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# An Interpretation of Genesis 1:1-2:3 in Light of Ancient Near Eastern Traditions and Modern-Day Science

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AN INTERPRETATION OF GENESIS 1:1-2:3  
IN LIGHT OF ANCIENT NEAR EASTERN TRADITIONS  
AND MODERN-DAY SCIENCE

A Capstone Experience/Thesis Project

Presented in Partial Fulfillment of the Requirements for  
the Degree of Bachelor of Arts and Bachelor of Science with  
Honors College Graduate Distinction at Western Kentucky University

By

Rebecca J. Morgan

\*\*\*\*\*

Western Kentucky University  
2013

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## ABSTRACT

In the fields of religion and science, people seek to comprehend the world in which they live. According to the Judeo-Christian religious tradition, the universe and all its elements were created by an omniscient, omnipotent God in accordance to his holy design and purpose. This explanation, articulated in the book of Genesis, has influenced several thousand years of human history. However, the literal 24-hour days-of-creation explanation and interpretation deduced from the Genesis 1:1-2:3 creation account is contested by recent scientific discoveries as an invalid explanation for the origins of the universe and mankind. To explore the “how” and “why” questions of the origins, this project presents an interpretation of the Genesis 1:1-2:3 creation account in light of its ancient Near Eastern context and compares this interpretation to modern-day scientific understanding. The evaluation of this comparison reveals that theistic evolution is the best explanation, satisfying the veracity of both religion and science.

Keywords: Genesis, Origin, Interpretation, Big Bang Theory, Evolution, Ancient Near East

Dedicated to those struggling with doubt

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Lastly, but most importantly, I would like to thank my Lord and Savior Jesus Christ. Oh praise and thanks be to him, my Lord my God, whom I serve, through whom I live, and by his guidance and strength I was able to complete this project. Glory to Christ alone.

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## FIELDS OF STUDY

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## CHAPTER 1

### THE ORIGIN OF CONFLICT AND THE CONFLICT OF ORIGIN

The last two centuries of history is scarred from scientists and theologians at war. Although battles have surfaced between the two in the past—e.g. 16<sup>th</sup> century Galileo Galilei’s collision with the Catholic Church over the correct model of the solar system—the stark chasm between defenders of science and religion was not wedged until the 18<sup>th</sup> century age of Enlightenment. This age prepared the battlefield for the 19<sup>th</sup> century war. In this war, Charles Darwin’s theory of evolution “threatened” Christian faith, and in retaliation, the Christian faith “threatened” scientific advancement. This war still rages today.

For some Christians, the theory of evolution, in addition to the later Big Bang Theory, led to the development of an antagonism toward science. The reason for this antagonism is because of the implication that these two scientific theories challenge God’s explanation for creation in Genesis, and therefore challenge God. Is this antagonism held by some Christians toward science reasonable? Do these two scientific theories contradict the account described in Genesis? Is it fair to even compare the two?

In order to adequately answer the latter question, the definitions for science and religion must be discussed. Science is the systematic study of the natural, and proceeds by establishing testable hypotheses of observations or explanations of natural

phenomena; the results of these endeavors typically synthesized into broad scientific theories. The key assumption behind science is that natural phenomena have natural explanations. Religion, on the other hand, proposes the existence of a supernatural entity or entities, often identified as “God” or “the gods,” and explains the supernatural realm through stories or teachings.<sup>1</sup> The key assumption behind religion is that certain phenomena have supernatural explanations. On this note, some religious stories or teachings can be understood as divinely-inspired revelations, and interpretations of the stories and teachings are used to better understand the supernatural. In conclusion, science assumes and operates only within the natural realm, whereas religion assumes a supernatural realm, in addition to the natural realm, and seeks to understand the relationship between the two realms.

How, then, do science and religion compare? Science is limited to the natural, whereas religion can discuss both the natural and the supernatural. Religion seeks to answer the *why* questions (“Why are we here?” and “Why are things in the world and in nature the way that they are?”), whereas science seeks to answer the *how* (“How does an object move from Point A to Point B?” and “How do organisms adapt to their environments?”). Although religion incorporates the natural, it seeks philosophical purposes and explanations for the natural world, whereas science is more systematic in its approach.

Before the other aforementioned questions can be answered (“Is this antagonism toward science reasonable?” and “Do the Big Bang Theory and the theory of evolution

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<sup>1</sup> Buddhism is a religion that is an exception as some sects of Buddhists are atheistic. However, it is debatable among scholars as to whether these sects are religious sects or if they would be better classified as philosophical sects considering their atheistic precepts.

contradict the account described in Genesis?”), the two scientific theories and the Genesis account of creation need to be individually analyzed.

## CHAPTER 2

### ORIGINS BASED ON SCIENCE

Polarization often arises from ignorance. Today, Christians who support Young Earth Creationism represent one pole.<sup>2</sup> YE Creationists believe there is not enough evidence to support the Big Bang Theory or the theory of evolution. Therefore, they cling to a literal<sup>3</sup> interpretation of the Genesis account of creation to explain the origins. However, there is *much* evidence in support of these two theories, and this evidence should be taken into consideration to better understand the origins of the universe and mankind.

#### I. The Big Bang Theory

The Big Bang Theory is a scientific explanation for the origin of the universe. This theory predicts, with accuracy greater than 99%,<sup>4</sup> that the universe began 13.7 billion years ago as a highly dense mass of energy and matter. From this point, the universe expanded and cooled, including a period of rapid inflation in which the universe expanded at a remarkable rate (it grew by a factor of  $10^{35}$  in  $10^{-32}$  seconds<sup>5</sup>). As the universe expanded, galaxies formed, and matter formed clumps within those galaxies.

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<sup>2</sup> See Chapter 3 for more discussion on this view.

<sup>3</sup> “Literal,” in this project, means verbatim—interpreting the “six days” of creation, described in Genesis, to be six, 24-hour days taking place approximately 6,000 years ago (this date comes from the verbatim interpretation of the genealogies in Genesis used to date this creation account).

<sup>4</sup> “Wilkinson Microwave Anisotropy Probe (WMAP) Results,” *Carnegie Institution for Science*, accessed March 26, 2013, <http://cosmology.carnegiescience.edu/timeline/1992/wmap-results>.

<sup>5</sup> Alister E. McGrath, *A Fine-Tuned Universe* (Louisville: Westminster John Know Press, 2009), 115.

Many of those clumps then developed into stars, allowing nucleosynthesis to take place within the stellar cores. This process is how elements heavier than hydrogen, helium, and lithium (the three lightest elements and the three elements produced by the initial Bang) were formed and used to create the universe as we know it today. After billions of years of this process, the universe reached the state in which it is in today and continues to steadily expand.<sup>6</sup>

Before evidence in support of the Big Bang Theory was discovered, the predominant belief was that the universe, in its existing form, was eternal. Greek philosophers, such as Plato and Aristotle, presumed that since creation *ex nihilo*<sup>7</sup> is not observed in nature, the universe must have always existed.<sup>8</sup> For centuries, this was the primary belief, but the scientific discoveries of the 20<sup>th</sup> century turned everyone on their heads, including the scientists.

The scientific discoveries that led up to the theory of a “Big Bang” began with Albert Einstein. In 1915, Einstein published his differential equations later called the “Einstein field equations.”<sup>9</sup> The solution to these equations indicated that the universe was, in fact, expanding. Einstein was alarmed by this inconsistency, believing the universe was eternal and static. He reworked his equations, incorporating a constant, later defined as the “cosmological constant,” to make his results line up with the prevalent model of the universe. Einstein later acknowledged that the creation of his “cosmological constant” was the “greatest blunder of his life.”<sup>10</sup> He realized that his first

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<sup>6</sup> McGrath, 115.

<sup>7</sup> *Ex nihilo* is Latin for “out of nothing.”

<sup>8</sup> Gerald L. Schroeder, *Science of God* (New York: Broadway Books, 1998), 63.

<sup>9</sup> These equations laid out features essential to his theory of general relativity (McGrath, 113).

<sup>10</sup> Schroeder, 63.

equations were indeed correct, predicting a universe that was expanding before any observational evidence was discovered.<sup>11</sup>

The first piece of *observational* evidence for an expanding universe came in 1929.<sup>12</sup> Through the lens of a newly constructed telescope, Edwin Hubble proposed that the nebulae he observed were galaxies of their own rather than part of the Milky Way (our galaxy). Hubble proposed, based on the redshifts exuding from galaxies, that the greater the distance is between two galaxies, the faster they move from each other.<sup>13</sup> The speed of the continual separation of galaxies is proportional to the distance between them. Hubble summarized his observations in a law, known as the Hubble expansion law, which described the universe as a homogenous expanding universe.<sup>14</sup> In short, Einstein's field equations and Hubble's expansion law provided evidence in favor of an expanding universe.

In 1948, Ralph Alpher and Robert Herman derived a mathematical model for how an ultra-dense state of the universe could be possible and how the universe could have unfolded. In their ultra-dense state model, they discovered that the wavelength of the light released by the cooling universe was increasing. Under the presumption that their model was correct, it was understood that light should be observed at a wavelength of about one millimeter—in the microwave range.<sup>15</sup> Therefore, if Alpher and Herman's ultra-dense state model of the universe was an accurate explanation, light should appear at this wavelength.

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<sup>11</sup> McGrath, 113.

<sup>12</sup> Britt Griswold, "Tests of Big Bang: Expansion," *National Aeronautics and Space Administration*, last modified March 25, 2013, [http://map.gsfc.nasa.gov/universe/bb\\_tests\\_exp.html](http://map.gsfc.nasa.gov/universe/bb_tests_exp.html).

<sup>13</sup> McGrath, 113.

<sup>14</sup> Griswold, "Tests of the Big Bang Expansion."

<sup>15</sup> "Ralph Alpher and the Big Bang," *Carnegie Institution for Science*, accessed March 26, 2013, <http://cosmology.carnegiescience.edu/timeline/1948>.

Alpher and Herman's prediction of microwave radiation was fulfilled in 1964 when Arno Penzais and Robert Wilson experimented with a microwave antenna at the Bell Laboratories in New Jersey. Initially unsure of what to make of an irritating hiss, these two radio astronomers accredited the noise to pigeons roosting on the antenna.<sup>16</sup> It was not until the end of 1964 that Penzias and Wilson realized that this noise was in fact what Alpher and Herman had predicted in 1948—the result of microwave radiation. Upon this realization, Penzias published a paper in 1965 announcing the discovery of this microwave signal. Shortly thereafter, Robert Dicke and James Peebles, two astronomers from Princeton University, wrote a paper interpreting the meaning of the signal in terms of evidence for the Big Bang Theory.<sup>17</sup> Their discovery of what is now known as Cosmic Microwave Background (CMB)<sup>18</sup> was confirmed in 1992 to be the afterglow of the Bang. Overall, the discovery of microwave radiation provided scientists with the strongest evidence to date, according to the Carnegie Institution for Science, for the Big Bang Theory.<sup>19</sup>

Though there is great support for the Big Bang Theory, there *is* a minor portion of scientists in opposition and in full support of pursuing counter theories. One petition, signed by 33 scientists from institutions like George Mason University and the Aerospace

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<sup>16</sup> McGrath, 113.

<sup>17</sup> "Karl Jansky's Radio Antenna," *Carnegie Institution for Science*, accessed March 26, 2013, <http://cosmology.carnegiescience.edu/timeline/1964/karl-janskys-radio-antenna>. English astronomer and mathematician Fred Hoyle was the first person to coin the phrase "Big Bang" in 1948. Though he coined the phrase, Hoyle actually opposed the notion of an expanding universe and recoiled to the Aristotelian understanding of a "steady-state" universe ("Fred Hoyle: Encyclopedia," *Absoluteastronomy.com*, accessed by March 26, 2013, [http://www.absoluteastronomy.com/topics/Fred\\_Hoyle](http://www.absoluteastronomy.com/topics/Fred_Hoyle)).

<sup>18</sup> "Karl Jansky's Radio Antenna."

<sup>19</sup> "COBE Finds Evidence for the Afterglow of the Big Bang," *Carnegie Institution for Science*, accessed March 26, 2013, <http://cosmology.carnegiescience.edu/timeline/1992/cobe-confirmed-mircrowaves>.



Corporation, served as a protest against the bias for Big Bang research and funding.<sup>20</sup>

The petition argued that there are alternative theories that better explain, at least better than the Big Bang Theory, recently observed phenomena. These scientists believed the alternative theories (e.g. plasma cosmology and the steady-state model<sup>21</sup>) were pushed to the side—that research for these alternative theories received only a small portion of revenue compared to the large portion regularly granted to Big Bang Theory research. This petition was written as a demand for a significant percentage of funds to be allocated to research for alternative theories, to break from this Big Bang bias, and to “allow the scientific process [and not scientists themselves] to determine our most accurate model of the history of the universe.”

So even in the scientific community, exploring the origin of the universe can elicit tension. This is important to acknowledge. Often when exploring the origin of the universe, individuals develop their own opinions and cling to them, and this produces rivalry and tension when new information contradicts the old. To prevent such tension one must remember that science is anything but static. Discoveries lead to new information and new information leads to new theories. An open mind is necessary when approaching the origins from a scientific perspective. Likewise, individuals who incorporate scientific knowledge into their interpretation of the Genesis account of creation must also be aware of science’s variability and the dangers of clinging to a static opinion. This discussion of science and its role (or lack thereof) in Genesis will continue after another relevant scientific theory is examined: the theory of biological evolution.

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<sup>20</sup> Jeff Rense, “Big Bang Theory Busted by 33 Top Scientists,” *Rense.com*, accessed by March 26, 2013, <http://rense.com/general53/bbng.htm>.

<sup>21</sup> For more information on alternative theories, see *Discover*’s article by Adam Frank: Adam Frank, *Discover*, *3 Theories That Might Blow Up the Big Bang*, March 25, 2008, <http://discovermagazine.com/2008/apr/25-3-theories-that-might-blow-up-the-big-bang#.UWmYC7VQFu4>.

## II. The Theory of Evolution

The theory of biological evolution can be summarized as descent with modification among living organisms.<sup>22</sup> The study of biological evolution seeks to describe the relatedness of all life and the mechanisms by which life has changed over time. These mechanisms include mutations, gene flow, genetic drift, and the most commonly understood mechanism described by Darwin: natural selection. In order for a species to evolve via natural selection, genetic variation among its members is required. Through natural selection, the individuals with higher fitness (ability to survive and reproduce viable offspring in a given environment) pass their genotypes (traits) to their offspring at a higher rate than individuals with lower fitness. This serves to change allele frequency (the predominance of certain traits over others) within populations over time.

To exemplify the process of natural selection, the peppered moth (*Biston betularia*) will be discussed. Typically, as the name implies, the moths in this species are white, with black coloration “peppered” over the wings and body. However, during the Industrial Revolution, more melanic forms of this phenotype appeared. Because of the air pollution during this industrial age, soot darkened the natural habitat of the peppered moth—a phenomenon specifically observed in Manchester, England.<sup>23</sup> As a result of the pollution, the natural defense of camouflage, utilized by the *B. betularia*, became impossible. Therefore, the individual moths with the more melanic phenotype (e.g. solid black) possessed a higher fitness in their environment in comparison to the moths with

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<sup>22</sup> Eugenie C. Scott, *Philosophy of Biology and Anthropology: Evolution* (Blackwell Publishing Ltd., 2010), 28.

<sup>23</sup> B.S. Grant, D. F. Owen, and C. A. Clarke, “Parallel Rise and Fall of Melanic Peppered Moths in America and Britain,” *The Journal of Heredity* 87, no. 5 (1996): 351.  
<http://jhered.oxfordjournals.org/content/87/5/351.short>.

the peppered phenotype because the more noticeable peppered moths were at a higher risk of predation. As a result, the melanic moths survived and pass on their color alleles to offspring, changing the frequency of this color trait over time. According to the article by B. S. Grant et al. in the *Journal of Heredity*, “the formerly rare melanic phenotypes had reached frequencies above 90% in populations surrounding British industrial centers because the original paler phenotype had become conspicuous to predators in habitats blackened by industrial soot.”<sup>24</sup> Therefore, alleles conferring melanic coloration became fixed alleles for this species in this environment. In conclusion, the peppered moths demonstrate simply how natural selection serves as a mechanism by which a species of moth may evolve. The melanic moths were naturally selected to survive and their genes were passed on while the peppered moths of this species (the initial population) began to die out.

The first workable mechanism for evolution was published in 1859 by Charles Darwin in his book *Origin of Species*.<sup>25</sup> Darwin’s story began when he set out on a voyage aboard the *Beagle* in 1831 with companion and captain Robert Fitzroy. The final stretch of the voyage, though, was seemingly the most influential for Darwin, reaching a cluster of islands off the coast of mainland South America known as the Galápagos Islands. It was the relationships between the species, both on mainland South America and on the islands of the Galápagos, that influenced Darwin’s *Origin of Species*.<sup>26</sup>

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<sup>24</sup> *Ibid.*

<sup>25</sup> The full title for Darwin’s work is *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life* (Charles Darwin, *Annotated Origin: A Facsimile of the First Edition of ‘On the Origin of Species’*, annotated by James T. Costa [Cambridge: Belknap Press of Harvard University Press, 2009], xvi). The sixth edition, published in 1872, was when the book was given the more succinct title *Origin of Species* (Costa, v).

<sup>26</sup> Costa, xi.

Given Darwin's work on evolution, and 150 years of subsequent study, a vast amount of evidence for evolution exists. This evidence derives from biological, as well as paleontological, chemical, and anthropological, discoveries. Alan R. Rogers, a professor of anthropology and biology at the University of Utah, condenses facts from these various fields in his book *The Evidence for Evolution*.<sup>27</sup>

#### A. Species to Species

Rogers begins with evidence as to how species develop into new species, a process called speciation. For clarity, a "species" is a population of individuals that can exchange genes with one another;<sup>28</sup> simply, if two organisms can together reproduce viable offspring, the two organisms are likely of the same species. Rogers used primroses to exemplify one method of speciation—polyploidy. He explained how two primrose species cross-fertilized to sexually reproduce a hybrid primrose, a new species named *Primula kewensis*.<sup>29</sup> The first hybrid primroses observed were sterile. However in 1905, a gardener working in the Royal Botanic Gardens in England discovered a *fertile* hybrid primrose, readily producing pollen and seeds.

Botanist Lettice Digby analyzed cells from both the sterile and fertile hybrids. In the sterile hybrid she counted 18 chromosomes, which aligned with the number of chromosomes found in normal primroses. The surprise came with the fertile hybrid; Digby did not find 18 chromosomes within the fertile cells but instead found 36 chromosomes—double the amount of the parental species! Digby's discovery marked the first realization of polyploid hybrids. These hybrids were new species as they could not reproduce with their parents; they could only reproduce with other hybrids.

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<sup>27</sup> Alan R. Rogers, *The Evidence for Evolution* (Chicago: University of Chicago, 2011).

<sup>28</sup> Scott, 37.

<sup>29</sup> Rogers, 10.

Skepticism can arise since this occurrence took place in a controlled environment. Could new species, likewise, develop in nature? Undoubtedly they can. Arne Muntzing, a plant geneticist studying in Sweden, obtained the same results discovering a natural polyploidy species of hempenettes, known as *Galeopsis tetrahit*, as a hybrid of *Galeopsis speciosa* and *G. pubescens*.<sup>30</sup> Muntzing's discovery and experimentation proved that a new species could, indeed, arise naturally as a result of hybridization

#### B. Taxa to Taxa

Though there is evidence of evolution on a small scale (microevolution<sup>31</sup>), is there evidence that via natural selection, new genera, new families, and new orders of organisms can evolve? In other words, does *macroevolution*<sup>32</sup> occur? Alan Rogers examines whale bones to support the claim that yes, macroevolution does occur.

Rogers explained that whales and aquatic mammals evolved from land mammals, and he supported this claim, widely accepted by paleontologists, by alluding to the fossils of intermediate forms of these animals. From the fossil record, one can see the development of the semi-aquatic whale *Pakicetus* (50 million years ago), the amphibious whale *Ambulocetus* (49 million years ago), the amphibious whale *Rodhocetus* (46-47 million years ago), and finally the aquatic whale *Dorudon* (36-40 million years ago). By the fossil record, one can see how the lineage displays transitions from land to sea. The *Pakicetus* whale had dense leg bones suggesting it was a slow runner, and it had long toes to help with swimming. This whale also had ears that were adapted to hearing both on

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<sup>30</sup> *Ibid.*, 11.

<sup>31</sup> Microevolution refers to smaller scale evolutionary changes—usually changes in allele frequency within a species.

<sup>32</sup> Macroevolution refers to evolution on a larger scale, beyond the species level.

land and in water—a primitive form of the sophisticated ear of the modern whale.<sup>33</sup> Over time, the *Pakicetus* whale speciated because the whale offspring better adapted for the water (with a greater fitness) were naturally selected to thrive; these whales had shorter legs and a longer tail. A few million years passed and this *Ambulocetus* whale gave rise to the even more aquatic *Rodhocetus* whale. Unlike the *Ambulocetus*, the *Rodhocetus* whale had a powerful tail, flexible spine, and shorter legs to make it a more powerful force in water. Finally, over the next six million years or so, the legs of the whale became completely unusable for land and served as fins for the entirely aquatic mammal.<sup>34</sup>

These fossils provide paleontological evidence that mammals of the Order Cetacea, which include modern-day whales, arose from mammals of the Order Artiodactyla, including pigs, deer, and hippopotamuses, with traits akin to the *Pakicetus*.<sup>35</sup> According to Philip Gingerich et al., these paleontological results of cetacean origin comport with immunological, DNA hybridization, and molecular sequencing studies that also support this theory of cetacean origin.<sup>36</sup> This clear ancestral-descendent relationship between two mammalian orders incorporates strong morphological and molecular evidence for evolution beyond the species level.

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<sup>33</sup> *Ibid.*, 20.

<sup>34</sup> *Ibid.*

<sup>35</sup> *Ibid.*, 18.

<sup>36</sup> Philip D. Gingerich, Munir ul Haq, Iyad S. Zalmout, Intizar Hussain Khan, and M. Sadiq Malkani, Science, *Origin of Whales from Early Artiodactyls: Hands and Feet of Eocene Protocetidae from Pakistan*, April 3, 2013, <http://www.sciencemag.org/content/293/5538/2239.full>.

### C. Evolution of Humans

Rogers also discussed the paleontological and genetic evidence that demonstrate human evolution—discussing how humans have evolved, and are continuing to evolve, and share a common ancestor with the great apes.

Chimpanzees and humans share a common ancestor. However, this does *not* mean that humans evolved *from* chimpanzees.<sup>37</sup> For example, consider a mother and father who have two daughters. The children of those daughters are cousins, meaning they do not have the same mother. Therefore, the descendants of each of the two daughters are not descendants of each other. They share the same common ancestor (a grandmother) but one of the cousins did not arise genealogically from the other cousin. They branched from the same ancestor. Likewise, human beings branched from a common ancestor.

*Hominins* include humans and human ancestors, but these human ancestors are more recent—after the divergence of chimps and the lineage leading to humans. To be clear, *hominins* do not include *only* human ancestors. After the split between human ancestors and chimpanzees, the *hominin* lineage branched off numerous times, with only one of those branches serving as the ancestors of humans, while the remainder became extinct. The other branches are *sibling species*, having close relationships to the ancestors of humans but not in the direct lineage.

Because humans and extant (still-existing) apes share a common ancestor, they have similar, but not identical, phenotypes (physical characteristics). Humans are bipedal, unlike any extant ape; they have vertical foreheads, without severely pronounced

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<sup>37</sup> Rogers, 82.

brow ridges; they have larger brains; and they have shorter canine teeth than the apes. Humans also do not have a sagittal crest, a bony ridge for muscle attachments running lengthwise along the top of the skull.<sup>38</sup> Intermediate forms in the *hominin* fossil record show transitions of these features. The youngest skulls have high foreheads, globular braincases and small brow ridges like those of modern humans. Going back a few million years ago, the *hominin* fossils show evolution with features gradually changing—foreheads lower and the brows are more pronounced like those of modern apes.<sup>39</sup> Rogers included a figure which displayed 16 different intermediate *hominin* forms ranging from 2.6 million years ago to 25,000 years ago, showing various transitions from ape-like *hominin* to human-like *hominins*.<sup>40</sup>

Pseudogenes are one example of genetic evidence for the evolution of humans from a common ancestor. Pseudogenes are mutated, non-coding genes (essentially “broken” genes). A pseudogene’s variation in DNA hinders it from making the particular protein that the original, non-mutated gene coded for. For example, numerous mammals produce the enzyme (a protein) urate oxidase because of a particular gene coded in their DNA. Humans also possess this gene but have a variation in the gene’s DNA sequence that codes for the 12<sup>th</sup> amino acid in that sequence. The amino acid sequence in other animals is arginine and reads “CGA.” Humans, however, have the sequence “TGA;” thymine (T) replaces the normative cytosine (C). This slight variation is the reason why this gene for urate oxidase, as far as we know, is nonfunctional and why it is referred to as a pseudogene in humans. This relates to evolution in that this changed nucleotide (thymine instead of cytosine) is found at the same locus in the genomes of chimpanzees,

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<sup>38</sup> *Ibid.*

<sup>39</sup> Rogers, 83.

<sup>40</sup> Rogers, 84.



gorillas, and orangutans.<sup>41</sup> Various other pseudogenes are shared as well, such as the pseudogene GULOP; bearing this pseudogene requires humans, apes, and African monkeys to incorporate Vitamin C into their diets.<sup>42</sup> In conclusion, humans, apes, and monkeys not only share similar physical characteristics but also share the same pseudogenes, which are not present in more distantly related primates. This pattern implies that the pseudogenes originated from a common ancestor and passed to chimpanzees, human ancestors, and humans themselves.

Genetics also demonstrates that humans, like other organisms such as bacteria,<sup>43</sup> are still evolving. Rogers referred to the lactase gene as evidence for this. Lactase is an enzyme that breaks down lactose, which is a milk sugar. Most mammals, including humans, stop making lactase shortly after weaning. Many humans, primarily in Asia and much of Africa, lose the ability to digest milk later in life. This condition is called lactose intolerance. Lactose persistence, on the other hand, is common in humans in northern Europe and some parts of Africa and is a condition in which a person can drink milk because their gene continues to function and create the enzyme lactase. Lactase persistence is caused by a mutation close to the lactase gene in a region that signals the gene to turn off. It is estimated that this mutation arose in the last 5,000-10,000 years and has rapidly increased in frequency since.<sup>44</sup> This information provides evidence that not only are we as humans evolving, but we are evolving at an accelerated rate.<sup>45</sup>

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<sup>41</sup> Rogers, 91.

<sup>42</sup> *Ibid.*

<sup>43</sup> The bacterium *Staphylococcus aureus* has evolved in the last seven decades, first developing resistance to penicillin in 1944 and then resistance to methicillin in 1962. Vancomycin is the antibiotic used today, but some strains of *S. aureus* have evolved resistance to it also (Rogers, 8).

<sup>44</sup> Rogers, 97.

<sup>45</sup> *Ibid.*, 98.

In Rogers' book *The Evidence for Evolution*, he presents numerous pieces of evidence in favor of the theory of biological evolution in addition to the evidence described above. In conclusion, there is strong support for both micro- and macroevolution, particularly in the fields of paleontology and genetics.

Despite the evidence presented, there are still questions, some would argue, that remain without definitive answers. What about the Cambrian explosion; how is this mass proliferation of species 530 million years ago, within a relatively short period of time, explained? Also, does 6 million years permit enough time for genetic mutation and natural selection to create organisms as different as humans and chimpanzees from a single common ancestor?<sup>46</sup> Although individuals may be skeptical, doubting that the theory of evolution or that science on the whole can explain every occurring phenomenon, Naturalists argue (in light of skepticism) that everything *can* be answered via science—a naturalistic approach.

Naturalism is a philosophy that declares that everything seen around us arose from natural processes. Therefore, this philosophy is atheistic, excluding the possibility of existence beyond the natural realm. Naturalists fully support scientific exploration and believe that through science<sup>47</sup> all of life's questions can be answered. With this said, a Naturalist believes in evolution in light of questions that the theory of evolution, thus far in scientific research, leaves "unanswered." Philosopher and mathematician John Lennox coins this approach—the approach of filling the gaps of what is unknown with the theory

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<sup>46</sup> Creationists and Designists would argue no, that not enough time has elapsed for evolution to take place and that this is evidence—though non-scientific evidence because it is not natural, testable evidence—of the necessity and actuality of divine intervention to make the natural, that is observable today, possible.

<sup>47</sup> Science is the study of the natural and organizes knowledge in the form of testable explanations and predictions.

of evolution—as “Evolution of the Gaps.”<sup>48</sup> Naturalism is a scientific approach but some may argue it creates an insufficient worldview because neither evolution nor science in general are able answer all of life’s questions. To the other extreme, YE Creationists, OE Creationists, and Intelligent Designists pursue the more commonly known “God of the Gaps” approach in which anything that cannot be fully understood is declared as an act of God. This approach accepts science, to an extent, but is overall a non-scientific approach, claiming that anything “unanswerable” has a supernatural explanation instead of a natural one.

Whereas strict Naturalists have faith<sup>49</sup> that evolution is the only means by which life arose and developed, YE Creationists put faith in their interpretation of the Genesis account of creation—that God created life by his divine word over a span of six, 24-hour days. Naturalism, in favor of the Big Bang Theory and the theory of evolution, and YE Creationism, against the Big Bang Theory and the theory of evolution, clearly contradict each other. However, YE Creationism and Naturalism are only two approaches to explain the origins of the universe and life. In addition to YE Creationism exists many other Christian approaches to the origins, including one approach which is in agreement with the Big Bang Theory and the theory of evolution—Theistic Evolution.

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<sup>48</sup> John C. Lennox, *7 Days that Divide the World* (Grand Rapids: Zondervan, 2011), 183.

<sup>49</sup> “Faith” means to believe with certainty, though there are questions left unanswered—to believe in light of skepticism.

## CHAPTER 3

### CHRISTIAN POSITIONS

Science seeks to record truth about the natural. Religion<sup>50</sup> seeks to record truth about the supernatural, though this can also include how the supernatural works through the natural. With a brief scientific foundation of the origin of the universe and life established, the Christian foundation is next. The following positions of Christian understanding will be explained: Young Earth Creationism, Old Earth Creationism, Intelligent Design, and Theistic Evolution.

#### I. Young Earth Creationism

Young Earth Creationism is a view that interprets the six days of creation from Genesis as consecutive 24-hour days occurring approximately 6,000 years ago. YE Creationists believe the universe began in 4004 B.C. based on the chronology published by Anglican Archbishop James Ussher in 1658.<sup>51</sup> Ussher's chronology is based on the genealogies from the Old Testament, starting with Adam who lived for 930 years (Genesis 5:5) and ending the genealogy with the birth of Jesus of Nazareth. According to Ussher's calculations, the world began the night before October 23, 4004 B.C.<sup>52</sup> Less

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<sup>50</sup> Most religions propose the existence of a supernatural realm. The purpose of religion, then, is to tap into that realm and understand that realm. Buddhism is an exception; though categorized as a religion, it does not propose the existence of a supernatural realm or a supernatural being.

<sup>51</sup> Rogers, 71.

<sup>52</sup> *Ibid.*, 72.

than fifty years later Ussher's chronology was added to the margins of the King James Bible,<sup>53</sup> no doubt adding sanctity to this notion of a young earth.

YE Creationism poses intractable problems. The largest problem is its disharmony with science; the "heavens and the earth," that is the universe and the earth, are respectively 13.7 billion years old and 4.55 billion years, not a few thousand.<sup>54</sup> Also, organisms found in the fossil record do not differ age-wise by a matter of days. Rather, they differ by millions of years. Therefore, the belief that the universe, the earth, and all the living creatures were created in 144 hours completely contradicts scientific conclusions. YE Creationists argue, though, that their conclusion is the most accurate interpretation of the Genesis account of creation—God's word.

## II. Old Earth Creationism

Similar to YE Creationism, Old Earth Creationism is a view that supports six, 24-hour days of creation. However, OE Creationists argue that creation of the heavens and the earth (Genesis 1:1-2) is not included in the first day of creation. They argue that the first day of creation does not begin until the creation of "day" and "night," which occurs in Genesis 1:3. John Lennox, author of *7 Days that Divide the World: The Beginning According to Science and Genesis*, writes "The initial creation [creation of the universe and earth] took place before day 1, but Genesis does not tell us how long before. This means that the question of the age of the earth (and of the universe) is a separate question from the interpretation of days, a point that is frequently overlooked"; he later explains that because of this, the age of the earth and universe according to Genesis is

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<sup>53</sup> Edgar J. Goodspeed, "The Translators to the Reader: Preface to the King James Version 1611," last modified August 30, 2009, [http://www.christianissues.biz/pdf-bin/kjvdebate/kjv1611preface\\_goodspeed.pdf](http://www.christianissues.biz/pdf-bin/kjvdebate/kjv1611preface_goodspeed.pdf).

<sup>54</sup> Rogers, 80.

“indeterminate.”<sup>55</sup> Therefore, OE Creationists believe that Genesis does not explicate the age of the universe and earth and agree that science provides a compatible explanation in this regard.

While Old Earth Creationists accept an old universe and earth, they still uphold six, 24-hour days of creation; they uphold that all living creatures are only a few thousand years old and were created in the span of a week.

### III. Intelligent Design

Intelligent Design proposes an ideal that has been around for centuries—elements in nature appear designed for a purpose and therefore suggest the existence of a designer. In the early 19<sup>th</sup> century, theologian William Paley used a watchmaker analogy often referred to by Designists: If someone sees a watch lying on the ground, would that person assume it arose by random chance? No, instead that person would see the complex instrument and presume a designer created it.

Though arguments for design and a higher intelligence persisted for centuries, the modern ID movement began in the 1990s. According to their website, the “theory” of Intelligent Design holds that “certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection.”<sup>56</sup> Scientists in support of this theory, according to the movement’s website, apply the scientific method to find patterns of design in irreducibly complex biological structures such as flagella, the complex and specified information in DNA, the fine-tuning of the universe, and the rapid origination of biological diversity in the fossil record during the Cambrian explosion.

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<sup>55</sup> Lennox, 53.

<sup>56</sup> “What is Intelligent Design?” *Discovery Institute*, accessed April 3, 2013, <http://www.intelligentdesign.org/whatisid.php>.

Designists believe the current gaps in the theory of evolution are evidence for a first cause intelligence and misunderstand ID to be a scientific theory. The mathematician and philosopher William Dembski explains in his book *The Design Revolution* that Intelligent Design directly challenges Darwinism (i.e. Naturalism), which he defines as the naturalistic approach to the origin and evolution of life.<sup>57</sup> Dembski makes clear, though, that Intelligent Design is not opposed to the theory of evolution. Rather, ID alleges that natural mechanisms alone, such as evolution, are inadequate to generate life.<sup>58</sup> Dembski writes, “There exist natural systems that cannot be adequately explained in terms of undirected natural causes and that exhibit features which in any other circumstances we would attribute to intelligence.”<sup>59</sup> He argues that the features attributable to design can be empirically detected. This is done by looking for the signature of design—specified complexity,<sup>60</sup> or in other words complex and specified information (CSI).<sup>61</sup> So if a natural object is hypothesized to be designed, this hypothesis is tested by determining if it has high levels of CSI; if an object or system appears to be irreducibly complex (an example of specified complexity), it is tested by “experimentally reverse-engineering biological structures to see if they require all of their parts to function.”<sup>62</sup> If all parts are required for the object to function, then this is evidence of CSI—empirical evidence of design.<sup>63</sup>

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<sup>57</sup> Dembski, 33.

<sup>58</sup> William A. Dembski, *The Design Revolution: Answering the Toughest Questions about Intelligent Design* (Downers Grove, III: InterVarsity Press, 2004), 180-182.

<sup>59</sup> Dembski, 45.

<sup>60</sup> *Ibid.*, 35

<sup>61</sup> “What is Intelligent Design?”

<sup>62</sup> *Ibid.*

<sup>63</sup> *Ibid.*

Despite the attempts to defend the movement, Intelligent Design is highly controversial. It is accused of being a “God of the Gaps” approach, as mentioned earlier, by claiming God, or an “intelligent designer” is involved because not all questions can be answered (“yet,” as some would argue) naturalistically. Dembski argues that ID, in fact, is not a theological enterprise, just as Darwinism is not a theological enterprise, though both have implications for theology. He argues that Darwinism is a scientific theory and ID is as well: “Intelligent design, conceived as a theory about the inherent limitations of undirected natural causes to generate biological complexity and the need for intelligence to overcome those limitations, is likewise a scientific theory.”<sup>64</sup> However, Dembski’s stance is fallible because as soon as a metaphysical concept, such as an arbitrary “intelligence,” is used as an explanation for a natural phenomenon, the theory is no longer a scientific one. Science observes natural phenomenon and concludes with naturalistic results. Any results outside the natural realm are, by definition, non-scientific.

#### IV. Theistic Evolution

Theistic Evolution is another approach and is in line with mainstream science in that it supports both the Big Bang Theory and the theory of evolution. The “theistic”—non-scientific yet still valid in terms of theology—portion of the view claims evolution with common descent is the God-ordained process by which God brought forth life. Theistic Evolution is in agreement with the Big Bang Theory and the theory of evolution, but it is not entirely scientific because it goes beyond the natural realm—the limit of these two theories—in that it purports the existence of God. Unlike Intelligent Designists, Theistic

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<sup>64</sup> Dembski, 47.



Evolutionists acknowledge that God's existence cannot be tested experimentally; rather, it is experiential, as further described by Francis Collins.<sup>65</sup>

Francis Collins, biologist and former Director of the Human Genome Project, breaks Theistic Evolution down into 6 premises:

1. The universe came into being out of nothingness, approximately 14 billion years ago.
2. Despite massive improbabilities, the properties of the universe appear to have been precisely tuned for life.
3. While the precise mechanism of the origin of life on earth remains unknown, once life arose, the process of evolution and natural selection permitted the development of biological diversity and complexity over very long periods of time.
4. Once evolution got under way, no special supernatural intervention was required.
5. Humans are part of this process, sharing a common ancestor with the great apes.
6. But humans are also unique in ways that defy evolutionary explanation and point to our spiritual nature. This includes the existence of the Moral Law (the knowledge of right and wrong) and the search for God that characterizes all human cultures throughout history.<sup>66</sup>

Like ID, Collins notes in premise 2 that natural properties appear to be fine-tuned for life.<sup>67</sup> Unlike ID, Collins does not suggest these properties, though they are highly improbable, are “fingerprints” or signatures of “intelligence.” On the contrary, Collins affirms that these properties and other mechanisms, though some are still indeterminate (premise 3), are completely natural processes employed by God. Therefore, unlike Intelligent Designists, who claim ID is a scientific theory,<sup>68</sup> Theistic Evolutionists acknowledge that Theistic Evolution is a theological view; it is a theological view which, unlike Creationism, agrees with, rather than argues against, the Big Bang Theory and the theory of evolution.

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<sup>65</sup> Francis S. Collins, *The Language of God* (New York: Free Press, 2006).

<sup>66</sup> Collins, 200.

<sup>67</sup> For an outline and explanation of “fine-tuned” elements in the universe, see Alister McGrath’s *A Fine-Tuned Universe: The Quest for God in Science and Theology*, 119-120.

<sup>68</sup> Science observes the natural and its theories assert only naturalistic explanations.

The first five premises Collins discusses equate well with deism.<sup>69</sup> The sixth premise, however, sets theistic evolution apart from deism, acknowledging a spiritual nature within human beings which marks a yearning for us to have fellowship with our Creator.<sup>70</sup>

On premise 6, one might argue that the “Moral Law” and the “search for God” Collins describes can be explained biologically and neurologically without assuming divine intervention; it is fair to disagree with this premise, but the point argued here is that Theistic Evolution accepts the Big Bang Theory and the theory of evolution as explanations for the origin of the universe and life. The significance of this argument is the harmony of these two scientific theories with a Christian worldview.

Although both Theistic Evolution and Naturalism support the Big Bang Theory and the theory of evolution, the two differ in their assumption of first cause. Theistic Evolutionists assume that the first cause is supernatural (i.e., God), whereas Naturalists assume the first cause is natural. Theistic Evolution incorporates both science and religion whereas Naturalism is a philosophy and worldview derived solely from science.

YE Creationists reject Theistic Evolution because they believe that this view contradicts the explanation of creation found in Genesis. What about the six *days* of creation? What about God *speaking* creation into being? What about God *creating* mankind? To address these contradictions fully and fairly, one must refer to Genesis itself. In order to understand the meaning and purpose of Genesis, the 21<sup>st</sup> century mindset must be cast aside and the ancient Near Eastern mindset embraced. Otherwise,

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<sup>69</sup> Deism is a belief that God created the universe and everything in it but that he has stepped back from his work allowing “nature to take its course.” In Deism, God is omnipotent but no longer intervenes with his creation now that order has been established.

<sup>70</sup> Collins, 201.

the biases and lenses of today's society will thwart the original message portrayed to its original readers—the Israelites.

## CHAPTER 4

### THE ORIGINS BASED ON GENESIS

Genesis, the first book of the Hebrew and the Christian Bible, provides an explanation for the origin of the universe and mankind. The opening chapters of Genesis describe two different, but not contradicting, creation accounts. The first creation account is a cosmological<sup>71</sup> one and is the earlier of the two accounts.<sup>72</sup> The other account is a shorter, anthropic<sup>73</sup> account. Although the two accounts differ, their overall purpose is the same: to serve as an explanation of the origin of creation and purpose of mankind for the readers of the accounts—the Israelites.

The content of this section will focus on the first, and supposedly more recent, creation account in Genesis 1:1-2:3. The text is divided into seven sections according to the seven days described (six days of creation, one day of divine rest). As mentioned prior, Genesis must be read through the lens of ancient Near Eastern tradition. Therefore, relevant ancient Near Eastern creation accounts accompany the following Genesis creation account, supplementing the Genesis account with its rich, ancient Near Eastern context. With the scripture presented and the context understood, the aforementioned

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<sup>71</sup> Cosmological pertains to the origin and history of the universe.

<sup>72</sup> Glenn S. Holland, *Gods in the Desert: Religions of the Ancient Near East* (Plymouth: Rowman & Littlefield Publishers, Inc., 2009), 213. Gordon Wenham dates Genesis, stating this book was written no earlier than 1250 B.C. nor much after 950 B.C (Gordon J. Wenham, *Word Biblical Commentary: Genesis 1:1-11, Volume 1* [Thomas Nelson, 1987], xliv).

<sup>73</sup> Anthropocentric refers to an account relating to human origin.

positions held by Christians (Young and Old Earth Creationism, Intelligent Design, and Theistic Evolution) are tested against the text to confirm whether or not the position coincides with both Genesis and science.

#### I. Day 1: Genesis 1:1-5

<sup>1</sup>*In the beginning, God created the heavens and the earth.* <sup>2</sup>*Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters.* <sup>3</sup>*And God said, “Let there be light,” and there was light.* <sup>4</sup>*God saw that the light was good, and he separated the light from the darkness.* <sup>5</sup>*God called the light “day,” and the darkness he called “night.” And there was evening, and there was morning—the first day.*<sup>74</sup>

In the beginning of the Bible lie these four words, “In the beginning, God...” From the start, Genesis esteems God (Hebrew *Elohim*) as the epicenter of all creation and that from him all else exists.

The Hebrew verb for “create” (*bara*’), used here, is a word used approximately fifty times throughout the Old Testament, always in correlation with God.<sup>75</sup> Though “create” in today’s age commonly means to shape in a material sense, Old testament scholar John Walton argues that “create” (*bara*’) is used in terms of functionality.<sup>76</sup> Instead of physical creation being the emphasis, Walton argues that the emphasis is functional creation, in which God, through his ingenuity and omnipotence, gives the heavens and the earth purpose and meaning. Therefore, according to Walton’s argument,

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<sup>74</sup>*The NIV Study Bible* (Grand Rapids: Zondervan, 2011). *The NIV Study Bible* is the source for every reference to the Bible in this paper.

<sup>75</sup>John H. Walton, *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate* (Downers Grove: InterVarsity Press, 2009), 38.

<sup>76</sup>*Ibid.*, 41.

one should not get caught up on the tangible, material creation taking place in this text but see the deeper creation of purpose and functionality.

From the start, Genesis conveys a message unique from that of other ancient Near Eastern accounts. God is sovereign, whereas the gods of other Near Eastern traditions fight for power. Old Testament scholar John Oswalt explains in *The Bible among the Myths* that the gods of the ancient Near East were untrustworthy and constantly fought for control. The gods had knowledge and power but were limited and could be manipulated through ritual action, such as magic, by their worshippers.<sup>77</sup> For example, a Mesopotamian<sup>78</sup> king and a priestess would often have sexual intercourse with one another as an imitation of the intercourse between the fertility goddess Inanna and the fertility god Dumuzi. This ritual was enacted in order to ensure the fertility of both the land plants and animals in the kingdom.<sup>79</sup> Unlike the gods of Mesopotamia, God's power as described in Genesis cannot be manipulated in such a way. He exhibits his authority and no other being compares.

In Genesis, God creates, but the earth is in a chaotic state of formlessness, emptiness, and darkness. This chaos is comparable to the primordial chaos in many other ancient cosmogonies. However, the god of Genesis is distinguishable; he does not arise *from* the chaos, and he has no beginning. On the contrary, in the Babylonian cosmogony *Enuma Elish* (12<sup>th</sup> century BCE<sup>80</sup>), the gods *do* have a beginning and *do* arise from chaotic matter. In comparison to the three material elements described in Genesis (formlessness, darkness, and a watery abyss), *Enuma Elish* describes three primordial,

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<sup>77</sup>John N. Oswalt, *The Bible among the Myths* (Grand Rapids: Zondervan, 2009), 59.

<sup>78</sup>Mesopotamian includes Babylonian, Canaanite, and other surrounding nationalities (Wenham, xlix).

<sup>79</sup>Holland, 119

<sup>80</sup>*Ibid.*, 123.

divine gods. The three gods include Apsu, who is a depthless abyss of the underground seas and chaos; Tiamat, who is the earthly and heavenly waters;<sup>81</sup> and Mummu, who characterizes disorder.<sup>82</sup> In the sacred poem, the gods are indolent. They expend a minimal amount of energy into unfocused, purposeless activity. During this state of “sleep,” the three forces mingle together to create new, substantial cosmic elements. Shortly thereafter, these elements are characterized as something new—as new gods. Though Apsu, Tiamat, and Mummu pre-exist the ordered and functional universe, from them creation and the other gods arise.

The ancient Egyptians had a few different creation accounts, one of which also incorporates chaos. The creation account from Hermapolis, a city in Middle Egypt, comes from Dynasty 12 of the Egyptian Middle Kingdom (20<sup>th</sup>-18<sup>th</sup> century BCE<sup>83</sup>).<sup>84</sup> This story incorporates eight primeval gods, paired as gods and goddesses, who embody aspects of chaos; Huh and Hauhet represent formlessness, Amun and Amaunet represent indistinctness, Kuk and Kauket represent darkness, and Nun and Naunet represent the vast depths of waters.<sup>85</sup> In Genesis, God alone exists, and from his divine will and purpose creation is brought forth, first existing as a primordial chaos. God is active and creative. This message is emphasized in Genesis using the language of deep waters, formlessness, and chaos, as found in other ancient Near Eastern traditions such as the ancient Egyptian Hermapolis story and the Babylonian *Enuma Elish*.

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<sup>81</sup> *Ibid.*

<sup>82</sup> *Ibid.*, 124.

<sup>83</sup> *Ibid.*, 8-9.

<sup>84</sup> *Ibid.*, 34.

<sup>85</sup> *Ibid.*; Conrad Hyers, *The Meaning of Creation: Genesis and Modern Science* (Atlanta: John Knox Press, 1984), 58.

The Memphis creation story from Lower Egypt also parallels Genesis as the god Ptah speaks everything into being.<sup>86</sup> Ptah “spits out” what he has conceived in his mind by *Sia* (divine knowledge) into actual being through *Hu* (divine utterance) activated by *Heka* (divine energy). His word gives life and his spirit to fills all beings. Also, the gods are created when Ptah speaks their names. Ptah is the initiator of the creation process and it is through his word, will, and intellect that everything is created. Although the god of Genesis also creates through his divine word, will, and intellect, he does not create a hierarchy of other deities who share in his divinity as seen in the Memphis story, Hermapolis story, and *Enuma Elish*. Instead, God’s creation is completely separate from him and his holy identity.

God’s act of creating primordial chaos in Genesis 1 may be difficult to comprehend for an individual who believes God is the essence of peace and order. However, theologian Conrad Hyers explains that these three elements (formlessness, darkness, and watery deep) are not negative descriptions, as one might initially presume; rather, they are ambiguous descriptions.<sup>87</sup> God did not create the heavens and earth to be destructive, confused, and evil—terms often connoted with chaos. Instead, the heavens and earth are tranquil, and in verse 2 they are awaiting God’s next command. This initial tranquility and indolence is common in creation accounts like *Enuma Elish*. However in Genesis there is an additional action; when God speaks, the formlessness is shaped (Genesis 1:6) and the darkness is ignited with light (Genesis 1:3). Therefore, these first two verses, Hyers writes, are emphasizing God’s order and dominion over creation and are not about good versus evil, like one might assume with the description of “chaos”.

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<sup>86</sup> Holland, 35.

<sup>87</sup> Hyers, 67.



Thus far in Genesis, God creates the heaven and the earth. One verse later this vast domain is narrowed to earth, which is formless and void. Thereafter, the Spirit of God hovers over the waters. Then the remainder of the creation account (1:3-2:3) follows a recurring formula: 1) announcement: “God said,” 2) command: “let there be,” 3) fulfillment: “it was so,” 4) execution: “light,” 5) approval: “saw...good,” 6) subsequent word: “God called,” 7) day number.<sup>88</sup> In verse 3, God announces, “Let there be light,” and light is created as it is commanded. Subsequently, God separates the light from the darkness, naming the light “day” and the darkness “night” (1:5).

The transition from verse 2 to verse 3 begs the question: do the first five verses of the Genesis creation account fall into a single “day”, or is there a gap between initial creation (1:1-2) and the first day (1:3-5)? YE Creationists say yes to the former question—that the creation of the heavens and the earth and the separation of light and darkness took place in one day—while OE Creationists say yes to the latter question—that the day does not begin until the distinction between light and dark made in verse 3.<sup>89</sup> Hyers uses an analogy to argue his support for the latter, comparing the structure of creation in Genesis to the creation of a child. In his example, he argues that though a child is conceived, his or her “birthday” is not declared until the day the child is born—the day that child “sees the light.” Before birth, the child grows and develops in his mother’s womb, but his “life” does not begin until he is born. In the same sense, Hyers sees the heavens and the earth described in Genesis 1:1-2 as the conception of the heavens and the earth. Succeeding this conception is the birth of creation, brought into light on the first day—the “birthday” (Genesis 1:3).

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<sup>88</sup> Wenham, 17.

<sup>89</sup> Hyers, 64.

Thus far, the reader understands the following: there is a beginning to the universe; God transcends time and space; God creates; the earth has no shape or function; God's word is powerful and creative; and God establishes order, commencing the first day, by separating the light from the darkness. How do the opening lines of this cosmogony<sup>90</sup> compare to science? Indeed, the two (scripture and science) complement well as both Genesis and the Big Bang Theory state the universe has a beginning. Conrad Hyers goes further and states that theories of a contracting and re-expanding universe also harmonize with Genesis—neither contradicts the notion of an eternally creating God.<sup>91</sup>

Although the Big Bang Theory is referenced here, the remainder of this Genesis creation account analysis will not mention scientific theories or scientific discoveries. The purpose for pointing out science here is to establish a precedent for the reader to see how science and Genesis complement each other; the purpose is *not* to read science *into* the text, as YE Creationists seek to do.<sup>92</sup> Genesis was written for the Israelites in the ancient Near East. Therefore, for the remainder of the Genesis account, science will be set aside and the ancient Near Eastern worldview embraced. It is in the conclusion that the two, science and Genesis, will be brought together, compared, and evaluated for compatibility.

## II. Day 2: Genesis 1:6-8

<sup>6</sup>*And God said, "Let there be a vault between the waters to separate water from water."* <sup>7</sup>*So God made the vault and separated the water under the vault from the water*

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<sup>90</sup> "Cosmogony" refers to a story offering an explanation for the existence of the cosmos.

<sup>91</sup> Hyers, 66-67.

<sup>92</sup> Reading science into Genesis inspired "creation science," developed by YE Creationists in attempt to prove that a literal, 24-hour creation day interpretation is scientifically accurate. Arguments against reading science into the text will be incorporated in throughout this analysis.

above it. And it was so. <sup>8</sup>God called the vault “sky.” And there was evening, and there was morning—the second day.

The first day is now complete, and the second day commences with the recurring announcement, “And God said.” On the first day, the reader encountered “waters,” which covered the earth. On the second day, the waters are now separated by a “vault.” The language used here parallels the language used in the Babylonian *Enuma Elish*. In the *Enuma Elish*, the three elemental gods (Apsu, Tiamat, and Mummu) birth a pantheon of gods. From those gods arises Marduk, the hero of the creation account. Marduk, unlike his progenitors, represents the divine order and activity that makes the created world possible. After a series of power struggles between the gods, Marduk is the victor. He is the protagonist who destroys Tiamat and splits her body into two, using half to form the firmament of the heavens and using the other half to form the firmament of the earth.<sup>93</sup> The god of Genesis is comparable to Marduk because he is also supreme and also establishes order by separating two firmaments via divine power. The way in which separation was propagated by the gods varies, though. The god of Genesis simply spoke, whereas with Marduk it was a battle.<sup>94</sup> In Genesis, God is completely distinct from the firmaments, whereas Marduk *arose* from the goddess Tiamat whom he divided to create the two firmaments.

God’s absolute distinctiveness over against creation is discussed by John Oswalt, who argues that this distinction is what excludes Genesis from the genre of myth. Myth, Oswalt writes, is characterized by continuity.<sup>95</sup> Continuity, he argues, is the idea that all elements of life (nature, humanity, and the divine) arise from each other. There are no

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<sup>93</sup> Holland, 124-125.

<sup>94</sup> Wenham, 9.

<sup>95</sup> Oswalt, 48.

boundaries, no distinctions. The only difference between nature, humanity, and the divine lies in the role of each of these manifestations. For example, the Babylonian gods came *from* nature in the form of primordial chaotic matter. Also, the earliest forms of Egyptian religion proposed that divine power was in *all* things created; Holland writes in reference to the ancient Egyptians, “Divine power was present in animals and in human beings in varying degrees as well as in the gods.”<sup>96</sup> Therefore, animals, humans, and the gods are different manifestations of divine power. During Dynasty 1, the gods were believed to be essentially human beings with divine powers, reiterating that the gods and humans were believed to be different manifestations of divine power. Though there was believed to be one creator god (Atum, Ra, or Ptah), who was either uncreated or self-created, all the other gods were like humans in that they had a beginning in time and an end in time.<sup>97</sup> The gods were also like humans in that they loved, made war, and carried out trickery.<sup>98</sup> The gods were like nature in that they were unpredictable. This continuity between humans, nature, and the divine contrasts God’s distinctiveness from humans and nature in Genesis; the only way his creation can be like him is if he imparts a portion of his divine nature on his creation. This is seen in Day 6 with mankind. Even so, mankind is not divine but is rather the recipient of divine grace (divine grace in that mankind receives good things from God and has goodness imparted rather than mankind being good in and of itself, as having divinity would insinuate). This will be discussed further when analyzing Day 6.

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<sup>96</sup> Holland, 18.

<sup>97</sup> *Ibid.*, 19. The gods also lived longer than humans, up to millions of years (*ibid.*).

<sup>98</sup> *Ibid.*, 18.

Throughout Genesis, including Day 2, the author is making a point of demythologizing nature<sup>99</sup> and setting the Israelites aright by explaining there is one God and that he alone is in control. Rather than incorporating a theogony<sup>100</sup>, like other ancient Near Eastern cosmogonies<sup>101</sup>, the author continues to Day 2 with God creating the cosmos by his divine word and action.

### III. Day 3: Genesis 1:9-13

<sup>9</sup>*And God said, "Let the water under the sky be gathered to the one place, and let dry ground appear." And it was so. <sup>10</sup>God called the dry ground "land," and gathered water he called "seas." And God saw that it was good.*

<sup>11</sup>*Then God said, "Let the land produce vegetation: seed-bearing plants and trees on the land that bear fruit with seed in it, according to their various kinds." And it was so. <sup>12</sup>The land produced vegetation: plants bearing seed according to their kinds and trees bearing fruit with seed in it according to their kinds. And God saw that it was good. <sup>13</sup>And there was evening, and there was morning—the third day.*

Beginning with the creation of the heavens and the earth, directing to the creation of the earth, and directing further to the creation of sky and ocean, God continues to organize his creation and then brings forth land. The development of land here is comparable to the ancient Egyptian creation story of *Ra and the Serpent*.<sup>102</sup> The god Ra exists when there was no heaven and no earth, but then he speaks living creatures into existence.<sup>103</sup> He put all of the creatures to sleep in Nun, the primeval sea, until he could

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<sup>99</sup> Hyers, 43.

<sup>100</sup> A theogony is a genealogy of the gods.

<sup>101</sup> A cosmogony is an explanation for the origin of the universe.

<sup>102</sup> Victor Harold Matthews, *Old Testament Parallels: Laws and Stories from the Ancient Near East* (New York: Paulist Press, 1991), 28.

<sup>103</sup> Matthews, 29.

“find a place to stand,” and then he creates land.<sup>104</sup> Similar to Genesis, in this creation story there is a need to create land in order for living creatures to have a place to stand. In this account, the land is also for Ra himself to have a place to stand, which is unlike Genesis in that God transcends such needs.

Upon reading how plants reproduced “according to their various kinds,” an alarm may go off for modern-day interpreters. With research in molecular biology and genetics abounding, one’s ears may perk at the sound of plants reproducing “according to their kind.” Does “kind” mean “species”? Is this a “prophesy” for genetics? Do these verses contrast with evolution—that God has clearly explicated that plants can only reproduce after their own species? Conrad Hyers would argue no; these verses are by no means references to genetics or science at all for that matter. He argues that “according to their kind” is a phrase used to confirm order.<sup>105</sup> Hyers compares this to the fact that today, people say “sunrise” and “sunset,” though these terms are not astronomically correct.<sup>106</sup> Likewise, terminology such as “according to their kind” is just that—terminology to describe succession, not to oppose speciation or reject the theory of evolution.<sup>107</sup>

Day 3 mentions the first of many living beings created by God—plants. Very few other ancient Near Eastern creation accounts are concerned with vegetation or animals; the gods are the primary concern, followed (sometimes) by a concern for human beings. In Genesis, however, the creation of plants, fish, birds, and land animals is significant, as a description of their individual creation is included.

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<sup>104</sup> *Ibid.*

<sup>105</sup> Hyers, 29.

<sup>106</sup> *Ibid.*, 30.

<sup>107</sup> Also note Genesis 7:14. In this passage, Noah gathers and organizes every animal “according to its kind.” This adds further support to the notion that the phrase is emphatic of order.

Isaiah, another book of the Hebrew and Christian Bible, reads, “For this is what the LORD says—he who created the heavens, he is God; he who fashioned and made the earth, he founded it; he did not create it to be empty, but formed it to be inhabited” (Isaiah 45:18). This passage outlines the creation described in Genesis. During Days 1-3 in Genesis, the earth is formed and fashioned. The sky, the ocean, and the land are made. Vegetation then sprouts from the soil, and this concludes the preparatory task. Now, the heavens and earth are ready to be filled and inhabited.

IV. Day 4: Genesis 1:14-19

<sup>14</sup>And God said, “Let there be lights in the vault of the sky to separate the day from night, and let them serve as signs to mark sacred times, and days and years,<sup>15</sup> and let them be lights in the vault of the sky to give light on the earth.” And it was so. <sup>16</sup>God made two great lights—the greater light to govern the day and the lesser light to govern the night. He also made the stars. <sup>17</sup>God set them in the vault of the sky to give light on earth,<sup>18</sup> to govern the day and the night, and to separate light from darkness. And God saw that it was good. <sup>19</sup>And there was evening, and there was morning—the fourth day.

Day 4 describes the creation of the sun, the moon, and the stars in the heavens. As seen here, the heavens and the earth play a key role in organizing Genesis 1:1-2:3.

The following schematic displays this arrangement:

<b>Day 1</b>	heaven	
<b>Day 2</b>	heaven	
<b>Day 3</b>		earth
<b>Day 4</b>	heaven	

<b>Day 5</b>	earth
<b>Day 6</b>	earth

A demonstrated, God’s creative work is accomplished in the heavens on Day 1 (he creates light), Day 2 (he forms the sky and sea), and now Day 4 (he creates the greater and lesser light). God’s creative work is accomplished on earth on Day 3 (he creates land and plants), Day 5 (he makes bird and fish), and Day 6 (he makes land animals and humans). According to Wenham, the crossover pattern—the content of Day 3 and Day 4 cross over—observed is quite common throughout the Old Testament,<sup>108</sup> and this pattern creates a literary framework used for a story. Therefore, this crossover pattern suggests that the author structured the creation account according to “days” as a means of organizing God’s acts of creation literarily instead of chronologically.

The correspondence of the contents in the days also creates a pattern. Day 1 and Day 4 correspond as light is created in Day 1 and light bearers are created in Day 4. Day 2 and Day 5 correspond as the sky and sea are formed in Day 2 and the fowls of the air and sea creatures are created in Day 5. Day 3 and Day 6 correspond as land and vegetation are created in Day 3, and animals and mankind (the plants are permitted by God as food) are created in Day 6. In addition to the contents, Day 3 and Day 6 correspond in their form; both Day 3 and Day 6 have a double proclamation, “And God said” (vv. 9, 11, 24, 26) followed by two statements of approval (vv. 10, 12, 25, 31). The patterns are visualized in the following schematic:

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<sup>108</sup> Wenham, 7.



<b>Day 1</b> Light	<b>Day 4</b> Luminaries
<b>Day 2</b> Sky and Sea	<b>Day 5</b> Birds and Fish
<b>Day 3</b> Land Plants	<b>Day 6</b> Animals and Man Plants for food
<b>Day 7</b> Sabbath	

So in addition to the literary framework, one sees a pattern of “kingdoms” and “kings.”<sup>109</sup> During Days 1-3, God creates the kingdoms of the earth (heavens, sky and sea, and land), while during Days 4-6, God creates and assigns the kings of those kingdoms (sun and moon, birds and fish, and humans).

The parallels between Days 1-6 and not Day 7 (the Sabbath) leave Day 7 disjoined; it is set apart from the framework. At the same time, Day 7 is fluid with the six days, creating a standard work week, appointing Day 7 as the day of rest. Day 7 will be discussed in further detail later. Overall, the patterns in Genesis 1:1-2:3 suggest the author uses the seven-day structure to organize God’s acts of creation literarily, not chronologically.

In Genesis 1:16, the sun and moon are described as “the greater light” and “the lesser light,” respectively; the Hebrew *ma’or gadol* (“the greater light”) and *ma’or qaton* (“the lesser light”) are used, as opposed to the standard *shemesh* (“sun”) and *yareah* (“moon”).<sup>110</sup> The purpose for this unique lexis makes sense in light of the ancient Near Eastern context. According to Hyers, both *shemesh* and *yareah* relate to the Canaanite

<sup>109</sup> Private correspondence with Dr. Joseph L. Trafton.

<sup>110</sup> Hyers, 21.

terms for the sun-god and moon-god.<sup>111</sup> Similar to *shemesh* (“sun”) is the term *shamshu* (“moon”), the Akkadian sun-god.<sup>112</sup> Therefore, the author of Genesis appears to deliberately use very different Hebrew words to describe the same celestial bodies so that the sun and moon are understood as God’s creation and not mistaken as the divine. Also, “the greater light” and “lesser light” are given the roles as functionaries, delegated as the rulers of day and night to divide, rule, and give light.<sup>113</sup> This is distinct. The sun and moon are clearly separate from God and are not in and of themselves divine, as other ancient Near Eastern traditions claim. On a similar note, no divine word follows the making of this “greater light” and “lesser light,” whereas every other day has a divine word of either naming (vv. 5, 8, 10) or, as will be seen later, blessing (vv. 22, 28). Wenham writes that the purpose of this elimination of a divine word is to avoid the predicament of naming the greater light “sun” and the lesser light “moon” for the reasons described above—to remove the possibility of mistaking the sun and moon as the gods of Canaan and Akkadia.<sup>114</sup>

If these verses of Genesis were interpreted as chronological days, several questions would beckon answers. “How can vegetation grow on the third day if the sun does not appear until the fourth?” Better yet, “How can there be light and dark *at all*, phenomenon mentioned since day one, if there is no sun until the fourth day?” “In verse 14 the sun and moon were created for the seasons and for *days and years*. Would it make sense for God to create a ‘day’ at a time if the very sun he uses to measure days was

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<sup>111</sup> *Ibid.*, 21

<sup>112</sup> *Ibid.*; Wenham, 21.

<sup>113</sup> Hyers writes that this twice-articulated, threefold function of the sun and moon further emphasizes their true function and purpose as non-divine, though appointed by the divine as rulers of the day and night (Hyers, 22).

<sup>114</sup> Hyers, 23.

created on the fourth day?” Questions such as these threaten the chronological interpretation of the seven-day creation account. However, understanding the days as the scaffolds of a literary framework agrees well with both the structure and content of this account.

The author’s point for this creation account was not to correct the Israelites of their “science,” but to convey God’s nature and mankind’s existence in a language the Israelites would understand. The sun and moon are created, not divine, to speak to the Israelites who were straying, worshipping the sun and moon god of pagan traditions. In addition, the fact that this act of creation occurred on the fourth day challenges the interpretation of those who turn to Genesis for a scientific explanation that simply does not exist here.

#### V. Day 5: Genesis 1:20-23

*<sup>20</sup>And God said, “Let the water teem with living creatures, and let birds fly above the earth across the vault of the sky.” <sup>21</sup>So God created the great creatures of the sea and every living thing with which the water teems and that moves about in it, according to their kinds, and every winged bird according to its kind. And God saw that it was good. <sup>22</sup>God blessed them and said, “Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth.” <sup>23</sup>And there was evening, and there was morning—the fifth day.*

In Genesis, the sea creatures are created by God. However, in Canaanite mythology, the sea creatures (the sea god, Yamm, and his sea monster companions, Litar

[Leviathin] and Tunnan [Tannin]<sup>115</sup>), *fought* the god Baal. In Genesis, however, God has no competing force. The sea creatures in Genesis are subservient to God as one of his many forms of creation.<sup>116</sup>

As with the plants, the fish and birds are made according to their kind. To reiterate Hyers's position, this terminology is not scientific but is used, rather, to confirm the order in God's creation.

#### VI. Day 6: Genesis 1:24-31

<sup>24</sup>*And God said, "Let the land produce living creatures according to their kinds: the livestock, the creatures that move along the ground, and the wild animals, each according to its kind." And it was so.* <sup>25</sup>*God made the wild animals according to their kinds, the livestock according to their kinds, and all the creatures that move along the ground according to their kinds. And God saw that it was good.*

<sup>26</sup>*Then God said, "Let us make mankind into our image, in our likeness, so that they may rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground."*

<sup>27</sup>*So God created mankind in his own image,  
in the image of God he created them;  
male and female he created them.*

<sup>28</sup>*God blessed them and said to them, "Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground."*

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<sup>115</sup> Greg Herrick, "Baalism in Canaanite Religion and Its Relation to Selected Old Testament Texts," Bible.org, accessed April 12, 2013, <http://bible.org/article/baalism-canaanite-religion-and-its-relation-selected-old-testament-texts>.

<sup>116</sup> Wenham, 9.

<sup>29</sup>Then God said, “I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food. <sup>30</sup>And to all the beasts of the earth and all the birds in the sky and all the creatures that move along the ground—everything that has the breath of life in it—I give every green plant for food.” And it was so.

<sup>31</sup>God saw all that he had made, and it was very good. And there was evening, and there was morning—the sixth day.

The mechanism and purpose of human creation varies between ancient Near Eastern creation accounts. The three creation accounts that will be discussed, analyzed, and compared to Day 6 in Genesis include the Babylonian *Enuma Elish*, the Sumerian *Atrahasis Story*, and the ancient Egyptian *Theban Story*.

In *Enuma Elish*, the gods are birthed from the three primordial gods Apsu, Tiamat, and Mummu. The gods created are divided into male and female counterparts (for example, Lahmu “whole sky” and Lahamu “whole earth/horizon”<sup>117</sup>) and each generation of gods surpasses the next in greatness.<sup>118</sup> In this theogony, Anu (“Sky”<sup>119</sup>), who has no female counterpart, makes Nudimmud-Ea “in his image,”<sup>120</sup> fashioning him in his likeness. This is comparable to Genesis when God, who also has no female consort, creates mankind in his likeness (1:27). On the contrary, mankind, in Genesis, is not divine, whereas Ea is.

Like the other gods before him, Ea surpasses his ancestors. Unlike his ancestors, though, Ea increases in wisdom, understanding, and strength, reigning as the chief god

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<sup>117</sup> Michael Webster, Grand Valley State University, accessed April 12, 2013, [http://faculty.gvsu.edu/websterm/Enuma\\_Elish.html](http://faculty.gvsu.edu/websterm/Enuma_Elish.html).

<sup>118</sup> Matthews, 8.

<sup>119</sup> Holland, 124.

<sup>120</sup> Matthews, 8.

for a time.<sup>121</sup> Then conflict arises among the gods. As a result of the conflict, new gods are born. Marduk is one of the new gods, and he is born of Ea and Damkina. Marduk is greatly exalted, declared by his father as “flawless” as well as powerful and handsome. Ea then endows Marduk with a double portion of divinity.<sup>122</sup> Just as Ea was engendered from Anu, Marduk was birthed from Ea and Damkina. In the poem, Marduk is clearly something special, as his father lavishes him with compliments and praise. Although in Genesis mankind is created by God, humans are not exalted in the same manner as Marduk in *Enuma Elish*. In Genesis, neither the appearance nor the abilities of humans are described because their abilities are unimportant to the creation account. God’s abilities are the emphasis. God’s creation is good not because of its own merit, as seen with Marduk, but because God himself is good (cf. Psalm 100:5). Although mankind is created in the image of God, humans are still separate from God—unlike Marduk who is “doubly” divine—and do not share in God’s divine nature.

After the creation of the god Marduk, other battles break out, resulting in the creation of the sky, waters, and earth. Next, Marduk kills the god Qingu and kneads Qingu’s blood with bone to create a “Savage.”<sup>123</sup> “Aborigine” is the name of the Savage, and the purpose of the Aborigines (humans) is to “set the gods free” from their labor and to serve the gods.<sup>124</sup> However, in Genesis the purpose of mankind is much different.

The author of Genesis redefines mankind. Though the manner in which mankind is fashioned in Genesis (made in God’s image) compares to the Babylonian gods in *Enuma Elish*, humans are presented in a more humble light: they have no astounding

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<sup>121</sup> “Babylonian Creation Myths,” Crystalinks.com, accessed April 12, 2013, <http://www.crystalinks.com/enumaelish.html>.

<sup>122</sup> Matthews, 9.

<sup>123</sup> Holland, 126.

<sup>124</sup> Matthews, 13.

attributes and no divinity. However, mankind is exalted above the human beings made in *Enuma Elish*; unlike the “Aborigines” created from the blood of a murdered god and created as slaves to the gods, humans in Genesis are created with more thought and purpose. Instead of God stating the usual “Let there be” (e.g. Genesis 1:3), God pronounces a statement of forethought: “Let us make” (1:26). Also, humans were not created to serve but rather to rule: “Rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground” (1:28). The language in the Genesis creation account is assuredly Near Eastern, but the message in Genesis is of its own kind. Humans are neither attractive gods nor trifling servants but rest in the middle as exalted creatures bearing the image of their divine creator.

In the Sumerian *Atrahasis Story*,<sup>125</sup> humans are created from clay mixed with the flesh and blood of the god *We-ila*, a god sacrificed by the “Divine Assembly” of gods. Humans are fashioned by the goddess *Nintu-Mami* and are commanded by the midwife to live: “Live!”<sup>126</sup> Like the gods in *Enuma Elish*, most of the Sumerian gods only desired humans for their sacrificial food and wine offerings, though a few gods did refer to the humans as their “children.”<sup>127</sup> However, the god of Genesis is independent of human beings and creates humans out of desire, not selfish ambition.

The ancient Egyptian creation accounts predominantly describe the creation of the gods and the cosmos and are seemingly the least concerned of all ancient Near Eastern traditions with the creation of humanity.<sup>128</sup> According to Glenn Holland, the *Theban*

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<sup>125</sup> The *Atrahasis Story* was later adopted by the Babylonians and Assyrians (Matthews, 16).

<sup>126</sup> *Ibid.*, 17-18.

<sup>127</sup> *Ibid.*, 25.

<sup>128</sup> Holland, 34.

*Story* is the only anthropic<sup>129</sup> account. In this story, the god Khnum creates human beings by fabricating them on a potter's wheel.<sup>130</sup> Aside from this brief account, the origin of humans is not clearly described in the ancient Egyptian texts.

Though there is little emphasis on human creation there are still strong connections between the divine and human worlds. Humans, along with other creatures, are bestowed with gifts from the gods.<sup>131</sup> However, humans do not have a privileged role in creation,<sup>132</sup> whereas they do in Genesis, given authority to rule over God's creation (1:26).

According to Genesis, humans are given divine permission to rule the earth. However, the most important role of humans is to bear the image and likeness of God (1:26). In Egyptian and Assyrian traditions, only the kings bore the image of God.<sup>133</sup> However, in Genesis this gift is accredited to all humanity. So what does this gift of "God's image" mean?

Scholars define the "image" and "likeness" differently. Wenham elucidates differing arguments in his commentary, but he himself concludes with the following: "The strongest case has been made for the view that the divine image makes man God's vice-regent on earth. Because man is God's representative, his life is sacred: every assault on man is an affront to the creator and merits ultimate penalty (Gen 9:5-6). But this merely describes the function or the consequences of the divine image; it does not pinpoint what the image is in itself."<sup>134</sup> Therefore, according to Wenham, bearing God's

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<sup>129</sup> Referenced earlier, an anthropic account is an account relating to human origin.

<sup>130</sup> *Ibid.*

<sup>131</sup> *Ibid.*, 36.

<sup>132</sup> *Ibid.*, 37.

<sup>133</sup> Wenham, 30.

<sup>134</sup> *Ibid.*, 31-32.



“image” attributes humans with the following: humans are representatives of God on earth, they are stewards of the land and animals God has given them to subdue respectfully, and their lives are sacred because of the divine image they bear.

Wenham acknowledges the fact that his conclusion only covers the *consequences* of bearing God’s image without describing what bearing the image actually means. Some interpretations explain “image” to mean the natural qualities of man, such as reason and personality,<sup>135</sup> while others explain it to mean the mental and spiritual faculties, such as free will and intelligence, that mankind shares with its creator.<sup>136</sup>

The question of what Genesis means in terms of man being in God’s image is a significant one, particularly when taking into consideration the image depicted of man by way of the theory of evolution—*homo sapiens* sharing a common ancestor with chimpanzees. Is there a contradiction here? How can mankind bear the phenotype of ancestral *hominins* and yet bear the image of God?

C. S. Lewis, a Christian apologist and scholar of myth briefly describes in his book *The Problem of Pain*<sup>137</sup> the beginning of humanity using a “myth,”<sup>138</sup> paralleling the story of Adam and Eve. A portion of this myth is quoted below:

For long centuries God perfected the animal form which was to become the vehicle of humanity and the image of Himself. He gave it hands whose thumb could be applied to each of the fingers, and jaws and teeth and throat capable of articulation, and a brain sufficiently complex to execute all the material motions whereby rational thought is incarnated. The creature may have existed for ages in this state before it became man: it may even have been clever enough to make things which a modern archaeologist would accept as social proof of its humanity. But it was only an animal because all its physical and psychical processes were directed to purely material and natural ends. Then, in the fullness of time, God

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<sup>135</sup> *Ibid.*, 29.

<sup>136</sup> *Ibid.*, 30.

<sup>137</sup> C. S. Lewis, *The Problem of Pain* (New York: Macmillan Publishing Company, 1962), 77.

<sup>138</sup> Lewis defines “myth,” by which he uses the term, as “an account of what *may have been* the historical fact,” in opposition to a symbolic representation of non-historical truth (*ibid.*).

caused to descend upon this organism, both on its psychology and physiology, a new kind of consciousness which could say “I” and “me,” which could look upon itself as an object, which knew God, which could make judgments of truth, beauty, and goodness, and which was so far above time that it could perceive time flowing past...Man was then all consciousness.<sup>139</sup>

According to Lewis’s myth,<sup>140</sup> the “image of God” comes upon the psychology and physiology of this human-like animal. In Lewis’s portrayal, he explains that at some point in evolutionary history, once mankind had the capacity to know and better understand the world around him, God imparted his image on mankind, setting humans apart from animals with a divine ability to be in relation with God and to serve as God’s stewards on earth. At this point, these animals are no longer animals but are set apart as human beings with consciousness—self-awareness, time-awareness, and God-awareness; Lewis incorporates this duality of man’s natural being and spiritual being.

The authors of Biologos.org,<sup>141</sup> such as scientists Deborah Haarsma and Kathryn Applegate, define “image of God” in terms of our spiritual capacity and ability to have a relationship God.<sup>142</sup> The authors also refer to John Calvin and his definition of divine image as bearing the righteousness of God before the fall of mankind, having that image lost through sin, and then restored through Christ.<sup>143</sup> In addition, the authors refer to the image as a commission for mankind to be the *living* image of God on earth, in contrast to the Old Testament understanding of image as an idol made by human hands.<sup>144</sup>

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<sup>139</sup> *Ibid.*

<sup>140</sup> “Man” here refers to mankind. Only in the succeeding Genesis creation account does the author of Genesis refer to a single man (Genesis 2:7).

<sup>141</sup> This website is designed by proponents of theistic evolution.

<sup>142</sup> “How Could Humans Have Evolved and Still Be Created in the ‘Image of God?’” *The BioLogos Foundation*, last modified June 25, 2012, <http://biologos.org/questions/image-of-god>.

<sup>143</sup> Of course for Israelites reading Genesis, Jesus Christ was nonexistent. Instead, when reading this they would look to God as the restorer and redeemer of his holy image in his people and look to the redemption to come (cf. Isaiah 44:23, 49:26).

<sup>144</sup> “How Could Humans Have Evolved and Still Be Created in the ‘Image of God?’”

## VII. Day 7: Genesis 2:1-3

<sup>1</sup>*Thus the heavens and the earth were completed in all their vast array.*

<sup>2</sup>*By the seventh day God had finished the work he had been doing; so on the seventh day he rested from all his work.* <sup>3</sup>*Then God blessed the seventh day and made it holy, because on it he rested from all the work of creating that he had done.*

The description of God's rest in Genesis parallels descriptions of divine rest in two other ancient Near Eastern accounts. In *Enuma Elish*, described earlier, human beings were created solely to serve and perform the work previously undertaken by the gods. Because the humans were created, the gods were set free from their labor.<sup>145</sup> Genesis is similar to this account because God, like the gods, also rests subsequent to mankind's creation. However, Genesis is different in that God creates a habitable environment on earth, meeting *man's* needs, whereas the gods in *Enuma Elish* create mankind in order to meet *their* needs.

Ptah, a god in the ancient Egyptian Memphis Creation story, also rests. In this story it states that after Ptah created all the gods "and being satisfied with them all" he then "rested content with his work."<sup>146</sup> Both Ptah and God rest after their creative work is complete. Both are satisfied with their work. However, the pleasure God takes in his work is more amplified in Genesis than Ptah's in the Memphis Creation Story. The god of Genesis is more interactive and expresses his contentment (vv. 4, 10, 12, 18, 21, 25) and grants blessing (vv. 22, 28) on his creation as he creates. Then God concludes with a final reflection in which he esteems his vast creation to be "very good" (1:31). God is

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<sup>145</sup> Matthews, 13.

<sup>146</sup> *Ibid.*, 34.

pleased with every step he initiates to create and fill the heavens and the earth, and he additionally blesses the “very good” creation he forms and fashions.

Does this act of divine rest serve a greater purpose than to merely occupy the last day of the week? Indeed, the Sabbath serves as the culmination of the week. Hyers writes the following: “The divine sabbath is the climax of the week’s labor. Sabbath is not a ‘down time’ but the apex of the week, its fulfillment and celebration, and the cessation from what might otherwise be an endless treadmill of restlessness and toil.”<sup>147</sup> This day is significant in that God celebrates the completion of his vast creation (2:1) through rest (2:2) and blessing (2:3). God’s work of creating is complete. However, creation in and of itself is not complete. God has created kingdoms (skies, waters, and land) for his kings (animals and humans), commissioning them to rule and create after their own kind—their own image (“be fruitful and multiply,” vv 22, 28)—as God did in the six days.

In light of this commissioning, God is still sovereign over all. Day 7 signifies this sovereignty. The heavens and earth are mentioned, tying the account back to its beginning (cf. 1:1), but each remain dependent on God, created by him (2:1). God is central. His sovereignty is displayed in the beginning, displayed throughout as he creates, and displayed at the end as he rests, delights, and blesses his creation. Likewise, God expresses sovereignty as he consecrates Day 7. The fact that God consecrates a *day* as holy instead of an animate being emphasizes that holiness is not derived from the hallowed object itself (one would wonder how the abstract “day” could conjure holiness of its own accord) but rather holiness flows from, and is accredited to, the source, which

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<sup>147</sup> Hyers, 77.

is God. God is sovereign and any visible good or holy entity reflects the only one worthy of praise, the creator himself.

The holiness of this day is not represented by solely the content of the day but by the day's placement in this creation week structure. Referring back to the framework structure described in Day 4 (p. 35), Day 7 is set apart. As discussed earlier, God creates kingdoms during Days 1-3 and kings during Days 4-6. However, on Day 7 no creation takes place. Day 7 is set apart from this kingdoms-kings structure in Days 1-6, yet it ties back to the beginning by echoing, in reverse order, "create," "God," and "heavens and the earth" from 1:1.

In addition to the structure of Day 7 deviating from the kingdoms-kings structure of the other days, the sentence structure of Day 7 also stands out. Wenham writes, "The threefold mention of the seventh day, each time in a sentence of seven Hebrew words, draws attention to the special character of the Sabbath."<sup>148</sup> Wenham adds, "In this way form and content emphasize the distinctiveness of the seventh day."<sup>149</sup> In short, Day 7 is a distinct day but is very much a cornerstone in the creation week.

Day 7 is the only day that does not conclude with "And there was evening, and there was morning—the *n*<sup>th</sup> day" (cf. 1:5, 8, 13, 19, 23, 31). This lack of finality for the day and for the creation week would be troublesome if Day 7 were understood as a literal, 24-hour day in history, as the YE Creationist and OE Creationist views attest. Instead, if the days in Genesis are understood as the scaffolds for a framework used by the author to structure the creation narrative, the reader can then focus on the message

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<sup>148</sup> Wenham, 7.

<sup>149</sup> *Ibid.*, 7.

conveyed by the content and structure of the days rather than toil over the inconsistent literalness of the measure of the day.

God's example of rest on Day 7 serves as a precedent for the Israelites who are later commanded by God, via the prophet Moses, to observe "a sabbath rest, a holy sabbath to the LORD" (Exodus 16:23). The Israelites are commanded to honor "the Sabbath day" (cf. Exodus 20:8) by resting on it, remembering it, and keeping it holy by their obedience to God's command (Exodus 20:8-11). Later in the Bible, the prophet Ezekiel writes, "Also I [God] gave them my Sabbaths as a sign between us, so they would know that I the LORD made them holy" (Ezekiel 20:12). Therefore, the Sabbath day concludes this creation account and emphasizes God's holiness, the sufficiency of his creative work, and the holiness of his creation.

#### VIII. Genesis Conclusion

Although Genesis is an ancient Near Eastern book with an ancient Near Eastern creation account, it stands apart from other ancient Near Eastern traditions. The author of Genesis makes a point to demythologize<sup>150</sup> creation by depicting God as distinct from creation, by classifying the sea creatures as beings created by God rather than enemies of God, and by referring to the sun as "the greater light" and the moon as "the lesser light" so that they are not mistaken for as gods.

Also, the author uses ancient Near Eastern lexis to convey the following: God is sovereign, creating everything by his word; God is law-giver, establishing order in his creation; God is personal, acknowledging the goodness of his creation throughout the creative process, naming it and blessing it; God's creation is good; God creates the earth

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<sup>150</sup> Demythologize according to Oswalt's definition of myth—a sacred story in which nature, humanity, and the divine are continuous; there is no distinction between the three but rather all three are interconnected (Oswalt, 48).

for a purpose—to be filled; and God creates mankind for a purpose—to bear the image of God and serve as authorized rulers of the earth.

## CHAPTER 5

### CONCLUSION

Science concludes that the universe has a beginning and concludes that all species, including human beings, evolved from a single common ancestor. Genesis likewise concludes that the universe has a beginning. In addition, Genesis explains that God transcends time and space, creating the heavens and the earth by means of his creative power. God also creates mankind. Theistic evolutionists explain that biological evolution is the vehicle by which God created mankind and that at some point in history God imparted a spiritual identity, image of himself, onto mankind. This identity gave humans the ability to perceive right and wrong, to perceive beauty, and to, most importantly, have the capacity for a relationship with God.

Scientific theories explain the mechanism by which the universe and mankind appeared, whereas Genesis provides basic answers for “how” we got here in order to explicate an answer for the grander question of “why” we are here. Hyers writes the following:

Science and religion are not thereby irrelevant to each other. That would be intolerably schizophrenic. They can mutually enrich and stimulate each other. Religion can caution science about the limitations of its naturalistic bias and remind it that it does not represent the sum total of all significant games that can be played. Science, on the other hand, can awaken religion from its dogmatic slumbers and jar it loose from its easy compromises with earlier world views.<sup>151</sup>

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<sup>151</sup> Hyers, 34.



Hyers further writes, “In such a give-and-take, evolution is not a threat to religion but a stimulus for theological reexamination and for the discovery of a richer and profounder faith.”<sup>152</sup>

Therefore, rather than trying to make science conform to religion and religion conform to science, one must understand that science and religion are two different ways of understanding reality and should be understood side by side. As Hyers expresses, the two mutually kindle each other. However, when individuals attempt to set the two approaches equal to each other, that is when war arises; the differences between the two approaches are accentuated, which then creates competition as to which is true.

In this interpretation, science was neither used to support nor deny the validity of Genesis creation account (however, science *does* dispel the YE and OE Creationist interpretations of the Genesis account); likewise, the Genesis creation account was neither used to support nor deny the validity of science. Instead, the scientific discoveries and the religious text were brought together and compared in aims to divulge the underlying truth of *how* humans got here and *why* we are here.

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<sup>152</sup> *Ibid.*

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