it has a physical/material reality does not make time physically/materially real. Just because mathematics says that time should dilate does not mean that time—for human observers—will, in fact, dilate. Remember, in doing science, time need not be thought of as actually having any sort of physical reality, it's only when time is used abstractly, as in mathematical equations, that time is treated *as if* it had a physical reality. But time does have an ontological reality. Time exists as *motion or change perceived*; therefore it does exist, it has being. But time has no physical or material reality. Yet, in the theory of relative time, time is treated as if it has a physical/material reality, which hypothetical observers—depending upon their locations, states of motion, and perspectives—will experience a physical/material dilation of, just as they would experience the constancy of the velocity of light ($=c$) and acceleration ($=force$).

As we've already seen, the basis of modern science is the scientist's subjective experience of the objective world, and the two—objective and subjective—can never truly be separated. The subjective and the objective continually work-together in order to provide us with a coherent view of the world; the two working-together provide us with the only true reality we will ever experience: the subjective-objective reality of the world as we experience the world, as we live in the world, and as the world appears to us.

Relative time is *individual* time; whereas *absolute* time is *public* time. In relativity theory, time is relative to the individual. Time can only be considered absolute when space is public. The theory is called *relativity* because there is no agreed upon public background of time and space: individual observers making individual observations from within their own individual reference frames are granted superiority over the public time of the human community (as we experience time within the only reference frame of which we are ever aware: *our world*).

Time is not simply a matter of objective motion and subjective perception working-together, time is also a matter of the agreement of the human community, concerning what standard of time will be used by the community, as well as how such this standard of time is to be used by the community on a practical basis. In the modern scientific theory of relativity, the only standards are: velocity (c) and acceleration (g). All other standards are anathema. Could this be why the abstract and relativistic conceptualization of time is phenomenologically and experientially problematic?

The relativistic theory of time (supposedly) gives us universal, necessary, and certain knowledge of the physical universe by way of deductive, mathematical reasoning and idealized thought experiments. Yet the basis of relativistic time is radically individualistic, providing us with a conception of time that is *particular* rather than universal, *contingent* rather than necessary, and *uncertain* rather than certain. According to relativity, there are no privileged reference frames from which we can determine a correct, absolute, or standard time: everything depends upon the individual observer's perspective, and all individual perceptions of time are equally valid.

There does, however, exist one, universal, certain, and necessary reference frame, which we can take as the basis for time, that *is* absolute: the earth, the world we live in. If *time* means anything at all, it means that we—as a community—can agree upon what time it is. In truth, although the relativity theorists say that all individual times are equally valid, they do in fact assert which perception of time is more valid than others: the one who would (theoretically) experience the (theoretically required) relativistic time dilation. If this were not the case, time would be absolute and not relative (the only valid time being the absolute time of our earth-based perspective).

According to relativity theory the closer one approaches the velocity of light the greater the distortion of both time and distance becomes. This is why (theoretically) someone who travels at nearly light speed would be able to travel great distances in very short periods of time: both *the time* and *the distance* of the journey is, for them, much shorter than we would measure it to be from the earth. Relativity theory, tied as it is to a geometrical conceptualization of spacetime, tells us that the shortest distance between two points is not always a straight line. In the universe of spacetime, when one travels at nearly the speed of light, the intervals of time lengthen and the measurements of distance contract, which allows one to travel vast distances in very brief amounts of time. In fact, at the velocity of light (c) the time distortion becomes infinite ($t = 0$) and there is no *time* at all. Theoretically, this same *infinity of distortion* occurs with distance as well ($d = 0$) because the measurements of units of length get smaller the closer one approaches the velocity of light. Here it is obvious that the theory does not correspond to the physical world: if the measurements of both time and space (i.e., distance) equal zero at velocity c , then, for all practical purposes, *motion* has ceased to exist. For example, a photon of light with the velocity c would exist along all points in spacetime and would not be *moving* at all. In fact, it is wrong to speak of something as

moving through spacetime because motion through space is determined by time, and since relativity theory subsumes time into space, we cannot use the word *time* twice by speaking of something as if it were actually moving through spacetime, because spacetime is frozen:

“Spacetime is a frozen, unchanging state, and we refer to all its regions in a common tense. It is misleading to say of spacetime that an event has happened, another is happening, and yet another will happen, for all are present and displayed together. It is also misleading to say that an object moves along a worldline from the past to the future, for the object exists simultaneously at all points along the worldline. We must guard our tongues and continually remember that time is already contained within spacetime and cannot be used twice.”⁸⁴

Ever since the time of Descartes and Galileo, modern science has represented time as a frozen curve (i.e., *a worldline*) on a space-time graph, which makes time a fourth dimension (in addition to the three dimensions of space), so that it can be used in mathematical equations. Relativity theory treats this abstract spatialization of time as if it were a physically/materially real spacetime continuum, complete with physical/material time dilations. The problem here is not just that relativistic time dilations don’t correspond to our experience of the phenomenal world, it’s: How can modern science better represent time—as we experience time—without combining it into space?

Motion, time, space, mass, and measurement; these are the fundamental concepts that Einstein thought about, and these are the same fundamental concepts that all theoretical physicists should be thinking about. If these concepts are to have any meaning to us, we will have to define these terms and hold to our definitions *as a community* (just as communities of scientists do in order to do science). Relativity theory redefines time, space, and the measurement thereof; all measurements of spacetime are keyed to the speed of light (c). And, as such, the theory of relativity approaches some potentially true information about the behavior of the electromagnetic phenomenon we know as light, but we shouldn’t allow this abstract, light velocity-based stan-

⁸⁴ Edward R. Harrison, *Cosmology*, p. 139

dard of measurement to redefine our phenomenologically-based, commonsense definitions of space, time, motion, and measurement.

If relativity theory requires that standards of measurement must change—depending upon one’s velocity, state of motion, and proximity to dense concentrations of matter/energy, then it’s no wonder that relativity theory has no privileged reference frame by which to judge all such measurements; it truly is relativistic. Of course the theory of relativity also says that within each observer’s frame of reference the laws of physics apply for everyone, and that all measurements made by individual observers within their reference frame use the same standard measurements. It’s only when *different* observers in *different* reference frames compare observations with one another that they find discrepancies (in their individual observations and measurements) due to the peculiarities of spacetime. These discrepancies, according to relativity, are (supposedly) caused by the effects of extremely high velocities and extremely high gravitational situations, which causes time to be perceived differently by different observers (depending upon their locations and states of motion).

Relativity theory’s concept of time is contrary to our commonsense, phenomenologically-based perception of time, and it has no correspondence to the phenomenon of time as we experience it. In fact, Einstein’s theory is only applicable at extremely high velocities and in regions of extremely high gravitational forces; Newton’s theory remains valid in all other situations. Relativity theorists acknowledge that our commonsense notion of time (as past, present, and future) are contradicted by relativity, yet it is far more than just our commonsense notion of time that is contradicted by relativity; our intellectual conceptualization of the nature of space, time, and motion are also contradicted by relativity theory, because the theory treats time as though it were a physical/material spacetime continuum.

It should not surprise us that Galileo’s equation ($V = d/t$), which is used for determining the velocities of moving objects (in the physically real world) does not work when one attempts, as Einstein did, to replace the velocity (V) in the equation with the velocity of light (c), which has an astronomical value of 300,000 kilometers per second. How could it? This was never the purpose for the equation. The purpose for the equation was to *determine* velocity, not to see what results the equation would produce when the value of the velocity (V) was preset as a constant with an astronomical value (c). When Einstein did exactly this, he realized that the values of both time (t) and distance (d) must be allowed to change. But *time* is not simply a value in an eq-

uation that one can necessarily change—especially if the results don't correspond to the physical world. Time, in the physical world, which is what physics studies, does not become *spacetime* and *dilate* simply because the mathematics of an equation seems to demand that it do so. Needless to say, time and space are in no way relative in the phenomenal world we perceive: both are absolute.

I think it's time for physics, and the physicists, to come back down to earth. Relativity theory is good in that it tells us something about what happens in physics if we assume the speed of light as a constant, but that's about as far as it goes. In yielding infinities (as it does) the theory cannot claim correspondence to the physical world, because there are no mathematical infinities in the physical world. And I think it's illegitimate for physicists or popular science writers to speak as though the theory does correspond to the world, or, rather, to claim that the physical world must correspond to the theory (even though it doesn't appear to do so) simply because the math is right. The geometry of a four dimensional spacetime continuum may be interesting intellectual-play for physicists and mathematicians (as are the multi-dimensional spacetimes of string theory) but, because the theory lacks correspondence to the physical world, it has little-to-no application to the phenomenon of time as-we-experience-it.⁸⁵

Any theory that prefers the individual observer's subjective perceptions of time over the greater context of a common and public time will certainly yield relativistic results. But if *time* in physics is anything, it needs to be agreed upon as an objective, unchanging, standard of measurement, which is the type of measurement needed in order to study the natural, physical world. Physicists need to bring time and space, distance and motion, back to the objective world of physical reality and move beyond what has become, in my opinion, an outdated paradigm for making sense of the phenomena of time and space.

Galileo's theories of motion (i.e., velocity and the addition of velocities) correspond to the world universally (i.e., for everyone), but allowing Einstein's (imaginative and non corresponding) subjective

⁸⁵ One, commonly asserted, application of the theory of relative time (according to General Relativity) is the time adjustments that are periodically required by all GPS satellite clocks: they eventually become off to approximately the same degree the theory of General Relativity (GR) predicts that they should (according to GR's concept of time dilation). This application, however, does not prove that time dilation is a true fact about the physical world. It is *possible* that GR could be a true explanation of gravity's effect upon time, but applications and experimental results cannot prove *by necessity* the theory's truthfulness—a better theoretical explanation for the phenomenon of time will likely be formulated at some future time. In fact, GR is considered the one theory in physics today with the least amount of empirical evidence.

individual perceptions, observations, and conceptions of space and time to determine (universally) what, for us, is the objective, physical reality of both time and space is simply not good science. The relative theory of time is not necessarily the best paradigm by which to make sense of the phenomenon of time. Instead of attempting to make time conform to our abstract, intellectual-play conceptualizations of time, we should be willing to question our most basic assumptions about time, be open to new ideas about the nature of time, and focus our attention upon the human experience of time. As theoretical physicist Lee Smolin has recently put it to his fellow physicists:

"I believe there is something basic we are all missing, some wrong assumption we are making...What could that wrong assumption be? My guess is that it is two things: the foundations of quantum mechanics and the nature of time...We have to find a way to *unfreeze* time—to represent time without turning it into space"⁸⁶

So what should the physicists do? Lee Smolin tells us what he plans to do: "I'm going to...erase the blackboard, get out some good chalk, open a new notebook, take out my favorite pen, sit down, and start thinking"⁸⁷

Conclusion

As we conclude this study, will examine what these contrasting and conflicting views of the world have shown us about how we perceive the world, according to the different frameworks which we have chosen to help us understand our experience of the world, and how well these frameworks serve us in living-out our daily lives.

By this point it should be obvious, that, although I am not anti-science, neither do I believe that the modern scientific view of the world is superior to the theological/biblical view of the world. I consider our existence in-the-world to be both phenomenological and theological, and I think our Creator made the phenomenal world with

⁸⁶ Lee Smolin, *The Trouble With Physics*, (New York: Mariner Books, 2006) pp. 256-257 (emphasis in original).

⁸⁷ *ibid.*, p. 355

us in mind. I think the world appears to us as it does for a reason: so that we can live (function) in-the-world. I believe that our Creator has made the world in such a way as to communicate truths to us about himself through the world as-it-appears to us, so that we might come to know him.

If we view the world from the perspective of modern science, we often get just the opposite impression: there is no Creator, there are many worlds (universes), and we just happen to exist in a universe that is conducive to the formation of the laws of physics, the organization of matter/energy, and the evolution of non-living matter/energy into complex life. To modern science, our existence is simply the luck of the draw: given enough time, it is probable that we would have appeared somewhere, eventually, and, since we *are* here, this must be what actually happened.

In short, modern science tells us that the world appears to us as it does for no particular reason whatsoever, other than: that's just the way things are in a world (universe) like ours. This reductionist view of the world has been adopted by many popular science writers, as well as by many atheists, who are, in fact, not so much atheistic as anti-theistic. For the antitheist, there is no need or place for God and, people who have adopted the theological/biblical view of the world are burying their heads in the sands of an outdated religion, ignoring the proven facts of modern science, which, if seen, would shatter their belief system.

I do think science should be epistemologically and methodologically naturalistic, but I don't think it should be philosophically naturalistic. Science (properly) seeks only natural explanations for natural phenomena, but it cannot answer every cosmological question (especially the question of origins) naturalistically—as if matter/energy is all there is, and science must provide naturalistic and materialistic explanations for all phenomena.

For example, the very existence of the cosmos itself is beyond any scientific explanation; all scientific explanations for the existence of the cosmos are simply unproven and improvable naturalistic hypotheses. For science to attempt to explain every cosmological phenomenon with a philosophically naturalistic answer is an attempt to reinforce the imperial status that modern science already enjoys within our society. But, the truth is, there are some things about the world that science cannot explain naturalistically.

We have examined three conflicting views of the world: the geocentric and heliocentric views of the world, the creationist and evolu-

tionist views of life, and the absolute and relative views of time. Let's now briefly summarize what we have discovered about these views, think about why they are so contradictory, and reflect upon how we should evaluate their practical usefulness in our day-to-day experience of living in-the-world.

Phenomenologically, the geocentric view of the world corresponds to our perception of the world as-we-perceive-it. Phenomenologically, we can consider this perceptually-based view to be just as true-for-us as is the modern scientific view. The Bible presents the world to us as the world is perceived by us, and this is not simply a prescientific view of the world, this is the view of the world that humankind has and always will have. The Bible should not be seen as outdated, but as being more relevant to us than we have ever imagined.

Theologically, because of the perceptually-based view of the world humankind has, the world is perceived *geocentrically*, and it is understood as having been created as a home for living beings of all sorts: the Creator made the world in such a way that all creatures could live their lives in-the-world as the occupants of a world-home. This view of the world sees the world as central, because the world is the only context within which we live and the only perspective from which we can perceive and make sense of the world/cosmos around us.

The scientific discovery that the sun was not orbiting the earth, but rather, the earth was orbiting the sun, led many people to conclude that our world was only one of a multitude of similar worlds, all orbiting similar sun/stars, throughout the infinite vastness of the visible universe. This view (quite naturally) led many thinking people to conclude that our world and its inhabitants were not the unique creations of the Creator (as the Bible presents us to be) and that modern science was well on its way toward proving that space/time and matter/energy were all that exists and that all appearance of design throughout the world can be attributed to natural laws and processes.

This way of thinking led Darwin to conclude that, given enough time, life must have evolved from a common simple ancestor into the myriad diversity of complex forms found throughout the world. Modern evolutionary biology claims that the combination of time, space, matter, energy, and physical law is all that was necessary for complex life to have developed from non-living matter/energy. Modern cosmology confirms this by telling us that space/time and matter/energy emerged by natural and physical processes, which eventually devel-

oped into the universe in which we exist. Modern cosmology also asserts that our universe is likely only one of many universes: the universe we live in is not uniquely created for us by our Creator, the universe exists because, of the billions of universes (theoretically) in existence, it was probable one universe (ours) would be conducive to the development of complex life.

However, for all of our scientific advancements, there is little proof that these theories (or hypotheses) are correct. It turns out that the universe is not heliocentric, no other worlds with complex life have ever been found, and no process has ever been discovered that leads non-organic matter/energy to develop into complex living organisms.

Modern scientific cosmology is unable to discover any universes other than the one universe we know, yet modern cosmology continues to put forward the notion of multiple universes, despite the fact that they are impossible to discover. Much of the modern scientific theorizing about the cosmos is based upon faith (not unlike religious faith) in space/time and matter/energy as being all that ever was, is, and ever will be.

I conclude that we should focus upon what we *know*, and what we *know* is our *experience* of the world. I agree the earth moves about the sun, but what practical knowledge does this modern scientific truth about the world provide me with? I perceive the sun moving across the sky, and this perception of the sun's movement gives a sense of order and regularity (i.e., *time*) to my existence in-the-world. It is this practical, phenomenological sense of time that I depend upon to live my life in-the-world, not the modern scientific knowledge of the earth's rotation and its orbit around the sun. The appearance of the stability of the world and the motion of the sun is more real, is more in accord with my experience of the world, and is of more practical value to me than is the theory of Copernicus.

I don't think life has evolved from non-living matter/energy, and my conscious experience of how the world appears to me gives me no indication that life has ever evolved in this way. I experience the world as-it-appears me, not as it might once have been. It is *living* in-the-world that binds me inextricably to all other living beings and I belong to *the community of life* in-the-world. It matters very little, in a practical, everyday sense, how we got here; what matters is how we choose to live our lives.

Modern science tells us that time and space, are, physically, one thing: *spacetime*. Spacetime can warp and dilate at extremely high velocities and in the vicinities of extremely high gravity. And yet nothing

even approaching these situations will ever be present to our experience of living in-the-world. Relativity is a helpful mathematical tool for doing calculations, but it does not present us with a true picture of the reality of time and space. In my thinking, time is simply motion (or change) perceived, and this is my way (as a human person) of making sense of a world of phenomena that is continually in motion about me every moment of my existence. Scientific speculations about time dilation have no impact on my day-to-day existence, and yet if I allow this theory of time dilation to influence my thinking, I allow an abstract intellectual-play world to replace the concrete world of my lived-experience.

The bottom line is this: have we allowed abstract, intellectual-play, modern scientific theories to replace our lived-experience of being-in-the-world? How do we perceive the world? Do we perceive the world through the eyes of modern science, which defines reality as the unperceived causes behind our experience of phenomena and gives rise to the appearances of phenomena? Or do we perceive the world through our perceptions and experiences of living-in-the-world, perceiving phenomena as-they-appear to us? Is the Bible outdated because of the many discoveries made by modern science? Is the Bible's worldview prescientific, therefore irrelevant? Or is the biblical worldview phenomenological, therefore just as relevant for us today as it was for ancient peoples? Modern science itself cannot escape from the subjective experience of objective phenomena. No matter how hard a scientist may try to discover the objective fundamental elements of reality underlying and giving rise to phenomena (e.g., quarks), the scientist's (indirect) perceptions of these fundamental elements is still an experience of a phenomenon, a phenomenon that is experienced by the subjective human consciousness of the scientist herself. It's not so much a question of who can define reality and who can't; rather, it's more a question of which definition of reality is the best, and why?

The next chapter deals with phenomenology, theology, and the Bible, and, although we've already seen much of what both phenomenology and the Bible have to say about our experience of the world, we have also focused more in the previous chapters upon how modern science perceives the world. Modern science, as beneficial and as practical as its many contributions to society are to us, is, due to its very nature as a particular kind of knowledge, is unable to provide us with ethical guidance for living. Let's turn now to a phenomenological and theological exploration of the Bible and see whether or not the Bible's

view of the world is able to assist us in answering one of the most important questions of all: How are we to live in the world?

Chapter Four

Phenomenology, the Bible, and Modern Science

Working Toward a Theology of Appearances

In the previous chapters, we have been examining how we think about the world and how we perceive (view) the world; in this chapter, we will examine how the world both appears and presents itself to our conscious lived-experience. We'll also be taking a closer look at how this presentation of the world is interpreted by the conceptual schemes of phenomenology, modern science, and (most especially) the Bible. Our purpose will be to make use of the phenomenological paradigm in order to construct the beginnings of a theology of appearances.

The Bible, through its own interpretive framework, presents the world to us as we experience the world to be: as-it-appears to us. There are several reasons for why this is the case, and I believe there are three reasons in particular for why the Bible presents the world to us this way: 1) this is the way the world appears to our senses; 2) perceiving the world through our senses is the way our Creator enabled us to live in the world; and 3) Our Creator communicates to us truths about himself through the appearances of phenomena.

Perhaps the most common explanation for why the Bible does not present the world to us in the way we (today) know the world to be in reality (i.e., as defined by modern science) is because the Bible was written by-and-for prescientific peoples. Before the advent of modern science, people could not have known the correct (=modern scientific) way of perceiving and interpreting the phenomena of the world. The question, then, naturally arises: Why did God—who inspired the authors of the biblical books and who knows the truth—communicate to us, through the Bible, information about the world that is scientifically false? Certainly the Creator must have known about the motion of the

earth, yet he communicated to humankind (through the biblical text) information about the world that was scientifically false: the reality of the motion of the sun and the stationary earth. The common explanation for this is to say that the Bible was written by prescientific peoples who knew nothing about the scientific truths about the world; therefore their “god” was as ignorant about the reality of the phenomena of the world as they were.

The most common religious/theological response to this sort of explanation is to say that God certainly knew the scientific truths about the cosmos, yet he was unable to communicate these truths to prescientific peoples because they had no modern scientific knowledge of the true reality of the world. It’s my contention that this type of response is inadequate. I think this problem can be best understood by realizing that the world of appearances—the way we perceive and experience the world of phenomena—was the same for prescientific peoples as it is for us today. In short, our Creator presents the world to us through the biblical text as-the-world-appears-to-us because this always has been, now is, and always will be, the way the world *appears* to humankind—whether it be in prescientific times, modern scientific times, or at any time in the future. An example: For those of us now living in the era of modern science, the sun appears to be moving across the sky just as the sun appeared to be moving across the sky to prescientific peoples. Despite the modern scientific knowledge of the earth’s motion making it appear as though the sun were moving across the sky, this apparent motion of the sun is the way the world appears to us. There is as much truth to the subjective *apparent* fact of the sun’s motion as there is to the objective *scientific* fact of the earth’s motion.

There are no bare, isolated, or uninterpreted facts: all facts are interpreted facts. Facts about the world of phenomena are always situated within conceptual schemes that impose meaning upon those facts. Conceptual schemes allow us to place the facts into a broader over-all context of meaning, which helps us to make sense of them. Facts do not exist in isolation; facts exist in contexts. The question we should be asking ourselves is: Which context, which conceptual scheme, makes the best sense of the facts? The Bible presents the phenomena of the world to us as-we-perceive-and-experience those phenomena and the world appears to us, today, the same as it appeared to prescientific peoples. Modern science presents the world of phenomena to us in a way that is often contrary to our perceptual experience of the world, telling us to ignore our perceived experience of the world in

order to truly know the world in reality (i.e., that which exists behind, beneath, or beyond the appearances of phenomena).

To modern science, *reality* is the fundamental matter/energy that—according to natural laws and processes—gives rise to the appearances of phenomena. Modern science tells us that we cannot trust our senses to perceive the reality of the world, yet what is more *real* to us: phenomena as-they-appear to us (e.g., people, clouds, trees, rivers) or the matter/energy of which these phenomena ultimately consist, which we are unable to perceive (e.g., molecules, atoms, quarks, leptons)?

The scientific quest to lift the veil of appearances—to reveal the true reality of phenomena—is a somewhat misguided quest. Science should proceed in its quest to gain knowledge of the world and its phenomena, but science is not the sole authority to which we must defer regarding the definition of *reality*. Phenomena are much more than simply the sums of their parts, and appearances are much more than just illusory veils in need of lifting: the phenomena of the world—as-they-appear to us—are the only *reality* we ever experience. The world we live in—the world our Creator brought into existence—is not simply an objective world of matter/energy, neither is it simply a subjective world of conscious experience; our world is both objective and subjective: in our lived-experience of the world we perceive the objective and subjective aspects of the world to be always *working-together* (*synergizing*), giving us real, true, and practical *knowledge* of the world.

Certainly the Creator of the world knows what the world is, knows how the world appears to us, and knows the underlying mechanics of the world he brought into being. Our Creator-God has not communicated false knowledge of the world to us through the biblical text; rather, our Creator's presentation of the world to us through the Bible *is* the true perception of the *real* world. What we have in the Bible is an accurate picture of the world our Creator brought into being: a world of objective phenomena *together with* conscious beings endowed with the ability to subjectively perceive the objective phenomena of the world. What our Creator has brought into being is: a world perceived.

Our Creator made the world as our environment, as our living spaces—similar to the way in which we would construct a home to dwell in. God created the phenomena of the world to be perceived by conscious beings and phenomena were created to be perceived as-they-appeared. We live in-and-through the world, subjectively perceiv-

ing and experiencing the objective phenomena of the world: sun, moon, stars, clouds, rain, trees, animals, people, family, friends, and ultimately, ourselves. We perceive everything in-the-world via our senses, senses which give us a conscious human experience of *living* and *being* in-the-world. Only the world—as it is lived in-and-through our life-experience—has any real meaning for us. From the beginning of the world, this was our Creator’s intention: that the creation of the objective world would not be *finished* until conscious beings, made in the image and likeness of their Creator, were created who were capable of subjectively perceiving the world as-it-appeared to them in their conscious experience of living-in-the-world: “So God created man in his own image, in the image of God he created him; male and female he created them...Thus the heavens and the earth were *finished*, and all the host of them” (Genesis 1:27; 2:1; emphasis added).

It is this synergy of objective and subjective that is missing from so much of modern science. Too often, modern science presents us with what it considers to be the true (i.e., objective) facts about the world, portraying a reductionist definition of *fact* as if it were the only valid explanation of *reality*. These scientific facts often concern the unexperienced causes of the phenomena we perceive in our conscious experience of living-in-the-world. This scientific knowledge can be the helpful and practical knowledge of an unseen reality that exists in the world (e.g., the indirect observations of unseen conditions that are revealed by a medical x-ray, CAT scan, or MRI), or this scientific knowledge can be an unhelpful and impractical intellectual-play pseudo-knowledge of the world (e.g., the theory of evolution, theoretical relativistic time dilations, and string “theories”).

Modern science claims to give us universal, necessary, and certain knowledge of our world. When this is practical, applicable knowledge of the world, and it works, there is virtually no controversy regarding it (except when it comes to the ethical uses of technology, which is no small problem). But when modern science attempts to extrapolate its theories backward into the distant past, in the quest to discover the cosmological origins of the universe, it is presenting us with a quasi-religious mythical view of the world—the “scientific” view many intelligent people choose over the biblical/religious view. Today the biblical/religious view of the world is thought to be unbelievable. Modern, intelligent, educated people believe they have true (Scientific) knowledge of the world, believing themselves to no longer need the old religious (Christian) myths.

Because of the true knowledge that modern science has given us, and because of the many advances that modern science has made, we have granted to modern science the status of ultimate authority: modern science has become the official interpreter of the world, the only trustworthy expositor of reality. As we have already seen, many people who are familiar with the biblical view of the world considered it to be false when seen in light of modern scientific truths. It seems obvious, to many people, that the Bible's view of the world is simply the view of the world had by its authors; who described the world the only way they could have described it: by way of a prescientific conceptual scheme, the only intellectual framework available to them at that time.

On the other hand, the many people who do believe in the divine inspiration of the biblical text are obliged to defend the biblical description of the world, and to explain to modern people why it does not correspond to the reality of the world as defined by science. Only the dominant and prevailing influence of modern science in our society could have given rise to these sorts of opinions concerning the biblical text. For centuries, the readers of the biblical text had no need to explain why it was that the biblical view of the world did not correspond to reality, because reality corresponded to the biblical presentation of the world: the world was perceived to be—in reality—just as it appeared to be.

For most of us—either consciously or unconsciously—modern science determines what *is* and what *is not* real, or true, about the world. And, more often than not, we allow modern science to order, arrange, and interpret the (scientific) facts about the world into a grand (scientific) conceptual scheme by which we can make sense of the facts and understand the world as a whole (i.e., as a universe/cosmos). Modern science doesn't just give us the facts, it provides us with an overall view of facts: a grand story (a cosmic meta-narrative) that provides us with the context we need to properly (scientifically) interpret the facts. The facts about the world are not seen as random and neutral bits of knowledge, but as pieces of a puzzle that, when assembled according to the modern scientific interpretive conceptual scheme, begin to resemble the picture of the world that modern science presents to us as being the only true picture of the world. Not unlike the words of a text that, when properly strung together, tell a great story, the facts of modern science, when creatively strung together, find their proper places in the great world-story (or cosmic narrative) told by modern science.

Modern science tells us the *story* of how the universe came into existence; the *story* of how the earth was formed; the *story* of how life arose on earth; and the *story* of what the world's end will be. However, this type of grand storytelling (or metanarrative construction) does not really belong to the *physical* sciences at all; this is *metaphysics* (Greek: *meta*, meaning: *beyond*; and *phusis*, meaning: *physical*). This is beyond the physical sciences; beyond what scientists can *know*. Scientists don't *know* how the universe came into existence, they don't *know* how life came to exist in the world, and they don't *know* how the world will end. But scientists, like the rest of us, need more than just the facts; they, too, need *stories* to explain why the world is here, what the world's purpose is, and where the world is going.

Modern science is out of its epistemological area of expertise when it constructs narratives explaining the origins, purpose, and meaning of the world. The construction of narratives with explanatory power on this cosmic a scale belongs to metaphysics and religion. It's no coincidence that the so-called "war between science and religion" began when modern science was seen as having a better explanatory *story* of the cosmos than did religion. Such stories have little to do with the *facts* about the world (although the facts must be fitted into the stories), they have more to do with the power of myth-making and story-telling. And myth-making—whether scientific or religious—is inescapable; we require myths to understand the world. Mary Midgley tells us: "We have a choice of what myths, what visions we will use to help us understand the physical world. We do not have a choice of understanding it without using any myths or visions at all."⁸⁸

We can choose to accept the modern scientific explanations (stories) of the cosmos, or we can choose to accept the biblical account (stories) of the world, along with our experience of phenomena as they appear to us, or we could choose to fit the facts of our experience into some other type of interpretive framework, but we must choose some story, some myth, some metanarrative whenever we attempt to understand and explain the complex phenomenon that is: *the world*.

In a way, it almost seems as though the modern scientific knowledge of the world is a secret (i.e., hidden) knowledge; knowledge made available only to those properly initiated into the modern scientific cult of arcane knowledge. Like the ancient Greek Pythagoreans, who, in religious cult-like fashion, provided their (initiated) followers with a secret knowledge of the cosmos: that the reality of the cosmos

⁸⁸ Mary Midgley, *Science as Salvation*, (London: Routledge, 1992) p. 13

had a mathematical foundation, that this mathematical foundation was the source of all phenomenal appearances. The uninitiated might *think* these appearances are real but the initiated *know* that they are not: the true reality of the world is its mathematical foundation.

The Bible presents the world to us as-it-appears to us and not as a world that can be truly known and understood only by a cadre of initiate and elite intellectuals. The world presents itself to *everyone* as a world of purpose, functionality, and meaning. This *teleological* view of the world was an important piece of Aristotle's inductive and empirical philosophy, and was, for centuries, thought to be an accurate explanation of the natural world. The rise of modern science—with its atomist presuppositions—caused this teleological view to fall out of favor, beginning with the Copernican Revolution. The modern scientific perception of the world is the perception of a world of natural process and causation, following natural laws, that is, ultimately, explicable only by mathematics. For modern science any supernatural guidance or innate natural direction is totally unnecessary in order for the phenomena existing in-the-world to have achieved their myriad forms. Phenomena do *appear* to be designed for specific functional purposes, but design is dismissed by modern science as being the mere *appearance* of design.

Theologically, I believe it makes sense for us to think of God as having created the world as a world to be perceived, observed, and experienced as-it-appears to human consciousness. And I think it is sensible for us to think of true reality as being found in the objective/subjective synergic human experience of being-in-the-world. If the world is the creation of God—and not the random occurrence of time, chance, and matter/energy—then it makes sense for us to think that our Creator has not only created the world as a home for us to dwell in, but that he has also created the world with a built-in message to us: the appearances of the myriad phenomena of the world communicate truths to us about our Creator. The world and its phenomena are much more than simply objective *things* waiting to be laid bare by the probings of modern science; the world and its phenomena tell us about our Creator. Whether we are doing science or theology, the phenomena of the world can only be observed, understood, and *known* through the objective/subjective synergy that is our lived-experience of being-in-the-world.

If the world was created, then the world must certainly have been created in such a way that our natural sense perceptions of the appearances of phenomena are not misperceptions of reality; rather, our

senses are giving us the true perception of reality as our Creator intended. God created the world—and all of the creatures in the world—in such a way that they would interface with the world; therefore it makes very little sense for us to define *reality* as the unexperienced causes of phenomenal appearances when our experience of these appearances is what we rely upon to live our lives in-the-world.

The way the world is described by modern science to be *in reality* is often abstract, and these abstract modern scientific world-pictures of reality bear little-to-no correspondence to the reality of the world as-we-experience-it. When scientific theories become mostly exercises in abstract intellectual-play, having little-to-no correspondence to the world, we should be skeptical of these theories' abilities to define the reality of the world, and we should look for better theories that *do* correspond to the world.

Good scientific theories, which can be proven or falsified by experiment and experience, are to be preferred over scientific theories that cannot be put to the test of experiment and experience (especially those theories based solely upon mathematics). Practical knowledge gained from a good scientific investigation of the world is often beneficial to humanity, but abstract theoretical conjectures are not. Yet we often give abstract, theoretical, and mathematically-based scientific *hypotheses* more credence (in describing the reality of the world) than we do our own ability to consciously perceive—to *experience*—the world around us. For example, we may *think* time can dilate because the theory of relativity tells us that time can dilate, even though we can never *experience* a dilation of time. We should always examine the unquestioned assumptions abstract theories are based upon, and we should never allow these assumptions (and the abstract intellectual-play theories based upon them) to redefine our existential perception of the reality of the world we experience.

The World as Text

Like the Bible, the world is also our Creator's revelation to us: the world communicates truths to us that cannot be known by reason alone. The myriad phenomena of the world communicate truths to us about our Creator, ourselves, how to relate to our Creator, and how we should to relate other people. These truths are communicated to us by way of the signs and symbols that are the appearances of phenomena (as-they-appear to us). These phenomenal appearances constitute a

world-language—the signs and symbols of which surround us at all times during our lived-experience of being in-the-world. Although we consider these phenomena to be quite ordinary things in our world, they are, in fact, quite extraordinary, because they exist in order to communicate to humankind the divine truths of our Creator-God.

The world—having been created by our Creator—is created to be perceived (theologically) as the revelation of God, which should be studied and understood as being God’s revelation to us. The world is not simply an objective thing to be studied (i.e., reduced to a collection of scientific facts), nor is the world simply a subjective thing to be experienced (phenomenologically and existentially); the world is God’s creation, and, as his creation, the world *mediates* our Creator’s presence to us. The Bible is quite explicit on this point:

“The heavens are telling the glory of God; and the firmament proclaims his handiwork. Day to day pours forth speech, and night to night declares knowledge. There is no speech, nor are there words; their voice is not heard; yet their voice goes out through all the earth, and their words to the end of the world” (Psalm 19:1-4).

What is this language wherein “there is no speech, nor are there words” and yet “their voice goes out through all the earth, and their words to the end of the world”? This, as James Jordon explains, is *a language of appearances*: “The language of appearance accomplishes two things...it gives a true description of the world as it is...the language of visual appearance serves to establish a visual grid, a worldview.”⁸⁹

The myriad phenomena of world present themselves to our consciously perceived lived-experience of being-in-the-world, and the Bible is telling us that this presentation of phenomenal appearances is *a revelational text* (given to us by our Creator) “written” in a phenomenal language of appearances. The problem, as postmodern philosophy teaches us, is that we cannot interpret a text from a neutral perspective: there is no neutrality. We are unable to approach any text from a neutral perspective, because we always bring presuppositions with us when we approach a text. These presuppositions influence our inter-

⁸⁹ James Jordon, *Through New Eyes: Developing a Biblical View of the World*, (Eugene: Wipf and Stock, 1988, 1999) p.12

pretation of a text and our interpretation of a text is what leads us to our understanding of a text; and the text of the world is no different: all of us interpret the world according to the presuppositions we have concerning what the world *is*.

Neutrality is something that has been presupposed by modern science; and it was also the most important (yet unexamined) presupposition of the (supposedly) neutral, objective, rational period known as The Enlightenment. The idea that neutrality is not possible for us is not a *modern* concept, it's a *postmodern* concept. All of us have presuppositions, and the fact that there is no neutrality is an important truth, which philosophers have only recently come to a better understanding of. All of us need to identify our presuppositions in order to gain at least some measure of neutrality, realizing that complete neutrality is never possible for us.

What presuppositions do we, as twenty-first century people, bring with us as we perceive the world? Do we perceive the world as modern science tells us we should? Do we perceive the world as the Bible tells us we should? Do we attempt to somehow harmonize these two distinctly different views of the world? Have we become so familiar with the world that we don't give much thought to how the world presents itself to us? What would the world look like if we made an honest attempt to lay aside our presuppositions and attempt to see the world as-it-appears to us? I think we'd be surprised at what we might see.

The biblical view of the world is a way of perceiving the world in which the myriad phenomena of the world are seen as *symbolizing* various aspects, attributes, and qualities of our Creator. God created the world symbolically so that, through our perception of these phenomenal world-symbols, we might have knowledge of our Creator: "The universe and everything in it symbolizes God. That is, the universe and everything in it points to God. This means that the Christian view of the world is—and can only be—fundamentally symbolic. The world does not exist for its own sake, but as a revelation of God."⁹⁰

Why does the world appear to us the way in which it does? What is the sky telling us? What does a river tell us? What is a tree telling us? Are these objective phenomena simply physical objects to be studied—reducing them to their bare, objective, physicality? Are their atomic, chemical, or cellular structures what these phenomena *are* in reality? Or could the way in which these phenomena present them-

⁹⁰ *ibid.*, p.25

selves to our consciousness—the way they *appear* to us—be what they really are?

As we saw above, the Bible tells us God that created these phenomena as a way of communicating (to us) the revelation of his glory; our Creator has fashioned the world as an expression of his very self (his being). As we also saw above, the creation of the world was not complete (i.e., finished) until beings, made in the image and likeness of their Creator, existed who were enabled to live-in and perceive the world; the (objective) world having been created so that it would be (subjectively) perceived. God eternally experiences the (subjective) perception his own (objective) being and that of the (objective) physical world; similarly, we experience the (subjective) perception of our own (objective) being as well as that of the (objective) physical world. As the revelation of God, our Creator, the entire world is a dynamic mediation of our Creator's presence; therefore the world can be seen as a *sacrament*. As Terence Nichols explains it, "seen sacramentally, nature is a sacred cosmos, for anything that mediates God's presence is sacred."⁹¹ The phenomenal world is a sacred text—a cosmic metanarrative—"written" (to us) by our Creator-God; phenomenal forms are the signs and symbols of a world-text that provides us with knowledge of our Creator. Nichols, again, explains: "Because each type of creature reflects only a very limited aspect of God, the fullness of God's goodness and beauty is best represented by the whole array of creatures and creation."⁹²

Theological speculations about the nature of God's being, substance, or essence are just as off-the-mark as are modern scientific speculations concerning the nature of elementary particles, which make up the being, substance, or essence of phenomena. The phenomenal world has never existed *objectively* without its also having been perceived *subjectively*: the world exists as an existential, co-relational, dynamic, existential reality (the synergy of objective and subjective). As postmodern literary theory tells us, all texts are open to the interpretations made by the readers of those texts; and so, likewise, is the phenomenal world-text open to interpretations made by the readers of this world-text.

The text of the world is not limited to only one correct interpretation, there are many interpretations of the world—some interpretations being better than others—but the text itself *is* what it *is* and we

⁹¹ Terence Nichols, *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism*, (Grand Rapids: Brazos Press, 2003), p. 9

⁹² *ibid.*, p.56

cannot alter it; we can only attempt an interpretation of it. Not only are we unable to alter this word-text, we also find ourselves (as symbols of God) embedded within this text of the world. Our Creator has given us the responsibility of reading, properly interpreting, and living according to the biblical text. And, in order to do so, we must place the biblical text within the ultimate context of its Author: our Creator-God. Likewise, as Nichols tells us, the text of the world—in order to be properly interpreted—needs to be placed within the larger ultimate context of our Creator himself: “By itself, nature is a text that is ambiguous and not fully explicable...Nature only really makes sense if understood as existing within a larger context: God, the ultimate context of both nature and human life.”⁹³

We can begin unpacking the concept of *the world as text* by thinking about our perception of the world on a very basic level: our experiential existence as people who *live* in-the-world. On a perceptual level, our existence is very brief; especially in comparison to the most fundamental phenomena, which are commonly experienced by all of us throughout our lives. For example, the fundamental phenomena of earth and sky are seemingly eternal in comparison to individual human lives, societies, nations, and empires.

We are all well aware of the fact that everyone who has ever lived, every society that has ever been formed, and every empire that has ever ruled is nothing in comparison to the ageless phenomena of earth and sky. People, societies, and empires are like vapors; and, like the mist of the morning so easily dispersed by the heat of the rising sun, they all fade away. The phenomena of both earth and sky are fundamental to our basic perception of the world, because *together* they provide the context and background for our perception of all other phenomena. The earth and sky together are not unlike a stage with its backdrop of scenery—a platform of existence—whereupon our experience of living-in-the-world takes place.

We are very conscious of the brevity of life--those we love soon pass away—yet we perceive the sun, moon, and stars to remain—unchanged. Even the earth, with its hills, mountains, rivers, and valleys appears to be a changeless witness to our brief stay upon its surface: “A generation goes, and a generation comes, but the earth remains forever” (Ecclesiastes 1:4). But what are the appearances of the phenomena of earth and sky telling us? And how should we interpret these most fundamental portions of the world-text?

⁹³ *ibid*, p.20

What of our own part? Immersed, as we are, within the text of the world? What can we discover about ourselves? Are we content to reduce everything to subatomic structures or chemical compounds? Are such reductions the only true explanations of what the world *is* in reality? Are we content to accept modern scientific explanations (e.g., the big bang theory) for how the world came to exist? Or could a grander narrative begin to reveal itself, if we will only take the time (and make the effort) to understand the story our Creator is telling us through the text of the phenomenal world?

The truth of the brevity of our lives in comparison to earth and sky is a truth that we realize simply by observing the world as-it-appears to us. A totally presuppositionless perception of the world is not possible for us, but, regardless of the presuppositions we may have, it is impossible for us to be dissuaded from the fact that—when we look at the world—our lives appear to be very brief in comparison to the enduring phenomena of earth and sky. Our presuppositions are unable to affect, to any great extent, this overwhelming experiential and observational truth.

It is evident to us that *the heavens* are proclaiming *the glory of God* because no other phenomena in the world are, from an appearance-based observational perspective, more eternal and unchanging than are the sky, sun, moon, and stars. We know that generations of people have lived, loved, and died under the ceaseless watch of these magnificent heavenly bodies. The earth and sky are proclaiming to us the eternal nature of our Creator by symbolizing and representing to us (visually) the *eternity* of God.

In the first chapter of Genesis, God creates light and separates the light from darkness (Genesis 1:4-5); the day is ruled by the light of the sun and the night is ruled by the light of the moon (Genesis 1:14-18). The sun, with the light and warmth it provides, makes it the most life-sustaining phenomenon we perceive. The appearance of the sun has often led people to conclude that the sun is the most god-like phenomenon in the world. The sun is the most visibly powerful phenomenon on earth would cease to exist. Because the sun has these god-like qualities, we can easily imagine how prescientific peoples would have developed a cult of sun worship. The biblical view of the sun, however, is one wherein the sun is perceived as a mediator of God's person and presence to us as a powerful *symbol* of our Creator. Our Creator gives us life, he sustains us; and the sun, likewise, sustains us: the sun represents the life-giving and life-sustaining attributes of our Creator.

In the creation account of Genesis, we read of how God separated the light from the darkness and set the sun, moon, and stars within the firmament of the sky (i.e., the heavens). In so doing, our Creator was setting in motion the backdrop of our existentially perceived experience of living-in-the-world. First, the heavens and the earth are created, then the sun, moon, and stars are created and set in their regular motions, which gives those creatures with the ability to consciously perceive the world (i.e., animals and humankind) a sense of *order* and *time*: “And God said, ‘Let there be lights in the firmament of the heavens to separate the day from the night; and let them be for signs and for seasons and for days and years’” (Genesis 1:14). This regular order—of the light of day and the darkness of night—enables those creatures with the ability to consciously *perceive* the world the ability to *function* in-the-world: the light of day provides conscious beings with a life of wakefulness and activity, and the darkness of night provides them with a period of rest and inactivity.

The Bible presents the world to us as being created in such a way as to be conducive to the lived-experiences of conscious beings dependent upon sense perceptions. From our sense-dependent perception of the world, our world appears to us exactly as the Bible depicts it to be: as a suitable environment in which to exist (as embodied beings) and as a home to dwell in. The world is both our home and the text in which we live, its various phenomena providing us with the context of our existence, their appearances guiding us toward a fuller understanding of the ultimate context of our existence: our Creator-God. The order imposed upon the world (by God) communicates (to us) the knowledge that we have been fully enabled by our Creator to live our embodied existence in-the-world. We can gain knowledge of our Creator through the order we observe in our world and it’s because we can perceive this order that we are able to gain knowledge (i.e., science) of the world: without order, scientific knowledge would be impossible. And if this order is not imposed upon the world by our Creator, then where could such order have come from?

Both our conscious experience of sense perceptions and our ability to reason are necessary to our being able to live-out our existential experience of being-in-the-world; therefore we should not allow either perception or reason to take pre-eminence in our understanding of the world. As conscious, rational, and emotional beings we are the most god-like of all creatures; our Creator having made us in his own image: “So God created man in his own image, in the image of God he created him; male and female he created them” (Genesis 1:27). Of the many

symbols embedded within the text of the world, humankind is the best representative symbol of God. In the biblical passage quoted above, we should note that the creation of “man” is, in fact, the creation of *humankind* (i.e., the creation of both male and female). The best representative symbol of our Creator is humankind; the two—male and female—are the best expression of our one Creator’s image and likeness.

The separation of humankind into the two categories of male and female points up the obvious differences between the two, but it is only in the existence of both male and female—together—that we are enabled to understand God as one and humankind as a unified whole. Our Creator is best represented by the particular characteristics of both male and female when seen as one. The separation of humankind into male and female is similar to our separation of the objective (the male?) and the subjective (the female?) aspects of how we think about the world. The two are not radically different they are simply two different aspects of the one, common, human experience of *being* and *living* in-the-world. They should be seen as being unified—as *working-together* and existing *in synergy*—in order to provide us with a true, balanced, and holistic knowledge of the world and its Creator. Our existential human experience also represents the eternal synergy of the Creator’s existential and experiential (subjective) perception of his own (objective) self.

Our human existence is an embodied existence; therefore it’s difficult for us to imagine ourselves living purely intellectual or spiritual lives. Life—as we know it—is *embodied* life. We are not simply embodied intellects, nor are we simply bodies that think; we *are* our bodies, but we are also *more than* our bodies. When our body dies, we die, and our life—as we know it—ceases to exist. By analogy, our *life* is to *light* what *darkness* is to *death*: life is activity in the light and death is inactivity in the darkness. Our waking life is actively conducted in the light, but our sleeping life, conducted in the darkness, is not altogether inactive: although the body is resting, the mind remains active and we continue to live-out our embodied life *virtually* in our dreams. And whether it be during our conscious waking life, or during our unconscious dream life, it is the sun (or light) illuminating the myriad phenomena of the world and revealing them to our senses, enabling us to perceive them *as* phenomena.

The sun is the preeminent visual phenomenon in our world; without the sun our world would be visually imperceptible. Light can also be understood symbolically as representing the triune God, which

the Gospel of St. John illustrates for us by drawing an analogy between *light* and *Christ*:

“In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God; all things were made through him, and without him was not anything made that was made. In him was life, and the life was the light of men. The light shines in the darkness, and the darkness has not overcome it...The true light that enlightens every man was coming into the world” (John 1:1-5; 9).

This passage, which is taken from the first chapter of St. John’s gospel, has its origins in the first chapter of Genesis:

“In the beginning God created the heavens and the earth. The earth was without form and void, and darkness was upon the face of the deep; and the Spirit of God was moving over the face of the waters. And God said, ‘Let there be light’; and there was light” (Genesis 1:1-3).

Clearly there is an analogy here between *the light* created “in the beginning” and *the Word* who was “in the beginning”⁹⁴ who is also “the light that enlightens every man.” The light spoken of in the Gospel of St. John is very similar to the light that is spoken into existence by God at the creation. In Genesis, God is not the light; the light is created by God to enlighten the world and to dispel the darkness. In St. John’s gospel, the light is the Word who enlightens all humankind, “the Word became flesh and dwelt among us full of grace and truth. We have beheld his glory, glory as of the only Son from the Father” (John 1:14). St. John’s gospel tells us: “The light shines in the darkness, and the darkness has not overcome it” (1:5); “The true light that enlightens every man was coming into the world” (1:9); “The light has come into the world, and men loved darkness rather than light, because their deeds were evil” (3:19); “For everyone who does evil hates the light, and does not come to the light, lest his deeds should be exposed” (3:20).

⁹⁴ This is especially evident when we compare the Greek wording of John 1:1 found in the NT with the Greek wording of Genesis 1:1 found in the LXX: “in the beginning” is rendered “ἐν ἀρχῇ” in both.

In St. John's gospel, Jesus proclaims: "I am the light of the world; he who follows me will not walk in darkness, but will have the light of life" (8:12); "As long as I am in the world, I am the light of the world" (9:5); "Walk while you have the light, lest the darkness overtake you; he who walks in the darkness does not know where he goes. While you have the light, believe in the light, that you may become sons of light" (12:35-36); "I have come as light into the world, that whoever believes in me may not remain in darkness" (12:46).

These many allusions to *light* in the Gospel of St. John draw upon the analogous correspondence between Christ and the phenomenon of visible light we observe in our world. Light is the one phenomenon that makes all other phenomena in-the-world visible to us. If there were no light, none of the other phenomena of the world would be visible to us. Likewise, apart from the light of Christ, we would be groping in darkness trying to understand, relate to, and *know* our Creator-God. The phenomenon of light is a symbol of Christ: the light we observe in the natural world points us toward the greater truth of God's Son, Jesus Christ: the true light who shines both in-the-world and in our hearts. According to St. John, it is *living* the gospel of Christ that delivers us from the darkness of sin, and brings us to the true knowledge of God himself:

"God is light and in him is no darkness at all. If we say we have fellowship with him while we walk in darkness, we lie and do not live according to the truth; but if we walk in the light, as he is in the light, we have fellowship with one another, and the blood of Jesus his Son cleanses us from all sin. If we say we have no sin, we deceive ourselves, and the truth is not in us. If we confess our sins, he is faithful and just, and will forgive our sins and cleanse us from all unrighteousness" (1 John 1:5-9).

Here John equates *light* with *truth* and *darkness* with *lies*. In the theological sense, apart from the knowledge of the gospel (a knowledge only revealed to us by God), we are living in darkness. The human ability to reason (alone) cannot lead us to the true knowledge of God. Just as it was "in the beginning," when "darkness was upon the face of the deep," humankind was in darkness until God spoke to us the light of truth through his Son, Jesus Christ.

The lights of the heavens—the sun, moon, and stars—symbolize God (and his angels) eternally watching over us: the celestial (spiritual) beings providentially guiding and watching over the terrestrial (physical) beings. This symbolism is so obvious that God explicitly warns his people Israel not to mistake these created symbols for the Creator himself:

“And beware lest you lift up your eyes to heaven, and when you see the sun and the moon and the stars, all the host of heaven, you be drawn away and worship them and serve them, things which the Lord your God has allotted to all the peoples under the whole heaven” (Deuteronomy 4:19).

The sun, moon, and stars are physical phenomena that represent and symbolize spiritual realities: both their *light* and their (seemingly eternal) *unchanging nature* make them created symbols of God. The starry heavens (of the night sky) and the radiant sun (of the day sky) are the most changeless of all phenomena we observe. The celestial bodies *do* move in their regular courses, the sky *does* change its appearance (from the black of night to the blue of day), the clouds are of various types and they are always in motion, yet all of these changes are minor. These phenomena are observed by everyone in-the-world, they are the “things which the Lord your God has allotted to all the peoples under the whole heaven.”

The sky provides us with the background of our embodied existence. Most people never travel very far from the particular region of the world in which they live, but those who do quickly realize that, although the people, plants, animals, climate, weather, and even the ground can vary dramatically, the heavens remain virtually the same regardless of how far from home they might travel. The sky, sun, moon, and stars remain virtually unchanged as the celestial background beneath (or the context within) which all of our earthly, embodied, human activities take place. It is quite comforting for the traveler, who is in a foreign land far from home—surrounded by different peoples, languages, animals, and plants—to be able to look up into the night sky and see the moon appearing exactly as it does back home. Although far from home, the traveler is still at home in-the-world; we can never travel so far from our home that *the world itself* is no longer our home.

The moon is often thought of as *feminine* and the sun thought of as *masculine*. These celestial bodies, which are symbols of our Creator, represent both the tenderness and the strengths of our Creator. Just as humankind images our Creator, and just as humankind is created both male and female in order to image him, our Creator has aspects of both the male *and* the female (although he transcends such physical categorizations).⁹⁵ The light of the moon is softer, gentler, and is a reflection of the more powerful light and heat of the sun. This makes the moon similar to the sun, and just as glorious, yet it also makes the moon very different from—even somewhat opposite or in opposition to—the sun. In short, the sun and the moon compliment each another, with each one providing for us what the other cannot, and with both of them *working together* in order to provide us with what neither of them alone could have provided us. In like manner, men and women (although very different) compliment each another by *working together*, providing each other with that which neither of them—alone—could have provided for themselves.

While it is impossible for us to imagine the world without the sun, it is just as impossible for us to imagine the world without the moon. Although we in the West mark calendarical time by the apparent motion of the sun (i.e., the solar year), the earliest time keeping was based upon the phases of the moon (i.e., the lunar month). It is much more natural to keep time by following the frequent and easily perceived changes in the moon than it is to keep time by the slightly perceived and much slower changes in the apparent position of the sun. The sun may well rule the day, but the night is ruled by the moon (see Genesis 1:16-18).

The stars enliven the clear night sky with their brilliant points of light, and although we, today, think of the stars as distant suns, pre-scientific peoples saw the stars as-they-appeared to them: as points of light illuminating the darkness of the night sky. The creation account of Genesis mentions the creation of the stars immediately after the creation of the two “great lights” of the sun and the moon (Genesis 1:16) declaring that (like the sun and the moon) the stars are to give their light upon the earth: “And God set them [the stars] in the firmament of the heavens to give light upon the earth” (Genesis 1:17). The

⁹⁵ I have, throughout this work, used the term *he* at times when referring to our Creator not because I believe our Creator to be male or female, but because it is how the Bible refers to God. It is also necessary, at times, to use some sort of pronoun simply in order to express, in writing, the Person who is God.

innumerable stars in the night sky attest to the glory of our Creator (Psalm 19:1), and we feel humble in the presence of the vast, innumerable, multitude of stars that appear to us as scattered points of light throughout the heavens. Even today (with the Hubble Space Telescope) we are humbled by the incredible vastness—not only of the multitude of stars—but of the multitude of *galaxies* existing far beyond the capabilities of even our most powerful telescopic vision. The entire phenomenon that is *the world/cosmos* is awe inspiring and transcends the reductions of modern science:

“The pride of the heavenly heights is the clear firmament, the appearance of heaven in a spectacle of glory. The sun, when it appears, making proclamation as it goes forth, is a marvelous instrument, the work of the Most High. At noon it parches the land; and who can withstand its burning heat? A man tending a furnace works in burning heat, but the sun burns the mountains three times as much; it breathes out fiery vapors, and with bright beams it blinds the eyes. Great is the Lord who made it; and at his command it hastens on its course. He made the moon also, to serve in its season to mark the times and to be an everlasting sign. From the moon comes the sign for feast days, a light that wanes when it has reached the full. The month is named for the moon, increasing marvelously in its phases, an instrument of the hosts on high shining forth in the firmament of heaven. The glory of the stars is the beauty of heaven, a gleaming array in the heights of the Lord. At the command of the Holy One they stand as ordered, they never relax in their watches” (Sirach 43:1-10)

The stars, like the sun and the moon, give us a sense of the passage of time, because we observe them to be in regular motion; the stars having also been created (according to the Bible) for the keeping (or marking) of time (see Genesis 1:14-18). We, today, think of space as being populated with galaxies; but to our direct sense perceptions, we perceive the night sky as the starry vault that is the background of our embodied existence in-the-world. All of our actions during the night occur beneath the starry night sky, which our Creator has pro-

vided for us as the contextual background for living our lives in-the-world.

From our present perspective of living (as we do) in the era of modern science, the stars can give us the sense of our being aliens in the cosmos; alone and insignificant in the vastness of the universe. Yet the theological view, which tells us that God has created both our world and humankind as his special creation, reminds us that our Creator has provided us with both the only world-home we will ever have and the only world-home we will ever need. Our world—and all that is within it—is the special concern of our Creator; he cares for our world and he cares for us. We are never alone or very far from our Creator-God. The stars—each and every one of them—testify to the glory of God and testify to his loving care and concern for each and every one of us.

The sky—day and night, clear or cloudy—is undoubtedly perceived by us as the horizon of our existence. We perceive the meeting of *earth and sky together* in the distance, and this *horizon of earth and sky* forms the very background of our existential experience of living-in-the-world. This horizon of earth and sky together places all other phenomena within the larger context of the world as-it-appears to us and forms our most basic existential perception of the world. All of us have a choice about *how* we will interpret the phenomena of the world, but none of us has a choice about *what* phenomena we will interpret. The myriad phenomena of the world and the greater phenomenon of the world/cosmos are pre-given to us by Our Creator, and it is *our perception* of these created things (phenomena) which grants us a perception of our Creator: “For from the greatness and beauty of created things comes a corresponding perception of their Creator” (Wisdom of Solomon 13:5).

More than simply the subject of natural philosophy or science, the world is pre-given to us as the place of our existence, without which our existence and our understanding of the world (and of ourselves) would not be possible. As James Jordon points out, God could have created a world wherein:

“There are only people interacting with God and with other people, on a nearly infinite flat plain. God could have made such a world, but He didn’t. And this raises the question of why God chose to fill up the world with all kinds of things. Why create geographical diversity: mountains, rivers, seas, wildernesses? Why

create animals, plants, bushes, trees, fish, and birds?
Why create alternating days and nights, weeks and
years, with sun, moon, and stars to measure them? In
other words: why *this* world?"⁹⁶

We are not simply mind and intellect, and neither are we simply animated bodies: we are people made in the image and likeness of our Creator and we are created in order to *live* in-the-world. As people who are created in the image and likeness of their Creator, we have many of our Creator attributes; although to a much lesser degree. We are not everywhere present, but we do have presence; we do not have all knowledge, but we do have knowledge; we are not holy, but we are moral beings; we are not eternal, but we do have existence. Our existence (body and soul) in-the-world will, according to the Bible, continue beyond the grave. We live, now, in-the-world; and we will live, then, in-the-world. The human future being one of a *resurrected* physical existence (similar to that of the risen Christ) in a *regenerated* physical world (see Matt. 19:28).

In comparison to our Creator, we are very limited beings; considering especially the *bodily* aspect of our existence. But our bodies are, in fact, the most essential aspect of our human existence: our bodies provide us with sense perceptions, which enable us to live and move (i.e., have *being*) in-the-world. Certainly our minds (or intellects) process the data arriving via our senses; but, apart from the data, the mind would be useless. Likewise, apart from the mind (or the brain) the senses would not function and our bodies would be unable to live and move in-the-world.

Our brains are, of course, a part of our bodies; but our minds are much more than simply the activities of our brains. There is no universally accepted modern scientific explanation for how the activity of the brain gives rise to the human mind and consciousness. Mind and body—as *one being*—lives, moves, exists, acts, and perceives the myriad phenomena of the world, which is the context of our existence in the world, and, as such, the world exists as-it-exists and the world appears as-it-appears *for* us. The world appears to us as it does so that we, as perceiving beings, can function in the world, and so that we—by properly understanding the appearances of the phenomena of the world—can gain knowledge of our Creator, of the world, of ourselves, and of one another: we are enabled to *be* in-the-world.

⁹⁶ James Jordon, *Through New Eyes*, p. 19

Our being-in-the-world is the purpose of the phenomena's being-in-the-world, and our being-in-the-world grants us our perception of the phenomena of the world, the ultimate purpose of which is to present us with the perception of our Creator through his revelational world-text. We can begin to understand this by learning to view both our world and ourselves as a living unity of objective/subjective existential/phenomenal beings who are both in-the-world and of-the-world. The phenomena of the world of our experience should not be artificially divided up into the abstract categories of objective and subjective as if our experience of being-in-and-of-the-world were so easily categorized; rather, we should see our lived-experience, that which we conceive of (intellectually) as *objective* and *subjective*, the two (mutually dependent) aspects of our one conscious experience of being-in-the-world.

Interpretations of the World-Text: Phenomenology, Theology, and Modern Science

Although certainly embracing good science, the theological and phenomenological view of the world stands opposed to the naturalistic and materialistic modern scientific view of the world. Modern science, with its naturalistic, materialistic, and reductionistic theories concerning the origins of the universe (universes?) and the origins of life presents the world to us as a product of law driven—yet random and purposeless—natural material causes.

The theological/phenomenological view of the world holds that sentient beings—who live-in, perceive, and experience the world—could not have arisen from non-living matter/energy (i.e., the inanimate chemical elements); rather, the theological and phenomenological view of the world holds that both the objective world of phenomena and our subjective experience of the phenomena of the world coexist, and, in this way, the world can be said to have always existed just as we experience the world to exist today. Our Creator has fashioned this phenomenal world *for us* and he has fashioned this world in such a way as to provide the meaning, purpose, and context of our very existence; providing us with a knowledge of himself, which is made clear through the created natural world—a natural world that is capable of being known through the use of reason and science.

When we view the world (and ourselves) in this way, all of the world's phenomena take on a new look and have new meaning for us:

the world becomes filled with signs and symbols, a phenomenal language we must learn to interpret and understand. A tree, a smile, a river, or a child's laughter are not simply manifestations of the natural elements, having followed chemical laws, spontaneously arising and developing—over eons of time—into a universe that exists simply because the probability of such a universe existing somewhere has apparently manifested itself here. Rather, the world's phenomena are the expressions of our Creator, communicating to us the knowledge of our Creator; if only we can understand the language of this expression of knowledge, which comes to us through natural revelation. This world-language of phenomenal signs and symbols is very familiar to us—perhaps *too* familiar—because we live-out our lives surrounded by it all times: we are immersed within the text of the world, like letters are immersed within the written pages of a text.

For a world to exist as an unexperienced world is senseless. Without conscious subjects—perceiving, experiencing, and living in-the-world— there is little point to the existence of objective phenomena. The modern notion of a world of lifeless matter/energy somehow, eventually, gaining sentience—for no particular reason and for no particular purpose—is in stark contrast to a world wherein the existence of living, conscious, beings is the very reason for the existence of non-living matter/energy, the purpose of which is to be perceived. Our lives are embedded within the world; as conscious (perceiving) subjects we are the most important portion of the world we experience as being objectively real. In fact, the (objective) reality of the world of phenomena presupposes the existence of (subjective) conscious beings able to perceive and experience reality.

The detached, objectivist, and reductionist modern scientific view of the world tends to lead us into a way of perceiving and thinking about the world that is distorted: it distorts our natural perception of, and our thinking about, the way the world appears to us. Rene Descartes' methodological doubt of everything except his own ability to think (his *cogito ergo sum*: I think, therefore I am) proves very little, and is a very thin philosophical foundation upon which to base the entire superstructure of modern science, which has in fact arisen upon it since his time. But Descartes did, however, acknowledge the existence of God; something the modern scientists and philosophers of our day don't often do.

Detached as it is from our Creator-God, modern philosophy and science offer little-to-no meaning or purpose for our existence in-the-world, yet it is our very existence in-the-world of which we are the

most aware at all times. Our existence is pretty much the only thing we are really certain of in life, and it seems absurd to think that our existence would be without any meaning or purpose whatsoever. The existentialist would embrace this absurdity of meaninglessness and purposelessness, because, apart from God, this existential absurdity is logical and rational. And yet, just as we are aware of our own existence, we are also aware of the existence of the phenomena of the world; and just as we are aware of the phenomena of the world, we are also aware of our Creator's existence through our perception of the phenomena of the world. The created world is a revelatory text which attests to the existence of our Creator-God, guides us toward a way of living our lives in-the-world, and provides us with meaning and purpose for our existence in-the-world.

The rationalist reductionistic modern scientific approach to the study of the natural world is simply a hubristic quest: by unveiling and laying bare the secrets of nature, science hopes to conquer and control nature. Interestingly, Mary Midgely has found that the men of modern science, in their own words, have often described their task of studying nature in ways very similar to those describing the sexual violation of a woman by a man:

“Nature [should], by no means [be thought of] as a neutral object, but as a seductive but troublesome female, to be unrelentingly pursued, sought out, fought against, chased into her innermost sanctuaries, prevented from escaping, persistently courted, wooed, harried, vexed, tormented, unveiled, unrobed, and ‘put to the question’ (i.e. interrogated under torture), forced to confess ‘all that lay in her innermost recesses’, her ‘beautiful bosom’ must be laid bare, she must be held down and finally ‘penetrated’, ‘pierced’ and ‘vanquished’ (words which constantly recur).”⁹⁷

The modern scientific interpretation of nature—as something to be unrobed and conquered—has succeeded in overturning the religious/theological interpretation of nature, which understood nature as being a *cosmos* of divine origins; a *cosmos* wherein the natural philosopher (or scientist) remained humble before and respectful of the majesty of nature—understanding the world/cosmos to be the sacred,

⁹⁷ Mary Midgely, *Science as Salvation*, p. 77

holy, *creation* of God. This sacred natural world is the world we should allow to be our guide, a world we should be willing to listen to, a world we should respect, and a world we should be striving to protect rather than exploit.

Modern science has a desire to conquer the natural world, to dominate the natural world, and to make the natural world serve our purposes. Modern science today does not seem to have the atheistic or agnostic (neutral?) view of the world it is commonly thought to have, it seems, rather, to have somewhat of an antitheistic view of the world. Many popular science writers seem to think that modern people should be actively opposed to the belief in God. It's as though it were an important piece of modern thinking for people to reject the religious belief in God as the folly of ignorant, uneducated, fundamentalists. When one peruses the science sections of the big chain bookstores, one can't help but notice how many popular science writers seem to believe that God must be kept completely out of our thinking. The biblical/theological view of the world no longer seems tenable to modern peoples, especially scientists. Modern scientifically minded people think of the biblical view of the world as a view of the world proven false (long ago) by modern science; an outdated view having absolutely no basis in reality.

As we've already seen, the biblical and modern scientific views of the world are very different—even contradictory—and yet the biblical and modern scientific views are simply two different *kinds* of views, incorporating two different *kinds* of knowledge, concerning the same world. The biblical view is phenomenological (i.e., it presents the world as-it-appears) and is based upon divine revelation (i.e., the world and the Bible); the modern scientific view is empirical (i.e., it relies upon experience, observation and experiment) and is based upon reason (i.e., both inductive and deductive logic). Both of these views are valid, they simply present us with differing perspectives (perceptions) of the same phenomenon: the world. Their starting points are different, their methods are different, and their conclusions are different, because they each seek different *kinds* of knowledge about the world. Neither the extremes of the naturalistic view nor the extremes of the biblical literalist view can be considered accurate presentations of the world. What we should be seeking is openness between the scientific view and the biblical view, a *working together* of two very different perspectives of the world, in which each view is allowed to compliment and to correct the other.

The biblical worldview incorporates knowledge of the world that is unattainable by human reason (alone) whereas the modern scientific worldview rejects supernatural revelation—reducing everything to its natural, physical, and material elements. What is needed is an ordering of knowledge with the realization that neither modern science nor the Bible can tell us everything there is to know about the world. Only both sources of knowledge—*working together*—can help us to come as close as humanly possible to gaining the fullest understanding of our world. We should not ignore one in preference to the other, but should allow each their proper places within their respective fields of knowledge. In an earlier era, modern science was needed to correct a biblical/religious view astray from the truth, and, in our day, the biblical view should be allowed to correct a modern scientific view gone astray from the truth.

Modern science sets forth its view of the world as the only correct view of the world. This view allows for no supernatural causes or explanations and often appears to explicitly deny the existence of a Creator. And yet, when dealing with certain questions about the world (e.g., the origins of the universe, the origins of life), modern science attempts to explain things that simply cannot be known or explained naturalistically and materialistically. This, however, doesn't stop the scientists from explaining such things naturalistically; and yet, in the final analysis, the naturalistic "explanations" given are not physical theories about the world at all; rather, they are *metaphysical stories* about the world.

Science cannot disprove the existence of God because, logically, it's impossible to prove that God does not exist. As the limited beings that we are, we simply don't have the ability to search out the entirety of the universe in order to make the case against God's existence. In logic, assertions such as "God does not exist" or "Science has proven there is no God" are logically fallacious (known, in logic, as the fallacy of the Universal Negative). Besides the fallaciousness of this sort of argument, it's not the place of science (or of scientists) to attempt to either prove or disprove the existence of God, or of anything else that might exist beyond the natural world; science is natural philosophy. Modern science has quite enough to do in trying to understand and explain the natural world, which is the proper role of science, without trying to explain (=disprove) the existence of the supernatural, which is not its role. Modern science is unable to fully explain the physical world we *can* observe, let alone a supernatural realm we cannot. Many phenomena have no agreed upon scientific explanation, but we don't

doubt their existence. And it's reasonable for us to believe that many phenomena might exist that are beyond the abilities of modern science to discover, investigate, and explain.

To scientists, if a phenomenon can't be quantified, it doesn't exist; even if the phenomenon is experienced by conscious observers. Yet *experience itself* is the very key to gaining knowledge and understanding of our world (our English word *empirical* comes from the Greek word *empeirikos*, meaning: *experienced*). Apart from our *experience* of our perception of the appearances of phenomena we could have no *knowledge* of the world whatsoever. Science can assert theoretical explanations for the unexperienced causes of that which we experience, yet science cannot prove the purely objective existence of such unexperienced causes (of experience) because science can never get completely beyond (or behind) conscious human experience. The scientist is limited by experience just as everyone else is: every scientific observation is a conscious human experience. Likewise, a supernaturally based theological/biblical view of the unexperienced causes of experience cannot prove supernatural experiences are supernaturally caused: the biblical/theological view can only assert such explanations based upon supernatural revelation.

That the world we experience was created *for us* and that the world was created to be perceived as-it-appears *to us* are matters for theological reflection. Phenomenology is helpful to us here because phenomenology is concerned with how the phenomenal world presents itself (how it appears) to the conscious human observer. Modern science is concerned with the unperceived causes, which underlie appearances, and downplays (or discounts) appearances; claiming that appearances can be deceiving: the sun *only appears* to move across the sky; life *only appears* to have been designed; time *only appears* to flow at the same rate for everyone. Reality, to modern science, is that which gives rise to appearances, not the appearances themselves. But what (to us) is more real than that which appears to us as-it-appears to us?

Modern science takes the existence of the physical world as a pre-given assumption: the very existence of the world/cosmos is the great unquestioned and presupposed starting point of all scientific investigation. The philosophical view of phenomenology takes us beyond the scientific assumption of the pre-given world as a-thing-already-there to be investigated. Phenomenology questions the appearance of the thing itself (in this case, the world) and asks: What presuppositions are we bringing with us when we experience the world? How would

the phenomenon of the world appear to us if we could approach it without any presupposed notions about it?

In developing a theology of appearances, phenomenology can help us attempt to perceive the world as-it-appears and as-it-presents-itself to us before our biblical/theological presuppositions enter into our thinking about the world. We can observe phenomena, we can have a conscious perceptual experience of phenomena as-they-present-themselves to us, and we can utilize this as-presuppositionless-as-possible view of phenomenal appearances as the starting point for our theological inquiry. A theology of appearances should incorporate and build upon three important truths: 1) The world as-it-appears to us (i.e., philosophical and phenomenological truth); 2) The knowledge of the Creator, which has been revealed to us through the created world of phenomenal appearances (i.e., natural revelation); and 3) The revealed knowledge of our Creator, which has been given to us in the Bible (i.e., supernatural revelation).

The most important benefit in doing a theology of appearances is that it gives us the ability to begin our theological investigations of the world with the way in which the world presents itself to us in our everyday experience. This makes for a very practical theology, without need of theological, philosophical, or scientific abstractions. Our starting point is simply *the world* as-we-observe-it and as-we-experience-it. The world appears to us as a world filled with myriad phenomena: light, people, water, trees, animals, darkness, clouds, flowers, mountains, rain, wind, rocks, etc. And we observe these phenomena as-they-appear and as-they-present-themselves to our conscious human experience. Our observations of these phenomena reveal that they are of many and various types, that they present themselves to us as distinctly observable *wholes*; each phenomenon being observably distinct from every other phenomenon. Many of these phenomenal forms appear (to us) to be functional, the world/cosmos itself appears to be functional, and all phenomena appear (to us) to be functioning within the world so that the world will function *as a whole*. The world appears to be much more than simply the sum of its many parts: the world appears to us as a world created with the purpose of functioning as a unified whole (i.e., as a *universe*).

We depend upon these phenomena (e.g., water, plants, air) to live our lives in-the-world, and we also find ourselves caught-up within the world—living *as phenomena among phenomena*—experiencing both the world of phenomena as well as our own phenomenal selves; the world and ourselves being, in truth, that which we really *know* best. As

people who live-in and experience the world, our world (or one like it) is the only world we know. In fact, no other world of living experience is even imaginable to us. Modern science likes to break the world (including people) down into their various constituent elements—telling us how that everything we observe is made up of the same fundamental *stuff* (matter/energy) in different forms—but what really matters is not the basic universal *stuff* (matter/energy) itself, but the various *forms* which it has taken and which appear to us as particular phenomenal forms. If *reality* is anything, then it is certainly not a particle of matter/energy; reality is that which we perceive: phenomenal forms as-they-appear to us.

For example, it's of little use breaking a person down into her constituent parts, as if that's what a human person really *is* (i.e., 61% oxygen, 23% carbon, 10% hydrogen, 2.6% nitrogen, 1.4% calcium, 1.1% phosphorus, 0.2% potassium, 0.2% sulfur, 0.1% sodium, 0.1% chlorine, plus magnesium, iron, fluorine, zinc, and other trace elements). People are not simply human beings (i.e., *Homo sapiens*), and people are also far more than just the sums of their matter/energy chemical parts. Modern science alone can never tell us what—in reality—a human person *is*. We have a better sense of what a person is by simply observing people as-they-appear to us: as almost limitless horizons of thought, beauty, passion, strength, mystery, complexity, intellect, compassion, love, and countless other phenomenal qualities, which express to us who they *are*. The reality of a person's existence presents itself to our conscious experience *as* a person, with all of the complexities that go with *being* a person.

Modern science explains the existence of human persons by proposing that lifeless matter/energy, by natural causes and chemical processes, and without any purpose or direction, eventually became what we observe to be human persons. This is the modern scientific explanation for the existence of everything; even *living* things. Yet denuded of any teleological influence, brute matter/energy has no goal toward which to strive in its supposed development (i.e., evolution) from inorganic chemicals to living organisms; and it's hard to believe that all living things came to exist (as they have) without the benefit of some sort of teleological, developmental, end-goal in mind.

The word *evolution* is, in fact, a teleological term, which comes from the Latin word: *evolvere*, meaning: *to unroll*. Despite the Darwinian evolutionist's claims to the contrary, any theory making use of the term *evolution* must (by definition) incorporate some sort of teleological, purposeful, functional, directional end-goal. In the final analysis,

what we call Darwinian evolutionary theory must logically conclude with what I would call the “hydrogen-to-human mind” theory, or the “gas-to-genius” theory of evolutionary theorist and philosopher Herbert Spencer, not Charles Darwin. A theory which proposes that non-living matter/energy can eventually (somehow) become human is, in fact, quite an incredible hypothesis, if you think about it. And *thinking* about the world is what scientists (supposedly) do *best*.

However, before the scientist can begin to think about the world, both the scientist’s (subjective) conscious experience of the world and the (objective) world of phenomena are found to be pre-given. The scientist finds herself alive and in-the-world before she attempts to make sense of the world of phenomena in which she finds herself. Our experience of the world and our experience of being-in-the-world is the inescapable lived-experience that is our existence in-the-world as human persons. The scientist has no choice about *which* world or *which* experience of being-in-the-world she will study: there’s no world but this one, and there’s no other lived-experience she will ever have but her own.

Prescientific peoples based their knowledge of the world largely upon the way the world appeared to them. Likewise, those of us who are not scientists (as well as the modern scientists themselves) live our lives in-the-world as though the world is—in reality—exactly as-it-appears (to us) to be. We are not aware of an ultimate, underlying, elemental reality making up what we observe, we are aware of things as-we-find-them and as-they-appear to us. When a scientist observes (indirectly) what she believes to be the most fundamental particles underlying and giving rise to the appearances of phenomena, she is engaged in an *experience* of the world *as-it-appears*. The idea that reality and appearances are not the same is illusory: reality appears to us when we observe the world at any level. We are inescapably bound to our conscious, human, lived-experience of phenomenal reality.

The real issue here is whether or not the “reality” observable to most people (i.e., non-scientists) is any less *real* than the “reality” observed by the scientists. Or, to put it another way, is the reality scientists observe any more *real* than the reality non-scientists observe? In my opinion, when a scientist observes a phenomenon the rest of us are unable to observe (because we lack the technical means to do so) such a phenomenon is certainly real, but when scientists assert that this privileged scientific observation is more real, or is the only reality (as opposed to what the rest of us observe as being *real*), then the scientists’ assertion is incorrect. And science is especially off the mark when

it asserts *as reality* that which is only an intellectual-play hypothesis. It's erroneous to speak of a *hypothetical* reality as though it were a *true* reality.

Modern science is not the final authority to which we must defer for the definition of reality. Modern science presents its particular view of reality because it has a particular framework (or conceptual scheme) which it uses to make sense of the data gathered from observation of the phenomenal world. And, like any conceptual scheme, the modern scientific scheme is far from perfect, because the world is far too complex to be reduced to a catalogue of data arranged by conceptual schemes. The world is an on-going synergic matrix of objective/subjective reality, as is our conscious, human, existential, lived-experience of living our lives in-and-through the world.

Living-in-the-world is what living beings do: they *experience* life. Of all the wondrous phenomena we observe in the world, life is the most wondrous, the most complex, and the most interesting. Life is, therefore, the most difficult phenomenon to study and attempt to understand. Modern science, using its theory of biological evolution, is attempting to make sense of, understand, and explain (naturalistically) the phenomenon of life—with all of its complexities—and modern science is finding it increasingly difficult to persuade intelligent people into accepting its belief that life is simply the blind consequence of chemical law. Modern science, in choosing to explain the complexities of living organisms naturalistically has, I think, bitten off far more than it can rationally chew. And when it comes to trying to understand the origins of life from the naturalistic evolutionary perspective, modern science is at a complete and total loss for *any* rational explanation. According to Ernst Mayr, the well known evolutionist, we should believe that all living organisms have evolved from non-organic matter/energy: "Many more years of experimentation will likely pass before a laboratory succeeds in actually producing life [from non-living matter/energy]. However, the production of life cannot be too difficult, because it happened on Earth apparently as soon as conditions had become suitable for life, around 3.8 billion years ago."⁹⁸

How did this production of organic life from non-organic matter/energy occur? Mayr says, "...the production of life cannot be too difficult, because it happened..." but what Mayr is asserting here is the *existence* of organic life as *proof* that organic life arose from non-organic matter/energy. It must be Mayr's philosophical naturalism

⁹⁸ Ernst Mayr, *What Evolution Is*, (New York: Basic Books, 2001) p. 43

leading him to make this assertion, because it certainly can't be his analysis of any observable and (supposedly) neutral scientific facts (Mayr's admission in the quote above that organic life has never been produced by experiment in the lab actually falsifies his own theoretical conclusions). Mayr's assertion here of the *existence* of life *as proof* that non-organic matter/energy produced life is not scientific, his reasoning is fallacious (in logic: the fallacy of Affirming the Consequent), and gives us no *knowledge* of the world whatsoever.

Mayr would like for us to believe that the bare assertion of an expert scientist is knowledge, when, in fact, it is just the opposite: an admission of ignorance masquerading as knowledge. Mayr's assertion of the existence of life *as proof* that life had non-organic origins is no different from my asserting the *existence* of organic life *as proof* that God created it. But assertions aren't science. Science is supposed to give us *knowledge* of the natural world, and making assertions, based solely upon a faith commitment to *a theory*, is neither knowledge nor good science. Our experience of living-in-the-world cannot possibly lead us to Mayr's conclusion about the origins of life; one can only come to Mayr's conclusion if one has already presupposed a philosophically naturalistic view of the world before one even attempts to make sense of the world. Actually, most scientists live out their lives *as if* their naturalistic presuppositions didn't exist, but scientists (and those who are enamored with science) can easily allow their naturalistic presuppositions to influence their everyday perceptions of (and thoughts about) the world. We all experience the world on a daily basis, yet we all view the world differently; we all view the world through the lens of our own, particular, presupposed notions about what we *think* the world *is*.

The Practical Value of Phenomenal Appearances

All of us enjoy the light and warmth of the sun, the refreshment of cool water, the love of a friend, the enjoyment of hard work, the rest of sleep, the stillness and beauty of a snow-covered landscape. These sorts of phenomena present themselves to our lived-experience as-they-are and as-they-appear to us: we have no choice other than to experience them as-they-present-themselves to us. But we *can* choose how we are going to understand them.

An artist tends to see beauty and wonder in the world as-it-appears and the modern scientist tends to see matter/energy in mo-

tion. The artist lives the limitless wonders of his subjective lived-experience of the world and the scientist analyzes and reduces the world to objective scientific facts. Is one view of the world right and the other wrong? I believe both are accurate views of the world, however, I believe the reductionist modern scientific view has led to *scientism*, which is a particularly dangerous way of viewing the world: scientism is the belief that true knowledge of the world can only be gained by science. Recall the words of Pope John Paul II, quoted above in the first chapter: “This [scientism] is the philosophical notion which refuses to admit the validity of forms of knowledge other than those of the positive sciences; and it relegates religious, theological, ethical and aesthetic knowledge to the realm of mere fantasy.”⁹⁹ There is a particularly acute danger here because modern science *is* so capable of accurately explaining the natural world; even more so, because applied science (i.e., *technology*) works so well for us. It’s very easy for us to believe that true knowledge of the world could come to us only through modern science.

There is a danger in having an objective knowledge of the physical world—a science—that is free from any and all moral restraints; moral restraints ultimately deriving from our subjective, innate, unquantifiable, human experience of living-in-the-world. Our inability to quantify this experience is due to the weaknesses of human language: words alone cannot adequately describe our lived-experience. The fact that modern science *does* have such a language to describe the world (i.e., mathematics) most certainly gives it the upper hand. We tend to defer to modern scientific explanations of the world and we tend to discount our own lived-experience, because modern science tells us that what we experience are only *appearances*, and not *reality*.

As valuable as the scientific explanation of the world is, what we lose in deferring to the scientific explanation of the world is priceless. For example, are we supposed to imagine that life—with all of its beauty, complexity, and wonder—is best explained (by modern science) as the random, purposeless, spontaneous occurrence of inorganic chemical processes over incredibly long periods of time? Modern science tells us that our world—with all of its wonderfully complex life forms—exists simply because (given enough time and enough possible universes) a world (cosmos/universe) such as ours will eventually come to exist. And yet the only proof given for this sort of theoretical explanation for the existence of the world is the very existence of the

⁹⁹ John Paul II, *Fides et Ratio*, 88

world itself: the world exists; therefore this must be how the world came to exist. But this isn't a scientific explanation at all; worse yet, this isn't even intellectual-play. This is not knowledge (i.e., science) at all. This (again) is simply ignorance masquerading as knowledge; scientific reasoning has ceased.

The world we experience is experienced as a unity; and we experience ourselves as individual parts of the unity that is: *the world*. Although it's interesting to speculate about how such a world as ours might have come to exist, the fact is that we experience the world as our world-home, which is a home furnished with everything we need in order for us to live-out our lives in-the-world. This world is the only world we know, and this world is the only sort of world we can even imagine. We create our own smaller "worlds" within the world (e.g., families, homes, communities, schools, nations, etc.) and we should certainly be willing to consider the possibility that the world itself was created for us as our home, which is the context of our existence.

How we *think* about the world leads us to form a particular *view* the world; thinking about and viewing the world leads us to an understanding of how we should *live* (or *act*) in the world; and we will usually live according to our thought-shaped worldviews. Cosmological questions concerning origins, direction, and purpose have led humankind to many and various mythological, religious, theological, philosophical, and scientific answers. The biblical story of creation provides answers to these cosmological questions, but because the biblical Creator is presented as the *supernatural* unseen cause of the world, the biblical view is considered scientifically incorrect. The modern scientific story of origins provides answers to these cosmological questions—physical processes following natural laws—and these answers are considered scientifically true because they are naturalistic and materialistic explanations for the existence of the world.

But a *story* that explains the world is not the same thing as a good *scientific explanation* of the world. Imaginative modern scientific creation stories are presented as true descriptions of reality, when in fact they are simply imaginative narratives, based upon philosophically naturalistic and materialistic scientific speculation about the universe. The truth is that modern science doesn't know nearly as much about the universe and its origins as many popular science writers would have us believe.

A theology of appearances will recognize that modern science is correct in its understanding and explanation of the phenomena of the world, but will also recognize that these descriptions neglect appear-

ances, being reductive only to natural/material causal explanations. A theology of appearances recognizes that modern science often considers abstract, intellectual-play theorizations about the world to be true descriptions of the reality of the physical world, although such imaginative theories bare no correspondence to the world we experience. A theology of appearances recognizes that the appearances of phenomena are not misperceptions of reality—our senses do not mislead us—the appearances of phenomena as-they-appear to us are, if anything, more real to us than are the (supposedly hidden) realities that modern science says that it reveals by lifting from natural phenomena the veil of phenomenal appearances.

That which we perceive through our senses—the appearances of phenomena—are the realities our Creator intended for us to perceive: phenomenal realities we observed as *whole forms* (e.g., a river, a cloud, a frozen lake), which are both in-the-world and of-the-world. The theology of appearances tells us that these phenomenal forms are precisely what we should think of as being true reality, whereas modern science tells us that true reality is the unseen, hidden, elemental nature of these phenomenal forms, which modern science alone can reveal to us (e.g., H_2O in different states: liquid, gas, and solid). The theology of appearances allows us to think of that which we observe—the whole forms of phenomena—as reality, and not as illusory appearances taken by some unseen, elemental, ultimate reality.

For example, as I write on my computer, I see and feel the computer as the solid object that it is. This perception of the computer is, for me, a valid perception of the reality of the computer. It is my perception of the computer's solidity—its form as a unified whole—that makes it appear to me *as* a computer; to be a computer *in reality*. A scientist, however, commenting upon this very same experience, would likely say something like: "The computer on which I am typing these words seems like a solid object to me but it is really a web of electromagnetic forces connecting a few tiny, widely-spaced quantum entities—a framework of interacting photons."¹⁰⁰

In this instance, the object's appearance, as perceived by the conscious human observer, is not reality. Reality, for modern science, is that which lies hidden—imperceptible to human consciousness—beneath the object's appearance; reality is the elemental particles and

¹⁰⁰ John Gribbin, *Schrodinger's Kittens and the Search for Reality*, (Boston: Back Bay Books, 1995) p. 184 (That the phrase "and the search for reality" is contained within the title of Gibbin's book says a lot in itself: modern science is always engaging in the search for a hidden and ultimate reality when *reality* is that which is openly observable to everyone at all times.)

forces that constitute the object. But is a computer really just a web of electromagnetic forces that only *seems* (i.e., *appears*) to be a solid object? What *is* the computer? What is its *being*? What is it *in reality*? Modern science tells us the reality of objects and phenomena cannot be found in the way in which these objects and phenomena appear to our consciousness; modern science tells us that reality is beyond our normal abilities to perceive, lying somewhere beneath the appearances of phenomena. A theology of appearances defines reality as the appearances of objects and phenomena as-they-present-themselves and as-they-appear to us.

A theology of appearances will also respectfully reject the Aristotelian metaphysical categories of traditional scholastic theology. What matters most is that which appears to us: the world as God made it to be perceived by conscious beings; not the abstract metaphysical categories of matter, form, substance, and accident. These are abstract, intellectual-play, metaphysical categories we have devised about the phenomenal world, which is not the same thing as our perception of the phenomenal world before such categorizations of the phenomenal world can begin. A theology of appearances is not an exhaustive, speculative, abstract theology requiring arcane metaphysical categories, a theology of appearances is a biblical theology; therefore it allows the Bible to present the world to us as our Creator intended us to perceive it. And it is upon this existential, perceptual, phenomenal, and experiential basis that a theology of appearances is built. The appearances of phenomena are revelations of our Creator, and he intends for us to perceive and understand them as-they-appear to us. He reveals himself to us through the created world, and we, through our conscious ability to perceive the world, exist correlationally with the world he has created. We live within a phenomenal world, the appearances of which are guiding us toward our world's Creator.

Although both modern science and traditional scholastic theology are excellent examples of the human ability to reason, which our Creator certainly desires for us to make use of, we must keep in mind that human reasoning is never done in a vacuum. Assumptions and presuppositions are always present when we reason, and it's important for us to recognize what these assumptions and presuppositions are and why we have chosen them. I don't think we need the ancient Greek metaphysical and philosophical categories in order to understand the Creator of the world. What we need is the proper perception of the world he has created (i.e., the perception of phenomena as-they-

appear to us), the Bible's presentation to us of the world and the world's Creator.

A theology of appearances isn't bogged down by speculations on being, matter, form, substance, or accidents, nor is it bogged down by speculations on mass, energy, motion, space, and time. These are all very interesting and important subjects to speculate upon, because they do relate to our human experience of being-in-the-world, but they are not necessary for gaining the knowledge God has already given to us concerning himself, how we can relate to him, and his desire for us to live in harmony and in community with others in-the-world.

We have been speculating—and will continue to speculate—upon both physical and metaphysical subjects, because they do touch upon theology (i.e., they concern our world and our Creator), but we should not let our thinking about these subjects sidetrack us intellectually. We need to stay focused upon the most obvious truths about God, which are plainly revealed to us in both creation and the Bible. Our Creator did not choose to reveal himself only to intellectuals (e.g., scientists, philosophers, and theologians); he chose to reveal himself to *everyone* who lives in-the-world. His revelation is simple—perhaps too simple for the intellectual—and is, therefore, something the average person can easily perceive and understand.

How, for example, can modern science properly explain the commonly experienced phenomenon of human love? Can science explain the experience of this phenomenon? A person who loves someone can attempt to relate this experience of human love to another person (who also loves (or has loved) someone), but human love is an experiential phenomenon that is beyond our ability to ever fully explain. The modern scientific explanation of love would no doubt begin with an introduction to evolutionary biology and conclude with an explanation of brain chemistry; and yet this sort of explanation tells us absolutely nothing about the existential phenomenon in question: the *experience* of human love.

A modern scientific answer misses the real point of the experience: the *emotion* of love cannot be reduced to chemical action/reaction or biological cause/effect. A modern scientific analysis of the human experience of love is beyond the capabilities of science, as the particular field of human knowledge that it is, to properly explain. This example, of the phenomenon of human love, is, admittedly, a very complex one; and yet the explanation of a simple phenomenon, which would seem to be easier to explain, can require a more complex explanation than we might ever imagine.

How, for example, does modern science explain a river? The scientist explains what the river is physically: it is H₂O (i.e., water) along with trace amounts of chemical elements, it contains living organisms of various kinds, it exists as the result of the combination of geological formations and the hydrologic cycle, and it obeys physical laws (e.g., it flows due to gravity). Taken to the extreme, a scientist might even say that (as with our example of the computer) a river is simply a web of forces and quantum entities. All too often, modern science gives us the impression that all phenomena should (ultimately) be thought of as simply matter/energy in motion.

Much like the ancient Greek philosophers, who thought that everything was made of water or fire, modern science tells us that everything (ultimately) consists of matter/energy in motion. To modern science, all of what we would normally (i.e., phenomenologically) consider to be *real* is, in fact, matter/energy in different forms, which give us the (false) impression that their (apparent) forms are real (solid, fluid, or gaseous) physical objects. Modern science tells us that beneath the appearances (i.e., the *apparent* reality) of these phenomena lies the ultimate, hidden, and true reality of matter/energy in motion. Our senses, we are told us, deceive us; the appearances of phenomenal forms are misleading. Yet the appearances of phenomenal forms are what we perceive. We perceive these phenomena as-they-are and as-they-appear to us; we don't perceive them as matter/energy in motion.

If we could perceive the reality of the phenomenal world as modern science defines it (i.e., as a flux matrix of matter/energy) we wouldn't be able to function, we wouldn't be able *live* in-the-world. Our Creator, however, has specifically designed us to *live* in-the-world; therefore the phenomena of the world appear to us as stable, functional, whole forms.

When I perceive a river—as I am looking at it and thinking about it—I reflect upon many things at once: the river's beauty, its life, its sense of timelessness, my sense of insignificance before it, and the river's flow of life-giving water. I reflect upon all of these things (and more) as I perceive this one simple phenomenon. Although my reflection upon the river is not a factual, accurate, scientific analysis of the river, my perception of the river is an accurate analysis of what the river *is*. It's simply a different analysis from the analysis of science; it comes from a different perspective and seeks to explain different aspects of the phenomenon.

The Bible speaks of water, springs of water, and rivers as being *life-giving* (see Gn. 2:10; Ps. 104:10; Jn. 4:11; Rv. 21:6; Rv. 22:1-2). This

biblical analogy, drawn between water and life, is common both to the Bible and to our perception of water: water is life-giving; without water, life cannot exist. A theology of appearances views the world as-it-appears and as the Bible presents it to us; therefore it considers springs, streams, and rivers to be symbolic representations of our *life-giving* and *life sustaining* Creator. Just as water both gives and sustains life, our Creator gives us and sustains our lives. There is more to the *reality* of springs, streams, and rivers of water than modern science is able to explain. No doubt modern science would probably tell us that these phenomena's reality is matter/energy in motion (e.g., "a web of electromagnetic forces connecting a few tiny, widely-spaced quantum entities"); but a theology of appearances considers the reality of these phenomena to be the appearances of these phenomena as-they-present-themselves to our conscious experience (e.g., springs, streams, rivers). Modern science has not disproven the way we perceive the world, nor has modern science disproven the way in which the Bible describes the world to appear. Modern science simply presents a different view of the same world, because it approaches the world from its own particular perspective. But the modern scientific perspective is not the only true perspective of reality.

The modern scientific perspective of the world, because it *has* been so successful in accurately analyzing, describing, and explaining the physical world, has, for most modern people, become the sole arbiter of truth concerning the world. But the modern scientific way of perceiving and thinking about the world is not the only valid way of doing so. Science, philosophy, and theology are all valid expressions of humankind's ability to reason about the world, but each of these disciplines requires the input of the others in order to have a balanced approach to the study of our world.

As a case in point, let's return to our perception of the phenomenon of the sun's daily motion across the sky. Both the Bible and our sense perceptions tell us that the sun moves across the sky, whereas modern science tells us that the earth is in motion and the sun only *appears* to move. The truth is both: in physics, the earth *is* rotating and orbiting the stationary sun, and, to our conscious perceptions, the earth *is* motionless and the sun *is* moving across the sky. Dermot Moran, describing the position of phenomenologist Hans-Georg Gadamer (regarding scientific truth-claims), tells us that: "In agreement with the later Husserl, Gadamer holds that the Copernican discovery of the motion of the earth does not negate the truth-for-us of the rising and set-

ting of the sun: "The truth that science tells us is relative to a specific attitude toward the world and cannot at all claim to be the whole"¹⁰¹

Modern science tells us that appearances are deceiving, unimportant, and misleading; only science can tell us what the world is *in reality*. But the truth is that appearances *do* reveal the reality of the world to us, and they do so for everyone; not just for an elite and educated few. The danger I see here is that people will often neglect their lived-experience of their perception of the reality of the world—the appearances of phenomenal forms—by deferring to the scientific authorities who say *reality* is that which lies hidden beneath a deceptive veil of phenomenal appearances.

For example, someone who disregards the appearances of what they perceive, because science tells them that appearances are not real, can look at a chair and see matter/energy in motion; the chair only seems (i.e., *appears*) to be solid and stable, when in reality it is not. The chair only appears to be solid and stable because our senses are unable to perceive the true reality of the chair. Yet the scientific truth-claim that the reality of the chair is matter/energy in motion is only an assertion of the modern scientific perspective of the world of phenomena. This scientific view has its truth, but it cannot claim to be the whole of truth.

Despite what popular science writers might lead many people to believe, modern science does not have the ability to perceive, or to even define, what, precisely, this ultimate, true, and hidden reality *is*. Modern science constructs usable models of this ultimate, hidden reality (e.g., quantum states) that describe behavior, providing scientists with a certain level of predictability which can be translated into workable technologies. But we cannot perceive this "reality"; it remains hidden from our conscious human perception. Even if we could perceive such an ultimate reality, this would simply be yet another (subjective) experience of the appearances of a particular phenomenon and not the ultimate (objective) reality modern science seeks after. All of science—as all of life—is based upon our existential experience of being-in-the-world. Science can never get beyond or behind the conscious human experience of our perception of phenomenal appearances. Even today, with the standard model of particle physics, any ultimate (objective) *reality* remains hidden to modern scientific view, because (subjective) observations always play a role in constituting what, for us, is considered reality. At the subatomic level, deter-

¹⁰¹ Dermot Moran, *Introduction to Phenomenology*, (London: Routledge, 2000, 2004) p. 266

mining the absolute objective reality of quantum phenomena is impossible, because there is always a measure of subjectivity involved in any attempt at determining it.

The standard model is only a model; it is not a true picture of what an atom (or a quark) is in reality. The scientists are relating to us their indirect perceptions of the appearances of extremely minute phenomena, but these scientific perceptions are perceptions of the appearances of phenomena regardless of however minute the particular phenomena in question might happen to be. We can never get beyond or behind the synergic objective/subjective matrix that is our human experience of existing (*being*) in-the-world. And it is to this interactive field of conscious human experience, our lived-experience of being-in-the-world, that we turn next.

The Life-World and the Bible

The life-world is a field of interaction which exists between the objective phenomena of the world and the conscious perception of those phenomena by the observing subject. The founder of phenomenology, Edmund Husserl, described this field of interaction as, “the universal framework of human endeavor—including our scientific endeavors. It is the ultimate horizon of all human achievement. As conscious beings we always inhabit the life-world, it is pre-given in advance and experienced as a unity.”¹⁰²

Our experience is of the world and the world exists for us as-we-find-it; both we ourselves (as conscious subjects) and the (objective phenomenal) world are pre-given. The world of phenomena presents itself to us and we experience phenomena as-they-appear to us *prior* to any and all cultural, religious, philosophical, or scientific interpretations of that world.

The Bible imposes a framework of interpretation upon the world of experience and the source of this biblical framework is, ultimately, our Creator; who, through the Bible, revealed to humankind a knowledge of himself that goes beyond the world of natural phenomena (i.e., a supernatural knowledge). The Bible doesn’t give second place to the natural world; the Bible presents the natural world as the revelation of our Creator to us through the world as-it-appears to us. And, in addition to the natural world, the Bible also presents us with a world of

¹⁰² Quoted in, Dermot Moran, *Introduction to Phenomenology*, p. 182

supernatural phenomena which exists beyond our normal perceptual abilities.

The Bible presents God to us as an immaterial being; God is a *spirit* being: "God is spirit, and those who worship him must worship in spirit and truth." (John 4:24). Angels are also presented in the Bible as non-material spirit beings: "But to what angel has he ever said, 'Sit at my right hand, till I make thy enemies a stool for thy feet'? Are they not all ministering spirits sent forth to serve, for the sake of those who are to obtain salvation?" (Hebrews 1:13-14).

The Bible presents both God and angels to us as really existing beings, even though they exist beyond our normal perceptual abilities. In the Bible, we find many instances in which both God and angels interact with humankind; an interaction only made possible by our Creator's granting (to certain people at certain times) the perceptual awareness of a world which exists beyond the world we can normally perceive. Our Creator revealed this supernatural world to us in order to direct and to guide humankind by a (special) revelation greater than his natural revelation of himself (i.e., a *supernatural* revelation), which gives us knowledge of our Creator we could never attain solely through natural means (i.e., through creation and human reason).

A theology of appearances must account for the appearances of the many supernatural phenomena (e.g., God, angels, dreams, and visions) presented to us in the Bible. Although beyond the normal range of our perceptual abilities, these supernatural phenomena have been experienced (according to the Bible) by certain people when they are enabled to do so by God. The Bible presupposes the reality of such supernatural revelations and relies upon them as (particular) sources of the (general) special revelation of God (i.e., the knowledge of God humankind could not have attained through human reason and natural revelation). People take *on faith* the reality of the (supernatural) existence of God, angels, dreams, visions, miracles, and revelation. Such supernatural realities cannot be proven by reason (although they are not *unreasonable*), but must be believed by faith (even though these supernatural realities cannot be personally and directly perceived). This is somewhat similar to the modern scientific assertions of the realities of atoms, quarks, evolution, time dilations, and dark matter/energy; none of which can be personally and directly perceived. It's important for us to realize that both modern science and the Bible assert the existences of invisible realities that are beyond our (limited) human abilities to perceive.

In the Bible, the interaction between humankind and the supernatural is not predominant; for the most part, the Bible presents the world to us exactly the way in which we normally perceive and experience the world to be. The Bible is generally written as historical narrative, and the perspective of this narrative can be considered phenomenological, because the Bible presents the world to us as the world appears to us. The world of the Bible is the same world we are familiar with: a world filled with mountains, trees, people, animals, rain, clouds, stars, etc. In short, the Bible presents the world to us just as we perceive and experience the world to be. The Bible presents the world to us in a conscious, human, sense-perceived way (as opposed to a scientific way of presentation) because this is the way in which we perceive the world. It's not that the prescientific peoples of biblical times would have been unable to understand a modern scientific presentation of the world (although they wouldn't have been able to do so); it's that the scientific presentation of the world is *not* the world as-we-perceive-it to be.

A theology of appearances must also account for the supernatural knowledge of phenomena that comes to us only through divine revelation. As we saw above (in Chapter Two) the Bible presents Sheol—the unseen and unobservable underworld of the spirits of the dead—as existing in the heart of the earth. This, for most modern people, is beyond belief: can we really be expected to believe that the spirits of the dead go to *a physical place* within the earth? Modern science tells us that the center of the earth is “thought to consist mostly of iron with some amount of nickel, is extremely dense (3 million atmospheres) and extremely hot (7,000—9,000 degrees Fahrenheit)—nearly as hot as the Sun’s surface”¹⁰³ and modern people do not think it possible that this physical place could be an underworld abode of departed spirits.

But let's think about this for a moment, does modern science *know* the earth's core is an 8,000 degree molten mass of iron and nickel? Modern science doesn't *know* this, because no one has ever been to the core of the earth to determine exactly what it is made of and to measure its temperature. Modern science makes a determination of what the core consists of based upon what it knows of the world that it is able to observe and measure (mass, density, gravity, pressure, heat); science describes the nature of the *unobservable* core based upon

¹⁰³ *The New York Public Library Science Desk Reference*, (New York: Stonesong Press, 1995) p. 377

these *observations*. It should be no surprise to us that modern science is unable to confirm or deny the existence of the invisible spirits of the dead residing within the heart of the earth, because this is beyond the abilities of science, as knowledge of the natural—and not the supernatural—world. Neither should it surprise us that the Bible *does* proclaim the existence of these departed spirits residing within the heart of the earth. God, unlike scientists, *can* know this; and he can also reveal (to us) this (supernatural) truth.

There is no life-world—no field of interaction—between conscious observing subjects and phenomena that cannot be perceived (in this case Sheol). Yet the Bible does assert the real existence of these (normally) unexperienced phenomena, and they are no more or no less dependent upon our perception of them in order for them to be said to exist than are the objective phenomena that we do perceive. Ultimately, the only dependence any created thing has—in order for it to be said to have a real existence—is its dependence upon the Creator, and it is this dependence for existence upon the Creator that gives rise to philosophical/theological speculation about *being*. God is the ultimate being, and all other things (beings) exist because they (ultimately) derive their being (existence) from him: “As it is written, ‘I have made you the father of many nations’— in the presence of the God in whom he [Abraham] believed, who gives life to the dead and *calls into existence the things that do not exist*” (Romans 4:17, emphasis added).

Modern science considers nonexistent anything that it cannot explain (i.e., quantify) and this includes (especially) the supernatural as well as those phenomena which are considered paranormal (e.g., extra sensory perception, ghosts, teleportation, visions, levitation, etc.). This dismissal (as nonexistent) by modern science of things which it cannot explain gives modern science a very one-sided (rationalist) view of the world, and yet the world is not one sided, the world is not always rational—especially the people (even the scientists) who are in-the-world.

How, for example, are we to explain the dream world? When we dream, there is a field of interaction between the observable phenomena and the conscious subject, but the (subjective) dream world is not the (objective) real world. Yet the dream world is a vibrant world that certainly does exist; it exists in such a way that it is *virtually* real. The scientific community has no agreed upon explanation for the phenomenon of dreams, but science cannot dismiss the existence of dreams because the dream world is a universally experienced *reality*

of our conscious human existence in-the-world. How does one begin to quantify a dream? Dreams cannot be examined under a microscope, and (reductionist) scientific theories of brain chemistry and electrical activity simply are not adequate explanations for this phenomenon, which is (subjectively) visible to the dreamer but (objectively) invisible to others.

Many people believe in God, and many people also experience God's presence in their lives; modern science, however, can neither prove nor disprove the reality of these subjective beliefs and experiences. Modern science can cast doubt and dispersion upon them; modern science can marshal a multitude of scientific facts and theories in an attempt to explain away these beliefs and experiences; but modern science cannot disprove them. Science, as the particular discipline of knowledge that it is, is unable to do so because this is beyond its abilities as a *natural* philosophy.

The biblical view of the world is not a presuppositionless view of the world, and neither is any other view of the world: all worldviews have presuppositions; there is no neutrality. The Bible asserts the existence of God, angels, demons, immortal souls, and miracles—the existence of which cannot be proven by modern science. The Bible presents the world to us in the same way we experience the world (as-it-appears) and along with this presentation comes the interpretive meaning of the world we experience.

In order for us to be better able to understand the world we must know what worldview we hold, identify what presuppositions are entailed in our worldview, and recognize how our worldview affects our thinking about the world and our perception of the world. Do we perceive the world scientifically, religiously, philosophically? Do we view the world according to some other interpretive framework (e.g., economically, politically, or environmentally)? It's important for us to recognize that all of us make sense of the world by way of some sort of conceptual scheme (worldview) that makes the world more comprehensible to us. If the modern scientific view of the world made little-or-no sense, then no one would bother viewing the world through the lens of modern science. Likewise, if the biblical view of the world made little-or-no sense, then no one would bother viewing the world through the lens of the Bible either. Both views help us to make sense of the world by organizing the many facts and phenomena of the world into some sort of over-all picture that describes the world as a unified *whole* (i.e., *cosmos*). Yet these two particular views are very different—

they present us with two very different pictures of the world—and both views, seemingly, cannot be true.

This is where the philosophy of phenomenology can help us, especially its concept of the life-world. The one thing we all have in common—no matter what our view of the world may be, and no matter how strongly we may hold to our view—is the world in which we find ourselves existing. What does this world *look* like to us? What does this world *smell* like? What does it *taste* like? What does it *sound* like? What does this world *feel* like? What is our *living-experience* of the world?

Two people can observe the same phenomenon and have two very different explanations for what the phenomenon is. Both people consciously observe and experience the same phenomenon, but each has learned how to interpret the phenomenon according to whatever conceptual framework of the world they think best explains the phenomenon. The concept of the life-world reminds us that, before we can begin to *think* about the world, we must first *experience* the world as-it-appears to our conscious lived-experience of being-in-the-world.

The life-world, the field of interaction between the objective phenomena of the world and the conscious perception of the world of phenomena as experienced by perceiving subjects, is an important place to begin our philosophical investigations. This meeting place of objective phenomena with subjective consciousness gives rise to our experience of the world, and our experience of the world is the only place where we will discover a solid foundation upon which to construct a *theory of being* (or an *ontology*).

Theologically, God—existing eternally as one God in the three Persons of the Trinity—is our ontological starting point. Before the world existed and before anything was created: *God is*. He has always been, he is, and he will always be. By eternally perceiving (subjectively) his own (objective) being, God *is* the ultimate being: God exists (eternally) both objectively and subjectively. Humankind is created in God's own image and likeness, and we perceive and experience our own (objective/subjective) existence (being) in the world he has created. We live, we move, we exist¹⁰⁴ in-the-world as embodied conscious beings, continually experiencing the dynamic synthesis of the objective world with our subjective consciousnesses. We are always-and-everywhere alive in-the-world.

¹⁰⁴ "[F]or 'In him we live and move and have our being'; as even some of your poets have said, 'For we are indeed his offspring.'" (Acts 17:28)

Although the Bible makes very little use of the philosophical term *being* the Bible does deal with *the concept* of being: *existence*. The world, and everything within it, exists because God created it. Not only did God create the world (cause the world to exist) but he also—through his Son—continually upholds and sustains the existence of the world:

“He [Christ] is the image of the invisible God, the first-born of all creation; for in him all things were created, in heaven and on earth, visible and invisible, whether thrones or dominions or principalities or authorities—all things were created through him and for him. He is before all things, and in him all things *hold together*” (Colossians 1:15-17, emphasis added)¹⁰⁵

All things *are*—they *exist*—therefore all *things* have *being*. Whatever exists can be said to have being, and both the world and the Bible attest to the existence (or being) of our Creator God. God exists both objectively (*he is*) and subjectively (*he perceives*); likewise, we too exist both objectively (*we are*) and subjectively (*we perceive*). The phenomena of the world exist (*they are*) and they are perceived by all creatures with the ability to consciously perceive the world. Objective things in-the-world exist—they *are*—and our conscious subjective perception of the objective world exists—it *is*—therefore it, too, has being. Objective being (i.e., objective *things*) and subjective being (i.e., subjective *perception*) *are* and they exist together *in synergy* in-the-world. A thing can be inanimate and unable to perceive the world, or a thing can be animate and able to perceive the world. Only living beings have the ability to consciously perceive the world; non-living things have no perception of their existence, or of the existence of the world, and yet these things do exist (i.e., they have being).

God created our world as a world to be perceived by conscious beings. The world now exists, and has always existed, as a unity of objectivity and subjectivity. Ever since the creation of the world God has perceived the world, and he created conscious beings able to perceive the world. Neither our subjective perception of the world nor God’s subjective perception of the world grants existence (or being) to the

¹⁰⁵ The Greek word here (at the end of verse 17) translated as “hold together” is the word: συνεστηκεν, meaning: to “continue, endure, exist, hold together” (Bauer, Arndt, and Gingrich, *A Greek-English Lexicon of the New Testament*, (Chicago: University of Chicago Press, 1958, 1979).

objective phenomena of the world; objective phenomena *are*, but they only *exist* to be perceived as such. Ontologically speaking, all objective phenomena can be said to exist apart from subjective perception, and subjective perception can likewise be said to exist apart from objective phenomena; neither can be said to grant existence to the other. And yet we can also say that objective phenomena and subjective perception do grant existence to one another, because the world exists as a synergic objective/subjective phenomenal matrix of experience. And it is this dynamic existential experience which can be thought of as pure existence, pure being, or being *itself*: we *are*, we *exist*, and we *perceive* our existence in a world that *is*.

Our perception of our existence in-the-world is the basis for our thinking about the world. We can think philosophically about the world, we can think theologically about the world, and we can gain scientific knowledge of the world, but we must ultimately base our thinking and our knowledge of the world upon our experience of being-in-the-world. Both our world and our experience of being-in-the-world are prior to any conceptualizations about the world we experience. What we are seeking to do here, by thinking phenomenologically, is to experience the world as-it-presents-itself to us and to recognize how this world of experience exists prior to our intellectual conceptualizations about the world we experience (including the intellectual categories of objective and subjective). All of our thinking about the world presupposes both *the world* of phenomena and *our experience* of being-in-the-world. Whatever knowledge we gain from philosophy, from theology, or from science is gained through our lived-experience of being-in-the-world; ultimately we can never get beyond, beneath, or behind our experience of the world.

We can think rationally about the world and we can think rationally about God, in attempting to better understand and make sense of our existential lived-experience of being-in-the-world, but we can never fully comprehend the mystery that is: *the world*. We are misguided when we imagine that we can actually think the thoughts of the Creator of the world (i.e., to understand the world as he does) or when we imagine that, by simply discovering and cataloguing every fact about the world, we can have the mind of God himself.

Both theology and science could benefit by returning to our conscious human experience of being-in-the-world: to experience the world as-it-appears to us before we begin constructing our intellectual conceptualizations about the world. Much of theology and science has delved off into the realms of intellectual-play theorizations about God

and about the world, but, in so doing, offer us virtually no help in our quest to better understand and make sense of our lived-experience of the world. By returning to the beginning of our experience, to the basis of our existence, and to the world as-it-appears to us we will discover that the world in which we live is a world that is meant to be *lived-in* and *experienced* more than it is a world in need of *an explanation*.

Explanations of the world and explanations of God are the provinces of science and theology respectively. We, as rational human beings, will inevitably think about our world and think about God, but we should not neglect (in the process) our experience of living-in-the-world. Rather, we should allow our experience of the world to influence our thinking about the world and not allow our thinking about the world to influence our experience of the world. We can only know, or define as existing, that which we can perceive and experience (whether directly or indirectly) and even science (scientific knowledge) is dependent upon subjective human experience. Yet modern science attempts to discover that which exists behind the appearances of the phenomena we experience and reveal to us the (supposedly) true, ultimate, hidden reality which underlies this experience, as if this were the objective reality that gives rise to our illusory subjective experiences. Subjective experience, however, is quite real and is the basis upon which all scientific reasoning about the world ultimately rests.

Theology is dependent upon special (supernatural) revelation, and theologians attempt to understand and explain that which is beyond our natural human experience of being-in-the-world: the Creator of the world. Both science and theology (as forms of human knowledge) are incapable of giving us a total and complete explanation, of either the world or of God. Our desire to seek to better understand both our world and our Creator is a desire given to us by God: our ability to reason. Reason we must, but we should recognize that our human reasoning can only take us so far; we should not attempt to reach beyond what we are able to grasp hold of intellectually. Whenever we attempt to do so, we run the risk of distorting what little we actually *do* know about God (and the world) and run the risk of thinking of ourselves as knowing more than—or knowing better than—the Creator himself.

Nothing can be said to exist if we have no experience of its existence, or if something is unimaginable to us. How could it? Even a scientific explanation of ultimate reality must be an explanation of an experienced reality of some sort because it must, in some way, be perceptible to us (whether directly or indirectly). This is the way the

world is, the way we are, and the way we are created to be: to live-in and experience the world. For all practical purposes, our way of being, of existing, allows us to live our lives in-the-world. And it is the way we choose to live our lives in-the-world which is (ultimately) of most importance to us, to others, to the world, and to our Creator. Theological and scientific abstractions cannot help us to become better persons, better neighbors, better stewards of the earth, or to develop a better relationship with our Creator. In fact, intellectual abstractions can (and often do) lead us away from such betterment of ourselves, plunging us into the abyss of a self-centered existence.

The biblical presentation of the world is one of a world that we can easily recognize, because the most important aspect of the world to us is *living* in-the-world. Modern science may tell us that reality is simply objective matter/energy in motion, it may tell us that what appears (to us) to be solid is, in fact, not solid at all; but what about our perception of the world? Does the world not appear (to us) to be made up of definite forms which are solid (i.e., whole forms)? Is the true reality of the world that which appears to us? Or is it the unperceived causes of those appearances? Since the world in which we find ourselves presents itself to us as-it-appears to us, then appearances should, I think, be understood as true *reality*.

Consider what would happen if modern science discovered a four digit code underlying all observable phenomena in the world; a code not unlike the four digit code science has discovered underlying all of life (DNA). What would the true reality of the phenomena of the world be: the code or the phenomena? When computer programmers create a virtual world within a software program, the code used by the programmers is the information needed in order to build the virtual world the programmers want to create. The virtual world is the goal and the purpose for the existence of the code. The code *underlies* this virtual world and, if we lift the veil of appearances from this virtual world, what we discover is not the reality of the virtual world, but the informational tool devised in order to create the reality of the virtual world as-it-appears. We would immediately realize that the virtual world as-it-appeared was the purpose of the encoded information, and that the existence of the virtual world was the reality that was intended by the programmers to be perceived by those using the software. The code itself *is* real—it *exists*—but it is simply *the hidden tool* used in the construction of *the world* the programmers wanted to create.

It is the world as-it-appears that is the reality of this virtual world; this is the world that is intended to be perceived. The code be-

hind the phenomena of this virtual world is not an ultimate reality; the code is not more real than are the phenomena that appear in this virtual world. If anything could be considered to have a “superior reality” it would most likely be the phenomenal forms produced by the code, because the formation of these phenomena was the very purpose for the code to begin with. Our Creator made the world to be perceived as-it appears to us and he intended for us to live our lives according to this perceived reality. Modern science could discover a hidden reality—a code underlying all phenomena in the world—but this would not be an ultimate reality, the discovery of such a code would simply be the discovery of the informational tool used to create the phenomena of the world (the purpose of the code being for the phenomena of the world to appear to us as they do).

Even if such a DNA type code underlying phenomena were to be discovered, it is very unlikely humankind could ever gain the knowledge necessary to completely understand such a code; let alone the *wisdom* necessary in order to use such an incredible knowledge of the world. A frightening thought, when we consider that modern science would, no doubt, attempt to reprogram the world into whatever the scientists believed would be a better world (scientific research and development in genetic engineering and chemical, biological, and nuclear weaponry certainly comes to mind here).

For those of us living in the modern era, the biblical view of the world seems like an outdated perspective of the world. Modern science and modern sensibilities have overthrown much (if not all) of the old religious truths, which were easily accepted during prescientific times. For example, the biblical account of the creation of the world is not taken literally by many (most?) people today, and it hasn’t been for quite some time. Many theologians eagerly accepted Darwinian evolution as scientific fact (in the late nineteenth and early twentieth century) and adjusted their biblical/theological interpretations of the Genesis creation account to fit with evolution, because they saw the modern scientific theory as having greater explanatory power than did the Bible when it came to describing the world.

These theologians thought it necessary to adjust their biblical/theological interpretations and descriptions of both God and the world, deferring to the (new) reigning authority of modern science. They believed that modern, intelligent, educated people could no longer adhere to the premodern, prescientific, biblical, theological understanding of the world and God. I believe this was the intellectual motivation behind the Protestant Reformation of the sixteenth century: the

Reformers recognized the need to update the prescientific (=erroneous) Catholic theology in order to salvage both the Christian faith and its Bible—to make them more palatable to modern, educated, intellectual, scientifically minded people.

But if the Bible is to be believed at all then its text should be accepted as-it-presents-itself to us. The Bible's narrative account of the history of salvation—culminating with the life, death, burial, and resurrection of God's Son, Jesus Christ, is what it is, and the biblical text is either relevant *as it is written* or it is not. All adjustments, reinterpretations, and updated re-presentations of its text (e.g., higher criticisms, source theories) are simply the misguided efforts of modern, scientifically minded critics who have succeed only in missing the entire point of the text itself. The stories we find in the text of the Bible should be taken as-they-present-themselves to us: as stories based upon historical events.

It doesn't matter if these stories are thought to be accurate in the modern (or pre-modern, Greek, philosophical) sense of the term; these stories are true and accurate for us in the same sense as they were written to us: as being true and accurate historical accounts of peoples and events, according to how such historical accounts were presented to peoples who lived in the Middle Eastern world during the times in which these stories were written. The Bible's narratives are not mythological in the sense of their being fictional, but in the sense of their being stories rather than the (supposedly) dispassionate, rational, and objective accounts of history those of us in the modern West have grown accustomed to considering factual histories. The narratives of the Bible are much like our own experiences in life: we relate to others what we have seen and what we have heard as accurately and as best we can, knowing that a flawless, neutral account of history is never possible. The *content* of the information passed on to us is more important than the *means* through which the information is passed.

The gospel accounts of the life and ministry of Christ are given to us in the form of eyewitness accounts (i.e., Matthew and John) and second hand accounts derived from eyewitness testimony (i.e., Mark and Luke) and are presented to us in the form of accurate historical narratives. These narrative presentations of the life and ministry of Christ are presented to us (and should be read by us) as if we ourselves were present when these events occurred; as these recorded events would have appeared to us had we actually been present and observed them personally. And this is as good as it gets: the Christian faith is based upon historical narratives that can either be accepted as

true (or true enough) accounts of the reality of the life and ministry of Christ, or they can be rejected as being false and unreliable accounts. But, whether we choose to believe in Christ or not, our belief or disbelief will be based upon these written gospel accounts.

If the gospels are true accounts of what really happened in Palestine over 2,000 years ago, then it is interesting to speculate upon why God the Father would have chosen such a prescientific time in which to send his only begotten Son into the world. The world, at that time, was much like the world as it had always been. For example, no one had ever traveled faster than a horse until the development of the modern railroad during the nineteenth century. Why would God send his Son into such a primitive prescientific era? God certainly knew of (and determined) the rise of modern scientific knowledge, just as he also knew the modern era would be imbued with a naturalistic and materialistic philosophy contrary—even hostile—to the supernatural revelation he had given us. How would our Creator have us to make sense of his revelation to us today?

This presents us with our central question: *How are we to make sense of the Bible in the context of the modern world?* In our modern world, the Bible is a text out of context if there ever was one. This has been the challenge for modern theology ever since modern science began to displace faith in the biblical/theological view of the world. What we appear to be faced with today is a choice between only two theological positions: 1) we can capitulate to the modern scientific view of the world and adjust our theology accordingly; or 2) we can maintain the biblical view of the world despite the challenges posed by the modern scientific view of the world.

We do, however, have another option: we can come up with better explanations of the world that remain true to theology, the Bible, and modern science. We should recognize that both science and theology give us knowledge of the world, but that neither—working together or alone—is able to present us with a complete and total explanation of the mystery that is: *the world*. These two fields of human knowledge are to remain expert in their respective fields, complimenting rather than contradicting one another. Each must be always pressing forward toward a better, more complete, understanding of the world; each should be allowed to correct and guide the other whenever the two disagree. Each must be willing to understand the other's point of view and recognize the other's area of expertise as necessary to their common pursuit of gaining true knowledge of the world.

Science should not surrender its most basic epistemological and methodological premise: that the causes of natural phenomena are only explicable by positing natural causes. There is nothing wrong or inappropriate with this most basic approach to the study of natural phenomena by modern science. Problems only arise when modern science oversteps this epistemological and methodological premise by setting about to create a naturalistic metaphysic, which goes beyond what the physical sciences can *know* about the world, speculating upon the natural origins of the universe and rejecting outright the possibility that anything could exist beyond nature.

Likewise, theology cannot surrender its most basic assumption: God has revealed knowledge of himself and the world that human reason alone cannot attain. Problems arise only when theology attempts to dismiss clear scientific knowledge of the world because it does not fit, or does not seem to fit, with this revelation. If and when this does occur, theologians should acknowledge the truths about the world modern science has discovered, and they should seek a clearer understanding of the Bible in order to better understand the world without giving up their core biblical and theological truths. True knowledge of the world will not contradict either good science or good theology.

We've already seen a few examples of the differences between the modern scientific view of the world and theological/biblical view of the world, and I have attempted to show how these different understandings of the world might be resolved by perceiving the world in such a way (i.e., phenomenologically) that both good science and good theology can lead us to true knowledge and a better understanding of the world. Before moving to the next chapter, let's look at an example of the Bible's presentation of the life-world, taken from the life and ministry of Christ, which will demonstrate the type of conflict that can arise between modern science, theology, and the Bible. In the Gospel of St. Luke (4:40-41) we read:

"Now when the sun was setting, all those who had any that were sick with various diseases brought them to him; and he laid his hands on every one of them and healed them. And demons also came out of many, crying, "You are the Son of God!" But he rebuked them, and would not allow them to speak, because they knew that he was the Christ."

In this one, very brief, passage of scripture—a passage relating only one evening in the three year ministry of Christ—we are presented with a serious conflict between modern science and the biblical revelation upon which all of Christian theology is based. The writer of this gospel account (St. Luke) relates this event to us (the readers) as he understood this event to have occurred (Luke was *not* an eyewitness) as a historical event well attested to by many. This writer's account of this event was and is—even in the modern sense—a historically accurate record of past events (see: Luke 1:1-4). This written account of Christ's having healed the sick and cast out demons on this one evening in Palestine (over 2,000 years ago) presents itself to us as a real event that, had we been present, we could have observed for ourselves. As we read the text of the gospel (as it is written) we find ourselves (virtually) in Palestine, on this one particular evening, watching, listening, perceiving, and experiencing the phenomenal world as Christ heals and delivers the multitudes of people brought to him.

There is conflict between modern scientific knowledge and the biblical revelation throughout this entire passage. Even the gospel writer's simple statement that these historical events occurred "when the sun was setting" could be interpreted as being scientifically incorrect. This could easily be dismissed as the gospel writer's use of a figure of speech (we, today, still say the sun rises and sets, even though we know it is the earth that is moving). However, as we have already seen, the Bible makes it quite clear that the motion of the sun is to be taken literally: the sun *appears* to move; therefore the sun *does* move.

Theologians, after the Copernican Revolution had taken hold, were well aware of this biblical sun-motion problem, and they did their very best to defend the biblical truth concerning the motion of the sun. Over time, however, the theologians conceded defeat and adjusted their theologies accordingly. The sun's motion could no longer be taken literally, since modern science had proven the Bible's statements concerning the sun's motion to be false. And yet, as we've seen, both the scientific and the biblical truths about the appearance of the sun's motion can be reconciled when viewed phenomenologically: our perception of the motion of the sun is just as true-for-us as is the modern scientific truth that the earth's motion causes us to perceive the sun's (apparent) motion. Phenomenologically, both are true-for-us depending upon our perspective and neither perspective can claim to be giving us the only true account of this phenomenon.

Following the brief mention made of the time of day when this particular event occurred, we read that “all those who had any that were sick with various diseases brought them to him; and he laid his hands on every one of them and healed them.” This, to the modern mind, is a most fantastic claim to make. The writer is stating here—as historical fact—that Jesus of Nazareth healed every diseased person who was brought to him on this one particular evening in Palestine over 2,000 years ago. This healing event must have taken hours to accomplish; most probably all night, since the text tells us that Christ did not depart until the next morning (see 4:42). This miraculous healing of a multitude of people is contrary to the modern scientific understanding of sickness, disease, and health. According to modern science, this event could not have occurred. But did it occur? Could it have occurred? And how, really, could we ever *know*?

From this point in the story on, things, for the modern mind, only get worse. According to the text, not only did Christ heal a multitude of people sick with various diseases, but “demons also came out of many, crying, ‘You are the Son of God!’” What are we, the intelligent, educated, modern, thinking people that we are, supposed to make of this? Are we expected to believe this event—the casting out of demons?!—actually occurred? Please, my modern sensibilities are being offended. *This* is taking things way too far. But again, how could we *know* this event didn’t actually occur? What *theory of knowledge* would we use in order to know? The scientific epistemology would be of no use to us here because, by this point, this event has clearly become a *supernatural* phenomenon and (by definition) only *natural* phenomena can be accounted for by the scientific epistemology.

This is only one example of the miraculous taken from only one of the four gospel accounts of the life and ministry of Christ; there are many more. What are we to make of them? Should they be dismissed as prescientific nonsense? Should we (as many theologians have already done) hold fast to the scientific epistemology, believing these (supposed) miracles have rational (i.e., modern scientific) explanations? Obviously, to someone who bases their thinking upon scientific facts fitted into a modern scientific conceptual scheme, none of the miraculous events described in the gospels could have occurred. This would include, especially, the resurrection of Christ from the dead; and yet belief in the risen Christ is central to the Christian faith. Without faith in the risen Christ, we are, as St. Paul tells us, “of all [people] most to be pitied” (1 Corinthians 15:19); “If Christ has not been raised, [our] faith is futile and [we] are still in [our] sins” (1 Corinthians 15:17).

There is no Christian faith apart from the miraculous and the supernatural, no matter how fantastic or unbelievable these phenomena may be to our modern minds.

Historical phenomena do not need to be directly observed—experienced—by us in order to be believed; all of us must, at some point, accept some accounting of past events (whether written or oral) that we consider valid (or valid enough) accounts of human history. The supernatural phenomena recorded in the gospels are today considered by many intelligent and educated people to be valid historical accounts of the ancient past. All of us rely upon witnesses or upon the testimony of witnesses (those who observed and experienced past events) in order to know (as well as humanly possible) what has occurred in time and in-the-world. No legitimate reasons can be given for why the gospels should not be accepted as valid historical records; the gospels are just as valid—even more so—than are any other written accounts of ancient history.

The historical narrative presented to us in the Bible, especially the New Testament, is the basis of the Christian faith. The gospels are historical records of the experiences of persons alive during the time of the life and ministry of Christ and all Christians should hold them in highest regard, since they contain for us the teaching and example of our Lord and Savior Jesus Christ. Christ himself prayed especially for those who would believe in him on the word (i.e., testimony) of his disciples, because it was not possible for everyone to personally see his miracles and hear his teachings: “I do not pray for these [disciples] only, but also for those who believe in me through their word, that they may all be one; even as thou, Father, art in me, and I in thee, that they also may be in us, so that the world may believe that thou hast sent me” (John 17:20-21).

How else could “the world” ever believe in Christ except for the disciple’s communication of these events to those of us who are unable otherwise to know that they had occurred? These events were, after all, events that occurred only during this one particular time and in this one particular place; they were observable to only a relatively small group of people who happened to be alive in that place during that time. Our faith as believers in Christ is ultimately based upon *the word* of those whose lived-experience was with Christ during his lifetime in the places where he ministered. These disciples *experienced* the supernatural phenomena that we, today, can only read about in the gospels. Though inexplicable by reason and science, such supernatural events and experiences are not irrational. It is quite rational for us to

believe in God, because of the very existence of the natural world itself; and is it not just as rational for us to believe that the God who created the world could also (as the Son, the image of the invisible God) heal the sick, open the eyes of the blind, and raise the dead in order to demonstrate his love, compassion, power, and authority? Christ himself, teaching at synagogue, interpreted the words of the Old Testament prophet Isaiah as being fulfilled through his ministry:

“And he came to Nazareth, where he had been brought up; and he went to the synagogue, as his custom was, on the sabbath day. And he stood up to read; and there was given to him the book of the prophet Isaiah. He opened the book and found the place where it was written, ‘The Spirit of the Lord is upon me, because he has anointed me to preach good news to the poor. He has sent me to proclaim release to the captives and recovering of sight to the blind, to set at liberty those who are oppressed, to proclaim the acceptable year of the Lord.’ And he closed the book, and gave it back to the attendant, and sat down; and the eyes of all in the synagogue were fixed on him. And he began to say to them, ‘Today this scripture has been fulfilled in your hearing’” (Luke 4:16-21).

The people who lived in-the-world with Christ experienced him and his ministry by way of the interaction of their (subjective) consciously lived-experience with the (objective) phenomena they perceived, and they have handed on to us what they themselves had once experienced. As we read the gospels, we enter into the world they experienced; we are enabled, through our reading of the gospel texts, to make the historical accounts of their conscious human experience of these phenomena our own. All historical accounts—whether ancient, medieval, modern, or contemporary—are based upon the experiences of those people alive at the time who have related these past events to us in a reliable manner. And all of us must inevitably place our trust in someone’s account of the past events that we are unable to perceive for ourselves.

Modern science, which consists of very specialized knowledge, likewise presents to those of us who are not scientists (and to those scientists working within their own particular specialties) knowledge of experienced phenomena that we personally can have no direct (or

indirect) experience of. We have not seen a quark, or a black hole, or the slow transition from simple to complex life, or the earth orbiting the sun, but we don't hesitate to believe that modern science is giving us accurate and true information about our world and about its history. None of us has personal experience of every phenomenon that exists, or that has ever existed; we only have personal experiences with the world of phenomena as-we-perceive-it in our own individual, embodied, conscious lived-experience. The history of the world, of the church, and of modern science is a collective history of the human community; a knowledge attained and achieved by humankind *as a whole*, because no one person is able to know and personally experience all that we as a human community have learned and experienced throughout history.

We have communities of knowledge and experience: scientific, theological, historical, philosophical, literary, mechanical, architectural, musical, etc... with each community contributing their own part to the whole of human knowledge and understanding of the world. No *one* community has knowledge and experience of *all* fields of human endeavor; communities of human knowledge and experience share their particular knowledge and experience with the broader human community. They share the knowledge and experience they have acquired so that humankind *as a whole* can benefit from it, creating a communal knowledge and experience of the world, which none of us could ever attain on our own.

Ultimately, even modern science—like the Bible—presents us with a world of phenomena experienced (whether directly or indirectly) by someone other than ourselves; someone whose experiences and whose historical accounts of such experiences we must rely upon in order to gain knowledge of our world. Do we believe the gospel accounts of Christ's having healed the sick and cast out demons? Do we believe the accounts of the particle physicists who claim to have discovered the quantum uncertainty principle and the quark? Why or why not?

In the next chapter, we will be looking more closely at the Bible's presentation of the world which comes from the human perspective. As we've already seen, the Bible presents the world to us in the same way that we perceive the world: as-it-appears to us. It is the world of appearances and the existential human experience of living in-the-world that the Bible is proclaiming to us as the world of reality. Not that the unobservable is not real—such things certainly *can* be real—but that what *is* observable to us is what is most important to us and

what is most important to our Creator. Especially when it comes to how we live our lives in the very real world in which we find ourselves.

Modern science, theology, and philosophy often journey into abstractions that have no correspondence to the concrete world of everyday life. But Christ did not come into the world preaching and teaching intellectual-play abstractions to a learned few; rather, his message was for everyone. And his message was simple: Follow me, repent and believe the gospel; turn from selfishness and serve others, love God and love your neighbors as you would yourself. As we will see, love of God and love of others is the key that unlocks the mysteries of living-in-the-world. And this love is no intellectual abstraction; it is the very concrete reality of human life lived in-community and in-the-world.

Chapter Five

The Bible's Human Perspective

Introduction

In this chapter, we will be examining the human perspective from which the Bible is written. Not that the Bible, having been written by human authors, is necessarily written from a human perspective, but that our Creator—having revealed himself through both the created world and the Bible—has granted preeminence to the human perspective of the world: the world as-it-appears to us. The Bible presents the world to us in the same manner as we experience the world: from the human perspective. The biblical presentation of life lived in-the-world and in-community with others is a presentation of the world as-we-find-it and as-we-experience-it. This is the pre-given world in which we live; the world that exists before we can begin reasoning about it and before we begin constructing the conceptual schemes (worldviews) by which we will attempt to make sense of it. This is the world as-we-experience-it, a world full of countless, wonderful, and amazing phenomena. Our world is a world of reason and rationality, yet it is also a world of powerful emotions which often defy reason: love and hatred, joy and sorrow, generosity and greed, compassion and cruelty.

As we have seen, modern science strives to see the world from an objective and dispassionate perspective, which results in modern science having a reductionist view of the world. But the world is far too complex to be reduced to a collection of facts about the world—even a vast collection of facts—and this is why modern science must inevitably adopt some sort of metaphysical view of the world: some narrative, some myth, must be utilized in order to fit the facts into a greater story (a metanarrative) which can provide us with greater overall meaning for *the world* as a cosmic, unified whole. Human life,

for example, is far too complex to be reduced to a scientific explanation. Emotions are a very important piece of who we, as human persons, are; modern science, however, has difficulty adequately addressing the question of human emotions, because emotions are not objective *facts*, they are subjective *experiences*.

Our emotional experiences, which are a part of our conscious human experience of being-in-the-world as a mind/body unity, are very complex and powerful phenomena. The emotions we experience throughout our lives defy modern scientific explanation (except for the typical reductionistic/materialistic “brain chemistry” explanation), yet the Bible presents these emotions as a very important piece of who we are as human persons. Our Creator made us in his own image and likeness (Genesis 1:26) and this makes us much more than simply rational animals: we are human *persons* having both intellect and emotion, just as our Creator has. Reason and feeling, intellect and emotion, are necessary for us to live-in and experience our world, ourselves, our friends, our families, our neighbors, and our God.

In this chapter, we will be taking a closer look at how the Bible presents this balanced portrait of the human person and at how we should live our lives in-the-world. Science and technology are continually changing, but human nature has not changed since the beginning of the world. The Bible’s human perspective provides us with a wealth of timeless wisdom which, if we avail ourselves of it, can enable us to live better lives—both individually and in-community with others—in-the-world.

The Bible’s Human Perspective

The Bible presents God as one who *loves* (Exodus 34:6; Deuteronomy 10:18; Psalm 103:17; Isaiah 61:8; John 3:16); *hates* (Psalm 11:5; Isaiah 61:8; Amos 5:21; Malachi 1:2-3; Romans 9:13); is *jealous* (Exodus 20:5; Deuteronomy 6:15; Joel 2:18; Nahum 1:2; Zachariah 8:2); is *angry* (Exodus 4:14; Deuteronomy 11:17; Judges 10:7; Isaiah 13:9; Mark 3:5); and is *sorrowful* (Genesis 6:6; Isaiah 53:3-4; Isaiah 54:6-10; Matthew 26:37; John 11:33-36).

These are emotions we are familiar with, because they are an integral part of our human experience of living-in-the-world as human persons. Our Creator—in whose image we are created—is not a dispassionate, impersonal, Force; nor is he the rationalist Grand Architect of the universe: our Creator is the one God who exists in the three Per-

sons of the Holy Trinity. The Bible presents God to us as personal and relational, not as abstract and intellectual.

As human persons, we are personal and relational beings. We have a great capacity for reason, but our ability to reason is not what makes us who we are: we are a living synthesis of both reason and emotion. And for us, the most important things in our lives are not really *things* at all, they are *people*: the people we love, the people we hate, the people we are jealous of, the people we are angry with, the people we grieve over. These lived-emotions are what make us most truly human and most truly alive-in-the-world; *this* is what our experience of living-in-the-world is: *this is reality*.

Our Creator is intimately concerned with his creation. His creation (and subsequent blessing) of animal life (Genesis 1:22) *before* his creation (and subsequent blessing) of humankind reveals the expression of God's loving kindness toward all life in-the-world that he created. Our Creator's love, concern, and compassion for his creation are evident throughout the first chapter of Genesis (as well as throughout the entire Bible). God's very creation of the world (and of life) is an expression, not simply of his knowledge and his power, but of himself and his love. It is said that God framed the world by his infinite *reason* and how this allows us, through the use of our intellectual and rational abilities, to discover the workings of the universe. All of this is true, and yet I think we can know more about our Creator, more about ourselves, and more about our world when we understand that the world was created by-and-through God's infinite *love*. Our human capacity to love grants us access to the eternal divine nature of love itself. As the psalmist says:

"The Lord is merciful and gracious, slow to anger and abounding in steadfast love. He will not always chide, nor will he keep his anger forever. He does not deal with us according to our sins, nor requite us according to our iniquities. For as the heavens are high above the earth, so great is his steadfast love toward those who fear him; as far as the east is from the west, so far does he remove our transgressions from us. As a father pities his children, so the Lord pities those who fear him. For he knows our frame; he remembers that we are dust. As for man, his days are like grass; he flourishes like a flower of the field; for the wind passes over it, and it is gone, and its place knows it no

more. But the steadfast love of the Lord is from everlasting to everlasting upon those who fear him, and his righteousness to children's children, to those who keep his covenant and remember to do his commandments" (Psalm 103:8-18).

The creation of the world—of the entire universe—must certainly be more than an expression of God's reason, intellect, and power; the creation of the world must also be an expression of our Creator's love, mercy, and compassion. Love separated from reason is never a good thing, and neither is reason (or rationality) separated from love: both conditions of separation could likely be dangerous. Both love and reason should be in harmony, in agreement, and in cooperation with one another; and when they aren't, when we allow one to take precedence over the other, we are only separating ourselves from who we really are.

The study of theology requires the rationality of science because theology is the science of God. Likewise, science requires both the knowledge of God (theology) and the love of wisdom (philosophy) to have a complete and balanced view of the world it studies. Science separated from God, love, mercy, compassion, and wisdom can easily devolve into an inhuman technological tyranny of efficiency over the world (especially over humankind). In fact, modern science, separated as it is from true religion and as antitheistic as it has now become, is quickly becoming a sort of anti-religion; even a false religion in-and-of itself.¹⁰⁶

A recent work written by a University of California physics professor (along with his wife, who is both a lawyer and a writer) goes so far as to advocate for the recasting of our modern scientific knowledge of the universe into the form of a new religious myth (complete with symbols). This new religion of modern scientific knowledge would (supposedly) enable us to (finally) realize our true place in the cosmos and guide us in our moral and ethical decision making; the other reli-

¹⁰⁶ I'm thinking here of the people who, on their cars, so proudly display the Christian fish symbol (the *Ichthus*) with the name *Darwin* or the word *Science* within the fish symbol—replacing the acronym for *Jesus Christ God's Son Savior* (ΙΧΘΥΣ) normally found therein. I am also reminded of the bumper sticker I saw recently, which read: "One Nation Under Science".

gious myths of the past (Christianity included) having been found (by these authors) incapable of so doing.¹⁰⁷

Our sense of morals and ethics derives more from our emotions than from our ability to reason, although both do work-together whenever we make moral and ethical decisions. Ultimately, it is our sense—our *feeling*—that something is either right or wrong that guides our moral and ethical decision making, not rational and intellectual proofs. This is especially true when we are confronted with an immediate demand for moral and ethical decision making. True, our thought-out reasons for acting, or for not acting, one way rather than another, weigh heavily upon us, and we will (more often than not) defer to what we have already learned is the right thing to do, and yet we also have within us a moral sense of repugnance for doing (or for seeing done) that which is, to us, so obviously evil.

For example, we don't need to be taught that it is wrong to torture a small child; we know this intuitively. For one to believe that an act as heinous as this were morally right, one would have to unlearn the intuitively known truth of the evil nature of this act, rationalizing away the act's obviously evil nature. In such cases, concerning acts that are so obviously evil, human reason is much better at rationalizing and legitimizing *brutality* than it is at guiding us into moral and ethical *truth*. The Holocaust, for example, was not perpetrated by those who allowed their consciences be their guides, but by those who allowed their consciences to be overridden by intellectual rationalizations for genocide.

For those of us who may be seeking guidance in moral and ethical decision making from the halls of academia—the very seat of reason in our society—one could listen to the pseudo-wisdom of Professor Peter Singer, holder of the Ira W. DeCamp chair of Bioethics at Princeton University. Professor Singer writes about ethics as one whose innate sense of morality has, long ago, been overridden by intellectual rationalizations for brutality: “Human babies,” writes Singer, “are not born self-aware or capable of grasping their lives over time. They are not persons. Hence their lives would seem to be no more worthy of protec-

¹⁰⁷ Joel R. Primack and Nancy Ellen Abrams, *The View from the Center of the Universe*, (New York: Riverhead Books, 2006). Although I do appreciate the authors' honest attempt to deal meaningfully with our existence—contra the existential meaninglessness which follows logically from modern cosmology—I believe they are taking things too far by advocating for what amounts to the construction of a *religion of modern scientific cosmology*.

tion than the life of a fetus.”¹⁰⁸ One could no doubt receive better ethical guidance from one of the (supposedly uneducated) service employees (no offense to them or to their professions intended) working at Princeton who, if Professor Singer is any indication of the damage today’s higher education can do to the human heart and mind, were smart enough not to waste their time (and money) getting an advanced university degree.

It’s not uncommon to hear people (often ourselves) rationalizing their way *out* of a moral dilemma. Our minds, it is said, are never harder at work than when we are trying to justify our sins. We might escape prosecution by the state, we might even escape the notice of others, but we cannot flee from our own conscience: we know—intuitively—at a basic level, what is right and what is wrong. As St. Paul explains it:

“When Gentiles who have not the law do by nature what the law requires, they are a law to themselves, even though they do not have the law. They show that what the law requires is written on their hearts, while their conscience also bears witness and their conflicting thoughts accuse or perhaps excuse them on that day when, according to my gospel, God judges the secrets of men by Christ Jesus” (Romans 2:14-16).

In this passage, St. Paul is telling us that everyone (i.e., the Gentiles) who does not have knowledge of God’s specially revealed truths (i.e., the Law to the Jewish nation) is still accountable to the law residing within the (natural) human conscience. We would have to override our conscience in order to say, or in order to believe, that “...human babies...seem no more worthy of protection than a fetus.” A human child is the most vulnerable creature on the face of the earth; therefore it is most worthy of protection. Even the most antitheistic Darwinist would probably say we have evolved a natural desire to protect a human baby, in order to propagate our species. It’s often said that emotions can’t be trusted, but our emotions are what (naturally) leads us to protect a human child; whereas our intellects are much better at reasoning our way out of a natural and emotionally driven human desire to protect a baby. Morals and ethics are the areas in which both

¹⁰⁸ Peter Singer, *Rethinking Life and Death: The Collapse of Our Traditional Ethics*, (New York: St. Martin’s Press, 1995) pp. 213-214

theology and philosophy can make the most important contribution to human knowledge, and where they can be of the greatest assistance to modern science. The rationally driven modern scientific quest for knowledge of the natural world knows no bounds. For all practical purposes, the only “ethic” modern science has is: Whatever can be done should be done. And this sort of ethic is no ethic at all. Philosophy and theology has hundreds of years of accumulated wisdom and knowledge regarding ethics which they can bring modern science in order to help guide scientists in ethical principles; ethics being a field of knowledge completely beyond the realm of science.

Modern science is epistemologically unable to place limits on scientific knowledge and technology—whatever can be done *is* being done—often with an arrogant disregard for the other disciplines of human knowledge, which are thought to be beneath science (i.e., the humanities). But it is society, as a whole, which faces the challenge of dealing with the myriad technologies modern science has generated. Society needs every field of human knowledge in order to better understand, utilize, and control modern technologies. For example, our society is often confronted with technological issues in the political arena, such as the moral questions which arise concerning the government’s moral reasoning regarding medical and biological technologies (e.g., stem cell research, cloning, genetically engineered plants and animals, animal testing, and the abortion of human babies).

Many people, especially scientists, have rational explanations for why such advances in science and technology should be developed and utilized. Other people, mostly non-scientists, often feel that something is wrong with (some of) the uses of these technologies, and the new abilities given to us (as a society) by scientific research and development. Philosopher and physician Dr. Leon Kass, M.D. has said that our most reliable guide in moral questions (regarding bioethics) is our innate moral sense of repugnance.¹⁰⁹ When we learn of a new advancement in the biosciences, such as genetic engineering or cloning, our initial reaction to these technologies is often one of repugnance, we sense (innately) that the use of such technologies is wrong. Such feelings do not easily lend themselves to logical, rational, explanations; but, as Dr. Kass realizes, our human experience of repugnance at the thought of using such technologies is a moral guide we should not ignore.

¹⁰⁹ See: Leon R. Kass and James Q. Wilson, *The Ethics of Human Cloning*, (Washington: The AEI Press, 1998)

The Bible is replete with examples of moral and ethical dilemmas and it provides us with an abundance of moral guidance. And because human nature has not changed in the thousands of years since the Bible was written, the Bible is (still) able to provide us with moral and ethical guidelines for living our lives in-community. The Bible presents us with the Law of God, given to Moses and the people of Israel, as moral and ethical guidelines *for society*, and the Bible also presents us with Christ's teachings on the supreme moral demands and responsibilities *of love*. The Bible, for people of faith, is a reliable guide for living in-community with others in-the-world. The problem we face today is that the Bible does not speak directly to our modern scientific and technological moral dilemmas. Thankfully, the Bible *does* speak to us directly about the moral and ethical challenges we face as human persons living in-community and in-the-world; challenges that have not changed over time. Yet we do lack—in the Bible alone—direct answers to our modern scientific and technological moral and ethical questions.

With these kinds of questions, our most reliable guide is the living community of the faithful; the community imbued with the biblical/traditional moral standards for living in-community and in-the-world: The Church. The overseers of the Church have been in the practice of applying biblical and traditional ethical standards to timely moral issues for centuries. And, even in our day, the Church is (still) a reliable moral guide. The Catholic Church has written extensively on every moral and ethical issue facing the modern world—from worker's rights to stem cell research—and it is foolish to ignore the guidance the Church provides to our society. Without such guidance, our modern society will inevitably do whatever it is able to, simply because it can.

People today still struggle with sin and temptation; therefore the Bible is (still) a reliable guide to living our lives in harmony with God, with our neighbors, and with ourselves. None of us is without sin, and all of us struggle with temptations to do wrong rather than doing what is right. Our Creator knew the struggles we would face with temptations (as creatures made of flesh and blood) and he provided us—not with a list of rules—but with guidance for living our lives in-the-world. God gave humankind the Law (through Moses) knowing the temptations we would face; the Law being both a warning *to* us and a guide *for* us. Our Creator knew (before he created us) that we would violate the Law by giving-in to the temptations to sin. The entire elaborate sacrificial system of the Old Testament was given by God to Israel

based upon the presupposition that the Law *could not* be kept. The sacrificial system was put in place by God as a manifestation of his mercy and his grace toward sinners, by providing a way for the forgiveness of sins. The Law also served as a guide to help the people of Israel live in-community according to the wisdom of their Creator.

The Law provided Israel with social order, which enabled the people of Israel—as a community—to live together in harmony. The Law also provided the people of Israel with the concept of *equity* as a standard of justice.¹¹⁰ Under the Law some of the more serious sins were, in fact, crimes so destructive of the social order that those who committed them were punished with death (i.e., absolute exclusion from the living-community). Law is the most basic requirement for order and society; a society cannot exist without law, or without some standard of justice and moral behavior. Most importantly, God has given the Law as a *guide* to help us to live our lives in harmony with him, with others, with ourselves, and with the world.

All of us have an innate conscious sense of what is right and what is wrong, and we have a natural desire for human social order. It is possible for our conscience to be overridden, and it is also necessary for our conscience to be properly formed by our families and by the many other authorities within our society. A person can become virtually without a conscience if their conscience is not properly formed by their parents and by their society. But everyone has sufficient conscience so that they remain without excuse whenever they act contrary to their conscience and to the moral standards of their society. The fact that this sense of moral order is bound up within the human conscience makes it impossible for anyone to escape it completely. The inescapable nature of moral order found within the human conscience does not require belief in God, because it is given to us by our Creator. We can choose either to acknowledge or to suppress the knowledge of God's existence—so clearly revealed to us through both the natural order of the world and the moral conscience—but we cannot altogether escape from the knowledge of God's existence.

A person who does not believe in God or in the Bible as God's revelation to humankind still has moral and ethical standards, which guide their behavior and provide them with the moral standards they expect themselves and others within their society to adhere to. Ulti-

¹¹⁰ This is the principle (known, in Latin, as: *lex talionis*) of exacting no more punishment than is due for the crime committed. The principle establishes fairness in justice by protecting the guilty person from the person who was wronged and who may wish to exact an unfair or excessive punishment (or vengeance) upon the guilty person (see: Exodus 21: 23-25).

mately all non-theistic standards of moral behavior are based upon *human* law rather than *divine* law, and human laws can be either *just* or *unjust*. Laws are just only when they are guided by divine law, and they are unjust when they are opposed to divine law. As St. Augustine said, “a law that is unjust seems to be no law at all” and we are not bound in conscience to obey the unjust laws of men, which are contrary to both natural and divine law.¹¹¹ The Reverend Dr. Martin Luther King, Jr., in his famous *Letter From Birmingham Jail*, uses this same distinction between just and unjust laws:

“[T]here are two types of laws: just and unjust...Now, what is the difference between the two? How does one determine whether a law is just or unjust? A just law is one that squares with the moral law or the law of God. An unjust law is a code that is out of harmony with the moral law. To put it in the terms of St. Thomas Aquinas: An unjust law is a human law that is not rooted in eternal law and natural law. Any law that uplifts human personality is just. Any law that degrades human personality is unjust.”¹¹²

Any society that rejects the guidance of our Creator’s natural and eternal laws will, inevitably, institute unjust laws. The modern world, of, especially, the past one hundred years or so, has seen more than its share of unjust laws; and the governments of many nations, built upon the shifting sands of unjust human laws, have fallen. Raw political power posing as legitimate authority cannot stand the test of time or of God’s judgment. God’s revelation through nature, the human conscience, his special (biblical) revelation, and the living community of faith (i.e., the Church) provide us with everything we need in order to construct our social and legal theories. The spirit of rationalism and neutrality that once infused the Enlightenment and upon which the modern era is built, is coming to a bitter end; as the postmodern philosophical perspective has revealed, there is no neutrality. We cannot rely upon reason alone to guide our individual and corporate lives. Reason and emotion, science and religion, text and interpreter, individual and society, intellect and intuition; our lived-experience as hu-

¹¹¹ Quoted in: Thomas Aquinas, *Summa Theologica*, 1, 96, 4

¹¹² Rev. Martin Luther King, Jr., *Letter from Birmingham Jail*, April 16, 1963 (See <http://www.mlkonline.net/jail.html>).

man persons is fully realized only when the two (seemingly opposing) sides of our experience are in balance and working-together in harmony. And in human societies, where important decisions about law, morality, and ethics must be made, this is especially important.

A theological ethical standard is (ultimately) based upon God's law (both natural/temporal and divine/eternal), whereas a human ethical standard is (ultimately) based upon the human will to power. God's law represents a standard that is beyond humankind; a transcendent standard to which all of humankind is held accountable. An ethical standard of human origin cannot transcend humanity and is always subject to modification, exception, and exploitation (i.e., the assertion of raw political power by the elite and powerful *few* over the common and powerless *many*). The ethical philosophy of humanistic thinking is (ultimately) *might makes right*, which is always opposed to anything that transcends the collective will of humankind (especially: God, religion, theology, natural and divine law).

Our Creator knows us better than we know ourselves, and he has revealed to us a treasury of knowledge and wisdom concerning himself, our world, ourselves, our relationships with others, and our relationship to himself. And it would be wise for us to heed this knowledge. Theology and religion are not simply prescientific superstitions modern people can now dispense with; theology and religion provide a counterbalance to the weight of human reason, knowledge, and will; human abilities that, if not countered by divine wisdom, have the potential to destroy us.

Nature, the human conscience, reason, and emotion are not enough to guide us beyond the very basics of moral behavior. The human conscience needs to be properly formed, because the conscience, if not properly formed, is too easily overridden by reason and the human will. The knowledge that comes to us through the special revelation of God—along with God's grace—elevates the human conscience to a higher level and enables us to live our lives in the way our Creator knows is best for us. For humankind to consider the special revelation and grace of God unnecessary, faulty, superstitious, or prescientific would be to cast away our best hope of learning how we can live in harmony with others, with the world, and with our Creator.

Christ, who is "the image of the invisible God" (Colossians 1:15), points us toward God and demonstrates for us what it means for one to do the will of our Creator. The teachings of Christ are emblematic of the phenomenological and theological view of the world that we are exploring, and, by following the lead of Christ, we can begin to see the

world as he saw it: as-it-appeared to him. The teachings of Christ, especially in the parables, are presented *phenomenologically*: the world exists as-it-appears to us and as-we-experience it. The parables of Christ present us with spiritual truths concerning the kingdom of God, God's relationship to us, and our relationships with others in-the-world. And Christ's parables presuppose the phenomenological, existential, and experiential reality of the world as-it-appears to us.

Modern science, philosophy, and theology are important fields of knowledge our Creator intendeds for us to use in order to understand the world, and yet we can easily become sidetracked by the abstract conceptualizations of the world that are common to all three of these disciplines. But the world we live in is not abstract; it is very concrete. The world we live in is not the intellectual-play world of scientists, philosophers, and theologians; it is the very real world of everyday life. This concrete world of everyday lived-experience is the true reality of the world which Christ presupposes in order to communicate both spiritual and moral truths (to us) through his teachings in the parables.

The parables of Christ are presentations of divine, spiritual, and moral truths conveyed to us in the form of stories (or narratives) involving the common phenomena of our everyday world as they appear to our conscious human experience of living-in-the-world. Christ's presentations of spiritual and moral truths in the form of stories make his teachings very unlike the teachings of theologians, philosophers, and scientists. Christ's teachings are not abstract, intellectual-play theorizations about the world; his teachings are concrete, practical examples of how we should live our lives in-the-world.

Christ's parables convey practical, spiritual, and moral truths to us as vividly as they do because they presuppose our human experience of being-in-the-world. The parables make use of the existential reality of the world we experience as human persons in order to communicate to us divine truths that apply to the very real world of life as-we-experience-it.

The parables of Christ contain real-world examples taken from human life as-we-live-it and as-we-experienced-it. These stories, taken from the human perspective of living in-the-world, are easily understood by anyone, whether educated or uneducated, rich or poor, believer or unbeliever. These divine truths are conveyed to us through stories involving those things we are familiar with, those things which appear to us in our everyday lived-experience of being-in-the-world: people, places, objects, animals, plants, clothing, food, drink, etc.

And this is the crux of our exploration into the phenomenological and theological way of perceiving the world; a view of the world which enables us to balance the (prescientific) biblical worldview with the modern scientific worldview by focusing our attention on the world as-it-appears to us. Phenomenology brings us back to our basic conscious experience of being-in-the-world, back to the pre-given world as-it-presents-itself to our conscious experience. The pre-given world of appearances exists before we begin reasoning about the world and before we develop conceptual schemes of the world. The world itself can be thought of as the greatest and most often overlooked presupposition of all (a sort of metapresupposition): the world as-it-appears to our conscious human experience is the great unexamined starting point of all human thought.

It is through the pre-given world of appearances that our Creator reveals himself to us (see Psalm 19:1-4; Wisdom 13:5) and it is this world of appearances that Christ uses to reach into our hearts and minds through the parables. The everyday world of appearances is the world the parables presuppose: the world of phenomenal appearances, which is experienced by all human persons. Taking the life-world as pre-given, Christ's teachings reach us where we live: in-the-world as-it-appears to us. A lost coin, a lost sheep, a seed planted, a barn built, a king going to war, dinner guests at a banquet, two debtors, a wayward son, a man who fell among thieves; all of these concern the world we live in, and the phenomena of the world as-they-appears to us. This is the phenomenal world we live in, the world we experience: this, for us, is *reality*.

Jesus is the (incarnate) Son of God; he is the Christ (Greek: *christos*) the Anointed One of God; he is the *God-Man* (Greek: *theanthropos*) and "[the] parables are generated from Jesus' experiential world and give his fundamental vision of reality."¹¹³ What was Christ's "experiential world" and "fundamental vision of reality" when he existed (embodied) in time, on earth, and in-the-world? Any reality that might exist and yet remain hidden to us (due to our limited powers and abilities to perceive the world) can be perceived and experienced by the Son of God, because:

¹¹³ David B. Gowler, *What Are They Saying About The Parables?* (Mahwah: Paulist Press, 2000) p. 92. The author is commenting here on Bernard Brandon Scott's take on Jesus' vision of reality in his book: *Jesus, Symbol-Maker for the Kingdom*, (Philadelphia: Fortress Press, 1981).

“He [Christ] is the image of the invisible God, the first-born of all creation; for in him all things were created, in heaven and on earth, visible and invisible, whether thrones or dominions or principalities or authorities—all things were created through him and for him. He is before all things, and in him all things hold together” (Colossians 1:15-17).

Christ chose to present *reality* to us as-he-experienced-it as the incarnate Son of God, as one of us, as we perceive and experience the world. But why would he choose to do this? It’s often said that if God had revealed the modern scientific truths about the world to prescientific people they would not have believed these truths, because many of these truths are contrary to observation. Yet even today, if God *had* chosen to reveal the true hidden realities of the world, the modern scientists would not believe them, because they would be so far beyond what scientists—as human persons—are able to perceive, observe, and understand about the world. Such knowledge of the world, as only God himself can have, is undoubtedly far beyond our human ability to gain knowledge of the world by way of reason, observation, experience, and experiment. But this is exactly the sort of knowledge about the world that Christ must have as the incarnate Son of God. The Son of God humbled himself by becoming a human person (see Philipians 2:5-8), and yet the eternal Person who is the Son of God and who became the man Christ Jesus has—eternally—the divine knowledge of the Son of God who is the Christ: the embodied Son of God.

As the Son of God incarnate, Christ could have explained and expounded upon all things pertaining to the natural world with knowledge of the world that only the one by whom and through whom the world was created and holds together (i.e., exists) could possess. Yet Christ’s perception of reality is not the hidden reality sought after by modern science; rather, for Christ, reality is that which surrounds him. Reality is also that which also surrounds us: people, animals, trees, food, water, sickness, hunger, sorrow, joy, friendships, family, earth, and sky. This is reality as perceived by Christ himself, and it is the same reality that we ourselves perceive. This is the reality of the world of phenomena the Son of God created and upholds (Colossians 1:15-17); this is the reality of the world Christ uses to communicate (to us) practical, spiritual and moral truths; and this is how these truths can be known: through the reality of the world of phenomena as-they-

appear to us in our everyday conscious perception and experience of living-in-the-world.

The parables of Christ are the richest of all moral and spiritual teachings, and when reading the parables we are able to place ourselves amongst those who personally heard these teachings from the mouth of Christ himself. It is as if we are present at those times and in those places experiencing them for ourselves.

The Parables of Christ

Christ's favorite method of teaching was to teach through the use of parables and some of his most profound and memorable teachings have come down to us in the form of parables. A parable is a comparison between one thing and another, "the gospel parable is *the illustration of a supernatural truth by means of a simile given in a complete self-dependent discourse.*"¹¹⁴ Parables use similes such as: the kingdom of heaven *is like*...a mustard seed, a pearl of great price, leaven hidden in a measure of meal. The spiritual truth meant to be communicated is done so by comparing the spiritual truth itself (e.g., the kingdom; the responsibilities and duties of all believers; the relationship of God and believers) with the sorts of things we perceive and experience, the things we are familiar with from our conscious perception and experience of everyday life.

It is the *everyday life* aspect of the parables that is of the most interest to us here. In the parables, we find Christ disclosing the greatest of all divinely revealed truths in the simplest of everyday stories; stories that reach our *hearts* more than our *heads*. Unlike the discourses of modern science, theology, and philosophy that reach our heads more than our hearts. Rather than presenting us with intellectual discourse, Christ chose to teach us spiritual truths by way of stories concerning everyday life. Christ could have told us everything about the natural physical world, about God, about human reason and logic; why did Christ teach *what* he taught *the way* he taught it?

Christ's perception of reality is communicated to us through his parables. His teaching by way of parable was not condescending; he was not reaching down from above in order to communicate with us on our primitive level, and he was not communicating to us in the only

¹¹⁴ Leopold Fonck, S.J., *The Parables of Christ*, (Fort Collins: Roman Catholic Books, 1918 (reprint) p. 22 (emphasis in original).

way possible for someone who was, at that time, living in an ancient, prescientific, Jewish social context. Christ, the incarnate Son of God, taught in parables because our perception of the everyday world of human experience is reality. By teaching through stories, which presuppose this human experiential reality of being-in-the-world, Christ was able to penetrate the hearts and minds of those who heard him, and those who, through reading the parables, hear him still.¹¹⁵ The truths Christ communicates to us through the parables instruct us in how we should live according to the wisdom and will of our Creator who has created the world we experience every moment of our lives.

How we are to *act* toward God, how we are to *act* toward others, and how we are to *act* toward the world—how we should live our lives in-the-world—is, for us, the most important existential reality of the world we perceive and experience. Nothing could be more important to us or to God than how we will choose to live our lives in-the-world. And the truths which Christ has taught us through the parables are of far more importance to us than are the truths of modern science, theology, or philosophy.

In the following section, as examples of Christ's parables, we will examine three particular parables found only in the Gospel according to St. Luke: *The Great Banquet*, *The Good Samaritan*, and *The Prodigal Son*. The parable of *The Great Banquet* is an example of a parable of the Kingdom of God; the parable of *The Good Samaritan* is an example of the duties and responsibilities which the followers of Christ have toward others; and the parable of *The Prodigal Son* is an example of how God relates to humankind.

The Great Banquet

This parable was given by Christ "one sabbath when he went to dine at the house of a ruler who belonged to the Pharisees..." (Luke 14:1). Christ challenged the Pharisees, asking them whether it was lawful or not to heal someone on the sabbath day; they had no reply to his challenge, and Christ then proceeded to heal a man (present at the banquet) of an illness (14:2-6). Christ instructed the guests who had been invited to the banquet not to presume to take the places of honor, lest

¹¹⁵ Also, Christ spoke in parables because he wanted to *conceal*, rather than *reveal*, divine truths. Many people heard, but did not understand, Christ's parabolic teachings (see Matt. 13:10-17, 34-35; Mk. 4:10-13, 33-34; Luke 8:9-10).

they be asked by the host to step aside and give place to a more honorable person. Christ admonished them to take the lower positions at the banquet and wait for the host to invite them to take a more honorable place (14:7-11). Christ then proceeded to instruct the host of the banquet not to invite his friends and those who had the means to repay him to such a banquet; rather, he should invite those who had no social standing and no means to repay his kindness, telling him that he would be rewarded for his kindness at the resurrection of the just (14:12-14). "When one of those who sat at table with him heard this, he said to him: 'Blessed is he who shall eat bread in the kingdom of God!'" (Luke 14:15). It was this exclamation that led Christ to proclaim his teachings about the kingdom of God found in the parable of *The Great Banquet*:

"But he said to him, 'A man once gave a great banquet, and invited many; and at the time for the banquet he sent his servant to say to those who had been invited, 'Come; for all is now ready.' But they all alike began to make excuses. The first said to him, 'I have bought a field, and I must go out and see it; I pray you, have me excused.' And another said, 'I have bought five yoke of oxen, and I go to examine them; I pray you, have me excused.' And another said, 'I have married a wife, and therefore I cannot come.' So the servant came and reported this to his master. Then the householder in anger said to his servant, 'Go out quickly to the streets and lanes of the city, and bring in the poor and maimed and blind and lame.' And the servant said, 'Sir, what you commanded has been done, and still there is room.' And the master said to the servant, 'Go out to the highways and hedges, and compel people to come in, that my house may be filled. For I tell you, none of those men who were invited shall taste my banquet'" (Luke 14:16-24).

Christ here likens the kingdom of God to a great banquet, or supper, given by a wealthy man who invites his many friends to join him. The spiritual truth about the kingdom Christ is teaching us here (through this example taken from ordinary, everyday life) is that God has prepared a banquet for his people Israel (of whom the leaders of the people, and that the Pharisees (who knew the scriptures) are those

who should be the first to attend. When the time of the banquet was ready, that is, when the kingdom of God had come, the leaders of Israel all made excuses for why they were unable (or unwilling) to attend. All of the excuses given had to do with matters concerning the cares and concerns of business and everyday life (e.g., buying a field; buying yokes of oxen; marrying a wife). Rather than expectantly awaiting the coming of God's kingdom, and of joyfully attending the Great Banquet given by God, the leaders of Israel didn't even recognize it as such; they rejected God's invitation and went about their everyday pursuits as if the banquet wasn't important.

The host (God) was greatly offended, and he commanded his servants to invite to the banquet those who were of much lower social status (e.g., the poor, maimed, blind, and the lame); those who, having little in the way of daily food and material possessions, could better appreciate the wonderful banquet. The spiritual truth here, concerning the kingdom of God, is that once the greater part of the leaders and the people of Israel had rejected Christ and his kingdom, God then invites the Gentiles, who more readily accept his invitation into the kingdom.

This principle, that God's kingdom is more readily accepted by the poor, the outcast, and the unlearned applies today to those of both the Jewish and the Gentile communities alike, as is made clear to us throughout the New Testament (see Mt. 11:5, 25; 19:21; Mark 10:21; Luke 4:18; 6:20; 7:22; 10:21; 14:13, 21; 16:22; 18:22; 1 Cor. 1:26-27; James 2:5). Those who are rich, those who hold positions of prominence and power in society, are in danger of being unable to enter the kingdom of God unless they willingly forego their riches and power in order to serve the poor and the outcast. Likewise, those who are learned and intelligent are in danger of being barred from the kingdom unless they willingly become the humble servants of the simple and the unlearned (see Mt. 13:22; 19:21-24; Mark 4:19; 10:23-25; Luke 1:53; 6:24; 8:14; 12:16-21; 16:19-31; 18:18-30; 2 Cor. 9:9; 1 Tim. 6:6-10, 17-19; James 5:1-2).

Through a simple story (parable) about a banquet given by a wealthy host for his friends, Christ teaches us that those who are rich in this world's goods and those who are rich in learning, often reject God's gracious invitation into the kingdom, because they are too busy with worldly things (which ultimately come to nothing) to honor the host by attending his banquet. On the other hand, the poor, the outcast, and the unlearned readily accept the invitation to the great banquet and, although they may have felt unworthy of such a great honor, they enjoy the banquet with God in his kingdom.

Modern scientists, theologians, and philosophers closely resemble those who were the first to be invited to the banquet; those who think themselves intellectually superior to the common people, because of their great learning. These are they who think their knowledge of the world grants them godlike powers; those who think their knowledge of God is greater than Christ's; and who those think themselves to be so wise that they have no need for the hypothesis God.

The Good Samaritan

Christ gave this parable in response to a question put to him by a lawyer; and his answer, given in the form of an easily understood—very real-world—story, is the most wonderful and memorable example of compassion known to humankind. In the tenth chapter of the Gospel of St. Luke, a lawyer who desires to “put him to the test” asks Christ, “Teacher, what shall I do to inherit eternal life?” (10:25). Christ responds by putting a question in return to the lawyer, “What is written in the law? How do you read?” (10:26); the lawyer responds by saying, “You shall love the Lord your God with all your heart, and with all your soul, and with all your strength, and with all your mind; and your neighbor as yourself” (10:27). His answer was affirmed by Christ, who said, “You have answered right; do this, and you will live” (10:28). The lawyer’s next question, “And who is my neighbor?” (10:29) was the question that prompted Christ to tell the parable of *The Good Samaritan*:

“A man was going down from Jerusalem to Jericho, and he fell among robbers, who stripped him and beat him, and departed, leaving him half dead. Now by chance a priest was going down that road; and when he saw him he passed by on the other side. So likewise a Levite, when he came to the place and saw him, passed by on the other side. But a Samaritan, as he journeyed, came to where he was; and when he saw him, he had compassion, and went to him and bound up his wounds, pouring on oil and wine; then he set him on his own beast and brought him to an inn, and took care of him. And the next day he took out two denarii and gave them to the innkeeper, saying, ‘Take

care of him; and whatever more you spend, I will repay you when I come back” (Luke 10:30-35).

Christ then puts the following question to the lawyer: “Which of these three, do you think, proved neighbor to the man who fell among the robbers?” He [the lawyer] said, “The one who showed mercy on him.” And Jesus said to him, “Go and do likewise” (10:36-37).

The parable of The Good Samaritan is a very human story, and it is also a wonderful example of the Bible’s human perspective. The story teaches us how the emotion of human compassion should flow naturally from the human heart and it teaches us how, often, it does not. How odd it is for Christ to have told us a story about the victim of a crime in order to teach us how we can live our lives in a way that would be pleasing to God. A theologian would not be very likely to use a story such as this one, because it would bring up too many (ultimately unanswerable) theological questions (e.g., the nature of evil, God’s providence, predestination, primary and secondary causes, free will, etc.). And yet Christ does not shrink from using the example of a horrible crime in order to teach us that we should be concerned with the welfare of others.

The road to Jericho, upon which the man in the parable was travelling, was known, at the time when Christ told this parable, to be dangerous for travelers. Although the identity of the man who was the victim of the robbers is not given to us, we are told that three men saw him lying beaten and half dead on the roadside: a priest, a Levite, and a Samaritan. The first two men are religious leaders of the chosen people of Israel; the third is racially and religiously mixed, he is only part Jewish and he does not worship God as do the Jews (i.e., at the temple in Jerusalem). If Christ were to tell this parable to the Church today, it might go something like this:

“A man was walking through an alley in a large city, and he was robbed, beaten and then left for dead. Just by chance, a Catholic theologian was going down the alley and when he saw him he passed by on the other side. So, likewise, an Evangelical minister, when he came to the place and saw him, passed by on the other side. But an antitheistic scientist, as he came through the alley, came to where he was and when he saw him, he had compassion on him. He gave the man first aid, called 911, followed the ambulance to the

hospital, and then allowed the hospital to bill him for any and all necessary medical services the man might further require.”

This story strikes us a little closer to home than does the original parable; much as the original parable must have struck those who first heard it. The telling of the parable of The Good Samaritan is Christ’s way of prodding us to become better people by becoming more concerned with the lives of our fellows. None of us live our lives completely on our own, we are all individual members of a much larger social community, and we all need someone’s help at one time or another. Each of us can be in need of assistance at times; and at times, each of us can be in a position to offer assistance to others who are in need. This parable instructs us to be willing to lay aside our time and our money by investing our lives in the lives of others.

In our modern version of the parable, the two people who should have been the first to be willing to help the victim were the two Christian leaders, and yet they passed by and did nothing to help him. And there could be many reasons for why they were unwilling to help. They may have feared that the victim was a ruse: a trap laid for them by robbers. They may have feared that the robbers would beat and rob them, just as they had the beaten and robbed the victim. They may not have wanted to get involved in helping the victim, as this would have required a great investment of their time in the life of someone other than themselves.

Whatever their reasons for not helping might have been, the religious leaders were certainly not living-out their religious beliefs. Worse yet, they weren’t even following their innate human emotional sense of empathy and compassion for someone who was (so obviously) in need of their help. Even the person in this story who is *not* religious (i.e., the antitheistic scientist) is able to show compassion for the one in need, because his innate human sense of compassion is alive and active.¹¹⁶ For a person to be able to pass by someone who is so obviously in need of help requires that the natural human reaction to help be squelched and overridden (usually by self interest).

When it comes to living our lives in-the-world, we live our lives as members of the human community and not as individuals. And as

¹¹⁶ We may also note how the antitheistic scientist in this parable does not act as though people are simply matter-in-motion; rather, he acts according to his immediate sense perceptions of the world: a fellow human person is in need, and he sees himself as a person who has the power to act in order to help.

members of the human community we must be willing to embrace our humanity: we are human persons, part of the human family, with all of the emotional turmoil that goes with being human. We are not disembodied intellects, nor are we simply minds contained in physical bodies: we are human persons who are mind and body, emotion and intellect, irrational and rational, subjective and objective realities existing together as one human person with all of the complexities this entails.

How we perceive the world matters most of all when it comes to how we choose to live our lives in-the-world. How we think and how we act reflects both our perception and our understanding of the world in which we find ourselves. How we act in situations requiring us to assist those who are in need reveals our priorities. Are we more concerned with ourselves than we are with others? Do we put our own safety and well being before that of others? Do we place a higher priority upon the security and needs of our nation before we do the security and needs of the other nations of peoples who are our neighbors? Are we willing to pour billions of dollars into a scientific search for an elusive hidden reality while virtually ignoring the plight of millions of very real and unhidden people around the world who are obviously in such desperate need? All of theology is wrapped up in this one, very simple story of *The Good Samaritan*: rather than engaging in theological/philosophical intellectual-play theorizations, Christ tells us that our love for God should cause us to act with compassion toward others:

“And behold, a lawyer stood up to put him [Jesus] to the test, saying, ‘Teacher, what shall I do to inherit eternal life?’ He said to him, ‘What is written in the law? How do you read?’ And he answered, ‘You shall love the Lord your God with all your heart, and with all your soul, and with all your strength, and with all your mind; and your neighbor as yourself.’ And he said to him, ‘You have answered right; do this, and you will live’” (Luke 10:25-28).

The Prodigal Son

In the fifteenth chapter of the Gospel of St. Luke (just before the parable of *The Prodigal Son*), Christ tells two short parables about the love

God has for sinners: the parable of *The Lost Sheep* and the parable of *The Lost Coin*:

“Now the tax collectors and sinners were all drawing near to hear him. And the Pharisees and the scribes murmured, saying, ‘This man receives sinners and eats with them.’ So he told them this parable: ‘What man of you, having a hundred sheep, if he has lost one of them, does not leave the ninety-nine in the wilderness, and go after the one which is lost, until he finds it? And when he has found it, he lays it on his shoulders, rejoicing. And when he comes home, he calls together his friends and his neighbors, saying to them, ‘Rejoice with me, for I have found my sheep which was lost.’ Just so, I tell you, there will be more joy in heaven over one sinner who repents than over ninety-nine righteous persons who need no repentance. Or what woman, having ten silver coins, if she loses one coin, does not light a lamp and sweep the house and seek diligently until she finds it? And when she has found it, she calls together her friends and neighbors, saying, ‘Rejoice with me, for I have found the coin which I had lost.’ Just so, I tell you, there is joy before the angels of God over one sinner who repents” (Luke 15:1-10).

Christ was often criticized by the scribes and the Pharisees for associating with sinful people (see: Mt.9:10-13; 11:19; Mark 2:15-17; Luke 5:30-32; 7:34-39; 15:1-2; 19:7). And Christ’s response to such criticisms was to say, “Those who are well have no need of a physician, but those who are sick; I have not come to call the righteous, but sinners to repentance.” (Luke 5:31-32). The parables of *The Lost Sheep*, *The Lost Coin*, and *The Prodigal Son* illustrate the very purpose for Christ’s coming into the world: to seek and to save those who are lost (see: Luke 19:10).

Both the man with the lost sheep and the woman who had lost her coin laid everything aside in order to search for that which they had lost, because nothing was more important to them now than finding what they had lost. Most of us can relate to the loss of an animal, and to the importance of searching for it until it is found: we put all else aside until we find it. Likewise, we can all relate to the loss of an

object or possession (e.g., money, keys, or jewelry), and how important it is that we search until we find it. The lost animal, or the lost object, quickly becomes what is most important to us. In the parable of *The Prodigal Son*, we have the story, not of a lost animal or a lost object, but of a very lost young man:

“And he said, ‘There was a man who had two sons; and the younger of them said to his father, ‘Father, give me the share of property that falls to me.’ And he divided his living between them. Not many days later, the younger son gathered all he had and took his journey into a far country, and there he squandered his property in loose living. And when he had spent everything, a great famine arose in that country, and he began to be in want. So he went and joined himself to one of the citizens of that country, who sent him into his fields to feed swine. And he would gladly have fed on the pods that the swine ate; and no one gave him anything. But when he came to himself he said, ‘How many of my father’s hired servants have bread enough and to spare, but I perish here with hunger! I will arise and go to my father, and I will say to him, ‘Father, I have sinned against heaven and before you; I am no longer worthy to be called your son; treat me as one of your hired servants.’” And he arose and came to his father. But while he was yet at a distance, his father saw him and had compassion, and ran and embraced him and kissed him. And the son said to him, ‘Father, I have sinned against heaven and before you; I am no longer worthy to be called your son.’ But the father said to his servants, ‘Bring quickly the best robe, and put it on him; and put a ring on his hand, and shoes on his feet; and bring the fatted calf and kill it, and let us eat and make merry; for this my son was dead, and is alive again; he was lost, and is found.’ And they began to make merry. ‘Now his elder son was in the field; and as he came and drew near to the house, he heard music and dancing. And he called one of the servants and asked what this meant. And he said to him, ‘Your brother has come, and your father has killed the fatted calf, because he has received him

safe and sound.’ But he was angry and refused to go in. His father came out and entreated him, but he answered his father, ‘Lo, these many years I have served you, and I never disobeyed your command; yet you never gave me a kid, that I might make merry with my friends. But when this son of yours came, who has devoured your living with harlots, you killed for him the fatted calf!’ And he said to him, ‘Son, you are always with me, and all that is mine is yours. It was fitting to make merry and be glad, for this your brother was dead, and is alive; he was lost, and is found’” (Luke 15:11-32).

In this parable, we have a situation many parents can relate to: having a wayward child. And we’re not speaking here of a young child, but of a young adult who, at any age, will always be the parents’ child. Unlike the two previous parables, which deal with a lost animal and a lost object, in the parable of *The Prodigal Son*, the father *does not* search for his son until he finds him. As Leopold Fonck explains:

“Here in this third narrative the divine Redeemer again sets before us one who has suffered a loss, but this time of a far more precious possession. It is not an irrational animal nor an inanimate substance which has been lost. Rather is it a tenderly cherished child who forsakes his father and turns to evil ways...For it was not the natural impulse of an irrational creature, nor external circumstances, nor unmerited misfortune which occasioned this loss. It was the perverse free-will of the lad who yielded to his evil passions and desires.”¹¹⁷

Many parents have gone through an experience very similar to this one. The heartbreak is indescribable, and yet the best thing the parent can do is to do exactly as the father did in parable: let the child go his (or her) own way, while hoping and praying that they will—in time, and on their own—come to their senses. The worst thing a parent could do in such a situation would be to try and stop the child from leaving home, or to chase after them once they had done so. A wise

¹¹⁷ Leopold Fonck, S.J., *The Parables of Christ*, p. 782

parent provides a child with a loving environment in which they can discover who they are, as well as the freedom necessary for such self-discovery. In this parable, the son knew that his father loved him and would accept him back at any time. And when the time came for him to return home, this is exactly what he does: humbled by his experience of being free from his father's house, the son, eventually, returns home.

This parable, like all of Christ's parables, is a simile: the father in the story represents God (our heavenly Father), and the prodigal son represents the people who have turned away from God. Like the father in the story, God's love for his wayward children never ceases. This was in fact the point of the story: In this parable, Christ tells us that God's concern for his lost children is paramount. This is why Christ ate and drank with prostitutes, tax collectors, and other sinners while he was in-the-world; much to the dismay of the religious leaders of his day. But the religious leaders were missing the point: Christ came into the world to seek and to save those who were lost.

The young man in the parable leaves his father's house, sets out for a far country, and there squanders his inheritance with loose living.¹¹⁸ Although the father knew better than to seek out his lost son, he *was* anxiously awaiting his return—both to his senses and to his father's house—as is evident in the story, for “while he [the son] was yet at a distance, his father saw him and had compassion, and ran and embraced him and kissed him” (15:20). The father was waiting; and the son, having repented, returns to his father's house feeling unworthy to be called his father's son; his only wish is to become one of his father's hired servants (15:18-19). The father, who represents here our Father in heaven, welcomes his son home with open arms and he wishes to celebrate his son's return. The repentant sinner always finds his heavenly Father anxiously awaiting his return; as Fonck puts it: “In the son's reinstatement in his father's house and his investment with robe, ring, and shoes, together with the feast prepared in honor of his return, Christ shows us the picture of God's loving reception of the repentant sinner.”¹¹⁹

¹¹⁸ The Greek word translated as *loose living* (in Luke 15:14) is the word *ασωζω*, which literally means: *not saved* (*α* = not, *σωζω* = saved), and occurs only here in the NT. In the story, the older brother describes his prodigal brother's *not saved* lifestyle as one in which he had “devoured [his father's] living with harlots” (Luke 15:30). (See entry in Bauer, Arndt, and Gingrich, *A Greek-English Lexicon of the New Testament*, (Chicago: University of Chicago Press, 1958, 1979).

¹¹⁹ Leopold Fonck, S.J., *The Parables of Christ.*, p. 784

The older brother in the parable represents those who are faithful to God from a very young age; they are not without sin, yet their lifestyles are not at all like the lifestyles of those who are not saved (as was the younger brother's). The older brother is resentful of the love and mercy shown by the father towards his sinful, yet repentant, younger brother. The great love and mercy shown by the father is misunderstood by the older brother. The father is not celebrating the fact that his son lived a life of debauchery, but that he had recognized the error of his ways and repented of his sinful lifestyle.

A dramatic conversion is always, well, more dramatic. And those who have not personally experienced a dramatic conversion will sometimes envy those who have. The older, obedient, and more responsible son had never wasted his father's money on prostitutes, as had his younger brother, so naturally he wondered: Why the big celebration? Why not celebrate the fact that he had never done such a thing to begin with? But the father understood something the older brother did not yet understand: the obedient son was always with his father, and everything his father owned (and not just a portion) was his (see: 15:31). The older brother's attitude was one of condemnation, and rightly so, because the younger brother's wanton and profligate living was worthy of condemnation, as he himself recognized when he said: "Father, I have sinned against heaven and before you; I am no longer worthy to be called your son" (15:21). But the father not only refused to condemn his prodigal son, he celebrated his son's return and restored him to his proper place in his house as his son. What unfathomable love and mercy this father, as a loving parent, demonstrates for us here.

Like our heavenly Father, the father in the parable loves his son as only a parent can. The older brother cannot understand the love his father has for his wayward son, because a brother loves his brother as an equal. But the father, who gave life to his (once wayward) son, is brokenhearted at the loss of his son in a way the older brother cannot comprehend. It is as though his son had been dead and was returned to life again, and this is how he explains his great joy (at the return of his lost son) to his older (obedient) son: "It was fitting to make merry and be glad, for this your brother was dead, and is alive; he was lost, and is found" (15:32).

Our Creator loves us as his children, and he lets us go our own ways. Many of us do choose to go our own way, although many of us,

like the prodigal son in the parable, do so with the knowledge that our Father loves us unconditionally, and when we come to an end of ourselves (and have made a wreck of our lives) we can turn to him and he will welcome us into his house (kingdom) with open arms. If people don't know our Creator has this kind love for them, if they don't know they can turn to him when they have nowhere else to turn, then they need to hear about it, because this is good news for all humankind (without exception). Because this is the gospel of our Lord Jesus Christ, the Son of God and Savior of the World, who said, "For God sent the Son into the world, not to condemn the world, but that the world might be saved through him" (John 3:17).

Life as Experienced Reality

We can never have all knowledge of God nor can we ever have all knowledge of the world. Revelation grants us what we need to know about God and doing science enables us to know what we need to know about the world. To attempt to gain knowledge of God that goes beyond what he has revealed to us is hubris, as is the attempt to gain all knowledge of the natural world. For us, such complete knowledge of God and the world, even if such complete knowledge *could* be gained, would be knowledge we would not have the wisdom to use. There is far more to God, and to the world, than we could ever know or comprehend. What we *do* know and what we *can* know involves the everyday experience of living our lives (e.g., work, family, and friends), and it is the *living* of this everyday experience that should be of the most importance to us. No religious belief, no scientific theory, no philosophical assertion is of any real importance to us if it does not translate into improvements in our interpersonal relationships with, and our concerns for, other people.

Christ taught through parables because parables are stories that are based upon the human lived-experience: they are the experiential "pictures of reality" that Christ uses in order to teach us how we should live—how we should *act*—in-the-world. We should live our lives in such a way that, because we act with compassion for others, our lives are pleasing to our Creator. The Bible takes our human perspective of the world as pre-given, not because the Bible was written by prescientific people, or because the Bible was written from a prescientific perspective, but because reality—as experienced by us—is that which appears to us. The phenomena we perceive, and the way in

which we perceive them, are the most *real things* (i.e., *existential beings*) we will ever experience. Our lives are a lived-experience of being-in-the-world: every moment of every day we *experience* the phenomenal world around us. And every moment of every day we must decide how the experience of our lives will impact the world and the life-experiences of the people around us.

The stories of the Bible are human stories, and that is why they still speak so clearly to us today. The Bible attributes the creation of the world and its phenomena to God, our Creator, yet it does not attempt to explain *how* God created (and continues to sustain) the world. Neither does the Bible attempt to explain how God can be sovereign when people obviously have the freedom to do as they please. Scientists, philosophers, and theologians speculate about such things but, for all practical purposes, such inquiries into the infinite wisdom and knowledge of God is too far beyond our intellectual capacity to comprehend. Our focus should be upon what we know, and what we *know* is what we perceive: our world, our families, our friends, ourselves, and, through the created world, our God. Our focus should be: How can I be a better person? How can I be a better friend? How can I be a better member of my family? How can I be a better member of the human community? How can I be a better steward of our world? How can my life please and honor our Creator-God?

We encounter profound differences when we compare the Bible with a book of science, a book of theology, or a book of philosophy. The Bible contains stories of human lives, human drama, history, poetry, and wisdom; books on science, theology, or philosophy are usually very rational, very intellectual, very dry, and very dull.¹²⁰ Although much knowledge can be gained through reason and intellect, wisdom is gained only through experience. And our quest to gain knowledge of ourselves, of the world, and of God will amount to little-or-nothing if we neglect the existential and emotional aspects of our human experience. As we've seen, the objective/subjective distinction is an intellectual construct—a rationalization of the dynamic experiential reality of the world we are immersed in. Yet prior to this intellectual rationalization there is only the living, working, synthesis of the two, which is our lived-experience of being-in-the-world. Our lives are one, long, phenomenal and existential experience of human existence: from birth to death, all we really know of *reality* is the dynamic, synergic, objec-

¹²⁰ The fictional writings (i.e., *stories*) of existentialist philosopher Albert Camus (e.g., *The Stranger*, *The Plague*, *The Fall*) being notable exceptions.

tive/subjective matrix of our (individual and corporate) lived-experience of being-in-the-world. And it is here, in our human experience, that the Bible meets us; this is where Christ and his teachings meet us—in our human experience—because there is no other experience for us: all of our experiences are *human* experiences, and it is our lived-experience of the world and of being-in-the-world that is, for us, *reality*.

The stories (or narratives) found throughout the Bible communicate truths to us about God, his relationship to us, our relationship to him, and truths about our relationships in-community with others. That the Bible, for the most part, communicates to us through narrative, rather than discourse, is important. These narratives portray the images of life in-the-world as-we-know-it and as-we-experience-it to be *in reality*: our lives are lived within the broader context of the phenomenal world of experience and our interpersonal relationships. Storytelling is usually thought to be a premodern means of communication, but modern-day storytelling is both popular and powerful: film. Many powerful stories are “told” to us today through the medium of film. A good film offers us the opportunity to enter into the lives of others, to perceive the world through their eyes, and to witness the unfolding of human drama in a way more powerful than any other form of media. Storytelling through film presents the film viewer with life-as-experienced from the human perspective, much like the way in which the viewer of the film experiences her own life. Likewise, the biblical stories present the reader with a narrative (story), similar to a screenplay for a film, documenting the human experience of reality, which is something the narrative reader is already familiar with (from her own experience) and can easily enter into.

The Bible is, however, much more than simply a collection of stories; the biblical stories are presentations of God’s relationship with humankind and the history of salvation—the outworking of God’s plan for the salvation of humankind throughout history (i.e., the salvation of his people). Although many people discount the Bible, considering it an untrustworthy historical source document, the Bible is clearly the most carefully kept record of ancient history. More than this, the Bible is a carefully recorded and preserved account of God’s (special) revelation. And we can easily imagine the entire biblical narrative being made into a film. For example, the life of Christ has, many times, been made into film versions of the gospel accounts of Christ’s life and ministry; some of which are very powerful films, due to the powerful contents of the gospels themselves, upon which they are based.

When we say that the biblical presentation of the world comes to us from the human perspective, we mean that the human person is central to the biblical narrative, just as the human person is central to our human experience of life as-lived-and-experienced by us. People's experiences, thoughts, emotions, perceptions, relationships, concerns, prayers, songs, dialogues, and writings are what make up the narrative that is the Bible. This is the world we are all familiar with, and this is why the Bible (unlike a book of science) is timeless, why its teachings remain relevant to us today: we can relate to its presentation of the world because it comes from the perspective of the world we have as people who live-in-and-experience the world.

Those of us who live in the Western world live within what could be considered a post-Christian cultural milieu. The West was long ago permeated with the gospel and the Bible has long held a revered place in our culture (e.g., art, literature, architecture, music, philosophy, and law), and yet, with the rise of modern science, the Enlightenment, rationalism, and skepticism, the Christian religion has been dismissed by many intellectuals as too irrational, superstitious, and primitive to be believed. Religion, to many intellectuals, was based upon primitive prescientific beliefs that are no longer tenable to intelligent, educated, and modern scientifically minded peoples.

For centuries now, in the minds of most people, modern science has more effectively explained the world of experience than has the Bible. Confidence is placed in science as our most reliable guide to truth; the Bible and faith in God is deemed outdated and outmoded. In our contemporary modern culture we are faced with a plentitude of moral and ethical dilemmas that modern science is wholly unable to resolve. As we have seen, ethics and morals is not the area of expertise for which science is adapted. Science is a field of knowledge that investigates the natural world, and at this science is quite capable; but not as a moral and ethical guide. Ethics and morals deal with human experiences within the human community; interpersonal and social relationships which require other areas of knowledge: law, philosophy, ethics, theology, and religion.

Being as Purpose

Having examined *purpose* earlier in this work, we can recognize that our world has an inbuilt teleology. Things in the world appear to be directed toward a goal, to have a purpose, and to function; and this is

especially evident in the growth of living things. We've also looked at the philosophical notion of *being*: things *are*, things *exist*, and things can therefore be said to have *being* or *existence*. We will now examine *being* from the biblical (i.e., human) perspective, which we are currently studying. Being or act-of-being is *existence* in itself: a thing is said to *be* because it *exists*; it is in the *act of existing*. In philosophy, the study of the subject of *being* is called *ontology* (Greek: *onta*, "the really existing things," "true reality," and *logos*, "the study of," "the theory which accounts for").¹²¹

Intellectual theorizations about the world can only take us so far. Our Creator's intends for us to use our ability to reason, to think about our world, but reason alone only takes us so far. Intellectuals are easily sidetracked by the enjoyment of thinking rigorously about various subjects, but such thinking can often lead intellectuals to become engaged in what amounts to intellectual-play theorizing. And intellectual-play theorizing leads to the construction of abstract intellectual-play pseudo-realities, which are believed to be true representations of the real world (and which are presented to the public as such) when, in fact, these intellectual abstractions have absolutely no correspondence to the very real world we experience. We've seen this in Einstein's theory of relativity: although we perceive time (together with motion) in the concrete world of everyday experience we can grant the abstract, intellectual-play *theory* a greater authority than we do our own *perception* of the world. We can begin believing in the reality of something we cannot perceive, a thing with no correspondence to the world we experience: that time is a physical thing that dilates in regions of extremely high gravity and at speeds approaching the velocity of light.

Now without letting ourselves get too intellectually sidetracked, let's devote a little thought to the subject of *being*. What is being? Is being simply that which is, as opposed to that which is not? Is being simply existence, as opposed to nonexistence? Being, as opposed to nonbeing? In philosophy, the study of being (or ontology) is a meta-physical endeavor; it is thinking about the very existence of the world itself: Why is there something rather than nothing? Why do things exist? How do they exist? What are things in reality? Theology has an interest in questions about being: Who is the being who is God? Do created beings derive their being from an ultimate being who is God?

¹²¹ Peter Angeles, *Dictionary of Philosophy*, (New York: Barnes and Noble Books, 1981)

In theology, God is the ultimate source of all being; all creatures and all created things derive their being from God's (ultimate) being. All of creation exists because the origination and continuation of all things derives from God himself, who is the ultimate source of all being/existence.

Theology has two traditional streams of thought on this subject: that of St. Augustine (based upon the philosophy of Plato and Neo-Platonism) and that of St. Thomas Aquinas (based upon the philosophy of Aristotle). Both agree that all being is derived from God's (ultimate) being, which results in a hierarchy, or a great chain of being (i.e., God, angels, humans, animals, plants, and minerals). This way of thinking about being does make a certain amount of sense, because the various phenomena of the world *appear* to be organized in just this sort of *hierarchy of existence*. Thinking about being can become very abstract and philosophical, but our lived-experience of being-in-the-world is not at all abstract—it is very concrete.

We clearly understand our existence to be the most real thing (i.e., being) imaginable to us; our conscious perception of ourselves in-the-world is what we *know* above all else. Whether engaged in science and the study of the natural world or in philosophical/theological reasoning, we are always caught-up in the existential/phenomenal living-experience of our lives, which we cannot transcend. We can never get beyond our consciously perceived experience of living-in-the-world and our experience leads us to consider the probability that the world is shot-through with purpose. In fact, the only logical alternative to the conclusion that our world is a purposeful world is to suppose that our world has no purpose whatsoever. It would do us no good to imagine our world as having only some purpose, because even *some* purpose *is* purpose.

The simplest and most obvious starting point in any investigation of being is our observation of phenomena as-they-appear to us. In fact, I think how the world appears to us tells us all that we really need to know about being. Our *observation* of the world tells us that the world *is*, that we *are*, and that both we ourselves and the myriad phenomena of the world *change* over time. The physical world is in a constant state of change; some of this change is from order to disorder (e.g., decay, erosion, entropy) and some follows an ordered pattern (e.g., the motions of the celestial bodies, the changing of the seasons). The living world is also in a constant state of change; the most readily observed change being the regular, ordered, pattern of growth in living things, as seen in birth, immaturity, and maturity, as well as in the procession

from order to disorder, as seen in aging, death, decay, and decomposition. These readily observable features of our world indicate to us that our world is a world in which all is in motion and all phenomena have direction and an ordered purpose; a goal toward which they are striving, and an end toward which they are destined.

When we observe an inorganic/inanimate phenomenon, we experience that phenomenon as-it-appears to us; and our perception of that phenomenon always reveals itself to us as being (or as having once been) in a state of motion or change (whether presently in motion when we observe it or that it had once been in motion in order to for it to have come to rest in the place where we observe it to be). The phenomenon that is the world of living things is in a constant state of motion and change, and the appearances of all living things show order and design directing them toward the goals of growth, development, and maturity.

These are the same sorts of observations of the world made and reflected upon by Aristotle, whose philosophy became the intellectual framework in the theology of St. Thomas Aquinas which, although being at first rejected by the Church (for its integration of Christian theology with pagan philosophy), has since become the *de facto* expression of Catholic theology for more than 800 years. Aristotle's and Aquinas' categories of matter, form, substance, and accident are reasonable intellectual categorizations of being and of the phenomenal world of existence, but such intellectual categorizations are, at best, only outdated abstract intellectual-play theorizations about the phenomena of the world we experience: purporting to tell us something about the hidden, ultimate reality, they actually tell us very little about the very open and unhidden reality of what we readily observe.

Although metaphysicians and scientists seek to understand how the world was formed and how it continues to exist, apart from divine revelation, we can never have knowledge of the ultimate causation of the reality of phenomena beyond our experience of the appearances of those phenomena themselves.

Metaphysicians reason their way to conclusions about the real world of experience, but such reasoning does not make these intellectual conclusions *about* reality *into* reality; these speculations are only rationalizations about reality. Physicists explore the physical world at the subatomic level in search of an ultimate reality, which lies hidden beneath the veil of phenomenal appearances, but what they discover is simply another level of phenomenal appearances. The physicists are still engaged in the conscious experience of phenomena as-they-

appear to them in their conscious human experience of living-in-and-perceiving the world; it doesn't matter at what level (direct or indirect) observations of the appearances of phenomena may be made.

God has created us to live in-the-world as-it-appears to our unaided sense perceptions; this is both the human perspective from which the Bible was written and reason why the Bible remains meaningful for us today. Theology should begin with the world as-it-appears to us (natural theology) and with the revelatory narrative of God's interaction with humankind (the Bible). Theology should not allow itself to be sidetracked by intellectual speculation into what is ultimately beyond our ability to know through perception and reason; even human perception and reason guided by divine revelation. What has been revealed is made plain to us, and we always err whenever we attempt to know more than we are capable, or in need, of knowing. Some things about God and the world will always remain unknown to us: "The secret things belong to the Lord our God; but the things that are revealed belong to us and to our children for ever, that we may do all the words of this law" (Deuteronomy 29:29).

Theology is done best when we stick with that which we know best of all: our experience of the phenomenal world along with that which has been revealed to us through both natural and special revelation. The world and its phenomena were created by God with purpose: our world provides us with a home wherein we live-out our lives, and the world is the environment which provides us with everything necessary for us to live our lives; the world is the very context of our existence. Although we often take the world for granted, our lives are incomprehensible apart from the greater context our world provides for our existence. That the world is *a created world* is plain for all to see. Those who deny that the world is the creation of God are engaged in *the suppression* of this most evident truth:

"For the wrath of God is revealed from heaven against all ungodliness and wickedness of men who by their wickedness suppress the truth. For what can be known about God is plain to them, because God has shown it to them. Ever since the creation of the world his invisible nature, namely, his eternal power and deity, has been clearly perceived in the things that have been made. So they are without excuse" (Romans 1:18-20).

The created world of phenomena we experience is the revelation of God's glory, his invisible (and *unknowable*) nature, his eternal power, and his love. All that we perceive—moment-by-moment and day-by-day—is the expression of God's glory, power, and love. To attempt to suppress this knowledge is to work against God and against the created order of the world. It should not surprise us that the first orders of business for the antitheist is to attempt to dismiss God's creation of the world by insisting that the existence of the world is simply the product of spontaneous naturally occurring non-intelligent causes; postulating the existence of an infinite number of universes as well as an infinite amount of time, which would allow for a world like ours to exist random chance (against truly astronomical odds). As we've already seen, theories such as these are not scientific, because tell us nothing about the natural world. Such theories are, therefore, the very denial of reason; the death of both knowledge and science.

God created the world and he declared his creation to be "very good" (see Genesis 1:31); those who suppress the knowledge of God, which we can readily perceive in the natural world, do so "by their wickedness" (see Romans 1:18). The knowledge of good and evil is something we, as human beings, possess innately: we *know* both good and evil when we see it. The natural world is the expression of God and it is overwhelmingly good. In fact the only way for us to recognize evil as being evil is for us to first acknowledge the overwhelming good so evident in the world. We understand evil to be whatever is *working against* the inherent good purposes of the world.

For example, we rarely observe evil by simply stepping outdoors and looking around. Certainly evil does exist somewhere close by, but we rarely observe it simply by stepping outdoors and observing the world around us. Of course, if there were a war going on right outside our door, or a hurricane, we might say otherwise, but the truth remains that hurricanes, car accidents, sickness, war, and death are evil exceptions to an overwhelming rule of life and goodness. In our world, life and goodness overwhelmingly predominate; despite the fact that evil exists as well.

In order to us to say that evil exists, we must first acknowledge the existence of good. We must define evil, not on its own terms, as if it were a thing in itself, but as that which is *working against* something that we know to be good. We know what is good, and we do not need to acknowledge evil in order to define it; we define what is good on its own terms: life, growth, joy, love, beauty, knowledge, wisdom. Evil must always be defined as being that which sets itself over and against

that which is good, especially life: sickness, death, sadness, hatred, ugliness, ignorance, foolishness. These are not simply opposites, as if good and evil were in some sort of perpetual balancing act, the world exists—to an overwhelmingly degree—as a good world; as a world of life, growth, joy, love, and beauty. It is that which *takes away from* the world's natural goodness, its life, its growth, its joys, its love, and its beauty that we call evil. Evil is a taking away from that which is by nature good, by virtue of its having been created by God.

The creation of all that exists, of God's bringing everything into existence by his power, wisdom, and love, is the greatest imaginable demonstration of his goodness. It is not possible for us to perceive, or to even imagine the perception of, the entire created world (cosmos) nor could we ever have the knowledge and wisdom necessary for us to be able to fully comprehend it. We are bound to the world and we are bound to our own, limited, individual experience of the world. God alone transcends the world of created things, and he is the supernatural reality beyond our natural, limited, experience of the reality of the natural world. Our human lived-experience and perception of the phenomenal world is the one reality we can and do know best.

God created the world as a world in which we could exist and function. We perceive the world through our natural sense perceptions, as well as through aides to our natural sense perceptions; this we *can* know and understand, and this knowledge and understanding of the world is sufficient to enable us to function in the world. Beyond a certain level of perception, even perception aided by devices, we do not have the ability to clearly perceive the phenomena of the world (as is evident in the observations of quantum physics; i.e., the uncertainty principle). There was no need for God to have designed us to clearly perceive the appearances of phenomena at the quantum level because there is no practical purpose in our being able to perceive things at the quantum level. Things that are beyond our perception cannot help us in attaining our true purpose: living our lives for God and for others.

Modern science has sought to find an ultimate and hidden reality, but what science has discovered is that, at the quantum level, some phenomena will always be beyond our abilities as human persons to perceive. Although we may not have personally observed quantum phenomena, we don't doubt the observations of the physicists who claim to have (experimentally) observed and experienced these phenomena. We trust that the phenomena the physicists claim to have observed have appeared to them exactly as they would appear to us if we were able to (experimentally) observe them ourselves. We have

not observed Christ's resurrection from the dead, but we can trust the apostles when they claim to have observed Christ to be alive and risen from the dead. We trust that, had we been present, we too could have observed him to be alive and risen from the dead. In fact, the Bible records that over 500 people bore witness to the resurrected Christ:

"For I delivered to you as of first importance what I also received, that Christ died for our sins in accordance with the scriptures, that he was buried, that he was raised on the third day in accordance with the scriptures, and that he appeared to Cephas, then to the twelve. Then he appeared to more than five hundred brethren at one time, most of whom are still alive, though some have fallen asleep. Then he appeared to James, then to all the apostles" (1 Corinthians 15:3-7).

All of us must trust the words of other people at times, especially concerning the phenomena and events of the past that we cannot experience for ourselves. The faith of the Christian is not a blind and credulous faith, but a faith that is based upon reliable historical facts (the New Testament being one of the most trustworthy documentary accounts of ancient history).

A practical theory of being should to begin with that which is perceptible to all human observers: the phenomena of the world as-they-appear to us. A common sense theology (and ontology) would begin with the world as-it-appears to us and would avoid delving into the kinds of abstractions that even the philosophers and theologians cannot clearly explain (and which most people care nothing about). The Bible does not attempt to give us an abstract ontology, theology, or philosophy: the Bible presents us with the reality of the phenomenal world as experienced by human observers. In the Bible we encounter God, angels, women, men, children, animals, plants, rocks, mountains, rivers, villages, cities, life, death, hope, sickness, love, sin, beauty, doubt, joy, faith, and the myriad human experiences with which we are so familiar because we *live* in-the-world.

Granted, some of the experiences found in the Bible are *not* observable to us—such as those that are not repeatable and those that were given by special revelation—but the vast majority of the experiences the Bible presents *are* observable to us. None of the biblical presentations of the phenomena of the world are abstract conceptuali-

zations; rather, they are the concrete observations of the phenomenal world around us. The Bible presents us with life as-we-experience-it and as it was experienced by those whose life experiences of the world and of God are recorded for us within its text. When the Bible records Moses' parting of the Red Sea, or David's taking of another man's wife, or Christ's opening the eyes of a blind beggar, these events are presented to us as historical events having occurred in the life-experiences of the people who were alive at the time when they occurred; they are presented to us as historical events having occurred in-time and in-the-world.

The biblical text has come under much scrutiny by modern scholarship, with its theories of a multiplicity of authors and redactors (e.g., the Documentary Hypothesis, source theories), but such criticisms miss the point of the biblical text itself. Postmodern scholarship is much closer to the truth in this regard: the text is-what-it-is and it should be read as-it-presents-itself to the reader.

The biblical presentation of historical events is from the human perspective, and, when we read the biblical narrative, it is as though we are experiencing these historical biblical events for ourselves. Events, in the Bible, are not reduced to scientific, philosophical, or theological analysis, as if these sorts of reductions would allow us to finally get to the real truth about the real events. The reality of the events is their having been experienced as-they-were-perceived by conscious human observers living at that time.

To develop both an ontology and a theology based upon *appearances* may sound unusual, but what *appears* to us in our encounter with the world is what we truly know and understand best of all. It only makes sense for us to think more deeply about those things we already know and understand—and which we experience every moment—rather than spending our time and effort thinking about abstractions, which can never be experienced. If we cannot visualize or imagine our ontology, then it will never be of much practical use to us; an ontology that is abstract and unimaginable is simply intellectual-play. If being is important to us at all, then that which we perceive is certainly the most important aspect of being imaginable.

The sort of philosophical thinking that delves into abstract distinctions between the appearance of a thing and the thing-in-itself (i.e., being, or ultimate reality) is missing the point. The *thing* is that which appears to us as-it-presents-itself to our consciousness; it is the *appearance* of the thing (i.e., the observable phenomenon) that matters most. The world appears to us as it does because we are meant to

function in the world, and living-in-the-world is far more important (and more real) to us than is an abstract intellectual-play conceptualization about the world.

Imagine, for instance, if we could perceive, with our (unaided) sense of sight, the entire electromagnetic spectrum. We would not need science to tell us about infrared and ultraviolet light (for example) because we would perceive all wavelengths of light—x-rays, radio waves, microwaves—the entire electromagnetic spectrum. But if this were possible we would not be able to function and live-out our lives in-the-world.¹²² Our Creator has designed us so that we can perceive only that which is necessary for us to perceive in order for us to be able to function in-the-world. Our being has purpose, as all being does.

Why *can't* we directly perceive some phenomena? Why *don't* they appear to us? Why is it that some phenomena *are* perceptible to us? Why *do* they appear to us? It is because the appearances of phenomena are created by God; they are created as-they-appear to us in order that he may more fully reveal himself to us through the natural world of phenomena, and so that we could be able to live (functionally) in-the-world. This is why a theology of appearances is so important: any theology which attempts to understand God, his relationship to his creation, our relationship to him and to the world he has created, and our relationships within the human community must begin with the phenomena of the world we perceive. This is both a biblical and a commonsense approach to doing theology, which is a good approach for theology to take, because, at the end of the day, theology is supposed to tell us *how to live* in-the-world in such a way that our lives would demonstrate our love for God and our love for others.

Thinking abstractly about being is part of our rational human nature; the use of our ability to reason and to think. It is reasonable to postulate the notion that any created being must have an originating first cause, which is true *being in itself*, that this ultimate being is God, and that all lesser beings derive their being from him. But this sort of abstract reasoning does us little good in our attempts to live better

¹²² I am indebted here to my good friend Ian (Patrick) Downin for this example. Anyone who is familiar with the television series *Star Trek: The Next Generation* knows that Geordi La Forge, who is blind, “sees” the world through a visor, which allows him to see wavelengths of the electromagnetic spectrum that no one else can see. Geordi *claims* to be able to adjust (psychologically) to the confusing jumble of electromagnetic appearances coming at him through his visor (see the episode: *Heart of Glory*) but I am skeptical of his claim, it has to be very confusing. Granted, the visor allows Geordi (with effort) to function better than he would be able to without it, but not nearly as well as he could if he were sighted.

lives. Thinking abstractly about the natural world is also part of our human nature and the use of our ability to reason. Modern science postulates the existence of multiple universes, wormholes, event horizons, time warps, and many other phenomena, but these are intellectual abstractions and not physical realities. And this sort of theoretical, hypothetical, and intellectual-play science does not help us to live our lives better.

Theology and modern science both do better when they are focusing on the here-and-now reality of the world we live in focusing upon those with whom we share this world. We would much rather hear a theologian teaching about how God desires for us to love our neighbor as ourselves, or hear of a scientist who, after many years of research, discovered a cure for a disease, than we would a theologian teaching about the ontological nature of the hypostatic union, or a scientist lecturing on the purely hypothetical theory of time travel.

We would do well to replace our abstract intellectual conceptions of *being* with a more concrete and practical theory of *being-as-purpose*. God's creation of the world as-it-appears to us is his display (to us) of a functional world created with purpose and meaning. Purpose displays mind, intellect, will, and emotion, which is a more complex and comprehensive view of being than is the simple (reductionist) concept of God as the ultimate being and as the source of all other beings. Purpose is apparent—it appears to us in-the-world—and it is wiser for us to focus upon God's purpose, as revealed to us both in creation and revelation, than it is for us to engage in intellectual speculation about his being, essence, and nature. Ultimately, modern science is unable to get to the bottom of the reality of the physical world, and theology is unable to grasp the ultimate reality of God.

The fields of both science and theology may have finally learned the truth: the human understanding of ultimate reality will always remain a mystery. The truths that are known about God and the world are always held in tension with those truths about God and the world that we can never know. Both modern science and theology, within their respective fields of knowledge, must be content with an imperfect knowledge:

“Quantum physics has had to be content for eighty years to live with the uncomfortable fact that not all its problems have yielded to solution. There are still matters that we do not fully understand. Theology also has had to be content with a partial degree of un-

derstanding. Trinitarian terminology, for example in its attempt to discriminate the divine Persons in terms of a distinction between begetting and procession, can sometimes seem to be involved in trying to speak what is ineffable.¹²³

The human perspective of living-in-the-world is the Bible's perspective, and it should be our perspective as well. How much truth and wisdom could be gained by simply taking the biblical, human view of the world we experience—the world pre-given to us by God—as our context for thinking, perceiving, and living? As we saw above, when Christ taught in parables he did not go into elaborate philosophical/theological discourses about being, or the nature of things. Instead, he taught through stories about very human people who experienced life as lived in-the-world, in-community, and in-relationship with others, and God's living relationship with humankind. It is this biblical/phenomenological human perspective that we should allow to guide us in our theological and philosophical thinking. Theological/phenomenological thinking is reasoning based upon our human perspective of the world and upon our conscious experience of living-in-the-world; thinking that is based upon the phenomenological concept of the pre-given life-world.

Nothing could be more intellectually important to us than grounding our reasoning upon that which we can perceive and experience every moment of our lives: the experiential field of interaction between our conscious minds and the world of phenomena. If God has created the world of phenomena, and if God has created us to directly experience those phenomena as-they-appear to us, then is this not also the way in which he has probably intended for us to best know and understand him, and the world he has created? Is there knowledge God has hidden from us but that he desires for us to have, which we gain only through abstract intellectual-play? Or has he made plain to us, through the natural revelation of world we perceive and through the special revelation of the Bible, all that he desires for us to know (and all that we are capable of knowing) about himself? We have a God-given natural ability to perceive the world via our senses and our perception of the world grants us the knowledge that we have a Creator: "For from the greatness and beauty of created things comes a cor-

¹²³ John Polkinghorne, *Quantum Physics and Theology*, (New Haven: Yale University Press, 2007) p. 20

responding perception of their Creator” (Wisdom 13:5). Special revelation is based upon and presupposes this natural revelation, and it communicates to us that which we cannot know through the natural revelation of the created world alone. For example, God exists (natural revelation); God loves his creation and he provides the way for the salvation of his creation (special revelation).

From this human, embodied perspective of the world, and from this human, perceptually-based perspective, comes a revealed knowledge of God and salvation. God has provided this knowledge of himself and his relationship with us in such a way that all people can readily understand it. This knowledge is not abstract, it is not complicated, and it is not only for intellectuals: it is a knowledge based upon the common existential/phenomenal human experience of living-in-the-world.

Theological and philosophical reasoning can help us in thinking-through concepts of morals and ethics, but a real-world illustration (such as a story or parable) of people confronting and dealing with ethical dilemmas forces us to rely upon our conscience and upon our emotions, which are as much a part of our human nature as is our ability to reason. We need both—emotion and reason—not one to the exclusion of the other. Stories based upon human experiences presuppose the conscious human experience of life lived in-the-world, and this *experience* of living-in-the-world is the one *thing* that is most *real* to us all.

When it comes to acting ethically we are guided best, not by abstract reasoning, but by our hearts. Christ was *moved with compassion*¹²⁴ to reach out to those in need; he didn’t need to reason abstractly in order to act ethically and neither do we. We are, quite naturally, moved with compassion whenever we see (or hear of) people who are truly in need. We can squelch this natural emotion, but squelch it we must, because it rises up within us by virtue of our very nature. We will exercise our ability to reason in order to know *how* we can best respond to someone in need, but our *urge* to respond comes from our hearts.

The Bible presents a world of people who are in need of salvation; and not just a *spiritual* salvation, but a *physical* salvation as well: “Rescue the weak and the needy; deliver them from the hand of the

¹²⁴ Greek: *σπλαγχνίζομαι*, meaning: to be *moved with compassion* (See entry in Bauer, Arndt, and Gingrich, *A Greek-English Lexicon of the New Testament*, (Chicago: University of Chicago Press, 1958, 1979)

wicked" (Psalm 82:4). We are *living unities* of both physical and spiritual being (like Christ, who is the image of the invisible God) who are in need of both physical and spiritual salvation. It is only by the grace of God, through the living Christ, that we can find salvation; both in this world and in the (regenerated) world to come. The Bible presents us with our Creator's perspective of the world: people are his main concern. And this is why the Bible's human perspective is the Bible's primary perspective, because we are of the greatest concern to our Creator, and our greatest concern should be for our fellow creatures, our fellow inhabitants of the world we perceive, which is our Creator's world. This is our purpose for being-in-the-world.

Chapter Six

How This Theological and Phenomenological View of the World Should Affect Our Lives

Conclusion

In conclusion, let's consider how this theological/phenomenological worldview—a theology of appearances—should affect our daily lives. The way of viewing the world as-it-appears-to-us, which we have been considering throughout this work, is both familiar to us—it is the way in which we perceive the world everyday—and unfamiliar to us, because modern science claims that *reality* is imperceptible to our direct sense perceptions. Most of us are conditioned—through education—to accept the picture of reality presented to us by modern science, and to reject any view of reality that conflicts with or contradicts the modern scientific view. From an early age, we all learn that modern science is best able to tell us what is *true* about the world.

As we have seen, modern science claims its objective view of the world is the best path to gaining true knowledge of the *reality* of the natural world, and yet modern science virtually ignores the very subjectivity (i.e., the consciousness of the scientist) upon which science itself is ultimately based. Science is not the neutral, objective endeavor we are often led to believe it to be; science, like all human interaction with the world, is a consciously perceived human experience of the world. The objectivist view of modern science leads to a reductionist view of the world, which modern science presents to us as the way the world *really* is. But there's much more to the world (and to reality) than modern science—on its own assumptions—can allow for. The phenomena of the world are far too complex to be reduced, categorized, and compartmentalized by science. Science, as a field of human

knowledge and inquiry, has a very important place in the human understanding of the world, but it should not be granted sovereign authority over all other fields of human knowledge.

Making sense of the world is something we all must do, and how to best to make sense of the world is a choice we all have to make. We are presented with many different views of the world, all claiming to be the best way to make sense of the world (modern science being only one particular view) and all of us—whether consciously or unconsciously—make a choice about *which* view of the world is best. Our conceptualized view of the world not only influences how we will think about the world, it also influences our actions—we choose *how* we will live-in-the-world. If we adopt the modern scientific view of the world, then we will likely see the world in reductionist terms, which could cause us to act as though this *reduced* world were in fact the *real* world.

Any view contrary to the (reductionist) modern scientific view of the world is thought to be erroneous, and quite possibly harmful to human knowledge itself. The religious, the theological, the philosophical, and the metaphysical are all thought by modern science to be subjective, irrational, and nonscientific; therefore the truth-claims made by these fields of knowledge should be considered unimportant and (ultimately) meaningless. Yet this sort of traditional, modernist attitude appears to be changing; the appeal of modernist thought has waned, its rationalist and reductionist weaknesses more exposed now than ever before. A more holistic approach to human thought, emotions, and existence has gained a greater following in recent years. The modernist notion of rational, universal, necessary, and certain truths, to which all people everywhere can ascend through the use of human reason alone, does not exist in the same sense that the modernists once believed it to. Postmodernist emphasis upon emotional, particular, contingent, and relativistic truths have revealed the uncertainties that lay hidden (like an epistemological bomb) within the presuppositions of the modernist's worldview. We can now recognize that neither modernism nor postmodernism alone are correct; both points of view reveal certain aspects of human nature and human thought that are true-for-us, and yet the greater truth lies somewhere in between these two philosophical extremes.

Modernism rejects divine revelation, inspiration, and miracles; postmodernism rejects metanarratives (especially the Bible), absolute truth-claims, and hierarchy. And yet the biblical view of the world embraces all of these. We should be willing to embrace all of the truths

found in objectivist/modern thought as well as the truths found in subjectivist/postmodern thought. And our Creator has also given us truths we can know both through our ability to reason and our lived-experience, and he has revealed these truths to us both in the natural world and in scripture.

As we have seen, both the world and the scriptures are texts we interpret, and we base our interpretation upon the presuppositions we bring with us when we approach these texts. God has given us the Church (earlier, the Church of the Jewish nation; and later, the Church built by Christ himself), which provides us with the correct guidelines for interpretation along with the knowledge of this special revelation. Apart from the Church, humankind (relying solely upon human reason and emotion) would develop countless interpretations of the texts of both the world and the Bible and leading people to numerous conflicting beliefs about both (conflicting worldviews being an especially definitive characteristic of the modern era).

The modern scientific quest for an ultimate reality underlying our experiences of phenomena is misguided: reality is that which we experience, that which appears to us. It is the on-going experience of being-in-the-world. Science, as we have seen, is neither as neutral nor as objective as it is commonly thought to be. Modern science is the observation and study of the phenomena of the world, and, as such, science itself is also a conscious human *experience* of living-in-the-world. Modern science hopes to discover universal, necessary, and certain truths about the ultimate reality of the physical world, and yet what science—quantum physics, for example—has discovered is *uncertainty* rather than certainty and *probability* rather than necessity. The world of our experience is far more complex than modern science had ever anticipated. What *is* universal, necessary, and certain is our common human experience of being-in-the-world. Each of us consciously perceives the phenomenal world we live in and we experience the phenomenal world in a way that is common to all humankind.

All people can agree about the appearances of phenomena because phenomena present themselves to each of us via our sense perceptions. And it is the order and structure of phenomena (i.e., phenomenal forms), what modern science considers matter/energy, that is of most importance to us here. Rather than seeking an ultimate, hidden reality underlying our experience of phenomena, modern science should be seeking the cause for the order, structure, and complexity that is so evident in the many phenomena we observe. Order, form, and complexity denote design and purpose, and yet order, structure,

and complexity are exactly the opposite of everything modern science tells us our world is: a random, purposeless, chance occurrence. Modern science prefers randomness, purposelessness, and chance—asserting that the phenomena of the world only *appear* to have purpose or design. Our world and its phenomena, according to modern science, are the product of an infinite number of possible combinations of matter/energy which, over an infinite amount of time, gave rise to the forms we observe—all having occurred by sheer, random probability. As we have seen, this scientific assertion tells us absolutely nothing about the world, provides us with no knowledge of the world whatsoever, and is tantamount to saying that modern science has no idea how the world came to exist, but does know one thing for certain: the world cannot have been designed with a purpose, goal, or direction (despite the fact that the world clearly *appears* to have been designed).

The world as-it-appears to us is the best place for us to begin forming our intellectual conceptualizations about the world. We perceive appearances throughout our human lived-experience of the world and good science, good philosophy, and good theology will always acknowledge the value and importance of these appearances in the quest to gain true knowledge of the world. When we perceive the world open before us we perceive ourselves as being both in-the-world and of-the-world: our (subjective) consciousness and our (objective) bodies synergizing to form the individual, embodied, conscious, human existence. Each of us is a phenomenon immersed within the metaphorical phenomenon that is *the world*. How does the way we view or perceive the world cause us to think about ourselves, about others, and about God? How do our intellectual conceptualizations of the world influence the way we choose to live our lives *in* the world? Does it matter? How can perceiving the world as-it-appears to us help us to live better lives?

If we think of ourselves and the world as random occurrences without purpose, we could choose to live rather random and purposeless lives. Purpose, however, is built into us by our Creator, and most of us do not choose to live random and purposeless lives. The intellectual, however, who has a conceptual scheme which interprets the world as random and purposeless, can certainly be led to the (logical) conclusion that life—despite its appearance of having been designed—is without meaning: existence is all we know and existence is all there is. Existentialism or Christianity, meaninglessness or purpose, randomness or design, chaos or order . . . nevertheless, our world appears to us as *a world*, as *a cosmos*, as a highly ordered and purposeful *universe* designed with us in mind.

The biblical and religious view of the world, wherein the world is perceived as the special creation of God and humankind as central to the universe, seems to have since the rise of modern science; especially after the eventual success of the Copernican Revolution. Evolution was seen as the final scientific nail in the coffin of a dead religious faith, a faith which intelligent, educated, thinking people could no longer possess—the bright light of reason having dispelled the darkness of prescientific, religious credulity and superstition. Since the ascendancy of modern science to its position of final authority in the minds of most modern people, many people today have unsurprisingly turned from faith in Christ to faith in modern science.

For modern peoples science alone is thought to be able to present us with the true picture of the reality of the world. And because modern science gives us the only proven facts, it is seen as the best guide to knowledge, life, and the future. As for God, angels, heaven, hell, miracles, and resurrected messiahs, none of these things can be observed and quantified; therefore they do not exist. This has been the prevailing way of thinking about science and religion for the past 500 years, and this way of thinking continues today; perhaps more so in our day than ever before. The authority of science has never been greater than it is today, and it is this *authority* that needs to be challenged. Modern thought challenged the reigning authorities of its day: the Church and the Bible, and postmodern thought challenges any and all authority. So what course should our thinking take? And how will the course of thinking we choose affect how we will choose to live our lives in-the-world?

Science and religion have been in competition for a very long time now, but science and religion—when working properly within their respective fields and in cooperation with one another—are each necessary and beneficial to humankind. Likewise, both science and religion can be harmful to humankind when these fields of knowledge are improperly practiced, and when they compete with one another. As strange as it may sound, both science and religion are best guided by one thing: *love*. Without love, the practice of both science and religion can devolve into a means to an end: the power of an elite few over the lives of the powerless many.

Knowledge is what scientists, philosophers, and theologians seek. Knowledge is empowering, but, apart from *wisdom*, knowledge also has the potential for great danger. Modern science presents us with incredible advancements in knowledge about our world, and with many innovative, technological applications of this scientific know-

ledge, but at what price? Apart from the influence and guidance of religion and philosophy (with its combined wisdom in morals and ethics) science and technology are without ethical boundaries. The setting of ethical boundaries belongs to religion, theology, and philosophy; not to science and technology.

A science that would shun religion as superstitious nonsense is a powerful knowledge of the natural world, which can become intoxicated by the power it has over the things (beings) it is able to control, poised to reshape the world into its own image. It's no coincidence that the more powerful science and technology becomes in reshaping the world, the more the world begins to resemble the new creations of the scientist's imaginations, which appear less and less like the natural world created for us by our Creator. Many of us live in artificial, urban world environments—the creations of scientists and engineers—that separate us from the natural world's testimony to the glory of our Creator. This artificial world is a highly technical environment which does not testify to the glory of God, but to the glory, power, and pride of human reason and human accomplishment.

On Perceiving Our World

By perceiving the world from a phenomenological/theological perspective we can begin to view the world as-it-appears to us prior to any intellectual conceptualizations we have about the world. We can begin to experience the world of phenomena as-they-present-themselves to our conscious experience and we can allow this presentation to guide us in forming the conceptual schemes we use to make sense of the world. The phenomenological/theological view of the world is a view that, if taken to heart, can allow us to better appreciate the wonder of creation, the wisdom of our Creator, and our proper place in the created world.

We all live-in-and-experience the world, we all think about the world, and we all perceive and form views of the world. Our experience of the world of phenomena as-they-appear to us, the knowledge that comes to us through the natural world, and the knowledge specially revealed to us by our Creator are trustworthy guides to living our lives in harmony with others, with our world, and with our Creator.

Whether we choose to think scientifically, theologically, or philosophically, we must begin our thinking about the world with our expe-

rience of ourselves and our experience of the world. There is no more basic (or appropriate) starting point for our thinking than is *our experience* of the world; above all else we should allow this experience to shape and influence our thinking. Thinking in-and-of-itself can only take us so far. Our world is a world *created* as well as a world *perceived* and *experienced* by us. Viewing the world as a created world provides us with the context we need to develop our thinking in ways that will allow us to grow toward the ultimate goal our Creator intends for us: to love him with all of our hearts, all of our minds, and all of our strength; and to love our neighbors as ourselves. Nothing could be more real to us than are the myriad phenomena of the world that appear to us every moment of every day of our lives. Reality, in our experience of the world, is that which appears to us. This is the world as our Creator has designed it: a real world, of real phenomena, perceived as real phenomenal forms. There are no greater *experiences of reality* than are the wonderful experiences we have of living-in-the-world: the beauty of a sunset, the laughter of children, or the embrace by a lover. Nor are there any greater *experiences of reality* than are the horrible experiences of living-in-the-world: the ugliness of war, the screams of suffering children, or being rejected by someone we love.

We have no qualms regarding the good experiences in life—life is wonderful and we enjoy it. Of the bad experiences, however, life can become an unimaginable horror which mocks and torments our very existence. It is these horrible experiences, more so than the good experiences, which can drive us to question the meaning of our lives and our very existence. When Job's world fell apart, after he had lost his health and all of his children, he said, despairingly, "Why did I not die at birth, come forth from the womb and expire?" (Job 3:11). It is religion to which most people often turn for answers during life's most difficult times, because religion provides us with the best answers to our most perplexing existential human questions. Many intellectuals and antitheists consider religion to be a crutch for weak minded people who are unable to face the difficulties of life head-on with stoic/existential resolve in the face of our seemingly random and meaningless existence. And yet the resolve of the intellectual and the anti-theist also provides them with answers to life's most perplexing questions and their "existential resolve" is similar to the religious faith which they ridicule. Perhaps the antitheists need a crutch too; just a different kind of crutch.

All of us need some sort of anchoring for our souls, be they existential anchors, religious anchors, philosophical anchors, pleasure

anchors, work anchors, or whatever. All of us must make sense of the world we live in, and we all have the need to make sense of both the joys and the tragedies that we experience in life. Religion, when used as a way of making sense of the world, is no more a crutch than is any other way of perceiving the world. I believe that religion and belief in God can provide us with a much better ground for our thoughts, our emotions, and our souls (especially during difficult times) than do the nonreligious or antireligious worldviews. Meaninglessness rings hollow. Do the atheists and antitheists really believe that their children's (and their grandchildren's) lives are without meaning?

When it comes to the reality of life as-we-experience-it modern science, philosophy, and theology have very few real answers. What does modern science have to say to the parent whose teenage son or daughter has recently been killed in an accident? What does philosophy have to say to the young boy or girl whose parents are getting a divorce? For that matter, what could theology possibly have to say to these people? No one wants to hear a theological discourse at times like these. Theology often waxes philosophic, and philosophy has very little to say at these times in life. What people need at these times is the compassion of God in Christ, flowing to them through us; they don't need intellectual-play theories.

In the four Gospels, the Bible gives us an account of the events that occurred during the life and ministry of Christ, and in these four gospels we discover God's heart for us: he reveals to us his love, his compassion, and his desire for us to live our lives for the betterment of ourselves, of others, and of our world by way of our relationship with him (made possible for us through his Son, Jesus Christ). An especially amazing account of Christ's compassion (and of his power over death) is related to us in the seventh chapter of the Gospel of St. Luke. Jesus and his disciples came into a city called Nain and, upon observing a funeral procession in progress, Jesus showed compassion to a woman whose only son had recently died:

"Soon afterward he went to a city called Nain, and his disciples and a great crowd went with him. As he drew near to the gate of the city, behold, a man who had died was being carried out, the only son of his mother, and she was a widow; and a large crowd from the city was with her. And when the Lord saw her, he had compassion on her and said to her, "Do not weep." And he came and touched the bier, and the

bearers stood still. And he said, "Young man, I say to you, arise." And the dead man sat up, and began to speak. And he gave him to his mother. Fear seized them all; and they glorified God, saying, "A great prophet has arisen among us!" and "God has visited his people!" And this report concerning him spread through the whole of Judea and all the surrounding country (Luke 7:11-17).

In this gospel account of the life and ministry of Christ, we can see *the reality* of the world as Christ himself experienced it. Christ does not delve into a theological/philosophical discourse in order to explain God to his disciples, nor does he deal with the problem of evil in the world, nor with questions about whether or not this world is the best of all possible worlds God could have created, rather Christ expresses the love and compassion of God—as well as his power and authority over death. At the depths of her greatest despair, the woman encounters Christ—the image of the invisible God—and she experiences his love, compassion, and power in a way that is contrary to all known scientific facts about the natural world: her only son, now dead, is given back to her alive.

Imagine, if you will, this same sort of event occurring today. If we were attending the funeral of a young man or woman who had recently been killed in a car accident, and some strange teacher stopped the hearse, brought the deceased to life, and presented them back to their mother or father alive what would we think? The grave had already been dug, and the parent had already begun to deal with the fact that they would never again see their beloved son or daughter alive. A mother or a father who has to bury their child is reality. This is as *real* as anything in life can possibly be. We've no need here to seek a hidden reality behind the appearances of *this* phenomenon. Life as-we-experience-it is as true a *reality* as we will ever find. This reality of life-as-experienced and of the world as-it-appears grounds our very existence to the world, and it is here—and not in our intellectual-play theorizing—that we truly discover ourselves, others, our world, and God our Creator.

It is always difficult for us to reset our thinking. Science and religion seem to be contradictory; therefore most people will usually subject one to the authority of the other, rather than allowing both to function equally within their particular spheres of knowledge. Most intelligent and educated people don't want to see a world wherein an

intolerant, religious dogmatism stifles legitimate, rational thought about God and about the world; and yet these same people are very accepting of a similarly intolerant, modern scientific dogmatism that would seek to stifle legitimate, rational religious and theological thought. But what we should be seeking is the balance between the two. Modern science should not have priority over religion, and neither should religion and theology have priority over science; both are legitimate fields of human inquiry, each adding the wealth of their particular findings to the general treasury of human knowledge.

Modern science, rather than seeking a balance, has sought to achieve imperial status by claiming to be the only legitimate authority able to determine both what is and what is not *true* of the *real* world. Theology and philosophy are very unwelcome intellectual guests in the kingdom of the modern world, which science and technology are busily establishing, but we exclude these important guests at our own peril. Does anyone want to live in a world where technological efficiency drives everything? But this is the only world into which science and technology—left to its own abilities—can ultimately take us: into a cold, heartless, machinelike world where emotions—such as human compassion—could be seen as inefficient genetic programming flaws in need of correction. Writing about humankind's long history of curiosity over the centuries, Roger Shattuck says:

"A sensible interpretation of this history of curiosity concerns us very deeply. I do not believe we should read the account of these developments down to the present exclusively as the record of gradual liberation from superstitious restrictions on human creative and imaginative powers. For the same history furnishes a cautionary tale, telling us that complete liberation from constraints in the arts and sciences may endanger our humanity and the fragile entity we call civilization."¹²⁵

Shattuck argues here (and throughout his work) that humankind's curiosity leads us to desire the knowledge of things we are better off *not* knowing. In a hubristic reaching for what is beyond our grasp, our desire to know everything can easily become our undoing.

¹²⁵ Roger Shattuck, *Forbidden Knowledge: From Prometheus to Pornography*, (New York: St. Martin's Press, 1996) p. 310

Knowledge, without the wisdom to use it properly, can ultimately destroy us. In short, there are some things we should not desire to know. But to say there are things we should not know is to speak blasphemy in our modern scientific/technological era. In our day, it is the very goal of science and technology to gain all knowledge of everything and to reshape the world in a way that better fits with our desires in place of the natural world which God has created.

For example, modern science thinks that sickness and death must be totally eliminated; at least for those of us who live in first-world nations (hopefully not at the expense of those who live in third-world nations). Yet sickness and death are a necessary piece of the order of things in-the-world. Healing the sick is a noble task, one which Christ himself engaged in, but Christ didn't heal everyone who was sick. Saving someone from death is a heroic deed, one which Christ himself engaged in, but Christ didn't save everyone from death. The danger I see here is one of allowing—consciously or unconsciously—modern science to replace Christ as our savior.

Modern science, however, is no savior. Science is only one kind of human knowledge, which, although very helpful to us, is unable to deliver us from our deepest human problem: ourselves. Sickness and death are only the symptoms of a much deeper problem: our souls are sick, and they are sick unto death. Christ came to save us from ourselves, to save us from our arrogance, pride, selfishness, greed, envy, lusts, anger, laziness, hatred, and gluttony. Science attempts to solve these and other problems which plague humanity but, since science is a *human* endeavor, science itself faces these same problems because the scientists are just as human as the rest of us. Knowledge is power and the power of modern science and technology lies in the hands of the few, the elite, and those who already wield political and technological power over the lives of millions of people. Science and government work hand-in-hand—mainly in the area of military research and development—and, for good or for ill, they already orchestrate the destinies of millions of peoples around the world.

Are there some things about the world we should not know? Should science and technology have limits? Are there some things we are better off *not* knowing because we lack the *wisdom* to use the power we would gain by knowing more (if not all) that can be known about the world? Knowledge is powerful, and human nature is such that once power is gained it is not often relinquished; there is always a quest for ever more knowledge and ever greater power. For example, the danger to humanity coming from the modern scientific discovery and de-

velopment of thermonuclear weaponry is extraordinary. The fact that at any given moment entire cities could be incinerated in the blinding light and heat of a thermonuclear explosion is a fact that we, in the modern world, must live with; it's become a part of our lives. Yet of what benefit to humanity was the discovery and further development of this technology? As Robert Oppenheimer (the head of the Manhattan Project, which developed the first atomic bomb for the U.S. military) once said about his experience of witnessing the world's first nuclear blast:

"We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the Bhagavad-Gita. Vishnu is trying to persuade the Prince that he should do his duty and to impress him takes on his multi-armed form and says, "Now I am become Death, the destroyer of worlds." I suppose we all thought that, one way or another."¹²⁶

Advances in genetic engineering, cloning, and artificial intelligence can tempt some scientists and researchers to think of themselves as having god-like creative powers. And why shouldn't they? With no limits, restrictions, or boundaries placed by the human community upon scientific knowledge and technology, modern science is poised to reshape the world in its own image; and who has the ability—or the power—to resist its will? With religion (long ago) put safely out of the way, modern science has developed a tendency toward replacing the former faith in God with a new faith: faith in our own abilities to achieve whatever we set our minds to achieving. Religious authority, once repudiated for squelching human freedom, has been replaced by a new and powerful scientific authority. It is not the religious priests who, today, have a privileged knowledge granted only to a few and giving them the power to control the many; it is the high priests of science who now hold this sort of privileged knowledge, power, and control.

In our modern era we no longer worship a God who hears, but does not always answer, our prayers; why bother with God when we now have the scientific knowledge to manipulate the physical world in

¹²⁶ From an interview about the Trinity atomic explosion that was first broadcast as part of the television documentary: *The Decision to Drop the Bomb*, produced by Fred Freed, NBC White Paper, 1965

almost any way we so desire? Certainly modern science is not all powerful, but the continuing quest for ever more knowledge, and for ever more power over the natural world, is resulting in the exponential increase of scientific knowledge. It will not be long before, if left unchecked, modern science is able to do tomorrow that which is unimaginable to us today. The question we should be asking ourselves is: Do we trust ourselves with this kind of knowledge and with this kind of power?

Modern science and technology are able to reshape the world; they create artificial environments for us (our urban work and dwelling spaces) representing and symbolizing the glory of humankind and not the glory of our Creator (whose raw materials humankind uses to simply reshape and reimage the world). The natural world is a text that both symbolizes and represents God to humankind whereas the artificial world is a text that both symbolizes and represents us to ourselves. Science disparages the world of natural appearances and elevates that which underlies appearances to the status of true reality. In short, the world modern science presents to us as *the world* is a reformation of the world. Modern science wants us to reimage the world, to see the world as modern science describes it to be and not as the world *appears* to us in our conscious lived-experience of the world.

And it's not only modern science that can be dangerous to humanity, philosophy and theology can become dangerous as well. Philosophy is simply a way of thinking about the world or about a particular aspect of the world (e.g., the philosophy of a particular a field of knowledge, art, or science). There can be a philosophy of any subject imaginable to us simply because philosophy allows us to logically think-through any subject. A particularly dangerous—and yet very popular—philosophy today is *nihilism*, a philosophy which asserts that nothing has any real meaning whatsoever. It's hard to imagine that an idea as inane as this could have the dignity of being called a philosophy, the word *philosophy* means the *love of wisdom* and nihilism is certainly the very antithesis of a love of wisdom. Nihilism is, however, considered a valid philosophical position; since any logically well thought-out position (no matter how foolish) can be considered philosophical. Nihilistic meaninglessness is probably the most popular philosophy today, especially with young adults. This is a sad commentary on contemporary life in the modern world, but should not be at all surprising to us, especially considering how much effort has gone (in recent years) into removing the influence of religion, and of the meaning it gave to people's lives. Meaning which, for centuries, had infused

human civilization through the inculcation of moral, ethical, and religious teachings.

Theology can likewise be dangerous to humanity. Different religious belief systems have different theologies and all religions are not created equally. Hinduism has its (logically and theologically consistent) caste system; Islam tells Muslims they should lie in wait to slay infidels (i.e., Christians and Jews); and Christianity, for many years, taught that infidels and heretics should be burnt at the stake (for their own good, as well as for the good of society).¹²⁷ Bad theology, bad religion, and a corrupt and powerful Church authority is what the modern world (since the rise of modern science) has been fighting against for the past 500 years. Theology and religion *can* be dangerous, because people hold so firmly to their theological/religious beliefs that their entire worldview is at stake should it be contradicted, refuted, challenged, or even doubted.

Agnostic, atheistic, and antitheistic humanistic rationalism can be just dangerous as religious belief and for precisely the same reasons: because people hold so firmly to their humanistic/rationalistic beliefs that their entire worldview is at stake should it be contradicted, refuted, challenged, or even doubted. Science is likewise dangerous because of its limitless curiosity, its power over nature, its imperialistic truth-claims and its antagonism toward religion, ethics, and anything subjective.

Philosophy can be dangerous because of its ability to so powerfully influence people's thinking and ideological development. Rationalist ideologies, religious beliefs, and the military use of science and tech-

¹²⁷ A *caste* (Latin: *castus*, meaning: *race*) is "[a]ny of the hereditary social classes of traditional Hindu society, stratified according to Hindu ritual purity" (American Heritage Dictionary, Fourth Edition); the Hindu caste system is based upon the belief in karmic law, reincarnation, and the transmigration of the soul. The Quran says: "And when the sacred months are passed, kill those who join other gods with God, wherever ye shall find them; and seize them, beseege them, and lay wait for them with every kind of ambush; but if they shall convert, and observe prayer, and pay the obligatory alms, then let them go their way, for God is Gracious, Merciful" (Quran 9:5). Aquinas said that: "With regard to heretics two points must be observed: one, on their own side; the other, on the side of the Church. On their own side there is the sin, whereby they deserve not only to be separated from the Church by excommunication, but also to be severed from the world by death. For it is a much graver matter to corrupt the faith which quickens the soul, than to forge money, which supports temporal life. Wherefore if forgers of money and other evil-doers are forthwith condemned to death by the secular authority, much more reason is there for heretics, as soon as they are convicted of heresy, to be not only excommunicated but even put to death (SMT SS Q[11] A[3] Body Para. ½).

nology are all equally responsible for causing the deaths of millions of people.

Had Christ never come into the world, the world today (for all of its faults) would be a much worse place than it is right now. And had modern science (and medicine) not come into the world, the world, again, would be a much worse place than it is right now. The modern era did not occur outside the providence of God, our Creator gives us the freedom to follow the way of our own choosing and, for the most part, the modern world has turned away from God, religion, and theology. The discoveries of modern science seem to have disproven the Bible and the technological wonders and abilities of science seem to have displaced our need for faith, prayer, and trust in God. Because, after all, science and technology delivers the goods; whereas God may or may not answer our prayers the way in which we desire. Herein lies a great lesson: suffering is a necessary part of life which, when endured, grants us great strength of character. Sometimes God desires for us to become stronger through our pain and our suffering, whereas our modernist tendency is to seek after a quick fix via science and technology.

Yet for all the wonders and benefits of modern science, we still face the same old human problems humankind has always faced. Perhaps if we look at the world anew, if we listen anew to the teachings of Christ, we may find a new life in a new world that can satisfy the longing within our soul. Much like the prodigal son, humankind's newly-found freedom from God (in the modern era) is thrilling and pleasurable...for a while. But when the famine of our ability to solve our inner human conflicts comes upon us, we can either destroy ourselves or we can humble ourselves and return to our Father who, all along, has been allowing us the freedom to choose our own way, and has always hoped we would choose the course of wisdom and return to his eternal home of divine wisdom and love.

Wisdom cannot be had apart from our Creator; in fact wisdom *begins* with our Creator. The philosophical nihilism so popular today only makes sense in a world that has rejected the Creator of the world. Such nihilistic thinking is not the course of wisdom, but it *is* the rational philosophical course to take in a world that had been totally denuded of all meaning and purpose. As the existentialist philosopher Albert Camus put it so well: "There is but one truly serious philosophical problem and that is suicide."¹²⁸ Camus understood what most

¹²⁸ Albert Camus, *The Myth of Sisyphus*, (London: Penguin, 1955, 1975) p. 1

people don't: a meaningless existence is worse than non-existence. What we long for is a meaningful life. Our greatest and yet unspoken inner fear is that we will leave the world having made no meaningful difference in it. And yet the existentialist and nihilistic worldviews mock our attempt to live a life filled with meaning and purpose.

Apart from God, life is simply a cruel torment ending in the oblivion of death and nonexistence. Modern science confirms the existentialist view of our world and of our lives: we exist only by random chance and death is the end of our existence. This viewpoint is, however, nothing new; as one writer, centuries ago, put it, "we were born by mere chance, and hereafter we shall be as though we had never been" (Wisdom of Solomon 2:2).

The world we experience prior to any and all conceptual schemes we might develop about the world is an experience of the world which all humankind has in common. This world of appearances, the phenomenal world as-it-presents-itself to our consciousness, should be our starting point: in science, in philosophy, and (especially) in theology. It is this world of phenomenal experience that each of us has in common, it is this human experience we know and understand better than we do anything else, and it is our human experience that enables us to know and understand the needs and emotions of our fellow human beings.

If our Creator desired (for whatever reason) to experience living-in-the-world he would be an embodied, conscious being who could live, move, and *be* in-the-world. He would laugh, he would love, he would weep, he would hunger, and he would thirst. He would *be* as we *are* and we *are* as he would *be* (were he to be embodied). Jesus Christ, God the Son incarnate—the visible image of the invisible God—*has* come into the world. He lived, he ministered, he was crucified, he died and was buried, and on the third day he rose from the dead; he ascended into heaven and from there he will come again to judge the living and the dead. The apostles testify to these facts and their testimony is trustworthy.

We are created in the image of our Creator and the world he created for us testifies to his glory, his power, his wisdom, and his love for his creation. We would do well to lay aside much of our intellectual-play theological, philosophical, and modern scientific theorizing and begin thinking more seriously about how we can better care for the people with whom we share our world and for the world itself. Because this is the only world there is.

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All errors contained within this work are my own. I ask the readers of this book to please advise me of any mistakes needing correction. I also welcome any comments (either positive or negative) the readers may have regarding the book. You can contact me by email at: ajmacdonaldjr@gmail.com

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