

**Beyond the Conflict: Genesis Chapters 1 and 2 in the Perspective of
Science and Biblical Theology**

By

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A Research Report submitted in partial fulfilment of the requirements for the degree

MASTER OF THEOLOGY

(Science & Theology)

at the

SOUTH AFRICAN THEOLOGICAL SEMINARY

in

July 2017

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DECLARATION

I hereby acknowledge that the work contained in this Research Report is my own original work and has not previously been submitted to any academic institution for degree purpose.

A handwritten signature in black ink, appearing to read 'Prashant', written over a solid horizontal line.

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Abstract

The conflict between creation and evolution has long dominated discussions surrounding the first two chapters of Genesis in the Old Testament. In efforts to ameliorate the conflict various creationist theories have emerged that attempt to relate Genesis 1 and 2 to the broader consensus of science. Some views have been adversarial in nature while others have attempted to reconcile Biblical interpretation with scientific theory. Even while different schools of creationist thought have developed, however, parallel developments in the discipline of Biblical theology have emerged. These developments have sought not, primarily, to interpret Genesis 1 and 2 in the light of emerging scientific discovery and theory but, instead, within the broader context of Old Testament theology. In recent years the two schools of thought—creationist theory and Biblical theology—have started to converge in ways that show some promise for moving beyond the debate between creation and evolution that has typically overshadowed the broader theological importance of Genesis 1 and 2 for the Christian faith. This study examines some of these developments in Biblical theology and envisions how removing the “versus” between science and theology can hold new promise for Christians to engage the world today.

Keywords: *Creation, Evolution, Genesis, Biblical Theology, Science, Intelligent Design, Fiat Creationism, Theistic Evolution, Old Earth, Young Earth.*

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Preface

It is commonly assumed by conservative Christians and those who believe in a young earth and universe, that the book of Genesis is wholly irreconcilable with generally accepted scientific theories. This leads many Christians with a difficult choice to make—to choose either the Bible or science. This is unfortunate. One can comfortably believe in both science and scripture in uncovering truths about creation in general and human purpose specifically.

This author has come to realize, however, that the disagreement is not necessarily one between the Bible and science, per se, but rather between a specific interpretation of the Bible and a specific interpretation of scientific data. Recognizing the human element in each, there is a possibility that human error has factored in to either or both sides of the theology versus science divide. This author's intrigue was peaked a few years ago when discovering John Walton's, *The Lost World of Genesis One* and later his follow up volume *The Lost World of Adam and Eve*. He posed questions that effectively challenged the assumptions many make concerning Genesis 1 and 2. His work opened an exciting opportunity to reconsider the conflict that previously imagined between the Bible and the natural sciences. Having several questions answered, and others reframed, this question could be revisited anew. This author does not entirely agree with all of Walton's arguments. His overall argument, however, is compelling even if somewhat subjective. Still, other scholarly works, both within the tradition of biblical theology as well as in the various schools of creationism, relative to the questions Walton poses, will be considered below. While not all relevant questions have been answered, one can now see promise that the long-standing gridlock between creationism and evolutionary theory may be able to be reconsidered in new terms. New perspectives relevant to the debate have been proposed, which may afford creationists' a new line of reasoning when approaching the conflict between creationism and evolution.

Abbreviations

During this research report, it will be necessary to sometimes define terms as the report proceeds. Different schools of thought, within creationism and in evolutionary theory, sometimes use the same words with different meanings. Abbreviations for certain schools of thought, i.e. Young Earth Creationism (YEC) will be employed and will sometimes double for Young Earth Creationism and Young Earth Creationists. In other words, similar abbreviations will function both to stand for an overarching theory as well as its adherents—which is which should be obvious within the context of each occurrence. These abbreviations will be introduced at the first occurrence of each and will also be included in relevant section headings.

YEC Young Earth Creationism/Young Earth Creationist(s)

OEC Old Earth Creationism/Old Earth Creationist(s)

ID Intelligent Design

TE Theistic Evolution

1. Introduction

The intent of this research report is to examine how the gridlock of the creation versus evolution debate has begun to be broached through developments in biblical theology. To achieve this, the terms of the debate and the perceived ongoing gridlock must nonetheless be examined. It is not the goal of this Research Report to resolve the debate in favour of an either or, but rather to seek common ground from where constructive debates can take place. The debate between creationists and evolutionists has no doubt been contentious. Regardless, a very real case can be made that the most heated debates today actually occur among Christians themselves who disagree on whether evolution and a Christian theology of creation are reconcilable (Venema & McKnight: 2017). This project seeks to show that Genesis 1 and 2 have much to offer regardless of one's view of the text with respect to evolutionary theory. The intent of this project is to examine how the text of Genesis 1 and 2 is relevant to daily life irrespective of which side one leans towards. Expressly, it is the intent of this Research Report to move beyond the conflict and explore the contemporary relevance of Genesis 1 and 2 in the light of *other contemporary matters*. For example, the text undoubtedly establishes several relationships that become paradigmatic for an Old Testament worldview. What is the relationship between God and mankind? How does man relate to the world, particularly as he was first formed from dust? Surely, the emergence of Adam and Eve as an archetypal couple also has relevance on contemporary questions regarding human sexuality. As such matters, always relevant to society at large, are discussed science will undoubtedly prove relevant to the religious claims made herein.

2. Literature Review

Conducting a literature review concerning the said topic is a daunting task. The delimitation of this Research Report is that it is virtually impossible to be thoroughly exhaustive in a concise review. Nonetheless, the major representatives and leading voices advocating these perspectives will be examined. As the title suggests, this Research Report addresses the adversarial relationship that persists in varying degrees between science and theology from the sixteenth century onward. A cursory overview

of how science and religion were viewed in both complimentary and contradictory terms will be considered. Indeed, in the middle ages theology was often called the “queen” of the sciences (Zakai: 2009). If theology and science were ever ‘divorced’, so to speak, the fracturing of the relationship occurred mostly in the sixteenth century. The clearest example is the emergence of Galileo, Copernicus and others who challenged the prevailing Catholic view of a geocentric universe. To examine the ongoing debate that exists today it will be helpful to review the writings of some prominent thinkers from the time the conflict began. Again, for the sake of brevity, the protestant reformers receive significant attention due, mostly, for their impact on the social contexts wherein science mostly developed from the sixteenth into the seventeenth centuries. This is not to ignore the contributions—and there were many—from the schools of the Renaissance humanists, or Roman Catholic thinkers to the topic at hand. Instead, this section will simply demonstrate how the theology and science conflict must have developed in protestant theological discourse. After this brief survey, different schools of creationist thought will be addressed.

Please note that little attention is given to the emergence of Darwinian evolutionary thought as it is beyond the scope of this Research Report since such summaries can be evaluated in innumerable other sources. Finally, what forms an essential core for this report, is the development of Biblical theology relative to Genesis 1 and 2.

2.1 Nature and Religion in Premodernity

During the sixteenth century two distinct reformations were initiated which would forever change the theology and science debate. On the one hand, there was the ecclesiastical and doctrinal reformation spearheaded by the likes of Martin Luther, John Calvin, and others. Conversely, there was ‘a revolution consisting in a new conception of natural science, which was introduced by Nicholas of Cusa and extending through Paracelsus and Copernicus to Bruno, Kepler, and Galileo’ (Bornkamm 1958: 147). While a survey of how the earlier Christian fathers viewed the role of nature upon their faith could be possible, and would certainly be worthy, it is again, beyond the scope of this Research Report. Nevertheless, as the divide between science and religion emerged in the midst

of the controversies that divided the churches of Christendom during the sixteenth century, a brief overview of the reformers' perspectives is worthwhile. Briefly, this section will show how prominent thinkers of the Reformation era viewed scripture and nature, and how they responded to emerging controversial scientific theories. This would include what was learnt from these developments in the light of contemporary conflicts between science and religion and specifically to Genesis 1 and 2.

Many of the confessions of faith emerging from the sixteenth century Protestant reformation - despite their consensus that scripture alone is the source and norm of Christian teaching - maintained the traditional view that nature reveals God's will. Granted, this was affirmed secondary to holy writ. Article 2 of The Belgic Confession (1561: 79), embraced by the Christian Reformed churches, referred to "the book of nature" as God's second revelation. While the Lutheran confessions spoke little about natural revelation, focusing when they did on sinful man's inability to discern truth from nature aright, Luther nonetheless maintained a pious reverence for nature. During his last year of life Luther declared, "All creation is the most beautiful book of the Bible; in it God has described and portrayed Himself" (Luther quoted in Bornkamm 1958: 149).

For the Reformers, however, the primary issue of a "natural theology" tended to center upon the question of whether creation could testify to God's existence and good will towards creation. Only by extension can one infer from these statements that nature testifies to a creator, generally while scripture testifies to God specifically. While nature might show that God exists and can even testify to his power, and even can testify to his gracious provision, God's message of salvation is not readily discernible from nature. However, in saying this, one cannot discount passages such as Psalm 19:1-6 and Romans 1:2, for example, which testify to God as creator. The notion that God created the world is a premise the Reformers often take for granted. This is expected, since few prominent thinkers within the veil of Christendom had challenged the existence of a creator at the genesis of the world's existence during the sixteenth century (Bonkhamm 1958: 145).

Nonetheless, non-Christian theories of the world's existence by naturalistic causes had existed since ancient times. Luther also took aim at views that saw God as a necessary "first cause" but afterward playing no intimate or immediate role in creation. Luther, in a sermon on the first chapter of the Gospel of John, said:

It is not true as several heretics and other vulgar persons allege, that God created everything in the beginning, and then let nature take its own independent course, so that all things now spring into being of their own power; thereby they put God on a level with a shoemaker or a tailor. This not only contradicts scripture, but it runs counter to experience. In the doctrine of creation, it is of primary importance that we know and believe that God has not withdrawn His sustaining hand from His handiwork. Therefore, when St. John declares that everything made was made through the Word, one must also realize that all things created are also preserved by this Word. Otherwise they would not continue to exist very long (1537: 28-29).

After Luther's death the Lutherans at Wittenberg, under the leadership of Philip Melanchthon, took a friendlier approach toward emerging scientific theories, even providing Giordano Bruno a teaching post and refuge after his condemnation by the Roman Inquisition (Bornkamm 1958). Bruno had effectively extended the Copernican heliocentric model of the universe suggesting, in fact, that stars were suns of other galaxies, surrounded by planets of their own. This is a position that would more famously be advanced later by Galileo (Birkett 1996). Bruno even suggested the possibility that such planets might harbor life. With the triumph of the hard-lined "Gnesio-Lutherans" over the more moderate Philippists after 1580, however, Bruno was forced out of Wittenberg and eventually garnished a condemnation by the Lutherans that coupled his excommunication from Rome. Bruno was burned at the stake by Roman Inquisitors in 1600 (Bornkamm 1958: 145).

John Calvin offered insights on the relationship between nature and theology that might be considered more applicable to the pursuit of science as a Christian virtue. In Calvin's *Institutes of the Christian Religion* he wrote:

There is no doubt that the Lord would have us uninterruptedly occupied in this holy meditation; that while we contemplate in all creatures, as in mirrors, those immense riches of his wisdom, justices, goodness, and power, we should not merely run over them cursorily, and, so to speak, with a fleeting glance; but we should ponder them at length, turn them over in our minds seriously and faithfully, and recollect them repeatedly (1536: 180).

While Copernicus' controversial *On the Revolutions of the Heavenly Spheres* was not widely circulated until seven years after Calvin first penned the above words the Genevan reformer's position as stated above seems to make it clear that it is more than pious, but even a Christian duty to reflect upon the natural world.

The subject of the Reformers' positions toward Copernicus has been a topic of some debate. While the credibility and accuracy of Luther's *Table Talk* is sometimes questioned, within the supposed recordings of Luther's dinner table reflections he is supposed to have mentioned a "certain new astrologer who wanted to prove that the earth moves and not the sky, the sun, and the moon" (1539: 358-359). Luther seems to dismiss this 'certain new astrologer,' likely Copernicus, as a man seeking notoriety simply by disagreeing with conventional opinion. Luther quickly discarded Copernicus' notion based on the sun standing still rather than the earth in Joshua 10:12. An apocryphal quotation of Calvin, popularized by Bertrand Russel, has the Genevan reformer posing the rhetorical question: "Who will venture to place the authority of Copernicus above that of the Holy Spirit?" (Russel quoted Huigen 2011: 222).

Commenting on this mistaken quote, however, Huijen argues that Russell mistakenly took this quote from a man named Calovius and repeats the view of Edward Rosen that "neither positive nor negative references to heliocentrism" can be found in Calvin's writings (Huigen 2011: 222).

In the century that followed, the conflict between natural science and theology was further intensified by the 1633 Catholic Inquisition's condemnation of Galileo Galilei

(1564-1642) for his proposed heliocentrism. The Roman Catholic position on geocentrism was vigorously defended, and those who opposed it were subsequently burnt alive, for example, the burning of Bruno in 1630.

What Copernicus had argued was based on mathematical equations alone. However, with the newly discovered telescope, Galileo could empirically bolster the heliocentric position (Pretorius: 2012: 55). It should also be noted, that according to Henderson (1999) and Birkett (1996) the conflict between Galileo and the Roman Catholic Church was more a battle between old and new science; between Ptolemaic and Copernican astronomy, than a battle between science and religion per se. According to Yu (2001), it would be a mistake to disregard the religious elements involved in the conflict entirely. The challenge to Catholicism posed by Galileo was threefold. First, the notions that Heaven and God are unalterable and that the universe is governed by static order were shaken by Galileo's unification between celestial and terrestrial mechanics. Second, mathematical reasoning, which plays a central role in Galileo's methodology, was in sharp contrast to divine revelation as the source of truth and the Church as the authority of judgment. Third, the importance of humans, which was affirmed by the geocentric worldview, was diminished by the heliocentric cosmology.

According to Yu (2001) while Galileo was officially condemned by the Catholic Church, both the Lutherans and Calvinists labelled him a heretic. Whereas the Roman Catholics saw his view as a challenge to the authority of the church, Protestants saw it as a threat and challenge to scripture. However, it was not a simple case of accepting or rejecting geocentrism. Both Calvinists and Lutherans found Galileo's methodology objectionable more than anything else. Because sin, they believed that human reason was an untrustworthy source of truth. Mathematics, as far as it was based on human reason, was inherently suspect (Yu 2001). It was a question of epistemology. To what degree is human reason, particularly mathematical knowledge, a reliable source of truth? This is a fundamental question concerning the relationship between theology and the natural sciences.

Hermeneutical issues also arise from the above. To what extent should the natural sciences inform how one interprets texts of the Bible? One option is, of course, to simply reject either the Bible or the natural sciences as wrong. Another option is to attempt to reconcile the two either by reconsidering one's interpretation of the Bible, or by challenging the conclusions of science. These issues have arisen with different views on the length of days in Genesis' first two chapters.

2.2 Conflicting views of the Days of Genesis

With respect to the length of days in Genesis 1 various perspectives were advanced prior to the emergence of Darwinism and naturalistic theories of the earth's origins. While most of the church fathers tended to understand the days of Genesis 1 to fall in accord with the usual sense of a day, Augustine took a different approach. For Augustine, it was the light of God that marked day from night, not the existence or non-existence of the sun. When God acted, light accompanied his action. When God withdrew his action, darkness followed. (Lavaelle 1989).

However, Luther rejected Augustine's view in favor of each of the six creation days corresponding to common experience and the normal course of a 24-hour day. Luther's rejection of Augustine's view was primarily because Luther rejected an allegorical approach to Scripture. When Luther argued for a historical read of the text, he was not necessarily suggesting that each word of Scripture ought to be taken as literal history. Rather, Luther suggested that the texts should be understood as they were intended. That is, to communicate God's truth *in history*. Luther's advancement of the notion of six solar days in Genesis 1 was not because he was concerned about how long a day might have been. Luther's concern was to reject the allegorical method which tended to impose symbolic meanings upon the text that Moses (whom Luther believed had written Genesis) had not intended (Bornkamm 1958: 147-160).

John Calvin's theory of accommodation—the view that the Biblical writers accommodated their language to fit with the worldview and language of the texts' first receivers—has been widely influential in the debate over Genesis 1 and 2 and its relationship to scientific theory. According to Huijgen “In his Genesis commentary, Calvin

notes that Moses does not speak as exactly as he could, not as a scientist, astrologist, or philosopher, but that he accommodated his style to the capacity of the people, and even adapted his topography” (2011: 220) To put it simply, a “day” might have been used because it was a way that the original hearers of the text could understand distinct and separate periods of time. When the sun “stands still” in Joshua, it is an accommodation to the worldview of the ancients who believed that the sun revolved around a discus-shaped flat earth. Calvin was correct. Moses, in writing Genesis, was not primarily concerned with revealing science, but to explain and simplify complicated events to an intended audience who were uneducated and illiterate slaves. Often this is missed when dealing with the interaction between science and theology concerning the creation events depicted in Genesis.

There was room for both Luther and Calvin to accommodate a reading of Genesis 1 and 2 that could have accorded with lengthier days than the standard sense of a 24-hour day. While Luther - if his *Table Talk* musings are accurate - was sceptical of Copernicus’ view of the solar system, this was not necessarily a stubborn refusal to prioritise his own interpretation of Scripture over science. Luther and Calvin recognized that both scripture and science can reveal God’s truth. They also believed that the interpreter of either is essentially flawed. Indeed, both reformers held a view of sin that had so infected human reason that anything derived from reason alone was suspect and needed to be thoroughly questioned and tested. This issue arose later, as discussed above, in the rejection of Galileo by both Lutherans and Calvinists (Wilson 1999: 65).

One could probably generalise from this statement that if sin could hinder one’s ability to discern God’s truth from nature, the same could apply to one’s inability to consistently interpret Scripture correctly. In some respects, such scepticism is a healthy attitude with respect to science. The burden of proof, at the time, was upon Copernicus and those who sought to advance a heliocentric view. Scepticism is an important component of the scientific method. Luther cannot be faulted as anti-scientific purely because of his sceptical attitude. In fact, both Luther and Calvin seem to have a healthy reverence for nature and the potential that nature offers for bettering human life and testifying to

God's glory. Accordingly, at the dawn of the Copernican revolution there was no reason to suspect that the most influential thinkers of the day would have perceived the controversy that erupted over Copernicus' views as one between religion and science. On the contrary, the Reformation perspective was that there are in fact "two books" of revelation—scripture and nature—and that each of these is subject to the interpretations of sinful men. As sinners, interpreters of scripture and nature are likely to get either one wrong frequently and regularly. Thus, scepticism about innovation was natural, in both the realm of theology as well as in the emerging natural sciences. This scepticism emerged not from a prioritization of scripture over nature, or nature over scripture (each of the two "books" of God's revelation had their own distinct purpose and function) but due to man's sinfulness and likelihood to err.

Nonetheless, the tradition of rejecting the claims of natural scientists because of literalistic interpretations of scripture is one that Christian fundamentalists, inheritors of the protestant tradition, commonly practice. Perhaps the clearest example of an equivocal rejection of scientific claims in exchange for maintaining one's interpretation of the Bible is the approach of young earth creationism.

2.3 Young Earth Creationism (YEC).

Creationists tend to fall into two distinct camps: those who espouse young earth creationism (hereafter, YEC) and those who adhere to old earth creationism (hereafter, OEC) (Gilbertson & Collins 2011: xv). Other schools of thought, addressed separately below, often fall within one of these categories. In truth, YEC has its roots in the Biblical chronology established by James Ussher, archbishop of Armagh in Ireland (1581-1656). Ussher's careful calculations based upon Biblical genealogies argued throughout nearly two thousand pages of Latin text, that the creation of the world took place on 23 October, 4004 B.C. (Barr 1999: 380). While the precision of Ussher's argument seems almost absurd from a contemporary perspective, and most YEC advocates today would not argue for such a precise dating of the world's beginnings, they nonetheless tend to maintain an age of the earth somewhere near Ussher's calculations. Even today, proponents of YEC continue to defend the general accuracy of Ussher's claim. Morris has made this point precisely:

While Ussher had access to documents we no longer have, numerous discoveries have come to light since Ussher, which enhance our understanding. But none of them change his conclusions to any great extent. There have been over 100 attempts to establish a chronology since Ussher, and each one is slightly different, but all are fairly close to his. (Morris 2003: 4).

Such a perspective by Morris, of course, rests upon the presumption that it is possible to calculate the world's age based upon the Biblical text. Problematically, most of YEC's scientific and biblical research today, is conducted within these narrow time parameters. Unfortunately, these types of studies go against what most natural scientists believe, and has caused much antagonism between the two disciplines, since the time issue is important to those who study creation from a deep-time perspective.

Ideological Origins

YEC and the modern creation science movement has certain ideological ideas that originated in the United States in the 1920s. According to Goetz (1997) the Scopes "Monkey" trial in 1925 exposed a widening chasm between American Christians, especially those who took the biblical account of human origins as literal history, and those who adhered to evolution. At the time, most American Christians—denounced evolution, relying almost entirely upon a literal reading of Genesis to explain human origins. They scarcely made any effort to correlate the account of Genesis 1 and 2 with science (Goetz 1997: 15). A well-known example, is that of John T. Scopes, a substitute high school teacher, who was initially found guilty of violating a Tennessee law, which made it illegal to teach naturalistic evolution in a state-funded school. While Scopes' conviction was later overturned on a technicality, the impact of the so-called "Monkey trial" was far-reaching though short-lived (Grabiner & Miller 1974: 835). Grabiner and Miller (1974) surveyed the most commonly used science textbooks in American schools and found only one reference to evolution. The corresponding page in this textbook, however, offered no significant presentation of evolution at all. Rather, the index directed the reader to a page of biblical proof-texts designed to counter evolutionary claims.

In an environment where traditional and fundamentalist Christians enjoyed the support of the law and overarching popular opinion, few efforts were made to bolster a creationist argument opposing an evolutionary theory. This changed, however, during the late 1950s due to a report stating that the United States was lagging Russia in educational standards, particularly regarding the natural sciences. The 1958 National Defense Education Act, at the behest of the American Institute of Biological Sciences, dictated that evolution should be emphasized in textbooks as the unifying principle for Biological science (Moore 1998).

In the wake of the emergence of evolutionary theory as the standard and expected theory of origins, and thus promoted in school textbooks, evangelical and fundamentalist theologians were compelled to respond. Their first response came in 1961 with the publication of *The Genesis Flood*. This was a cooperative effort between conservative theologian John C. Whitcomb of Grace Theological Seminary, and Henry Morris an engineering professor at the Virginia Polytechnic Institute. The significance of this work for the YEC movement cannot be overstated. Palaeontologist and staunch critic of creation science termed Whitcomb's and Morris' book the "the founding document of the creationist movement" (Gould quoted in Schudel 2006).

The choice of the Noahic flood as the central theme for Whitcomb and Morris's work, emphasised a central argument for the YEC movement. This being, that the worldwide flood itself accounts for much of the anthropological and geological evidence that evolutionists point to in their argument for a much older earth and their theories about the origins and development of the human species. In their introduction, Whitcomb and Morris wrote "the great Deluge and the events associated with it necessarily become profoundly important to the proper understanding of anthropology, of geology, and of all other sciences which deal with historical and pre-historical events and phenomena" (1961: xxxv). Whitcomb and Morris, then, proceed with two immediate purposes:

...to ascertain exactly what the Scriptures say concerning the Flood and related topics [and]...to examine the anthropological, geological, hydrological and other scientific implications of the Biblical record of the Flood, seeking if possible to orient the data of these sciences within this

Biblical framework. If this means substantial modification of the principles of uniformity and evolution which currently control the interpretation of these data, then so be it. (1961: xxxvi).

The authors were content to assume as articles of faith, the doctrines of the inspiration and inerrancy of Scripture. They then proceeded to consider how the evaluation of scientific evidence meshes with their interpretation of Scripture. It is worth noting, that the authors seem to conflate a defence of their own exegetical conclusions and interpretation of Scripture, with their affirmation of the doctrines of inspiration and inerrancy. Simultaneously, interpretations of science are seemingly much more fluid and open to debate. It is not necessarily a contradiction to suggest that the Scriptures are inspired, even inerrant, while allowing for different interpretations of the same inspired text. While Whitcomb and Morris never present a comprehensive theory of biblical interpretation, they do cite B.B. Warfield to show their commitment to Biblical inerrancy (Whitcomb & Morris 1961: xxxvi). It has been suggested that for B.B. Warfield theology...

...is a matter of gathering facts by a process of scientific induction in the way that (according to the Enlightenment view of science) the natural scientist against information about the character and behavior of the natural order. For the natural scientist, the data are those ascertainable by the five senses in conjunction with the generalizing powers of the human mind. For the Princeton theologian, the data were the facts of Scripture, which the scientific theologian gathers and collages and from which he draws inductive inferences. (Helm 2010: 25).

This observation is particularly helpful for understanding both the exegetical method and the approach to scientific inquiry taken by Whitcomb and Morris—a method that continues to be embraced by YEC advocates. Where Scripture refers to phenomena relative to the natural world, such texts are neither literary devices nor are they accommodations to ancient worldviews. For Warfield and these authors, they are observable scientific fact. The doctrine of inerrancy ultimately stands in for the scientific method with the bonus that it is affirmed absolutely with divine authority. The naturalistic scientist, it is often claimed by YEC, depends rather wholly upon the observable world.

Such observations, in their view, are limited because man cannot travel back in time to view past events. He can only observe what exists now and make inferences about what might have been in the past. The naturalistic scientist is operating blind, limited by the confines of what he observes in his myopic experience, while the creation scientist, according to Whitcomb and Morris, has his vision refined and illuminated by the perfect revelation of God.

Whitcomb and Morris, while devoting the larger first half of their book to the flood itself, nonetheless return to the opening chapters of Genesis to advocate a literal six-day creation. Each day stands for a literal 24-hour solar day (Whitcomb & Morris 1961: 214). In making this assertion Whitcomb and Morris rejected the theory originally popularized by British theologian Thomas Chalmers (1780-1847) known as the “gap” or “restitution” theory. According to the so-called “gap theory” an indeterminate though immense time existed between the state of chaos in Genesis 1:1 and verse two, which is thought to mark the beginning of the created order (Schneider 2005).

Accordingly, Morris and Whitcomb argue that the earth is roughly as old as Bishop Ussher previously calculated, and no more than 10,000 years old (Whitcomb & Morris 1961: 232-34). They repeated the theory proposed by Philip Gosse, a nineteenth century British naturalist, who suggested that the creation must have been made with an appearance of great age (Krause 1980). Indeed, by the nineteenth century geologists had already discovered a “geological column,” allowing them to effectively reconstruct earth’s history by analysing fossils imbedded within layers of sedimentary rock (Larson 2004: 22-38). Further analysis, including dating techniques based on the half-life of radioactive elements contained within the various sedimentary layers, has led more recent scientists to conclude that the earth is approximately 4.56 billion years old (Wiens 2002: 10; Young 2007: 28-36). Whitcomb and Morris (1961:237-39) argue that when God created the soil he finished it with all its constituent elements, giving it “an appearance of history” even though it was not truly as old as it seemed. As Wiens (2002: 22) has pointed out, however, asserting that God made the earth appear to be far older than it might be would make God “appear to be a deceiver.”

Potentially the theological implications of a deceptive God could be more devastating than a reading of Genesis 1 and 2 that allowed for an older earth. This, however, is not

the only theory that has been proposed amongst YEC adherents to explain inconsistencies in the fossil record. Seventh Day Adventist theologian George McCready Price had argued near the turn of the 20th century “that the popular forms of geology and palaeontology should be included as ‘sciences of satanic origin.’” (Price 1995: 466). While it remains a minority position amongst YEC, many continue to contend that the fossil record amounts to “the devil’s counterfeit of the six days of Creation, as recorded in the first chapter of Genesis” (Numbers 2006: 79-91). This explanation, however, has no explicit Biblical basis aside from the general character of Satan as a deceiver and can never be more than pure conjecture. It also involves a theological problem. If, for example, one is to assign the creation of fossils and even, as some do, dinosaur bones to a satanic ruse then the devil must himself be granted creative prowess. At the very least, it must be affirmed that the devil can manipulate the physical world in ways that the Bible itself never alludes to. In other words, no matter how YEC has attempted to respond to the fossil record their explanations have often resulted in new theological problems. Some of these problems are arguably more detrimental to a broader Christian worldview than a rejection of a literal six-day creation might be. Accordingly, YEC has led to a school of thought that has not only tended to drive a wedge between Christianity and the scientific community, but it has advanced positions that are theologically suspect on their own right.

Often, within the umbrella of YEC, is what is often termed *fiat creationism*. According to this theory, everything that exists was created by God’s direct act practically instantaneously (Erickson 2007: 502). One characteristic feature of this view is the brevity of the time used to create life on earth. Another important part of fiat creationism is the immediacy of creation (Erickson 2007: 503). More specifically, “God produced the world and everything in it, without using any indirect means or biological mechanisms, but by direct action and contact” (Erickson 2007: 503). At every stage of the world’s development, God did not use any material that had previously existed. New species were results of new acts of creation, none of them having developed from species created earlier. Therefore, God created man as a unique organism that had no ancestors among the existing species (Erickson 2007: 503). According to this approach, the process of Creation outlined in Scripture should be understood literally. However, there is a possibility of a metaphorical interpretation of events as described in Genesis,

especially considering the aspect of scientific data that require plausible explanation. As Erickson indicated, “when those data are taken seriously, they appear to indicate a considerable amount of development, including what seem to be transitional forms between species” (2007: 503). Understood as a metaphorical interpretation rather than a chronicle of God’s creation, Scripture does not seem to require such literal understanding.

Constructing an exhaustive literature review covering the various publications advancing YEC is nearly impossible, and unnecessary for these purposes. In the tradition of Whitcomb and Morris, hundreds of books, pamphlets and programs have been produced furthering their arguments. It is worth noting, however, that much of what YEC continues to argue today stems from Whitcomb’s and Morris’ earlier work. Many of the arguments, in fact, have not changed significantly even though new creation science research and data have been incorporated by more recent authors (Schneider 2005). The most vocal and arguably the most influential advocate of creation science and YEC today is Ken Ham and his colleagues at the *Answers in Genesis* organization. While YEC continues to be maintained in many traditional and fundamentalist protestant denominations, fewer and fewer Christians now accept YEC as tenable from both a scientific and exegetical perspective. An unwillingness to equivocate between one’s Biblical faith and generally accepted scientific truth, has led many Christians to pursue other models that generously reconcile Biblical fidelity and modern science. As Ross, a progressive creationist, has rightly observed, “one serious critique of young-earth creationist attempts to explain the natural realm is that their explanations, typically rooted in religious dogma, have no flexibility to adapt and self- correct as knowledge increases” (Ross 2009: 20). The effect of this has been that even as science expands and new knowledge is gained, YEC advocates offer little new commentary. Ross and other Old Earth/Progressive creationists, suggest that by expanding the interpretation of a Genesis “day” beyond a literal 24-hour period, several possibilities emerge to reconcile creation with scientific theory.

2.4 Old Earth Creationism (OEC)/ Progressive Creationism (PC)

In recent years, Dr. Hugh Ross, and the *Reasons to Believe* organization have been one of the most vocal and persuasive advocates for what is termed *progressive*

creationism. Reasons to Believe, founded by Ross, is targeted at finding scientific evidence in support of the Bible to refute the anti-Christian arguments of sceptics and natural evolutionists. An agile opponent of Darwinism, Ross' major effort is directed at proving that there is sound scientific evidence for the presence of a creator. Ross claims that Genesis should be interpreted as literal history instead of myth and allegory. Ross affirms the doctrine of biblical inerrancy.

Ross relies upon the dual Biblical premises that God cannot lie (i.e. Numbers 23:19; Hebrews 6:18) and that nature is a reliable testimony of God's glory (see Psalm 19:1-4; Romans 1:18-20). Ross (2009: 17) affirms that "the physical world is not an illusion and that nature's record reliably reveals truth". Accordingly, Ross believes that there are no contradictions between the Bible and science, rightly understood.

In progressive creationism, God is ultimately responsible for the development of species. God acts transcendentally at various stages of the evolutionary process to create the main biological orders of being (Schaefer 2003: 98). Progressive creationists affirm that human beings were made independent of any preceding or intermediate species. They date the age of the universe to approximately 14 billion years, while believing the Earth to be no older than 4.6 billion years.

Ross (2006) has further advanced the notion of a fine-tuned universe. "For physical life to be possible in the universe," according to Ross (2006: para.1), "several characteristics must take on specific values." In his book, *The Creator and the Cosmos*, Ross (2001: 145-157) proposed 93 distinct variables that require precise calibration for life to exist in the universe.

The argument is like those often made by creationists who argue that complexity in ecological and biological systems suggests a designer. In either instance, the arguments hinge upon the law of entropy, or the Second Law of Thermodynamics. The Second Law of Thermodynamics claims that an isolated system is likely to decrease in structure, complexity, and energy over time. The natural progression is from order to disorder. Eventually, the whole system disintegrates into chaos (Gilmer 2013: 118). This is illustrated, for instance, by the processes of digestion. The food consumed by an organism is processed and becomes waste. The energy potential, contained in the

original food, is no longer present in waste (Henry 1998: 83). It is extremely unlikely that in a closed system—one without an external organizing influence—that matter will become more complex over time.

A fine-tuned universe, as Ross has suggested, doubles down on the argument from complexity. Not only is the universe complex, but a high number of variables must co-occur at precise values for life to be sustainable. The chances of such precision to randomly emerge apart from an intelligent influence is unlikely.

Progressive creationists accept the modern findings of astronomy and geology regarding the age of the Earth (Stewart 2009: 172). Thus, the term OEC (Old Earth Creationism) is often used to distinguish this perspective from YEC. They mostly agree with the fossil and genetic data explicating evolutionary changes of life forms during the whole existence of the planet. Their major departure from scientific naturalism is that they doubt that random mutation proposed by Darwin can be entirely responsible for the evolutionary changes the theory suggests.

At present, one may note that the position of progressive creationists developed from the writings of Rana and Ross is one of the most sensible approaches for reconciling science and theology. The position of Hugh Ross explored in his writings may show that progressive creationists support an opinion that the Earth and the universe are billions of years old, and the days of creation in fact lasted not 24 hours but may have taken multiple aeons. Progressive creationists also believe that the sun and stars were created before the earth, while observers on the Earth could see them on the fourth day of creation described in Genesis. They claim that the seventh day persists, symbolizing the contemporary era of the human existence, and that the order of fossils is the record of distinct ages demarcating several creative acts of God (Ross 2009).

While Ross and others have offered many intriguing insights concerning the compatibility of biblical creationism with science, others have attempted to simplify the question from a religious perspective even further. If unrestricted by the details of the biblical account, is it reasonable then to largely posit a theory of an intelligent creator? Intelligent design has emerged as a school of thought that believes the answer to this question is an unequivocal “yes.”

2.5 Intelligent Design (ID)

The intelligent design (ID) movement emerged at the University of California at Berkeley, spearheaded by a law professor Phillip E. Johnson who challenged Darwinism and insisted on the validity of the design hypothesis. Simpson (2009: 49) defined ID as

[A] research oriented program that puts forth the hypothesis that some (not all) things in the natural world bear the fingerprint of design and are better explained through the design hypothesis than through naturalism. In addition, intelligent design also attempts to develop testable methods which can be used to help determine that which bears the hallmark of design and that which does not.

As noted by Flank (2007: 151), ID is a movement not particularly connected with any religious dogma, but emerges because of a deep dissatisfaction with Neo-Darwinism. Generally, ID examines scientific evidence which they believe supports the view of an unknown intelligent designer responsible for the development of life on Earth. To avoid any theological opposition, ID representatives make no commitment concerning debatable topics such as the age of Earth or the possibility of human beings' descending from primates. They also make no explicit arguments about who the designer may be (Flank 2007: 152). However, ID do pursue a design theory scientifically consonant with theistic convictions (Flank 2007: 152).

According to Pennock (2001: ix), ID opposes not only the Darwinian evolution theory, but also the underlying premises of materialist/naturalist philosophy. They also concern themselves with uniting various factions by promoting a notion of "mere creation" without any commitments about the creator's identity. The ID movement initially sought to establish a new paradigm for science at a university level, and a new curriculum model for public school science courses (Davis and Poe 2008: 168). The first ID representatives used conferences, books, research, and placement of ID scientists into major research universities to achieve a wide outreach of their ideas. Finally, ID affirms many of the claims of YEC while avoiding theological commitments or relying upon biblical texts.

The major question at the heart of ID involves determining what degree of complexity suggests design as opposed to random chance. According to Davis and Poe (2008: 185) in fusing several disciplines, they attempt to emphasize complexity that seems to reflect an intelligence. Additionally, if the complexity seems *smart* and, in biological terms, promotes the wellbeing of a species it is difficult to attribute the existence of such a mechanism to chance. Mutations in species are rarely substantial and even more rarely are they significantly advantageous to a species. Furthermore, not all mutations will recur in a species' offspring. Thus, "design reflects a designer" is a mantra that might summarize the position of ID. The mantra, however, effectively begs the question. Without being able to affirm a threshold of complexity that entails design, as opposed to chance, the most ID can claim is that design is suggested. ID cannot definitively prove its claims. Others believe the problem is an unnecessary equivocation between evolution and creation. Theistic evolutionists argue that one can believe in God, even the God of the Christian Bible, and still accept evolution as tool employed by the Almighty.

2.6 Theistic Evolution (TE)

Theistic Evolution (TE) falls under the umbrella of OEC. This view is sometimes called "God-guided evolution" because the fundamental premise is that if naturalistic evolution occurred, it had been God's plan all along. According to TE, evolution is the tool God employed to bring about the created world as we know it.

Theistic evolutionism has gained a firm ground in the religious debates about universe's creation and the age of the Earth. One of its key advocates is Francis Collins, a prominent Christian and scientist spearheading the Genome Research Project. Collins is also the founder of the BioLogos Foundation. According to the official position of BioLogos, God used the evolutionary process to create all life on Earth, and the whole universe. The representatives of BioLogos reject the notion that evolution leads to a life without God or purpose. Instead, agreeing with Intelligent Design and Creationism, TE affirms that God is ultimately responsible for life and the existence of the universe. BioLogos and other TE advocates believe that both Scripture and modern science

cooperatively reveal God's truth. Properly construed and interpreted, there is no conflict between biblical truth and natural science (BioLogos 2014).

According to TE, "God as immanent agent sustains and directs the natural processes that shape the evolution of life from the simplest self-replicating biochemical system to man" (Schaefer 2003: 97). TE is like naturalistic evolution favouring impersonal and gradual processes of man's evolution, but differs in affirming the sovereign activity of God in planning and executing evolutionary processes. Alston (2003: 31) has suggested that TE advocates are Old-Earth creationists who believe that God used natural processes to form the earth, life, and humanity. Moreover, TE rejects the philosophical position that the universe is a mechanical object without a purpose, meaning, or direction. Instead, TE attributes the evolutionary processes to a meaningful unfolding purpose originating in the imaginations of God (Alston 2003: 31).

A recent work published by Venema and McKnight (2017) entitled *Adam and the Genome: Reading Scripture after Genetic Science* represents one of the latest works from the TE viewpoint. Geneticist Dennis R. Venema presents his argument that the human genome project reveals that it is unlikely that human beings emerged from a single, originating couple, but likely came from a larger community. He argues for naturalistic evolution and, combined with Scot McKnight's theological commentary, the volume is essentially a case for theistic evolution as compatible with Scripture. Venema has frequently written for BioLogos and has provided a critique of Hugh Ross and the *Reason to Believe* progressive/OEC model whereby he critiques the data proposed by Ross in the light of human/chimpanzee genomics (Venema 2010). Other widely influential proponents of TE include Lamoureux (2009) and, arguably Walton (2010; 2015) who never explicitly commits to TE in his writings but nonetheless suggests compatibility between his Biblical theology and TE principles.

2.7 Evolutionary Variances: Macro and Microevolution

Here, a point of clarification is worth making that is necessary to apply the relevance of studies in evolutionary thought to one's overarching theory of human origins. As Nelson (2006: 28) has indicated, varying interpretations of terminology can lead to widely divergent conclusions. Macroevolution and microevolution must be distinguished.

Microevolution is “evolution at or below the level of species,” whereas macroevolution is “evolution above the level of species including the evolution of higher taxa and the production of new structures and other evolutionary novelties” (Nelson 2006: 28). Alternatively, microevolution is a term used to describe “changes within species over time” and macroevolution describes “changes in taxonomic groups above the level of species over time” (Nelson 2006: 28). Nearly all scientists and theologians accept microevolution. Macroevolution, which results in new species, is more controversial and a key component of naturalistic evolutionary science.

Naturalistic evolutionists use data indicative of occurrence of micro and macro evolutionary processes to reveal existing relationships between distinct species. These data are obtained from studying DNA, as well as homologous structures and fossils. Naturalistic evolutionists believe that the abovementioned relationships are conditioned by naturalistic processes (Nelson 2006: 29). However, Nelson pointed out that “DNA gives no clue as to the causation of its assembly. DNA would be identical whether it was assembled by naturalistic macroevolution, by intelligent design, or by progressive creation” (Nelson 2006: 30).

The theory of natural evolution relies heavily on the idea that genetic mutations serve as instruments for improvement of an organism’s genetic code. However, there exists no evidence for such genetic improvement. Accidental copying mistakes can hardly be responsible for production of information needed for the creation of such complex structures as eyes or wings. Yet, since the ability of organisms to adapt to environments that are constantly changing is an empirical fact, though this ability is limited, evolutionists utilize these facts as confirmation for the occurrence of macroevolution (Ekstrand 2008: 48).

Minor changes can occur within species. For example, breeding dogs to emphasize certain characteristics is a form of microevolution. Dogs vary in colour, shape, and size, but these changes never result in a new species entirely. The dogs are still dogs, no matter how they are bred. Thus, this mechanism cannot conclusively explain how bacteria might eventually develop into complex hominids over time (Ekstrand 2008: 48). Another example of microevolution recently observed pertains to the Chiclid fishes in the Great Lakes of East Africa. According to a comprehensive study by Brawand et al.

(2014) more than 2,000 distinct species of the Cichlid have emerged within these lakes because of adaptive radiations. While a mutation in DNA has undoubtedly occurred, resulting some significant genetic variations, these evolutions occurred within the species itself. In other words, of the thousands of Cichlid fishes examined, they all remain Cichlid fish. No new species has emerged. Microevolution is a universally accepted scientific fact that recognizes mutations occurring within a species. While studies such as this might be cited against creationists as irrefutable proof for evolution, what these studies posit is a sort of evolution that has no conflict with any of the major creationist schools of thought.

Naturalistic evolutionists claim that certain species have evolved into new species. According to the FARM evolution concept, fish evolved to amphibians, the next evolution step was reptiles which also eventually evolved into mammals (Spellman & Price-Bayer 2011: 128). For example, prehistoric dinosaurs evolved into such modern species as birds (chickens and ducks). Whereas the idea of macroevolution is controversial since the existing data cannot be confirmed experimentally, microevolution is widely affirmed.

A variety of perspectives on creation and evolution have been examined. Some sought to reconcile the two. Others attempted to favour one in opposition to the other. At the heart of many of these debates is the veracity of Genesis 1-3. Even as creationists and evolutionists have debated their theories, biblical theologians have made independent developments that potentially alter the terms of the debate. In other words, new interpretations of Genesis 1-3 challenge creationists to reevaluate the terms of contradiction they suppose exists between the text and naturalistic evolution. By considering developments in biblical theology one can re-examine the debate on the Bible's own terms. This avoids the pitfall of potentially altering the text's meaning merely to make it fit evolutionary presuppositions. It also presents an opportunity to reset the debate, without having to sacrifice either the Bible or science in the process. While the theories presented above—YEC, OEC, ID, TE—remain important biblical theology has added a layer to the debate the deserves consideration.

2.8 Biblical Theology

Interpretations of Genesis 1 and 2 have not been entirely constrained by those seeking to reconcile the text with evolutionary and naturalistic theory. Undoubtedly, some interpreters of Genesis 1 and 2 have been influenced by either a desire to reinterpret the text in the light of evolutionary theory or to bolster the use of the text as a polemic against evolutionary thought. Regardless, other factors paralleled by the larger tradition and development of Biblical theology have also played a role. Trends and movements in Biblical theology persist, in many ways, independently from the creation versus evolution debate. As will be demonstrated below, some Biblical scholars have argued that the doctrine of creation is at the very heart of Israel's Old Testament faith (i.e. Fretheim, Waltke), while others have proposed that creation is a peripheral issue (i.e. von Rad, Wright). The importance of creation as a biblical concept to the Christian faith undoubtedly has an important impact on how deeply Christians invest themselves in the creation versus evolution debate. Accordingly, an analysis of the topic at hand requires a fair description of how different Biblical theologies have addressed the topic of creation according to Genesis 1 and 2.

During the last century and a half creation as theological concept—particularly as articulated in Genesis 1 and 2—has been relegated to little more than a footnote in biblical theology. According to Rolf Rendtorff a biblical theology of creation has been treated by exegetes as merely one of several “proverbial step-children in the recent discipline of Old Testament theology” (Rendtorff 1992: 204). Abram, rather than Adam, has been more frequently viewed as the true genesis of Israel's religion. These theologians treat the story of Adam and Eve as a later development, corresponding with ancient mythologies that had very little importance for the Hebrew faith.

Gerhard von Rad was one of the most respected and important influences in charting the course for a less-than-central view of creation in Old Testament theology. Von Rad published an essay in 1936 entitled “The Theological Problem of the Old Testament Doctrine of Creation.” In this paper, von Rad advanced the premise that the Old Testament never presents a systematic doctrine of creation. Further, von Rad denied that Yahweh's role as creator is essential to the Old Testament concept of God. According to von Rad, the “Yahwistic belief in the doctrine of creation never attained to

the stature of a relevant, independent doctrine... [but it was found to be] related, and indeed subordinated, to soteriological considerations" (von Rad, 1936: 142). Such an assertion raises some important questions. After all, because most of the Old Testament itself is concerned with a people who are in a fallen condition, it makes sense that soteriology rather than creation might take centre stage. This, however, begs the question: from what predicament did the Hebrews of Abrahamic lineage believe they needed saving? If the Old Testament advances a theology of redemption a theology of creation is presupposed. Von Rad's position did not emerge spontaneously. Rather, Von Rad was heavily influenced by Karl Barth's antagonistic distinction between revelation and natural theology. According to Brueggeman (2005: 84):

The Barthian formulation of faith constitutes the beginning point and shaping influence for Old Testament theology in the twentieth century, with its antagonism between faith and religion, which is to be understood practically and concretely in terms of the expressions of the church struggle in Germany... Von Rad's framing of the problem transposed the opposition of Baal versus Yahweh, Israelite faith versus Canaanite religion, into the church struggle in which the opposing religion came to be regarded as natural religion. This transposition alerts us to the likelihood that from the outset, von Rad's understanding of creation in the Old Testament was shaped by the German church struggle.

Von Rad was not alone in these post-Barthian sentiments. Mid-century American theologian G. Ernest Wright was interested in differentiating Hebrew Yahwism from Canaanite religion. Wright was combating notions at the time that the Hebrew people's faith had simply grown out of and developed from Canaanite beliefs. The faith of the Israelites, according to Wright, is altogether a historical faith with little concern for nature-based mythologies like those advanced by the Canaanites. For Wright (1950: 17) "Israel was little interested in nature, except as God used it together with his historical acts to reveal himself and to accomplish his purpose." While Wright's concern was ultimately to resist the reduction of God and divinity as such to the natural—he is defending a transcendent God against nature-religion—ultimately the bifurcation between God and nature led to a sort of "Cartesian dualism that served masculine logic

while not appreciating the feminine maternal hosting of the mystery of God-given life as an important theological datum” (Brueggeman 2005: 85).

For the purposes of this report it is worth noting that relegating creation to the realm of myth and decentralizing it as a concept in Old Testament theology makes evading the apparent conflict between post-Darwinian evolutionary thought and Genesis 1-2 an issue of likewise tangential minor importance. If Genesis 1 and 2 is little more than a counter-myth to Canaanite creation mythologies it would rightly be considered far less significant for Old Testament theology than the historical religion of post-Abrahamic Israel.

This begs the question: is a stark dichotomy between nature and religion, or between nature and history, truly warranted by the Old Testament? In the 1970s Claus Westermann challenged the either/or bifurcation between nature and religion previously advanced by von Rad, Wright and others. According to Westermann (1971: 34): “The acting of God in creation and his action in history stand in relation to one another in the Old Testament; the one is not without the other.... Creation and history arise out of the same origin and move toward the same goal.” Westermann’s argument was bolstered by the work of James Barr (1961) and Brevard Childs (1970) who each reviewed the exegetical approach of those like von Rad and Wright for an overreliance upon etymology and history that often led to untenable interpretations of important Old Testament texts. In the decades following Biblical theologians have moved further and further from the Barthian dichotomies advanced during the middle of the 20th century. Patrick Miller (1995) drew attention to the universal character of God’s covenant with Noah as an important bridge between Adam and Abraham. For Miller, and a host of others who consequentially built upon his arguments, the character of the covenant within the Old Testament makes clear that redemption is more than a concern for Israel alone. For Miller, Israel’s redemption is pertinent to all of creation (Brueggeman 2005: 103). In other words, it is not merely God’s people who need redemption and for whom God has promised a deliverer, but His promise of redemption allies to the entire creation itself. Redemption is not only personal, it is also God’s cosmic plan for everything he made in the beginning. Increasingly, Old Testament theologians have affirmed that creation as a theological concept belongs not along periphery of theological concern but at the very heart of Israel’s purpose and beliefs. More recently, Fretheim wrote: “[the

fact that] the Bible begins with Genesis, not Exodus, with creation, not redemption, is of immeasurable importance in understanding all that follows” (2005: xix).

A re-emergence of the doctrine of creation as a central element in Old Testament theology has undoubtedly brought the creation versus evolution debate to the forefront of theological concern. Despite the theology of creation being pushed aside for more than a century amongst the most prominent Old Testament theologians, fundamentalist and evangelical scholars continued to debate the creation and evolution debate throughout the 20th century. Many of them persist in doing so in the present day. Still, the re-emergence of creation as a theological locus amongst prominent and mainline exegetes has led to new interpretations and methods for resolving the creation versus evolution debate.

Recent work by Wheaton College’s John Walton has challenged previously made assumptions about the message and purpose of Genesis 1 and 2 while still maintaining the centrality of the creation narrative in the development of Israel’s Old Testament faith. Walton has argued that when interpreters look to Genesis 1 and 2 to understand the *material origins* of creation they are imposing upon the text a question that the original purveyors of the text never intended to answer. Rather than being concerned with material origins, Walton (2015: 28) proposes “that for Israel, creation resolves the absence of order and not the absence of material.” The Genesis narrative begins with chaos—typified by “void” and formless earth and primordial unruly seas over which the Spirit of the Lord hovers. When God first acts in the biblical account, matter already exists. The beginning of the narrative is not non-existence. To put it another way, the question that Genesis 1 and 2 seeks to answer for the narrative’s original receiving community is not “where did everything come from?” but “how did God bring order out of disorder and establish a functioning world?” Genesis 1, in Walton’s argument, presupposes material existence but marks a transition from a chaotic world without divine agency into a world where the Divine acts and becomes involved in the ordering of life (Walton 2015: 29).

If Genesis 1 is about the functional, rather than the material, origins of the world it undoubtedly has implications on conversations related to evolution and intelligent design. Walton (2010) addresses these issues explicitly in *The Lost World of Genesis*

One: Ancient Cosmology and the Origins Debate. Evoking passages such as Psalm 104 and Job 38 Walton (2010: 115) affirms “that the things attributed to God can also be explained in ‘natural’ terms. The ancients were not inclined to distinguish between primary and secondary causation, and everything was attributed to deity.” Asking whether things in the world have divine or natural origins is for Walton a misguided question. “By restricting itself to those things that are demonstrable, and more importantly, those things that are falsifiable, science is removed from the realm of divine activity...Neither ultimate cause nor purpose can be proven or falsified by empirical science” (Walton 2010: 115-16). In other words, science and theology cannot be placed in a linear tension, one against the other, because each discipline is concerned to address different concerns. Similarly, each discipline is epistemologically equipped and limited accordingly. For Walton, it is expected that Genesis 1 and 2 might not cohere entirely with modern scientific sensibilities because, in the greater concern to present a teleology of form and order, the author of Genesis accommodates his language to the primitive scientific understanding of the text’s original audience (Walton 2015: 15).

Walton ultimately rejects what some have termed concordism. Concordists, according to Walton, “believe the Bible must agree—be in concord with—all the findings of contemporary science” (Walton 2010: 19). Ross has critiqued Walton on this point, suggesting that Walton fails to distinguish between *hard* and *soft* concordism:

Hard concordists look to make most, but not all, discoveries new and old, in science agree with some passage of Scripture. Soft concordists seek agreement between properly interpreted Scripture passages that describe some aspect of the natural realm and indisputably and well-established data in science. RTB [Reason to Believe] holds the latter view. RTB’s soft concordism agrees with Walton that a literalistic hermeneutic does not apply to all Bible passages. It also agrees with Walton that we must always guard ourselves from reading more into the biblical text than what the text actually warrants. When we overreach, we set ourselves up for possible embarrassment and the church at large for possible ridicule...On the other hand, to read less into the biblical text than what the text teaches can also be a problem. (Ross 2012: 2).

Of course, Ross' progressive creationist view represented by Reason to Believe would rend itself having spilled a lot of unnecessary ink if the biblical texts were fully accommodated to the worldviews of the ancients, as Walton seems to suggest. Even so, Walton does not deny that God is creator. He affirms *creatio ex Nihilo* and the historical Adam, even though he believes that Genesis 1 and 2 does not explicitly affirm a creation from nothing. Walton believes the Genesis narrative employs the historical personage of Adam to present an archetypal narrative with theological rather than historical concerns in view. In other words, while Walton never distinguishes between hard and soft concordism, his primary argument is that Genesis 1 and 2 is not intended to have concord with any sort of scientific explanation of the world's origins. Instead, the text establishes an order of relationships that define the Creator-creature relationship. In view of the tradition of Biblical theology presented prior to Walton above, Walton represents a middle-ground position between those who argue that Genesis 1 and 2 functioned as a polemic against Canaanite religion and those who deny its contextual function in ancient cosmologies entirely:

...the author of Genesis 1 is not explicitly arguing with the other views—he is simply offering his own view...The view presented in this book has emphasized the similarities between the ways the Israelites thought and the ideas reflected in the ancient world, rather than the differences (as emphasized in the polemical interpretation). (Walton 2010: 104).

For Walton, then, the question of ultimate origins can remain a non-dogmatic open question for theologians. While God is undoubtedly responsible for origins, the link between God's primary action and the secondary manifestation of his will in nature is not a bridge that Scripture ever builds. For Walton, the role of God as *Creator* is more important than an initial act of creation:

...the idea that Genesis 1 deals with functional origins opens up a new possibility for seeing both continuity and a dynamic aspect in God's work as Creator, because he continues to sustain the functions moment by

moment...Creation language is used more in the Bible for God's sustaining work (i.e., his ongoing work as Creator) than it is for his originating work. (Walton 2010: 121).

Undoubtedly, Walton's argument has elicited both praise and critique. In many respects, his work represents a paradigm change in Biblical thought and has seemingly lent exegetical credence to the Theistic evolution point of view. Walton rejects the either/or dichotomies that have frequently characterized the debate. For example, Walton affirms that Adam and Eve are undoubtedly historical figures, but function nonetheless as archetypes based on the role their tale plays in Genesis 1 and 2 and how other texts derive importance from these events (Walton 2015: 96).

2.9 Summary

A survey of the literature reveals that the theology versus science, or the Genesis 1 and 2 versus Neo-Darwinism, dichotomies are not as black and white as sometimes supposed. Advocates of each of the formerly outlined perspectives—YEC, OEC, ID and Theistic evolution—have adherents who claim to also believe in the inspiration of Scripture. Only YEC insists upon strict concordism, a position that emerges not so much from a defence of Scripture per se, but from a defence of a specific literalistic hermeneutic imposed upon Scripture. One must consider: why is it considered more pious to impose a literalistic hermeneutic upon scripture, that is not warranted by Scripture itself, than it is to impose a naturalistic hermeneutic upon Scripture that reads the inspired text as accommodated to the worldview of the text's original audience? Furthermore, is it truly a literal hermeneutic to impose upon the Scriptures answers to questions that the Scriptures themselves do not literally intend to answer, such as the question pertaining to the age of the earth?

Ultimately, Biblical theology has provided a helpful renaissance as it has developed from a period wherein creation as a theological topic was pushed to the periphery of Old Testament thought to recovering its rightful place at the centre of Biblical theology. Interestingly, there are certain parallels between the development of creation as a theme in Biblical theology and the emergence and development of schools of creationism intended to answer the challenges of naturalistic evolutionary thought.

While one need not affirm all of Walton's conclusions, his contribution has opened the door for Christians who wish to explore scientific viewpoints, even evolutionary theory, while still finding Genesis 1 and 2 meaningful and profound for the Christian life.

3. Methods of Investigation

Recognizing the dynamic that Genesis 1 and 2 has played in the perceived conflict between science and religion, often dominated by the creation versus evolution debate, it is worth asking how a Biblical affirmation of creation has import into aspects of daily life beyond the question of material origins. If Walton's fundamental premise that Genesis 1 and 2 is more about function than origins, more about the Creator's relationship to creation than his role as first cause, then it should follow that Genesis 1 and 2 has import into other dimensions of human life. Because human life is lived out in a world experienced according to the senses (that is, in the empirical world) it should likewise be expected that science and religion will regularly intersect.

The ongoing battle between creationists, evolutionists, advocates of intelligent design and the big bang is a battle that Christians only need to engage if the Biblical text absolutely demands it. At the same time, however, responsible exegesis demands that one not simply revise one's interpretation of a Biblical text simply because science has rendered the plain meaning of Scripture inconvenient. Regardless, if a tenable interpretation of Genesis 1 and 2 is possible that both respects the integrity of the text without leading to irreconcilable differences with clear science it is worth putting those interpretations to the test.

First, before turning to the text of Genesis 1 and 2 itself it is helpful to examine important background questions. What is the genre of the text? Is this describing history? If not a history, can elements of the story still be upheld as historically and scientifically accurate? What was going on in the surrounding ancient world that lent this text its meaning for the original community receiving it?

For the purposes of this report, and considering several perspectives, a short exegesis of the pertinent topics related to the creation and evolution debate in Genesis 1 and 2 will be undertaken. The purpose of this exegesis is multifaceted. First, it is important to recognize what the text clearly says, where it is open to interpretation, and what

propositions it does *not* explicitly advance. Second, it is hoped that significant *meaning* can be derived from this exegesis that offers theological insight into issues of both theological and scientific interest that goes beyond an attempt to settle questions of first causes, human origins, or the orthodoxy or heterodoxy of evolutionary theory. The questions often imposed upon this text in a post-Darwinian era are not the questions that might have been posed originally when the text was composed for its first audience. It is hoped that getting back to some of these original questions can help illuminate the importance of Genesis 1 and 2 for the contemporary world. Finally, identifying points of contradiction within the text itself and modern scientific theory are necessary to take each possible contradiction and evaluate it on its own merits. Various perspectives previously rehearsed in the literature review above will be taken into consideration in order to evaluate whether or not these contradictions are, in fact, contradictions.

Afterwards, pertinent but often confused categories and distinctions in both evolutionary science as well as in theology will be reviewed. Finally, moving beyond the cosmological questions that dominate the first chapter of Genesis the question of Adam and Eve as the “first couple” will be considered in the light of both recent observations in Biblical theology as well as in science. While an exhaustive exegesis of Genesis 1 and 2 is beyond the scope of this report, a brief exegetical analysis of some of the most significant points of contention concerning these two chapters will be considered. After that, additional concepts pertinent to how one imports the Creation narrative into a wider Christian worldview will be examined. These matters will be considered before moving into a discussion moving beyond the conflict, evaluating points of convergence between a Biblical theology approach to Genesis 1 and 2, schools of thought in creationism, and the scientific community.

Finally, in the discussion and analysis that will follow the relevance of the findings for Christendom today will be examined. If these findings permit maintaining a Biblical worldview while also accepting generally accepted science, what does this mean for how the church might engage the world into the remainder of the 21st century?

Is it possible to transcend the debates between science and theology that have dominated discussion surrounding Genesis 1 and 2 during the 20th century? It is hoped that this report can lend itself toward a turning of the page toward a more applicable and

relevant understanding of Genesis 1 and 2 of the daily life of today's Christian.

4. Findings

A survey of the literature suggests that certain advocates of YEC, OEC and even Theistic evolution claim to adhere to a doctrine of Biblical inspiration. As a result, greater convergence between Biblical theologians and those with a personal stake in advocating creationism in contrast to naturalism is important. While parallels in development between the tradition of Biblical theology and the movements within creationism have been observed (see the summary of the literature review above) the greater history of creationism and creation as a concept of Biblical theology has had little overlap. Where overlap has existed, tensions have often emerged between the advocates of creationism in its various forms and Biblical theologians. The debate between John Walton and Hugh Ross, for example, was alluded to previously (Ross 2012). The Biblical theologian, whose concern is mostly the role creation as reflected in Genesis 1 and 2 plays in the theological narrative of the Bible, sometimes runs into conflict with the concern of the creationist whose agenda is to maintain a perspective of fiat creationism in the light of science. In the past, Biblical theologians and creationists often pursued their agendas separately from one another and only emerged to engage the other occasionally. There are some signs, however, that the developments of either school of thought has led to greater convergence between Biblical theologians and certain schools of creationism. The findings of this report demonstrate how recent developments in Biblical theology and some schools of creationist thought are beginning to converge in constructive ways. Perhaps most fundamental to the question is an analysis of the genre of the creation narratives. After all, what one assumes to be the genre of any given piece of literature has significant influence upon how one interprets the text at hand. In short, defining a genre defines in turn the rules of interpretation that govern the exegetical task.

4.1 The Genre of Genesis 1 and 2

Whereas it had once been the case that Adam and Eve had to be considered either as historical persons or mythological figures the emergence of an archetypal view of the primordial couple has allowed for the best of both worlds to emerge. Genesis 1 and 2

has been variously described as history, myth, allegory and even Hebrew poetry. This section seeks to examine the questions involved in defining the genre.

A key concept in interpreting the significance and meaning of Genesis 1 and 2 is the concept of genre. As early as the beginning of the 20th century L.T. Townsend (1904), feeling the threat of naturalism upon the Genesis text, posed the question regarding whether the tale of Adam and Eve should be considered history or myth. While Townsend never explicitly addressed the literary or narrative features of Genesis 1 and 2 that might accord with the genre of myth, he advanced the notion that the tale is largely history by reciting multiple scientific discoveries that accord with certain facts mentioned in the biblical text. Townsend effectively set the terms for a discussion that ultimately treated the terms of “history” and “myth” as if they accorded with “truth” and “fiction” respectively. Advocates claiming that Genesis 1 and 2 is myth have frequently been quick to point out that myth defines a genre and does not necessarily equate to fiction, or suggest that the figures in the story did not exist. In other words, one can argue that Genesis 1 and 2 might describe real events but be *written as myth*, or as a story less interested in reporting facts about the past (a history) and more concerned to explain otherwise inexplicable realities of the world.

While the Torah and other large sections of the Old Testament can be described as historical books, recounting the events of Israel’s past, the notion of history in the ancient world was not necessarily the same as that later developed in the Greco-Roman world (i.e. Tacitus, Seutonius, etc.). It is also very different than modern historiography. The primary concern of Genesis 1 and 2, along with the rest of the Old Testament historical books is not merely to provide historical account of events that really took place but primarily “serve to convey a worldview” (Collins 2010: 152). They explain what combination of actions and choices made by humans and God Himself resulted in people’s being where they are now. Both religious and non-religious readers can take it as timeless moral nurturing, regardless of the text’s historical accuracy. While this point should only be granted with some caution (Aristotle was no Hebrew and imposing his perspectives on genre upon Genesis 1 and 2 runs the risk of anachronism) Aristotle’s concept of poetry bears some similarity to what the author of Genesis 1 and 2 seems to intend. For Aristotle, “poetry” (or fictional narrative) is more important than “history” (an

account of actual events even if presented in the verse form). From Aristotle's viewpoint, poetry discusses universal topics whereas history is excessively particular and context-bound (Collins 2010: 152).

Seely indicated that "there is no need to rewrite either science or the Bible" as both offer truth" (1997). The two disciplines present two different levels of interpretation of reality. Even though the historical accuracy of events presented in Genesis is subject to discussion, the moral and theological value thereof is doubtless. Therefore, perceiving Genesis as Hebrew poetry in Aristotle's understanding or a mythological account of events being a metaphorical representation of universal and eternal themes shared by many cultures, civilisations and religions, does not necessarily have to take place according to the common logic. As Hyers put it, the logic of early chapters of Genesis is informed by its intentional use of a cosmogonic approach. Therefore, the events described there should be regarded in cosmological terms rather than geological or chronological ones (Hyers 1984). In other words, it is an individual dimension for viewing things not necessarily contrasted with others.

Bruce Waltke has summarized the debate concerning the genre of Genesis 1 and 2. While "the creation account is slotted into one of four categories: myth, science, history, or theology" through an analysis of the text itself he argues that "it is problematic to assign this passage to any one of these categories" (Waltke 2001: 74). Waltke's conclusion is that regardless of defined genre, the purpose of the text remains clear:

...we can describe the creation account as an artistic, literary representation of creation intended to fortify God's covenant with creation. It represents truths about origins in anthropomorphic language so that the covenant community may have a proper worldview and be wise unto salvation. It represents the world as coming into being through God's proclamation so that the world depends on his will, purpose and presence (2001: 78).

Defining the genre properly, then, opens a range of interpretations for the most divergently interpreted texts in Genesis 1 and 2. Keeping these insights in mind, then, the remainder of this section will evaluate a few of the most significant

passages in the narrative that are pivotal in the ongoing debate between the text's claims and naturalistic sciences.

4.2 Exegeting Genesis 1 and 2

4.2.1 "In the beginning, God created..."

"In the beginning, God created the heavens and the earth" (Gen. 1:1, ESV). Within this single verse several words and concepts emerge that can result in very different understandings of what is occurring in Genesis 1. For these purposes three concepts will be addressed: (1) the meaning of "beginning," (2) the meaning of the verb "created" and (3) the object of creation, the "heavens and the earth."

Some debate surrounds v. 1—is this "beginning" something before the six days of creation that follow or does it simply introduce the creation narrative which follows? Waltke (2001: 58) points out that both Luther and Calvin believed that this verse refers to an early creation of a crude, unformed mass that is refined through the six-day process which follows. If 1:1 is a dependent clause it might be translated, "When God began to create the heaven and the earth, the earth was without form and void" (Young 1964: 1). Waltke (2001: 58), himself, suggests that the grammar renders this "beginning" a summary of the entire account. The word for "beginning" in Hebrew, *rē'shîṭ* primarily means the "'first' or 'beginning' of series...[it] may refer to the initiation of a series of historical events but it also refers to a foundation or necessary condition..." (Harris, Archer, & Waltke 1980: 2098). In short, the word likely serves to introduce the narrative and does not necessarily speak to a creation of the "formless" and "void" (v. 2) disorderly earth at some point prior to the six days of creation which follow.

Much ink has been spilled over the Hebrew verb *bārā'* 'to create.' A survey of *bārā'* across the Old Testament reveals that God is nearly always the subject of the verb when it occurs in the qal stem. This is the sort of creating that only God can do, in his sovereignty, freely and without impediment. According to Harris, Archer and Waltke (1980: 279) the word implies the "initiating of something new" or "bringing into existence." According to Cotter (2003: 4), "God alone, throughout the Hebrew Bible, enjoys the prerogative of the sovereign, effortless, creative power denoted by this word."

Daae (2012: 210) further notes that there is a certain level of interpretive controversy in the description of the first six days of creation with the words denoting the acts of creation. With the word *bārā'* translated as "to create," the word *āsāh* meaning "to make," and the word *yātsār* used to denote "to form." Though these verbs at first may seem interchangeable, Daae (2012: 213) and many others have argued that the verb *bārā'* is used to denote the Earth's creation out of nothing, bringing something out of non-entity to fulfil a certain purpose. The verb *yātsār*, in contrast, is used to define a process, an internal change within an object, while *āsāh* is used to explain working over something already existing (Daae 2012: 213). Young (1964: 7) has concurred that *bārā'* has a more restricted use than the English word "create," rendering 1:1 as "a simple declaration of the fact of absolute creation."

Walton (2010: 38) takes a more nuanced view of *bārā'* in the context of Genesis 1:1 and, in fact, its use across the Old Testament. At issue for Walton is whether the word implies the creation of matter, per se, or with the establishment of function and order. Walton agrees that in every instance of *bārā'* God is either the subject or implied subject of the verb. When making a statement regarding the goal or end of God's activity, however, he suggests that it's the *object* rather than the subject of the verb that is of primary importance. Indeed, while only God can create in the sense of *bārā'*, it cannot be logically deduced from this fact alone that God's activity of creating is necessarily the creation of matter *ex nihilo*. By examining the objects taken by *bārā'* across the entire Old Testament Walton (2010: 43) concludes that there is "no clear example...that demands a material perspective for the verb, though many are ambiguous. In contrast, a large percentage of the contexts require a functional understanding." While Walton affirms the theology of *creatio ex nihilo* based on other passages he also argues that the use of *bārā'* neither demands nor allows for Genesis 1:1 to function as a sort of *sedes doctrinae* for the teaching. The question here is not a theological one, but a textual one.

The concept of *creatio ex nihilo*, the affirmation that God created the world and everything in it out of nothing, is an ancient doctrine affirmed by some of the earliest Christian forefathers. Within the broader argument of creationism versus naturalism the concept has been effectively deployed as a theological refutation of the idea that matter, in any form, existed prior to the emergence of the world as we know it. New Testament

passages such as John 1:3, Colossians 1:16 and Hebrews 11:3 clearly describe God's acts of creation in *creatio ex nihilo* terms. Within the New Testament *creatio ex nihilo* is a concept deployed in refutation of Gnostic, pantheistic and even materialistic worldviews. The Gnostics, for example, viewed the material world as some sort of divinely aborted accident (Brown 1988: 108). The worldview addressed by the author of Genesis—whether one affirms a traditional Mosaic authorship or subscribes to the documentary hypothesis assigning these early verses to a Priestly redactor—is a different worldview entirely than the New Testament writers address with the concept. Still, whether the concept of *creatio ex nihilo* can be maintained from the first chapters of Genesis is more debatable. Lutheran patristics scholar, William Weinrich (1995: 38) put it thusly:

Creatio ex nihilo is not pure protology, a statement about the world's beginning. It is first and foremost a statement about God and how he relates to the world at all times and in all places. Creatio ex nihilo is also a statement about the nature of the creature and how it relates to God the Creator at all times and in all places. In short, the creatio ex nihilo makes the necessary distinction between God and the creature, especially man.

Thus, from a textual, historical and theological perspective Genesis 1:1 is not necessarily an explicit statement about material origins. Instead, it has to do with the greater concern by the ancient world at the time of the text's composition to express the origins of proper function, order, and relationship in the world. This is a perspective, per Walton (2010), often missed because modern interpreters bring to the text the "baggage" of a Western tradition preoccupied with questions of material origin. Even the tradition of the doctrine of *creatio ex nihilo* is a statement about the sovereignty of God, not about the origins of matter per se. If Walton is right that the origin of matter is not the emphasis of the text, many of the points of conflict between Genesis 1 and 2 and science are, if not avoided entirely, wholly reframed. In fact, it completely reprioritizes the importance of defining the length of a Genesis day.

4.2.2 The Meaning of a Day

The meaning of the "day" in Genesis 1 has been a topic of significant contention—particularly as YEC advocates typically insist that the word implies literal twenty-four-

hour periods of time. In fact, the Hebrew word *yôm* can have a variety of meanings within the Old Testament including a period of light and dark, a literal 24-hour period, a simple point in time, a year or an epoch (Harris, Archer, & Waltke 1980: 370). According to Waltke, at issue in Genesis 1:1 is not the length of the day, per se, but *yôm* serves to structure “a literary framework designed to illustrate the orderly nature of God’s creation and to enable the covenant people to mime the creator...the presentation of creation through ‘days’ reveals God’s sovereign ordering of creation and God’s care to accommodate himself to humanity in finite and understandable terms” (2001: 61). Walton (2010) points out that v. 5 explicitly defines ‘day’ as a period of light contrasted to a period of darkness called “night.” Walton (2010: 55) argues:

We are compelled by the demands of verses 4 and 5 to translate verse 3 as “God said, ‘Let there be a period of light.’” If we had previously been inclined to treat this as an act of material creation, we can no longer sustain that opinion. For since what is called into existence is a period of light that is distinguished from a period of darkness and that is named “day,” we must inevitably consider day one as describing the creation of time. The basis for time is the invariable alteration between periods of light and periods of darkness. This is a creative act, but it is creation in a functional sense, not a material one.

This explanation both helps to explain why evening precedes morning in v. 3 as well as the often-debated conundrum regarding how there could be light on day one when the sun is not created until day four. As Walton (2010: 56) continues to explain, “If creation is understood in functional terms, the order of events concerns functional issues, not material ones. Time is much more important than the sun—in fact, the sun is not a function, it only *has* functions. It is a mere functionary.”

When each day is declared “good” the text does not imply essential perfection, per se, but refers to the function of each created element, with respect to each “day,” as it is intended to function within the larger schema of creation itself (Walton 2010: 50). That it is declared “not good” that man should be alone does not imply a flaw in creation itself. If the concept of goodness outlined in the days of creation above per Walton (2010: 51) is granted, what follows here is not an essential flaw in man, but suggests that “the

human condition is not functionally complete without the woman.” Theologically, if a view of this goodness was with respect to material order the fact that man is discovered to be in a condition that is “not good” would raise significant questions regarding God’s initial act of creating man. It also follows, by extension, that the answer to man not being good here is not to re-form man materially (thus, being “not good” is not a material problem) but to place man within a relationship, namely, with woman. In order to fully understand the significance of Adam and Eve within the broader biblical narrative, however, it is important to understand their setting: The Garden of Eden.

4.2.3 The Garden of Eden

Like the figures of Adam and Eve as the first primordial couple, the Garden of Eden itself has a character comparable to the mythologies of other ancient cultures. As Harlow noted, it is “Genesis’ rendition of a widespread motif in ancient Near Eastern literature” (2010: 182). The most commonly cited parallel can be found in *Enki and Ninhursag*, a Sumerian myth going back to the 3rd millennium BCE). The myth depicts an island paradise free of death and perdition. However, there is no fresh water on this island. To address this problem Enki, the Sumerian god of water, takes water necessary for the garden from Utu, the sun god (Delumeau 2000: 5). In the Sumerian myth, the island itself becomes a touchpoint between the world of humans and the world of the gods.

Walton argues that, within the Bible, the Garden of Eden functioned as a sort of temple. It is a place where God’s presence dwelled on behalf of all creation. The garden functions as “sacred space” with the trees of life and knowledge symbolizing God as the source of each tree’s representative trait (Walton 2015: 116). This is not a unique concept in Walton’s analysis. Waltke likewise understands that Eden functions as a temple-garden with the primordial couple standing in as its priests (Waltke: 2001: 79). This helps explain why, for example, Eden-like imagery makes its way into the later tabernacle and temple as outlined in Leviticus.

4.3 Adam and Eve – Historical Persons, Mythological Characters, or Archetypes?

Walton (2015) has argued that the primary function of the Genesis narrative is to set forth Adam and Eve as archetypes, whose role in the narrative sets the stage for

understanding the terms of both created and fallen human existence. At the same time, the presence of the characters in genealogies and in the New Testament suggests that they were also historical persons. Walton also argues that it is not necessary to assume, based on the text, that Adam and Eve were the only human beings who existed historically even though they function as archetypes or representatives for the whole. This point is bolstered by the observation that the Garden functions as a temple for the primordial couple, suggesting that Adam and Eve function as priests within it. Priests, by definition, have a representative or archetypal role acting on behalf of a larger community (Walton 2015: 104).

The archetypal role of Adam in Genesis 2 is also reflected by the very name affixed upon him: *‘ādām*. The word simply means “human” or “mankind” generally speaking. Walton (2015: 58) suggests that because Adam simply mean “human” and Eve means “life” that these are not likely *historical* names, but are *assigned* names “intended by the Hebrew-speaking uses to convey a particular meaning”. This suggests that Adam and Eve function as archetypes, or “federal representatives” for the human community.

In 1 Corinthians 15:22 in verse 45 quoting Gen 2:7 Paul maintained a discourse clearly suggesting that Adam was a man that really existed in the history. There was a distinction made between “the first Adam” that became a “living being” and “the last Adam” who was a “life-giving spirit.” Whereas former was the progenitor of death, the latter was “the progenitor and indeed the bestower of life” (Lioy 2011: 90). Thus, by juxtaposing and contrasting the figures of Christ and Adam, Paul also suggests that if Christ walked the earth once (and he did), then Adam did as well.

The themes of sin and fall revealed through the narrative convey a deep understanding of humanity in general and specifically its relation to God and the creation. Genesis 2-3 has a reflective character, leading the reader to reframe his or her understanding of self and the surrounding world. However, it is not the figures themselves but their relation to the Bible’s fundamental doctrines on sin and salvation that is crucial. (Harlow 2010: 191). There is a theological danger in treating Adam, Eve, and their Fall from God’s grace as a myth. For example, the Catholic Church insists that despite the mythological language utilized in the creation narrative, the fall was a historic event. For them, the authenticity of fall is the basis for the doctrine of the atonement (Williams 2001: 4). In

other words,

“More pervasive in and essential to biblical teaching than Adam and Eve are Scripture’s statements concerning the reality and effects of sin, the unity of the human race in the grip of sin, and the universal need for redemption from sin in Jesus Christ” (Harlow 2010: 191).

Because of the Fall, Adam and Eve were punished and had to leave the Garden of Eden. They became mortal beings, sealing their separation from God. They had to spend their lives in a world full of suffering and pain. Mortality regarded as both trial and training was essentially a symbol of the spiritual death denying Adam, Eve, and their descendants the direct communication with God and exposure to His grace (Shuster 2009: 65). The archetypal connection of all humanity to Adam and Eve’s sin emphasizes humanity’s responsibility for its toilsome condition. According to Collins, Genesis is remarkably silent regarding the motivations, psychology or human condition leading to the couple’s sin. Indeed, the words “sin” and “disobedience” while commonly employed by interpreters of the text are remarkably absent from the text itself. In Collins’ view. This shifts the focus from punishment onto the opportunities lost because of failing the test (Collins 2003: 140).

Many of these insights, taken seriously, erase some of the objections that YEC holds by equivocating between Genesis and naturalistic theories. While some irreconcilable tensions might nonetheless persist, the gulf separating theology from science need not be depicted as widely as YEC advocates affirm. Additionally, while the discussion between these worldviews tends to focus on where conflict emerges, it is equally helpful to recognize where these views are especially compatible. Points of convergence between evolution and theology will be thusly considered.

4.4 Evolution and Theology: Points of Convergence

In a lecture on evolution and theology Professor R. J. Berry (2006; 2011) presented various theories that have been proposed, supported, or rejected to reconcile the Genesis narrative with the majority scientific consensus. In Berry’s estimation, there is no reason based on the text to insist that Adam and Eve were the sole progenitors of all extant humanity. It is possible that during the lives of Adam and Eve, other human

beings lived outside their temple-garden. The Genesis narrative, construed thusly, suggests that their special role for humankind was not as biological origins of the human species, but as spiritual progenitors of God's relationship with human beings. As God's image-bearers, their role was to represent God and spread his divine generosity to the surrounding world (Berry 2006). Walton (2015) concurs with this assessment.

That human beings possess a spiritual component, separating them from other species, becomes apparent at this point. This is also supported by the discussion of life and death being different existential categories for humans and all other organisms. Whereas the life of other organisms ends with corporeal death, human life persists beyond the death of the body. The life of humans, theologically speaking, is not limited by biology (Berry 2006). This serves to further the belief that human evolution is not purely naturalistic. It is also influenced by factors lying beyond the scope of nature, for example morality. The thesis of human behaviour and abundance of evil in nature can serve as an argument. Altruism is in a way weakness, so from the point of view of natural selection it should not be passed from one generation to the next one. However, altruism can be and is passed through generations within families, even if there is no genetic connection (Berry 2006). From this perspective, a form of "spiritual selection" occurs distinct from the laws of nature.

Finally, another major point mentioned by Berry concerns reconciliation of the theory of evolution with the ideas of Intelligent Design. Time is the main aspect that allows this convergence. God originally created man without flaw, perfect according to God's own design. Yet, the environment changed due to the natural course of events. If perfection is understood with respect to man's relationship to the world and its environment, perfection itself needed to be modified to cohere with a changed planet (Berry 2011). There is a possibility that these modifications took place through evolutionary processes. This is also supported by the fact that the more scientists study the earth, the more convincing the evidence is that the planet is "uniquely designed for human habitation" (Pretorius 2013: 6). Analysis of the evolution of life suggests intelligent design, even in the structure of the smallest representatives of life like bacteria. Evolution in its naturalistic understanding cannot fully explain the complexity of the design of cells. These designs tend to demonstrate that biochemical systems seem

much more sophisticated, intricate, and purposeful, that they seemed before (Pretorius 2013: 7). Therefore, evolution need not be limited to naturalistic processes. Theistic evolution, as discussed previously, combines the notion of design with naturalistic processes guided by the Divine to bring out God's intended design. The latter perspective presupposes the possibility of the alternatives described above – with or without God's intervention into the process, but necessarily presupposing that the original act of Creation was carried out by God.

According to Polkinghorne, many of the earliest scientists did not feel it necessary to adhere to either science or religion, believing that there were two books written by God, the Book of Nature and the Book of Scripture. Both books should be read. Read correctly, no contradiction would persist because both books emerge from the same author (Polkinghorne 2009: 173). This is a point undoubtedly inherited from the broader tradition of the church, as indicated in the section on premodern views in the literature review already presented.

As it has already been pointed out above, a variety of arguments pro and con accompany each of the prevailing perspectives on the relationship between creation and evolution. None of these arguments or perspectives, however, is wholly immune from criticism. Life, particularly human life, is incredibly complex and its emergence in the world's sphere can only be explained by equally complicated processes. As Berry (2006) emphasized in his lecture, any phenomenon can be looked at from different perspectives. It appears quite possible that Creation and evolution can be explained quite logically from both the scientific and theological perspectives, albeit with each discipline describing the same processes in radically different terms. Emphasizing the complementarity of the two approaches could lead to a more comprehensive picture of the origins of the earth and the human species.

4.5 Creationism Models Re-examined

None of the findings above inherently conflict with creationism. At the same time, these findings also suggest that mainstream evolutionary theory might not be as diametrically opposed to creationism as often believed. This is not to suggest that naturalistic evolution, however, is true by default. Evolutionary theory must still meet the rigors of scientific critique, including the criticisms waged against the theory from creationist

perspectives. As rigorously as Biblical scholars examine and reevaluate previously advanced exegetical conclusions, the conclusions of evolutionary theorists must also be continuously scrutinized within the discipline of the sciences. None of the prevalent views, examined in the literature view earlier in this Research Report, are completely undone by these findings. YEC, OEC, ID and TE remain viable Christian perspectives, even if some of the tenants commonly advanced by each is challenged by biblical theologians. Still, it must be granted that biblical theologians like Walton (2010; 2015) and others, examined above, advance propositions that alter the debate's narrative.

The move from viewing Genesis 1-2 as a narrative pre-eminently concerned with material origins, to the establishment of form and order, does not alone conflict with YEC claims. That God is ultimately responsible for material origins is affirmed by *creatio ex nihilo* affirmed elsewhere in scripture. What this move in biblical theology does, however, is to reframe the YEC question pertaining to the length of a Genesis 1 "day." Rather than asking, "how long did it take God to bring x, y, or z into existence," the question becomes, "how long did it take God to bring order into the world, and establish the role of x, y, and z in creation?" In other words, reframing the purpose of the Genesis "day" does not reconcile YEC concerns about what the length of time a "day" denotes. Overall, however, employing the same literal hermeneutic will likely lead the YEC nearly identical conclusions. If the Genesis days remain literal, consecutive 24- hour periods the text remains in tension with evolutionary claims that not only existence, but the orderly relationships exhibited in the world's ecosystems evolved over millions of years. Walton, in fact, agrees that they creation "days" in Genesis 1 represent "seven twenty-four-hour days" (2010: 91). The issue is not the length of the day per say, but the significance of the "day" in Genesis 1. This does not mean, however, that a shift in understanding the Genesis narrative toward a story of function and order is without benefit to the YEC advocate. Regardless of how long these days existed, an emphasis on the relationships the text advances allow the YEC advocate to rely upon the text for purposes that extend beyond proof-texting against naturalistic evolution. It gives the text practical relevance for how Christians should understand their place in a world that exists already, no matter how long it took for the world as we know it to become what God ordered it to be. It means that even while disagreeing about "what happened" there are foundational propositional claims about the world as it is that the YEC can share

with OEC or even TE proponents. Furthermore, it shifts the points of contact or differentiation with fossil records. The question ceases to be when certain species emerged in the fossil record, and whether it accords with the Genesis 1 order of appearances of species. Instead, the emphasis becomes whether the functions perceived in Genesis 1-2 for the various created bodies—animate an inanimate—accord with scientific observations about how the world works. In other words, moving beyond the irreconcilable issue of when and how long creation occurred, this read of the Biblical text opens new opportunities to engage the sciences in ways that might prove to have more in common with a biblical worldview.

Hugh Ross has already challenged Walton's views. Representing an OEC, or progressive creationism, Ross, of *Reasons to Believe*, agrees with Walton that one ought to be careful not to read too much science into the biblical texts that the original authors never intended and the original audience would not have understood. At the same time, however, Ross cautions that such a read should not read any less from a scientific perspective than would have been understood as well. Walton is critical of the progressive creationist's move to find the "big bang" in Scripture, as if later ideas were being forced upon the text (2010: 105). Ross' (2012) response is that, from his own experience, he had learned the big bang before his conversion and was surprised to find it already in Scripture as a seeker. Ross did not, intentionally, impose big bang cosmology upon the Bible. In short, the dispute between Walton's view and Ross' is how much science should be discerned in the Biblical text. Without attempting to quantify how much, or how little, of Genesis 1-2 is concordant with modern science, Walton's caution is worth heeding. OEC advocates, like Ross, might very well see something akin to a "big bang" in Genesis 1. They should be cautious, however, about committing themselves to such a claim dogmatically. There is a risk of attempting to force upon the text conclusions pertinent to modern big bang cosmology that was alien to the text itself, and foreign to the worldview of the text's first audience. The dispute between Walton and Ross illustrates a tension between Biblical revelation and evolutionary science that is worth maintaining. In short, when the Bible describes events that accord with science one should not be surprised. Equally unsurprising, however, should be the Biblical descriptions of cosmological events that accord more with the views of the ancients. Even while the Bible can be revered as divinely inspired, the inspired message it

communicates is to real people, in real language, with real cosmological assumptions. That the Bible might choose, at times, to speak in the terms of its earliest audience does not compromise its message at all. On the contrary, it maintains that the inspired intention of the text is primarily to communicate God's relationship to human beings, and mankind's relationship to the world wherein men and women dwell.

ID is not directly concerned with how the Genesis text is interpreted. Nonetheless, as far as ID is concerned with discerning the existence of a designer based on the presence of design in the world some shared interest is reflected. If, for instance, the Genesis narrative is precisely concerned with function and order, more than anything else, it follows that the character of God as depicted in Genesis easily fulfils the requisite requirements of the ID designer.

Clearly, Walton's works (2010; 2015) allow one to reconsider how TE might be maintained without sacrificing one's commitment to the Bible at the same time. Building on Walton's thesis, Venema and McKnight (2017) explicitly affirm this compatibility. Walton himself (2010: 170) affirms that "very little found in evolutionary theory would be objectionable" to his interpretation of Genesis 1-2. At the same time, it should be maintained that these developments in biblical theology in no wise demand that one settle on TE. The strength of his view is that, contrary to attempts by prior biblical theologians, it is based on a high view of the Bible that affirms inspiration and inerrancy, without forcing someone to reject a specific scientific view out-of-hand for any reason other than the flaws in the science itself. In other words, TE is not necessarily the preveue of theological liberals alone, who reject Biblical inspiration. This perspective allows the theologian to be a theologian, while the scientist remains a scientist. The perspectives of either remain open to independent criticism, but need not be considered mutually exclusive.

4.6 Summary

To place theology and science in opposition to one another is a bit misleading. In fact, while religion and the scientific community have clashed over certain issues in the past, it cannot be deduced from these debates alone an inherent incompatibility between the two disciplines. Often what is at stake in the debate is settling the epistemological domain of either discipline. What sort of knowledge is theology uniquely capable of

providing and what sort of knowledge is science better equipped to discern? Simply agreeing that Scripture is inspired and even inerrant does not mean that the Scriptures make claims beyond what the text intended. The rigors of modern science, in other words, need not necessarily be applied to the language scripture uses. That God potentially accommodates his language to the views of the text's original audience—as John Calvin (1536) and later those like John Walton (2010; 2015) argue—is not necessarily a contradiction of biblical inerrancy. The Bible employs human language to speak to human people in historical contexts. The notion of accommodation does not suggest that what the Bible says pertaining to the natural world is false. Rather, it indicates that the Bible is speaking in the language of its original hearers, and not primarily to later scientific questions. The Bible literally revealed God's word for people in the world, seeking to address them in terms they understood. Likewise, when science makes claims, the mechanisms of the scientific method effectively limit it. In either discipline—biblical theology and natural sciences—human beings act as interpreters of the data they encounter. Theologians and scientists are both prone to err in their endeavours. Thus, before one insists upon a contradiction between the Bible and science, it is helpful to ask whether one is ascribing claims to one or the other than the discipline is not equipped or intended to make. As has been shown here above, Genesis 1-2 is not necessarily incompatible with science. Interpretations, such as those by Walton (2010; 2015) or Venema and McKnight (2017) take the Biblical text seriously within its own context. These exegetical conclusions do not inherently conflict with evolution. Hugh Ross (2006) and others examine scientific data in a way that coheres with a literal understanding of Genesis 1-2. In short, possibilities emerge that do justice to both science and theology without necessarily leading to a contradiction between the two.

5. Discussion and Analysis

The broader trend in Biblical theology today has been to take the Biblical text of Genesis 1 and 2 on its own terms, as it was likely heard and understood by its original audience in the ancient near east. What has emerged is the possibility that Scripture and science—even naturalistic evolutionary science—are not necessarily irreconcilable. This is not a wholly accepted claim, as Hugh Ross and others would argue, but one

need not accept all the claims made by John Walton (2010; 2015), McKnight (2017), Enns (2012) and others to see that the gulf separating theology from science is not as wide as YEC advocates have argued. By moving beyond the conflict between creationism and evolutionary theory the Genesis text opens new possibilities for how theologians and scientists can converge to address contemporary problems. This discussion, then, will simply propose a few areas where such convergence might be further explored.

5.1 Creation and Ecology

A re-emergence of a theology in creation has not led exclusively to increased conflict between Biblical theologians and the scientific community. Questions of origins aside, theologians have increasingly relied upon the text of Genesis 1 and 2 to provide a theological basis for environmental activism and ecological concerns. If “matter” is not the central concern of Genesis 1 and 2 as Walton (2010; 2015) has argued it also follows that the “function” man and woman play within creation is far more important than what constitutes man (i.e. questions of body, soul and spirit). The relational dynamic of God, creating man in his image, and tasking man to be his representative in creation suggests that man has a duty not only to God, but as God’s representative, to care for the creation that God has so ordered. While a thorough discussion of the image of God is beyond the scope of this essay, what is at least evident from Genesis 2 is that man is God’s representative and has a definite responsibility to be God’s agent to both bring and sustain God’s order and function in the world. Having been made from the dust of the ground, regardless of whether this verse testifies to man’s literal material origins, testifies to the intimate reciprocal relationship man has with the earth. Man is tasked to care for the earth, and the earth provides for man. While this relationship is fractured in the fall, man is nonetheless charged to continue this task and responsibility in pain and toil.

Undoubtedly, Christians and secular environmentalists approach ecological issues with different presuppositions. If their presuppositions lead to similar conclusions, though, there is an opportunity for Christians to lend their voice and support to efforts valued by others. In truth, the presuppositions often embraced by secularists and Christians regarding human responsibility to the environment are often contradictory. Some,

rejecting the presuppositions of humanism, argue that man is not at all unique amongst the animals of the earth and cannot do with the world whatever mankind pleases. Alternatively, Christians can advance ecological concerns precisely because mankind has a special responsibility in the order of creation. As God's image-bearers, human beings fulfil a unique calling by using their superior intellectual capabilities to ensure that the earth is well maintained.

In short, Genesis 1 and 2 gives the Christian a strong impetus toward ecological and environmental concerns and thus demands that man also heed the insights of science regarding how man can best steward himself toward this task and responsibility. At the same time, and for similar reasons, the creative activities of human beings resulting in new technologies and inventions takes on new meaning when viewed from a Biblical creation standpoint.

5.2 Creation, Technology and Human Invention

While man does not sovereignly create, and certainly cannot create *ex nihilo*, a read of Genesis 1 and 2 sees that God's primary concern "in the beginning" was to bring function and order out of disorder. This lends further meaning to what it might mean that man bears his creator's image as he sets out to harness the potential of the created world in technology and invention.

Technology is neither inherently good nor evil, holy nor sinful. How technology is used, however, does have an ethical valuation. Nuclear energy, for example, can help provide clean air, water, and help deliver food to impoverished peoples. It can also be harnessed as a destructive force to do people harm. The internet can be used to communicate godly ideas, but it can also be used as a vehicle to spread ungodly propaganda and exploitative materials. How human beings employ technology is ultimately an extension of the responsibility first given man and woman in the beginning. It is a means through which mankind might exercise godly dominion over creation. At the same time, it also extends the temptation for man and woman to be gods unto themselves. Genesis 1-3 provides human beings with a framework through which they can understand both the good use of technology and the pitfalls of misusing it in ungodly ways.

While more could be addressed on this point, it is sufficient for these purposes to point out that the Christian finds new meaning in the pursuit of technological progress when a worldview informed by Genesis 1 and 2 is incorporated into one's general perspective on the contemporary world. Together, man and woman were tasked to exercise dominion over the garden and, eventually creation. Thus, the relationship between man and woman becomes crucial when understanding the human being's place in creation at large.

5.3 Creation and Human Sexuality

In many respects, the course has already been charted for bridging Genesis 1 and 2 into contemporary questions regarding human sexuality by the late Pope John Paul II's monumental work, *Man and Woman He Created Them: A Theology of the Body*. Taking the lead of Jesus, who returns his interlocutors to the text of Genesis 1 and 2 when they seek to trap him in a question regarding divorce and remarriage in Matthew 19 and Mark 10, John Paul II returns to "the beginning" to recount what he terms man's "original experiences." Through an in-depth of what John Paul II calls "original solitude," "original unity," and "original nakedness" the former Pontiff describes what he terms a "spousal" or "nuptial" meaning of the body. This occurs through what he calls a "hermeneutics of the gift" which suggests that man and woman were bound together from the beginning to express oneself as a gift to the other (John Paul II 2006: 190). This amounts to a reflection of God's character and his original design for man. What emerges, then, is ultimately a relational definition of the human being who derives his proper and redeemed sense of self from the relationship God initiates by creating man out of no other motivation than Divine selflessness, or love.

Indeed, John Paul II's work provides one example of the creative application that a fresh read of Genesis 1 and 2 can offer for the contemporary world. If one can recognize the archetypal function of Adam and Eve, even while acknowledging the primordial couple's historicity, one is able to find profound implications within Genesis 1 and 2 regarding what it means to be human (Walton 2010; 2015). Why do Christians pursue marriage, and what is the standard by which one should select a mate? Why is "physical attraction" often considered, in popular culture, the basis for a relationship rather than a

reflection and appreciation for the mate whom God has provided and freely gives of oneself to the other? Adam's exclamation, "flesh of my flesh" emerges from a recognition that the woman was the helpmate God provided. This is not merely physical attraction. This provision extends, then, through God's command to be fruitful and multiply, a component of exercising mankind's broader purpose in creation to exercise God's dominion and extend God's sense of order into the created world. If "attraction" is not the primary component of human sexuality, then issues regarding sexual orientation, the nature and permanence of marriage, among others are reframed in a way that allows Christians to address these matters in ways more profound and complete than proof-texting typically allows. Upholding the beauty of God's design for human sexuality sets a different standard for what Christian sexuality ought to be. It further leads to new bridges into the world of science, particularly regarding the neurological and biological distinctions between the sexes, and how man and woman might best function to serve their role as God's image-bearers in the world.

A rich interpretation of the foundations of human sexuality, based on the values expressed in Genesis 1 and 2, can change Christian conversations regarding sex, marriage and reproduction. Difficult questions can move beyond proof-texting, which tends to make blanket condemnations and affirmations of certain behaviours. Such condemnations tend to emphasize what is right or wrong for Christians without answering why Christians regard such things as godly or sinful. Oftentimes, a Christian view of sexuality focuses on the boundaries. Some behaviours are considered within the boundaries of acceptable Christian sexuality, while others are rendered out-of-bounds. Valuing Genesis 1 and 2 as normative for Christian form and order in the world allows Christians to reframe their perspective on sexual issues in a way that upholds the beauty of God's design for man and woman rather than focusing on defining what is or is not sinful. While the conclusions might be the same, a deeper reading of Genesis 1-2 gives Christians a language that helps them value a godly view of human sexuality. This should ultimately be more compelling than law oriented condemnations of certain sexual activities or orientations.

In short, the above presents a sampling but by no means an exhaustive exploration of how Genesis 1 and 2 offers a theological impetus for Christians to engage social issues

in ways that engage rather than push against the sciences. It is possible to transcend the terms of the debate between this text and evolutionary theory and build bridges to the sciences. This does not mean that Christians will always share a common viewpoint, or even the same reason for engaging these matters that secularists will. Christians have an entirely different motivation for engaging environmental causes, for example, than a secularist who has no eschatological hope beyond this world's existence. Common ground in caring for the earth can nonetheless be established. It is even less likely that the above insights regarding human sexuality will be co-opted with a parallel secularist view. Nonetheless, it does offer a new way to explain Christian perspectives on marriage and sexuality that moves beyond the condemnatory approach of proof-texting that is prone to alienate outsiders. It is hoped, at the very least, that this report has presented some possibilities how novel approaches in Biblical theology to Genesis 1 and 2 have narrowed the gap that separates a Christian creationist from the scientific community.

6. Conclusion

This Research Report examined many of the most common theories and perspectives on creation and evolution. Even as YEC believe their view is the only one that accepts the Genesis account as written, other OEC advocates like Hugh Ross disagree. ID has emerged as an attempt to develop a scientific explanation of the world's origins without allying itself to any explicitly religious propositions. TE, in turn, has attempted to uphold a belief that God himself has used evolution as his means for bringing the world as we know it into being. Regardless, many adherents of all the above still claim to embrace Genesis 1-2 as inspired scripture. YEC advocates still cling to the notion that they, alone, embrace a literal understanding of Scripture.

Of course, interpreting the scriptures literally does not necessarily mean without figure, metaphor, or symbol. Fundamentalist Christians do not own the literal sense of scripture alone. Thomas Aquinas, in fact, once argued that the literal sense of the Bible accords with what the human author intends (Ku 2017). Applying this principle, Aquinas concluded that the literal sense of Genesis 1 is not that God created the world in six days, but simply that God created the world (Ku 2017). To suggest that the six days had metaphorical meaning is the literal meaning of the text, in Aquinas' estimation, if that is

what the author intended.

Recent developments in biblical theology, more than inventing new methods of biblical interpretation, stand alongside a long tradition in historical Christendom. Literalism does not respect the text if the text itself was not intended to be interpreted literally. In truth, YEC does not necessarily have an exclusive claim to a high view of scripture. Biblical theologians, like Walton (2010; 2015), who affirm a doctrine of inspiration have proposed readings of Genesis 1-2 that allow for OEC or even theistic evolution.

Walton (2010: 2015), as has been summarised above, has argued that Genesis 1-2 does not make claims about the material origins of the world. Instead, according to Walton, Genesis 1-2 presents a God who brings order out of disorder. The rest of the Bible, in turn, testifies to the problems that disorder has brought into the world. This claim alone leads to several possibilities relevant to the creation versus evolution debate. First, by arguing from the text itself Walton avoids the accusation that he is accommodating his view of scripture to science. Second, it renders how one views the days of creation as mostly irrelevant to the creation versus evolution debate. In other words, by arguing that the text does not inherently conflict with old earth claims, it removes a barrier between creationists and evolutionists.

There surely remains some dissatisfactory disagreement between a creationist's worldview and naturalist evolutionary ideology. Even while affirming many of the same scientific facts, naturalistic evolutionists and theistic evolutionists still differ widely in terms of the mechanisms evolution has employed, and the underlying causes of the origins of species. While Walton (2015: 33) has presented a reading of Genesis 1-2 that is not inherently in conflict with evolutionary theory, he still admits that the Biblical texts elsewhere advance the principles of *creatio ex nihilo*. Even if Genesis 1-2 is not speaking to the material origins of the world, other Biblical texts still affirm that God originally created all things out of nothing. Regardless, Walton's claims still succeed in shifting the terms of the debate away from the specifics of the length of a Genesis 1 "day," to the notion of God as creator, generally. At the same time, however, it should be admitted that God as "creator" is a theological claim that cannot be wholly proven scientifically. ID continues to fall short of its aspirations.

It should be emphasized, however, that the scientific community is not wholly the prevue

of secularists. While God's existence has not been scientifically proven—at least not to the rigors that the scientific method demands—theists are not alone in affirming unprovable claims. To presume that no God exists is an unverifiable position. One cannot logically deduce a universally negative claim. Accordingly, in traversing the gulf between creationism and naturalism it cannot be wholly expected that the creationist will be the only one to take steps toward bridging the divide. Everyone operates with presuppositions. To date, there is no reason to believe that the naturalist's presuppositions are in any way superior to the theist's. Still, it is important that each side recognizes their presuppositions for what they are. Ockham's razor cuts both ways. Even while the existence of God seems the simplest explanation for the material world for some, this simple claim is considered fantastical by others. While immaterial, impersonal origins based on chance seem more likely that the existence of God for many, others find that it takes a greater leap of faith to admit such a possibility than it does to accept theism. What leads some presuppositions to seem more reasonable to some than others likely depend on many factors. Even so, the first step seems to be that all parties to the debate at least recognize the role their presuppositions play in forming their worldview. Naturalists, as much as theists, need to be willing to concede something and take responsibility for their own unverifiable claims.

Considering everything, and as far as the gulf is unnecessarily widened by a literalistic exegesis that does not consider the historical context of the text of Genesis 1 and 2, the Christian bears the responsibility to examine his or her approach to scripture. How a text is interpreted will inevitably involve some sort of bias or assumption. What literalists and YEC advocates miss is that under the guise of a "literalistic hermeneutic" they are imposing upon the text biases that are not native to the text itself. New approaches in Biblical theology, viewing the text of Genesis 1 and 2 in the light of its original context in the ancient near east, has opened the door to both resolving inconsistencies within the text itself. For example, explaining issues like the existence of a "day" before the creation of the sun, or where Cain's wife came from, are difficult to navigate if one presumes that Genesis 1-2 is about the material origins of the world. If Walton's (2010; 2015) thesis is assumed, these questions become less difficult. It also allows Christians to engage the sciences in a way that does not leave one having to equivocate between a biblical and a scientifically informed worldview.

The supposed conflict between theology and science has often been misconstrued. While there are undoubtedly some points of disagreement between scientific naturalism and theology, there is also a legitimate debate within Christianity regarding the proper way to read and interpret the Scriptures. There are legitimate arguments that can be made exegetically that makes the apparent conflict between Genesis 1-2 and scientific propositions about the age of the earth and even evolutionary theory less stark than YEC supposes.

It is hoped that this report has demonstrated how the divide between fidelity to the Bible and contemporary science can be transcended. There are undoubtedly points of disagreement that remain. Both the progressive creationist and theistic evolutionary schools of thought offer ways to resolve these tensions, but disagree on significant points. Regardless, these views are not so far apart that dialogue cannot occur. Even more, with new perspectives in Biblical theology Christians can couple a fresh read of Genesis 1 and 2 with a view of creationism more compatible with the sciences. This can lead to new ways of creatively engaging the sciences in ways directly derived from the form and function theologically established in the inaugurating chapters of Genesis.

Regardless, it is important that one not render difficulties between reconciling theories of material origins as an inherent conflict between science and religion on a broader scale. Even as Biblical claims and scientific theories regarding the origins of the world remain in tension, there are several other domains of shared value. If Christians affirm that God created the world, then studying the material world in a scientific way need not be considered an act of ungodliness. Instead, getting to know the material world is a way of worshipping the Creator. One appreciates an artist by studying his or her most famous paintings or sculptures. Architects are honoured when one examines their structures, considers the genius of their designs, and is inspired to take up the craft themselves. Regrettably, for a variety of historical reasons, the Christian church persecuted those like Copernicus and Galileo whose discoveries ultimately amplified the wonder of God's grand creation. These men, however, did not believe themselves to be godless. They rightly saw their pursuit as honourable and worshipful.

Similarly, advancements in science that force theologians to re-examine traditional interpretations of texts can ultimately enrich biblical exegesis. If natural revelation

seems to conflict with one's interpretation of the Bible one should not immediately assume that science is wrong. It might be. It might also be the case that scripture has been misinterpreted and made to say things that were never intended by its original authors. While Christians are right to defend the Word of God when threatened, they are wrong to defend it against a foe that is not truly opposed to it. To simply ignore science because one's own interpretation of the Bible does not honour God, is wrong. In fact, creationism presupposes that the world reflects the handiwork of its maker. Good science should be pursued and embraced by creationists of every stripe.

Of course, new perspectives on Biblical texts often stir up conflict. This is undoubtedly the case with recent perspectives proposed by Walton (2010; 2015) or Venema and McKnight (2017). Ross (2012) has, in fact, challenged Walton's thesis. This author contends, however, that these are debates worth having. A willingness to reconsider traditional interpretations of Genesis 1-2, based on what the text itself warrants, are worthy endeavours on their own right. Even as science has, itself, evolved since the days of Darwin and been willing to self-correct, Biblical theologians have increasingly shown a willingness to do the same. No one who honestly seeks out truth believes that he or she has it right already. Otherwise, he would not be pursuing truth at all, but only a need to prove oneself correct. Both theology and science are disciplines concerned with truth. Accordingly, both biblical theologians and scientists do well to recognize what they do not yet know. Sometimes, recognizing how one might be wrong is just as important as knowing how one is right. While the tensions have not been entirely resolved, it is encouraging that work is being done that might eventually prove fruitful in narrowing the divide between creationists and evolutionists. Even more, dispelling the myth that theology and science are diametrically opposed is important. Together, scientists and theologians may work together to inspire people to make a better world for the next generation. Surely, this is a God-honouring task.

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