The Case for the Mature Creation Hypothesis

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Abstract

E^{x-nihilo} creation from nothing always results in all created objects having the appearance of maturity. This is true for every creation from functional life to a functional universe. The assumption that natural processes operated during Creation just as they do now leads to an "appearance of age." The appearance-of-age concept is explored, showing that this conclusion applies to all miracles, including everything from the creation of wine from water to the creation of Adam and Eve from dust. This view fits both the scriptural record and the scientific data. It also has a long history and in modern times has been advocated by many creationists and Biblical scholars from Philip Gosse to Henry Morris.

Introduction

A concept that has a long history in Christianity is called mature creation or a "coherently mature universe," "functional completeness," "prochronism," meaning outside of time, "created fully grown," or the "appearance of maturity when created." Just as a sphere must have three dimensions, reality requires that both physical and biological creations, according to assumptions based on present process rates, display to human observers the appearance of age from the objects' first material existence.

This theory may account for the discrepancy between the age that scientists have determined for various aspects of creation and the age that Genesis presents. This paper argues that this discrepancy is an unavoidable result of the false assumption that the world operated during its creation exactly as it does now. A second concern is that miracles by definition require an event that scientific research has proven impossible; otherwise the event would not be a miracle. The concept of apparent age is, in part, a viable explanation for these conflicts.

Creation ex-nihilo

The basis of the appearance-of-age conclusion is the Creation ex-nihilo doctrine common to Christian, Jewish, and Muslim theology (Reymond, 1998).

This fundamental Biblical doctrine is supported by many Scriptures, including Colossians 1:16, 17; John 1:3; and Exodus 20:11. This doctrine is important for several reasons. Plato and other ancient sages taught that God created the world but that He created it from previously existing material, whereas Christianity taught that God created it out of nothing, a view called *Creation ex-nihilo* (Hannam, 2009, p. 63).

Creation ex nihilo is not a minor doctrine, but a central plank in Christian theology. The Greeks and others believed that God created the universe from preexisting chaos that was difficult to remake like new; consequently, the universe that resulted was not as perfect as the original forms on which the Creator based His design (Hannam, 2009, p. 63).

In contrast, Christianity taught that God created the universe from nothing, thus the creation was not a remake of something old, but rather was the cre-

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ation of something that was new and that Genesis says was "very good." This is important for the doctrines of the Fall of mankind into sin and death described in Genesis and Jesus' sacrifice to restore humankind. As Hannam notes,

> Both pagan and Christian would agree that the world is not perfect, but the Platonist would blame the material the creator had to use, while the Christian would believe that it was created perfect and only fell later due to human actions (Hannam, 2009, p. 41).

The conclusion that God created the universe out of nothing, *ex nihilo*, "gave it an intrinsic value as the result of the direct will of God" (Hannam, 2009, p. 41). Thus both pagans and Christians believe that the world is imperfect, but the pagan would attribute it to the material the Creator was forced to use and the Christian would blame it on the Fall (p. 41).

Historically, it was widely believed that matter has always existed, supporting the pagan belief. In the last century it was recognized that matter is largely empty space. For example, 99.99% of mass of the atom is contained in the nucleus, which is a mere trillionth of the atom's volume, and the rest is empty space. Likewise, protons are made out of two up quarks and one down quark and mostly empty space. Neutrons consist of two down quarks and one up quark and mostly empty space. Cornell professor Carl Sagan succinctly summarized the composition of matter as follows: "Matter is composed chiefly of nothing" (Sagan, 1980, p. 218). This observation is the basis of the conclusion that the big bang primordial egg, from whence came the entire universe, was the size of an atom or smaller (Barrow, 2000).

The Creation of Humans

The problems inherent in dating an instantaneous, supernatural creation are illustrated by the creation of the first

man, Adam. If a modern onlooker assumed that Adam was born an infant as are modern humans, he would conclude that Adam was about 20 years old when, in fact, he was only about one day old. This does not imply that the Creator is deceptive but reflects the fact that the human body had to be created fully formed and functional in order to exist as a living organism. The onlooker's false assumptions as to how Adam originated would contrast with the fact that Adam himself would not draw a wrong conclusion since he knew that he was created into a form that we recognize as an adult and had not yet witnessed childbirth or children at the time.

If Adam's blood were not already circulating in his circulatory system when he was created, the few minutes required to prime his circulation system could cause major cell death or damage. Furthermore, all of Adam's organs-including his heart, lungs, kidneys, brain, etc.-must have been functioning simultaneously as a unit the instant that he was created. In other words, Adam must have been created as a fully mature young man. Likewise, when Eve was created, Adam would have known that she was only a day or so old, yet she would have appeared as a fully mature adult (Poythress, 2006, p. 117).

For this reason, even though Adam was created instantaneously, he would be evaluated by many modern physiological measurements to be a 20-yearold man the moment he was created (Poythress, 2006). If examined medically, much unequivocal scientific evidence in support of a 20-year age would be verified. An example is bone ossification measurements that evaluate the level of conversion of cartilage into bone as the child develops. Medical tests, interpreted on the assumption that Adam was born as a baby, would conclude that Adam was, and would have to be treated medically as if he were, in fact, in the prime of his life, even though he was less than a few days old.

Although a physician who completed an examination on Adam the day he was created might conclude from scientific development measures, such as bone-tocartilage ratios, that Adam was 20 years old, some evidence for an age much less than 20 might also be found. For example, if Adam were created ex nihilo today, we might not detect certain effects of aging (such as DNA and RNA damage) in a one-day-old Adam that exist in the average 20-year-old male today. The possibility cannot be ruled out that some evidence, such as tissue culture examination of his cells, may have existed to prove that Adam was, in fact, one day old. Likewise, lack of both tooth wear, cosmic ray damage, and other signs of aging may also have indicated an age of a few days old instead of 20 years old.

Kyle Butt notes that this example provides evidence that everything God made during the Creation week was

> formed complete and fully functional. For instance, how old were Adam and Eve two seconds after God created them? They were literally two seconds old! Yet they walked, talked, and looked like adult human beings, and even had the ability to reproduce (Butt, 2002, p. 40-R).

We know that the Garden of Eden appeared old because it had fully grown trees with fruit on them when created. DeYoung defines the mature creation concept as follows:

> The earth, solar system, Milky Way Galaxy, and entire universe were brought into existence supernaturally during six 24-hour days. Top soil and trees appeared virtually instantaneously in the Garden. Fully-grown animals were miraculously formed on land and in the air, complete with symbiotic relationships. The seas instantly swarmed with creatures, great and small, that had never been born or developed from infancy. Our first parents, Adam and Eve, were adults from their first breaths. The sun's nuclear fusion furnace began on

Day 4, at full power and in thermodynamic equilibrium. Starlight from distant stars was created in transit, complete with a virtual history of information embedded within the light waves. Adam and Eve could look at the night sky their first evening on Earth and see cosmic light sources much as we do tonight. To an observer the completed creation on Day 6 was fully functioning in a steady state (DeYoung, 2010, p. 54).

Questions such as whether Adam had a navel (since he was not born of a woman) and whether the first trees had rings (the trees would have been fully grown, and fruit trees would have fruit on them, giving the appearance of age) all need to be explored, but these questions are more in the area of philosophy and theology rather than science. Another question: would ground erosion be evident at the time of Adam, aside from that caused by newly created rivers, a moment after they were created? Apparent age cannot be proven scientifically but is a hypothesis based on conjecture that can help us to understand the past. John Morris wrote that if an

> observer from a different universe, with no knowledge of Adam's creation, traveled to earth on Day Seven and tried to determine Adam's age (or the age of a rock, or the age of a star), how could it be done? He would rely on today's human growth rates (or rates of radioactive decay, or the speed of light), calculate how long it would take for this state of maturity to develop, and come to a *wrong* conclusion (Morris, 2010, p. 15).

This is exactly the problem faced today in endeavoring to date all ancient events.

Can Naturalism Explain Life?

For life to exist, living creatures must have a means of taking in and biochemically processing, food, water, minerals, and other materials. Life also requires the intake of oxygen that must be distributed to all tissues. For singlecelled life, oxygen must enter through the cell membrane and effectively and safely move around inside of the cell to where it is needed without permanently damaging the cell. Without irreducibly complex mechanisms to achieve these tasks, life cannot exist (Behe, 1996). The parts could not appear separately and could not even exist independently for very long because, without protection, they would rapidly deteriorate from the effects of dehydration, oxidation, and other environmental insults (Overman, 1997).

Given both the scientific and scriptural constraints, creating a living body one part at a time, such as creating a liver, then a femur bone, etc., until the body was eventually complete, would not be a viable method. Even if these parts existed, the many parts required for life could not sit around idly waiting for the other parts to appear because they would rapidly deteriorate. No other method appears to exist to produce life other than by instantaneously creating a fully functioning, complete living organism. This does not preclude the possibility that changes may have occurred since that time, only that a certain level of complexity must exist before both a living organism and a functioning universe can exist.

The same problem exists even with a single cell. DNA is useless without: (1) all of the complex machinery required to produce mRNA, such as RNA polymerase, and (2) the machinery required to translate the mRNA code into protein such as a ribosome. Furthermore, a ribosome is only one of multiple proteins that the cellular machinery produces from mRNA. Hundreds of complex proteins are necessary for a cell to be alive and, therefore, a functional cell could have been created only as a complete functioning unit, not as individual parts. The view that life could evolve naturally via the "frontloading" of very precise

initial conditions, such as the genes, to allow life to evolve, is the subject for a future paper. In short, I believe this view is untenable, and so far little evidence exists for this position.

Evolution cannot account for all of the parts necessary for life coming together at one time and being properly assembled and activated as a unit in a timely manner so that it will produce life. Since evolution cannot explain this problem, and it has been documented that this approach is not feasible, only an instantaneous creation and assembly of all of the necessary parts into a functioning unit can produce life. No compelling evidence has ever been produced to disprove this conclusion, and much evidence exists for the instantaneous creation requirement, such as the discovery that most nucleotides rapidly degrade at the temperatures that scientists speculate existed on the early earth (Irion, 1998).

This view was explained by Whitcomb and Morris (1961, p. 369), who noted that a common proof for an ancient age of the universe is the fact that far galaxies "are known to be some few billion light-years away" from the earth and since "by definition it has taken that number of years for their light to reach us; therefore they are at least that old, so the argument goes." They then add the interpretation that this:

> begs the question. It constitutes an implicit denial that the universe could have been created as a functioning entity. If creation has occurred at all (and the two principles of thermodynamics require this) then it is reasonable that it would have been a *complete* creation. It must have had an "appearance of age" at the moment of creation. The photons of light energy were created at the same instant as the stars from which they were apparently derived, so that an observer on the earth would have been able to see the most distant stars within his vision at that instant of creation. There is nothing

unreasonable either philosophically or scientifically in this, although it does contradict the uniformitarian assumption (Whitcomb and Morris, 1961, p. 369).

They stress that:

the Bible quite plainly and irrefutably teaches the fact of a "grown" Creation—one with an "apparent age" ... analogous to the "apparent age" of a mature Adam at the first instant of his existence. This Creation must have included all the chemical elements already organized in all the organic and inorganic chemical compounds and mixtures necessary to support the processes of the earth and of life on the earth (Whitcomb and Morris, 1961, pp. 344–345).

Whitcomb and Morris (1961, p. 238) conclude, "There could be no *genuine* creation of any kind, without an initial appearance of age inherent in it."

Another example is that the sun must have been able to heat and light the earth on the day it was created. Although it takes only eight minutes for the sun's light to reach the earth, it takes an estimated 10,000 to 170,000 years for the gamma rays produced in the sun's core to reach the sun's surface as visible photons due to the absorption and reemission path taken as the photons journey outwards (Sturrock, 1985). For the sun to heat the earth the day it was created the photons must have been created in transit as if millions of years had passed. In other words, it was created with the appearance of age. As Reymond (1998, p. 396) stated, the "creation would of necessity require that some aspects of the universe would have come from the hand of its creator with an appearance of age."

Eighteenth-century naturalist Philip Gosse's main argument for the appearance-of-age view was that since both living and nonliving things existed in never-ending cycles, God created everything in the act of progressing in its cycle—egg to chicken, chicken to egg, oak to acorn, then to oak, and again to acorn in an endless cycle. Life would reproduce and develop, with animals having skin, blood, and bones when created, all making them appear to someone who falsely assumes that all current processes must be extrapolated into the past older than they actually were when created. This theory he called *prochronism*, or "outside of time" (Gosse, 1857).

As a result, all examinations of the post-Creation world would reveal a world that appeared to have been created somewhere within the normal cycle and, as a result, would look old. Stephen Gould states that he finds "Gosse's argument quite satisfactory as a solution" to the "which came first, the chicken or the egg" problem but added "within the boundaries of his assumptions," which was creationism, a view that Gould stressed he does not agree (Gould, 1985, p. 106).

Creation of the Universe

The validity of the analogy of comparing the creation of a human body with the creation of the universe has been supported by recent findings. Nobel laureate George Wald even stated that he believed the universe was designed for life, a view for which he concluded the evidence is overwhelming. As an example, he stated that the elements carbon, hydrogen, oxygen, and nitrogen "have unique properties" required for life that are not shared by any other element in the periodic table of the elements (interview in Levy, 1998, p. 12).

Furthermore, the earth is a system involving many complex feedback cycles. A well-known example is that the earth must have an oxygen cycle, a carbon cycle, a nitrogen cycle, a sulfur cycle, a hydrologic cycle, and numerous other interconnected cycles in order to sustain life on the planet. Just as Adam must have been created as a living being with blood and other cycles (such as the Krebs cycle) functioning in his body, so too the earth must have been created with all of its cycle systems functioning to allow life to be able to live on it.

Research has confirmed the view that the earth and the entire universe is an extraordinarily well-organized, complex machine: our earth is part of an organized solar system that is, in turn, part of a highly organized group of stars called a galaxy (in our case the Milky Way Galaxy) that is part of a highly organized family of galaxy clusters called the Local Group (the Milky Way's home) that in turn are organized into an enormously large groups of clusters called superclusters.

Likewise, because the solar system is interrelated at all levels, the Creator could not have created the earth as a single entity existing alone in the universe, but rather must have created the entire solar system (both the heavens and the earth) as a complete functioning unit, just as Adam must have been created as a living being within a very short period of time. For example, according to researchers, if the moon did not exist, the earth would rotate three times faster than it currently does, a recurrent galeforce wind like that on Jupiter would exist, making higher animal life as we know it impossible, the tides would be much lower, reducing the recirculation of shoreline nutrients and the dilution and removal of pollutants that would otherwise accumulate along the shore (Comins, 1993). Furthermore, the same dependent relationship exists with the other planets; among other functions Jupiter and Saturn serve to protect the earth from cataclysmic destruction (Gonzalez and Richards, 2004).

As God created the universe for a reason (including as a support system for life on earth, as noted in the discussion of the moon above) and, as He must have created Adam with blood *moving* in his veins, it is not unreasonable to infer that the stars were created with their light in transit (Whitcomb and Morris, 1961, p. 369). Although other theories

exist to explain the fact that we can see stars that are millions of light years away, such as Russell Humphrey's white hole cosmology (Humphreys, 1994), the mature creation view can effectively explain how distant supernovae can be seen from the earth within a Biblical time framework. Just as many medical tests on a day-old Adam would indicate he was then a 20-year-old man, likewise, the astronomical evidence would indicate a mature universe on the day it was created (Poythress, 2006). Although the universe would be mature, and thus appear to be millions of years old, as in the case of Adam, this model predicts that some scientific tests would indicate a young universe. This may be one reason why contemporary dating techniques produce different dates for the creation of the earth and the universe.

Future research will ideally determine other reasons for these common discrepancies, but in the meantime the apparent-age hypothesis explains them quite well. It does not account for all science findings, such as the different ages obtained from using a variety of radiometric tests on a single sample. Although the appearance-of-age belief may not currently be provable by science, it may, nonetheless, be the most reasonable conclusion from the few explanations that now exist. The fact is:

> no infallible, scientific young-earth or old-earth argument is known. That is, every old-earth argument has a young-earth rebuttal, and vice versa. What decades of research on chronology show is the difficulty in absolutely dating any aspect of the earth or the universe. There remains before us a wide spectrum of age interpretations depending on one's perspective (DeYoung, 2010, p. 58).

DeYoung adds that it is currently: premature to assume that any current creation model is the final word, including the mature option. Later research may show otherwise. The mature creation view does not scientifically explain all the difficult questions such as seeing detailed information in distant starlight, but this is not a sufficient reason to abandon or ridicule the position. Every model of origins, whether sacred or secular, has its full share of unanswered questions (DeYoung, 2010, p. 56).

Arguments Against this View

A common argument against this view is that it can be used to conclude that the universe is any age, even only two minutes old (Dembski, 2003). In fact, if the ex nihilo creation requires the appearance of age, how old the universe is (or anything else, such as how old all life actually is) is a separate question. If an ex nihilo creation is valid, this does not necessarily preclude determining the actual age of certain aspects of the universe and life in it by traditional empirical methods in conjunction with other sources of information, such as historical records. Use of different dating methods to determine the age of something is one method to determine its age. If the dates are consistent, this indicates, but does not prove, that the date determined may be valid.

For both life and nonlife, the concordance method may not be useful to determine the actual age. For example, many different tests on our one-day-old Adam would all point to a 20-year-old man; yet other tests, such as for atherosclerosis or DNA damage, may not be typical of a 20-year-old man. Just as all tennis balls must be round, likewise, all ex nihilo creations will have the appearance of age to one who assumes the object of interest is old. Even a wood pencil created ex nihilo would have the appearance of age, because pencils require growing a tree, then cutting it down, kiln drying the wood, shaping it into a pencil, painting it yellow, attaching an eraser and other requirements to produce a pencil.

Vern Poythress makes an excellent case for the appearance-of-age view, concluding that what he calls the mature creation view "is a clear and simple explanation for the conclusions of modern astronomy" as well as geology and even physics (Poythress, 2006, p. 116). He adds that the "universe appears to be 14 billion years old because God made it mature," and he also speculates that the "universe is coherently mature, in the sense that estimates of age deriving from different methods arrive at the similar results." On this point I am arguing that the universe appears old due to the constraints of creating a fully functional universe ex nihilo, but it will manifest some clear evidence of youth.

Miracles

The fact often ignored in the age debate, by both sides of the creation controversy, is that creation ex nihilo is not a natural process. Rather it is a miracle. Exploring miraculous events illustrates the problems of ignoring this fact. A good example of a miracle is an event often called the "most spectacular of Jesus' miracles," the resurrection of Lazarus of Bethany, the brother of Mary and Martha (Sanders, 1962, p. 103). Jesus raised Lazarus from the dead after Lazarus had been in the grave for four days, long enough for his body to begin major levels of decomposition. It is for this reason that the scriptural account describes his body as having a strong, unpleasant smell.

Both modern and ancient medicine would regard the resurrection of Lazarus as an impossible event, and this is likely the point of the miracle. Others Jesus raised from the dead had only recently died (namely, Jairus's daughter in Mark 5:22–43 and the son of the widow at Nain in Luke 7:11–17), and some argue that they were only in a coma from which they were revived. For this reason, some accept these events as historical because, they argue, those resurrected persons were actually not dead (Mark 5:39). Thus, what Jesus did was not a miracle and proved nothing about him except that he was a fraud.

Sanders (1992, p. 103) notes that many scholars argue that the raising of Lazarus involved such "formidable difficulties as to make it impossible to accept it as historical." But this is the point-when a body smells, it means that the stomach acids have begun to hydrolyze the body's internal tissues and that the intestinal bacteria has begun digest connective tissue and other body carbohydrates. However, writing books arguing that Lazarus's resurrection was medically impossible does not prove that the event did not occur, only that it was a miracle. This is the whole point of the account.

The creation of the earth presents the same situation. Science has some evidence that indicates the modern earth required 4.6 billion years to form naturally and, therefore, the earth's creation in a week is a far greater miracle than raising Lazarus and, consequently, is greater evidence of the Creator's power. Evidence that the earth must have required 4.6 billion years to form only supports the extent of the miracle of its creation. For this reason the creation is regarded as both the first and the greatest miracle of God (Gen. 1:1; 2 Peter 3:5).

Another example of a miracle is Christ's conversion of water into wine (John 2:7–11). Scientifically, this is impossible because water contains hydrogen and oxygen in a two to one ratio. Wine contains water, plus a carbonbased compound called ethyl alcohol or ethanol, and various flavors and other components. If a scientist discovered a simple way to instantaneously convert water into wine, it would prove that Jesus was simply a smart person, not a miracle worker as portrayed in the Scriptures. A key element in the story is time. Water can indeed be converted into wine, but in addition to time it requires grape vines, sunlight, a photosynthesis system,

a fermentation metabolic pathway, and the proper enzymes to catalyze the entire process. Scientifically, what Christ did was impossible, and again this is the point. Jesus performed a natural process instantaneously, not in a year or so as is normally required to produce wine from grapes using water.

If a chemist measured the molecular components of the wine that had never actually been converted from grape sugar by bacteria, the wine may even be identified as the product of a local vineyard, even though it had never been produced from harvested grapes. The reason is because *ex nihilo*-created wine would be expected to contain detailed chemical information, just as starlight contains spectral details (DeYoung, 2010).

Some argue that claiming a history for something that never happened, such as creating wine instantaneously, an entity that requires much history in order to be naturally produced, is deceptive. Creating wine from water was openly described as a miracle, and those who were familiar with the situation were not misled. In fact, the whole point of the event was to demonstrate God's power so that those reading about the event would know the wine was not made from grapes. It had no history but rather was a miracle that lacked a history. This was a purposeful communication of power and divinity.

As it is a "strain to fit the history of the world into a biblical 6,000 years" (Gardiner, 2009, p. 132), it is also a strain to convert water into wine in a few seconds, or to turn back the clock on a dead man. If these events actually occurred, as the Bible and Christians have believed for 2,000 years, all these events are miracles. To be consistent, all miracles should be accepted, or all of them should be rejected. Many Christians reject the latter view but rather attempt to divide miracles into the "easier" miracles such as changing water into wine—and more difficult miracles, such as the resurrection of Lazarus. Most often, though, all Biblical miracles are divided into the most difficult miracle, *ex-nihilo* creation, which many Christians reject, and all other miracles, which many Christians reason could occur, such as the resurrection of the dead.

Is God a Deceiver?

A major objection to the appearanceof-age theory is that if God made the earth appear older than it actually is, then He has deceived us because the earth is not, in fact, as old as it appears. Haarsma and Haarsma wrote that the appearance of age:

> would mean that God embedded in the universe a host of evidence that indicates a long, richly detailed history that never happened. Sedimentary layers look like they formed in a muddy sea bottom, except the sea never existed. ... Igneous rock layers look like they were formed from repeated volcanic outflows, but the volcano never erupted. Would God have created the earth with evidence of a rich, complicated history that is completely false? ... this seems dishonest. ... Of course, God is omnipotent and could have created it this way if he chose, but the Appearance of Age Interpretation seems inconsistent with what we know about God as taught in the rest of the Bible. "The heavens declare the glory of God" (Ps. 19:1). This verse and many other Scripture passages teach that God reveals himself to us truthfully through the natural world (Haarsma and Haarsma, 2007, pp. 93-94).

They conclude by asking, "Would God really ask us to believe the earth is 10,000 years old in spite of abundant geological evidence that it is billions of years old?" In response to this query Sibley wrote:

God did not deliberately set out to create things that look old, but that

in creating he made things complete and whole; thus Adam and Eve, the animals and plants were created as mature entities having the appearance of age, not because of a desire to deceive on God's part, but out of his sovereign choice to make beings with physical maturity, an entirely sensible decision bearing in mind the need for parental care towards the immature (Sibley, 2009, pp. 94–95).

Kyle Butt concludes that the deception claim would be valid except that:

> God told us what he did! He did not leave us in the dark or try to "trick us" or "test our faith" by hiding from us important information that He knew we would need. Rather, He was very straightforward and honest with us. Considering the material found in the first eleven chapters of Genesis (and elsewhere throughout the Bible), no one can justifiably accuse God of deception (Butt, 2002, p. 40-R).

Conversely, John Morris adds that if "scientists extrapolating present process are right and the universe is old, then God has lied to us, for He clearly said He created all things in six days, not too long ago" (Morris, 2010, p. 15). Mature creation is deception only if one outright assumes that the apparent age is fact. When Eve was created, Adam would have known exactly how old she was. God could not be accused of having deceived Adam because Eve looked like an adult female, and anyone who did not know how old she actually was would judge her to be an adult. This observation also applies to the whole age controversy. In answer to the question "How old is the Earth?" Butt notes that no one knows the exact age of the earth but by:

> using biblical chronology, a person can calculate the age of the Earth to be in the neighborhood of 6,000 years old. "But the Earth looks millions of years old," some people

have protested. There are at least two responses to such a statement. First, one might ask: "Compared to what; what does a young Earth look like?" We obviously do not have another Earth that we know is younger than this one, so how would we know what a young Earth looks like. Second, it should not surprise us if science occasionally calculates older dates for the Earth, due to a concept known as the "doctrine of apparent age" (Butt, 2002, p. 40-R)

The fact is, not one functional thing exists that could be created ex nihilo that would not have the appearance of age. Even a simple rock created ex nihilo would appear to be very old. For example, an igneous rock such as granite that was created instantaneously would manifest evidence of a past molten state even though it did not form as a result of solidification from a once molten state. Even a single molecule, such as a monatomic molecule of osmium, that was created instantaneously would have the appearance of age (including the time required for nucleosynthesis by a supernova event, ejection from the nova, a journey in space, accretion and, finally, becoming part of planetary formation).

The History of the Concept

Mature creation was a common conclusion of many early Bible scholars and theologians. Philo of Alexandria (c. 20 BC—AD 50) wrote that when God created the universe He "produced the whole race of trees out of the earth in full perfection, having their fruit not incomplete, but in a state of entire ripeness, to be ready for the immediate and undelayed use and enjoyment" of the animals (Yonge, 1993, p. 7). Saint Basil of Caesarea (c. AD 330—379) wrote:

> In a moment earth began by germination to obey the laws of the Creator, completed [in] every stage of growth, and brought [seed] germs

to perfection. The meadows were covered with deep grass, the fertile plains quivered with harvests, and the movement of the corn was like the waving of the sea. Every plant, every herb, the smallest shrub, the least vegetable, arose from the earth in all its luxuriance. There was no failure in this first vegetation: no husbandmans inexperience, no inclemency of the weather (Schaff and Wace, 1978, Vol. 8, p. 78).

Although the appearance-of-age view dates to Biblical times, the most widely known exposition of the idea by a scientist was by the respected naturalist and eminent zoologist, Philip Gosse, a Fellow of the Royal Society. In 1857 he published a book titled *Omphalos*, Greek for "belly button," referring to the idea that Adam would have a belly button even though he was not born of a woman. Gosse, an accomplished author, illustrator, and researcher, provided numerous examples that he believed supported the idea of the appearance of age.

In Omphalos Gosse asked, "Would the earth and all its various interconnected systems look different than they do now if the world was created in an instant by a single creative act?" To explore this question, Gosse took an imaginative journey back to the earth's creation, examining what existed then. For example, he explored whether the instantly created trees that sprouted from the ground at the creation had rings or seeds. He also wondered which came first, the chicken or the egg, concluding that the only possible answer is that both must have been created at the same time, namely a chicken that contained an egg, which needed to be fertilized to produce another chicken.

He documents that every living and nonliving thing in the world is part of an interconnected temporal system, and its four-dimensional nature goes to its very core. Nature cannot be created *ex nihilo* without creating everything, including time, *ex nihilo*, and it must have been created as a functioning system just like Adam's body.

Gosse's main argument is that *if* the world was created out of nothing by an act of creative power, *then* there could exist no physical evidence of the point in time at which that creation took place. The world is like a spinning top and, if it was created, it must have been created spinning, and no finger marks will be on it, nor any evidence of an outside cause of its acceleration. It will start its existence spinning as if it had spun for some time before it was actually created. Haarsma and Haarsma (2007, p. 93) wrote that this:

> interpretation says that God really did create the earth in six twentyfour-hour days less than 10,000 years ago, but God constructed it to *look* ancient. Appearance of Age was suggested as early as the 1800s and is still advocated by some.

As we have documented, God did not construct it to look ancient, but creation *ex nihilo* and miracles require the appearance of age. If creation *ex nihilo* occurred, the appearance of age must follow. Furthermore, this interpretation goes back to long before Christ walked on earth and was not originated in the 1800s.

Life and Information

Both the plant and animal kingdoms manifest enormous complexity and information in their genetic codes, but this order and information must preexist if the animal or plant inherited it and passed it on through reproduction. Except for the "world" made by humans, the natural world operates according to preexisting physical laws and previous events. The living world, which we are only now beginning to understand, represents a level of design and complexity based on information existing in the genetic code that is found nowhere else in the nonliving world. Hence, the rationale for the belief that the living world could not have evolved from the nonliving world but must have been created *ex nihilo*, either here or somewhere else in the universe (Hoyle, 1982, 1983). Harvard molecular biologist, Dr. Edmond Kornfield, stated over a half century ago that in his scientific work he has frequently:

> been overwhelmed by a sense of the infinite wisdom of God. So highly intricate are the organic and biochemical processes functioning in the animal organism, that ... one is rather amazed that a mechanism of such intricacy could ever function properly at all. All this demands a planner and sustainer of infinite intelligence. As I continue my labors, my belief in God is progressively strengthened and the attitude of unbelieving colleagues, anywhere in the world, becomes more and more an inexplicable conundrum. The simplest man-made mechanism requires a planner and a maker. How a mechanism ten times more involved and intricate can be conceived of as self-constructed and self-developed is completely beyond me (Kornfield, 1958, p. 176).

The enormous amount of genetic information that is translated into the complexity evident everywhere in the living world is far beyond that found in both the nonliving and human-manufactured world. In spite of this fact, some still argue that humans are a mere "glorious accident" (Kayzer, 1997). Products produced by the nonliving world (such as smooth stones polished by moving water) could never produce either plant or animal life because all life is based on enormous amounts of information, and the parts produced by that information must be assembled according to a designed plan in an environment, such as a certain ecosystem, that supports life (Schroeder, 2001; Yockey, 1992; Behe, 1996). Likewise, the universe contains clear evidence of design that indicates

it was assembled to support life. This design is logically explained as the result of an *ex nihilo* creation of complete functional units.

The view that the universe had to be assembled instantaneously in order to function does not argue against the models articulated by Russell Humphreys and other cosmologists, but is a factor that can be considered when evaluating both the empirical data and other models. Humphreys (1994) concluded that when God created the stars, some were created with the appearance of an age of billions of years, i.e., they were created "fully grown," having all the characteristics of being mature—without having existed for billions of years to become mature naturally.

In researching this paper much support for the appearance-of-age view was located. One of many examples is University of Pittsburgh professor of astronomy David Snoke, who concluded, " I view the idea of 'apparent age' as viable in regard to the creation" of the earth and the universe, and cited many Scriptures that support this view (Snoke, 2006, p. 174). Even secular support was noted. One evolutionist, Professor John Wagner, wrote:

> Most undergraduate students take geology courses as the perceived least painful option to fulfill their institution's general education laboratory science requirements ... Many of these students, especially in large state-assisted schools ... bring religious viewpoints and perspectives to their studies which espouse profoundly negative views about evolution and the geologic time scale. Students in this category will grudgingly memorize the minimum amount of geological information they need to pass the course, but will let the instructor know that they don't believe a word of it is true. This type of situation doesn't help the student, the class morale, or the greater goal of scien

tific literacy for all people (Wagner, 2005, p. 194).

The solution that he found very successful in both physical and historical geology classes is:

> to introduce the concept of apparent age prior to discussing the geological time scale or the age of the earth in the lecture setting. By acknowledging up front that special creation is a possible option, so long as that creation carries the imprint of apparent age, the tension among students is relieved and geological processes and concepts can be investigated in good conscience based on the apparent age of rocks, fossils, or landscapes. With students no longer on the defensive, they are free to study geology without feeling like they are betraying their religious faith (Wagner, 2005, p. 194).

For Further Research

This paper can only briefly introduce the topic. Questions for further research include whether a mature creation would include fossils (I believe it would not), whether the Fall caused a change in the apparent history of the world, and whether mature creation could account for some of the evidence for a universal Flood. At least three levels of the mature creation view exist: (1) a minimalist or functional view, the view generally advocated in this paper; (2) a total view such as promoted by Phillip Henry Gosse, who argued that everything from tree rings to fossils were created-nihilo; and (3) a partial view as promoted by Henry Morris, which takes a middle-of-the-road position between these two views. These basic views are summarized by Rusbult as follows.

• Minimal Apparent Age: this theory limits the appearance of old age to those features necessary for immediate functionality, including sunlight that was created in transit to the earth.

- Total Apparent Age: This view argues that God created a universe with a complete apparent history, with accurate data (including nonessential details) about what would have happened since the beginning. If current theories of astronomy are correct, God created a universe that looks exactly the same as if it had been created by a big bang billions of years ago.
- **Partial Apparent Age**: This inbetween view concludes that some nonessential apparent age exists but not a total apparent history (summarized from Rusbult, 2004, p. 1).

Another concern is that although we estimate the age of something based on certain assumptions of how it came to be, not simply by its appearance, different assumptions lead to vastly different age estimates, regardless of the appearance of the object in question. Assumptions that involve dating objects need to be evaluated in more detail. All of these topics require another paper, ideally a Ph.D. thesis, and involve many nonscientific assumptions that go beyond the scope of this review. Some of these questions cannot be answered scientifically, such as "Did Adam have a navel?" because we do not today have a body to examine. At this time the answer to this question is a matter of belief, some concluding because Adam was perfect he must have had a navel and others concluding that since he was not born of a woman he could not have had a navel.

Summary

This paper has argued that the appearance-of-age concept is a viable hypothesis for explaining the existence of life and, possibly, even the physical universe that must be considered when researching the age problem. If historic creation *ex nihilo* belief is true, the appearanceof-age conclusion *must* also be true: "A real creation [*ex nihilo*] would of necessity require that some aspects of the universe would have come from the hand of its Creator with an appearance of age" (Reymond, 1998, p. 396).

The creation of the universe and life is by far the greatest miracle ever and provides the best and most impressive evidence of a miracle by a miracleworking Creator. Notice that *ex-nihilo* created reality tends to give false age estimates only if we assume they were not supernaturally created. The problem is that scientific attempts to estimate the age of something involve not only present measurements, but also assumptions about the history of the object in question. As Haarsma and Haarsma (2007, p. 93) note, the appearance of age theory:

neatly avoids all conflict between what nature says and what Scripture says about natural history. Unlike other concordist interpretations, the scientific evidence cannot disprove this view: whatever science finds is the way God made it appear. Thus no scientific problems arise with this view.

Furthermore, "those who favor a mature creation are in good company. It is a historically-rich position as demonstrated by many Bible scholars, past and present" (DeYoung, 2010, p. 59).

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