

IS GOD GUILTY OF FRAUD?

Chapter 7

Science and Faith

People live in a competitive world, even those who do not like to “compete.” From young ages, people play games and sports, engaging in friendly, and not so friendly competition. Winning and losing are deeply imbedded in the human psyche. The Darwinians will go so far as to say that competition is in the DNA. Citing “natural selection” a core tenet of evolution is the competitive idea that those who are most fit for the day and age will outlast and survive those less fit. The famous British biologist Hebert Spencer (1820-1903) called this, “survival of the fittest.”

Into this reality that readily finds things in competition, comes the issue of God and the corresponding relationship between faith and science. Some believe that faith is averse to science, as if the two convictions are in competition. Often prominent atheists list faith as a concept that can’t co-exist in science. Richard Dawkins goes so far as to claim that, “faith is belief in the teeth of evidence.”¹ He, and many others, set faith on one side of a teetertotter and science on the other. For Dawkins, the “science” side of the teetertotter is heavily loaded with “evidence,” i.e., “fact,” while the “faith” side is whisper thin, a vapor holding only wishful and fanciful thoughts of the uninformed and deceived.

The Cynic’s Competitive View

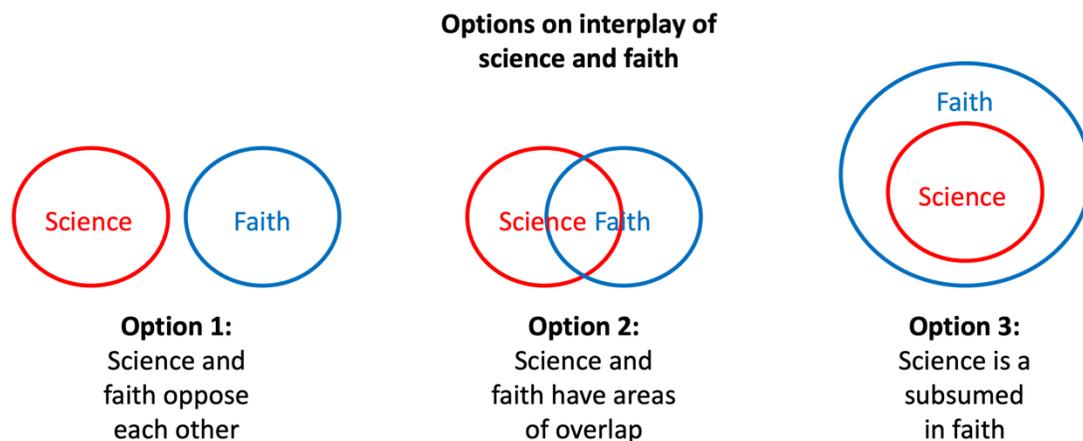


¹ Dawkins, Richard, *The Selfish Gene* (Oxford University Press, 2006), p 198.

Some are even more blunt in ascribing an adversarial posture between faith and science. Alex Rosenberg wrote *The Atheist's Guide to Reality: Enjoying Life without Illusions*. Admittedly, this book is a textbook example of fallacious reasoning that employs “confirmation bias” on steroids, but without going into criticizing Rosenberg’s reasoning, which could be done in volumes, rather than a chapter, simply consider his claims.

An unblinking scientific worldview requires atheism... [T]he claim that religion and science don't compete is good politics. It's also confused.²

One can chart three options of interplay between science and faith. Science and faith can exist in different worlds and circles. Science and faith can have independence but have areas of overlap. Or, science and faith can be subsumed by faith. (Some might argue that faith can be subsumed by science, but few would posit that position.)



Rosenberg asserts option one, arguing that science is truth and faith is illusion. For Rosenberg, to the thinker, Science is the only circle on the page as the faith circle evaporates to any serious thinker. A fundamental mistake among those made by Rosenberg is his failure to fairly understand faith and what it says about science.

To best chart through these views of science and faith, and to best understand the Biblical view of science and faith, it is helpful first to set definitions of certain terms.

² Rosenberg, Alex, *The Atheist's Guide to Reality: Enjoying Life without Illusions* (Norton & Co., 2011), p 7, 13.

DEFINITIONS

Faith

In the context of this book, “faith” is used in the Biblical context. This “faith” is a conviction that God exists both outside the universe (the “transcendence” of God discussed earlier) and within the universe (including the “immanence” of God discussed earlier).

Biblical faith extends to an acceptance of the truths set out through a proper reading of the Bible. The Bible is, in some ways, a complicated collection of books written over a thousand-year time span, from innumerable cultures in ancient languages. It was written for a variety of purposes to a variety of audiences with a variety of mindsets. For any reader to read the Bible ignoring these truths about the composition of the book is to risk severely misreading it. The Bible must be read within its own confines before trying to expand its meaning to our language, thoughtforms and culture of today.

Science

From its earliest roots in the Latin *scientia* (“knowledge” or “understanding”), “science” is the study of physical reality to arrive at reliable knowledge. In the age in which we live, that is most reliably done by observation, the forming of an hypothesis, the testing of that hypothesis, and drawing conclusions following the hypothesis testing, commonly called “the Scientific Method.”

Worldview

A German word, *weltanschauung*, is defined by Merriam Webster as “a comprehensive conception or apprehension of the world, especially from a specific standpoint.”³ That definition fits into the idea of what is meant in this work by “worldview.” A “worldview” is the conception that one holds that has ramifications and implications for any aspect of viewing reality. The logic flows from this view into many aspects. For example, the worldview of Rosenberg allows him to give short answers to key persistent questions of many. Since Rosenberg believes that science is full reality and there is no God or anything beyond science, he gives a list of common questions and answers that come from his worldview:

Is there a God? No.

What is the nature of reality? What physics says it is.

³ "weltanschauung." *Merriam-Webster.com*. 2019. <https://www.merriam-webster.com> (23 May 2019).

What is the purpose of the Universe? There is none.

What is the meaning of life? Ditto.

Why am I here? Just dumb luck.

Does prayer work? Of course not.

Is there a soul? Is it immortal? Are you kidding?

Is there free will? Not a chance!

What happens when we die? Everything pretty much goes on as before, except us.

What is the difference between right and wrong, good and bad? There is no moral difference between them.

Why should I be moral? Because it makes you feel better than being immoral.

Is abortion, euthanasia, suicide, paying taxes, foreign aid, or anything else you don't like forbidden, permissible, or sometimes obligatory? Anything goes.

What is love, and how can I find it? Love is the solution to a strategic interaction problem. Don't look for it; it will find you when you need it.

Does history have any meaning or purpose? It's full of sound and fury, but signifies nothing.

Does the human past have any lessons for our future? Fewer and fewer, if it ever had any to begin with.⁴

This worldview is a good snapshot of one that exists apart from faith. It gives its meaning and draws implications from science *sui generis*.

The Biblical worldview, in contrast, is starkly different. It answers the questions posed by Rosenberg with almost diametrically opposed answers:

Is there a God? Yes.

What is the nature of reality? Physical reality is what physics says it is. Non-physical reality also exists beyond the realm of what we see, smell, hear, taste, and touch.

⁴ Rosenberg, at 20-21.

What is the purpose of the Universe? To show God's glory while giving humanity a chance to fulfill its purpose.

What is the meaning of life? To live in relationship with the divine creator to his glory and to humanity's benefit.

Why am I here? Ditto.

Does prayer work? Yes.

Is there a soul? Is it immortal? God created souls. God can also destroy them (Mt. 10:28).

Is there free will? Absolutely!

What happens when we die? There is a transient period when disembodied souls commune before God or in darkness and torment (Heb. 11:1-12:1; Lk. 16:19-31; Rev. 5 and 6). Subsequently comes a final judgment when those who belong to Jesus are raised in an imperishable body (1 Cor. 15:23, 42-58).

What is the difference between right and wrong, good and bad? Right and wrong draw their definition from the morality of God. What God would do in the same circumstances we call "right" and what God would not do we call "wrong."

Why should I be moral? Because this world is set up where doing God's will works out best.

Is abortion, euthanasia, suicide, paying taxes, foreign aid, or anything else you don't like forbidden, permissible, or sometimes obligatory? See the previous two questions.

What is love, and how can I find it? This depends on the definition. Love of a good meal is different than love of a soul mate which is different than love of a parent or child, which is different than love of one's country or favorite sports franchise, etc. If speaking of "true love" that forms the basis for romance and relationship, then love is the decision to put another's interests ahead of, or in line with those of your own. It is the caring that comes in cultivating this decision, often regardless of feelings. This love is found through investing in people. Where you spend your time, you money, your emotion, give of yourself, you will find your heart in love.

Does history have any meaning or purpose? It teaches certain truths from which we can learn. It also gives context for better understanding today.

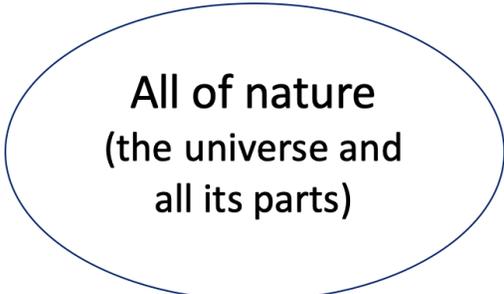
Does the human past have any lessons for our future? Yes. See previous answer.

Miracle

If we consider a normal definition of a “miracle,” it would generally point to an event experienced in life that came about through a measure of divine intervention. If one looks carefully at Scripture, however, one sees a bit of distinction between different types of miracles or divine intervention.

The miraculous events that stand out most readily are those of some event that could never have happened absent divine intervention. Consider nature as God’s creation set up and following the laws of physics. Add to this understanding that God exists independent of nature.

GOD



**All of nature
(the universe and
all its parts)**

Nature on its own runs according to the laws of physics as God has set the cosmos into motion. This is a universe of cause and effect. On an individual level, this means if I drop my pen, unless some force intervenes, gravity will take that pen downward until it rests on a surface (the ground, a floor, a rug, a desk, etc.)

I liken the idea of nature unfolding into history with the image of a tapestry. The tapestry is woven of various threads or yarns with different colors. As time passes, threads called the laws of nature and the actions of people weave a tapestry that becomes stable and is called “history.” This is the normal course of events, and it occurs without regard to God entering the picture.

However, when God enters the picture, things change. God can enter the picture in one of two ways. One is by interjecting himself into the flow of nature in a way that could not be replicated by anyone or anything. This is something brand new that

God brings into the picture. An example is the virgin birth. One minute Mary was not pregnant and the next minute she was. This pregnancy was not a result of any human action and didn't occur by the laws of nature. It was a miracle. It is as if God took his finger from the supernatural/outside of the universe realm and reached into this cosmos causing something brand new. In the tapestry example, this was God introducing a brand-new thread that was never present before in the tapestry. Of course, once Mary was pregnant with Jesus, the laws of nature continued and Jesus became part of the tapestry (or the cosmos). Then Jesus' actions weave into the fabric of history and are subject to the laws of nature. This type of interaction between God and the cosmos is what most people think of as a "miracle." It is God creating the universe out of nothing. It is Jesus healing the lame without regard to medical intervention. It is the resurrection of Lazarus from the dead. But these are not the only way God intervenes in history.

The Bible teaches that God violating the laws of nature is not normative. God usually works in nature using the laws of nature as he designed them to achieve his purposes. This is a second type of miracle, and the one that the Bible shows most prominently. This type of miracle is akin to God taking the threads in a tapestry and changing the way those threads are woven to provide an alternate end product.

From cover to cover, the Bible is replete with examples of these miracles. When Abraham sent his servant to find a wife for Isaac, Abraham's son, the servant prayed for God to intervene, but not by miraculously making a woman out of nothing. The servant sought God to use what was already present in the cosmos to provide the appropriate wife for Isaac.

And he said, "O Lord, God of my master Abraham, please grant me success today and show steadfast love to my master Abraham. Behold, I am standing by the spring of water, and the daughters of the men of the city are coming out to draw water. Let the young woman to whom I shall say, 'Please let down your jar that I may drink,' and who shall say, 'Drink, and I will water your camels'—let her be the one whom you have appointed for your servant Isaac. By this I shall know that you have shown steadfast love to my master." (Gen. 24:12-14).

Before the prayer was over, God answered the prayer, sending Rebekah with the very words set out in the prayer.

This type of miracle/divine intervention doesn't happen only relative to prayer. Several chapters later, in Genesis 26, a famine besets the land. God could have created some grain from nothing. Or God could have provided rain in the area for Isaac and his family. But instead, God used what was there and operated within the rules of physics to tell Isaac to stay in the land of King Abimelech rather than going to Egypt, with the promise God would bless Isaac there.

God teaches over and over in Scripture that this world is a world of rules and consistency. The Bible never portrays the world as a Harry Potter existence of hocus pocus and magical spells. Does this mean that there is a natural explanation for all miracles? Of course not! God can work miracles in any way he chooses. However, the Biblical example is one of God performing most of his miracles by working within nature rather than contrary to it.

God's work in the natural order of things can be spiritual or physical. In the physical world, he can move atoms about (or create or destroy atoms) contrary to the laws of nature. He can also move atoms about through the laws of nature. A movement of atoms need not be contrary to the laws of nature to be moved by the hand of God. There came a point in history when God was going to send the nation of Israel into exile, stripping them of their native land for several generations. God could have exiled Judah in violation of nature's laws simply by a Star Trek-esque beaming of Judah into Babylon. Instead, the Bible makes clear that God used the Babylonian king Nebuchadnezzar as a tool in executing the exile. This was God working in and through the natural order of things, but it was no less an act of God.

God's hand works miracles both in the natural order by using nature within its laws, as well as by instigating something contrary to the laws of nature. We err if we consider only the latter a miracle. After all, from a Biblical perspective, God is responsible for the laws of nature. The laws that govern this material world are laws established by God, and the usage of those laws by his hand is no less a miracle than altering those laws.

With these definitions, the Biblical view of science can best be set out, considering the "problem" that comes about from a distorted Biblical view of science and then the Biblical perspective with its ramifications on issues of medicine, ethics of modern science, creation vs. evolution, and more.

THE PROBLEM

I am not a scientist. I am a lawyer by trade, a husband and father by practice, and one who dabbles in many areas by hobby. Even though I am not a scientist, my life is affected by science all day long. I am typing this lesson on my laptop, a product of great scientific work. I am sitting in a Chick-fil-A. The lights overhead, the air conditioning, the Styrofoam cup holding my drink, and the car I drove here are all products of science. Science infuses almost every aspect of my life, even though I am not a scientist. I may not think in terms of science, but the thoughtful and rational manipulation of nature is central to my existence.

Where was faith in all of this? Some might say, I had faith in getting into the car and starting it. I didn't rationally think it through, I just got in trusting and expecting

it would work. That may be called “faith,” but it is faith in science, not God. So the more specific question is, “Where was faith in God in all of this?” (It should not be lost on the reader that faith in God is what drove me to get up and take my computer to Chick-fil-A to type on this lesson. But more on that later...)

Many may not be thinking in terms of “science” and “faith,” especially those who aren’t involved in the disciplines of either subject, but even the most non-scientific or non-believing person has times where she or he considers the interplay of faith and science. For some, that happens when growing up, trying to understand who we are and where we came from. For some, that happens when faced with a health crisis, trying to figure out what to do while desperately scared, staring mortality in the face.

These two areas of evolution and medicine are prime candidates for understanding the issues that are often placed at opposite ends of the teetertotter.

Evolution or Creation

How did we get here? From an earliest age, most everyone asks that question. As young children become self-aware, and as they enter the inquisitive stage, many ask their parents, “Where did I come from?” The parents then begin the process of explaining on some level how children come to be. Before long, the question gets dated further back. The question is no longer, “How did *I* get here?” but becomes, “How did the first person get here?” For some extra bright or well-informed kids, it might even be, “How did the first *two* people get here?”, recognizing it takes two to produce offspring.

This question can get answered in a variety of ways, but ultimately most teach a child either that humanity evolved from some primates we typically call “apes,” or that humanity was created by God. The questioning doesn’t always end there either.

For those parents who say that people came from apes, the logical question that follows is, “Where did apes come from?” This begins the succession of answers that chart the current version of the evolutionary chain taking humanity through apes, through uncountable genetic alterations, until one has a fish climbing out of the sea. The questioning continues back further until some pre-life soup of wet chemicals forms protein strands that are charged to life in some way. (Although in fairness, some well-informed parents might have an asteroid landing on earth at the right place and time bringing some progeniture of primitive life to seed the earth. Of course, then one must ask where the asteroid got the seeds of life.) Eventually, one works back through cosmic stardust, assembling the universe itself from some compact substance that exploded in a big bang, hurtling matter throughout space.

The musings on the genesis of the matter that exploded in that big bang is still debated among the cosmologists.

For those parents who say that God created life, the questioning doesn't always end either. I can remember in third grade asking my mother, "Then where did God come from?" My wise mother answered, "That is part of what God is... one who isn't created, but one who has always been." When I expressed that I didn't understand that, mom added that I was created, so my mind had trouble comprehending one who wasn't created. On a very basic level, my mom was teaching me the idea that God exists outside of this creation, so the creation becomes an expression of work by God, rather than something self-generated.

Many think that the choice between evolution or creation is synonymous with the choice between God not existing or existing. If evolution happened, the reasoning goes, there must be no God. If there is a God, then creation is mandated. However, this reasoning is not the necessary conclusion of a fair reading of the Bible, nor necessarily of science, as I will discuss later in this chapter.

Medicine

Another way faith and science are set against each other is found in the realm of medicine. When one is sick, should one find solace and healing by faith or by medicine? Does one simply need to pray and trust God, or does one need to go to the doctor and leave prayer behind?

The Bible is replete with examples of people being healed by God. Consider Matthew's gospel recounting key moments in the life and ministry of Jesus. Matthew starts with Jesus's genealogy and birth. Shifting nearly 30 years, Matthew then sets out the calling of Jesus into ministry and the temptations to choose another path in life. Jesus chooses the path of God, and Matthew then gives a summary verse of Jesus' life:

And he went throughout all Galilee, teaching in their synagogues and proclaiming the gospel of the kingdom and healing every disease and every affliction among the people (Mt. 4:23).

Matthew expands that summary station with Jesus teaching in the Sermon on the Mount, followed by Jesus healing disease and affliction. In the first chapter after the Sermon on the Mount, Jesus heals a leper, heals a paralytic, heals a woman who lies sick with a fever, and brings sanity to a man demon-possessed. In the midst of all that healing, Jesus also takes on the physics of nature, calming a great storm that threatened his boat.

All of those are miracles, and most seemed tied in some way to faith. The storm that threatened Jesus and his followers was a concern to the scared disciples because they were “of little faith” (Mt. 8:26). The paralytic was healed with Jesus remarking at the faith of the one asking for help. Jesus healed the paralytic at the moment of Jesus’ explaining,

“Go; let it be done for you as you have believed.” (Mt. 8:13).

As a result of these and many other passages, various people have developed religious beliefs that set up a conflict in treating medical conditions that are at odds with the best understanding of doctors and the medical community. A 2005 study published in the *Archives of Internal Medicine* noted that,

Conflict introduced by religion is common and occurs in 3 types of settings: (1) those in which religious doctrines directly conflict with medical recommendations, (2) those that involve an area in which there is extensive controversy within the broader society, and (3) settings of relative medical uncertainty in which patients “choose faith over medicine.”⁵

In the first category of conflict, the most cited example were Jehovah Witnesses refusing to allow blood transfusions believing it against Scripture. The second category of conflict were ethical decisions about ending life or dealing with pre-natal problems in consideration of terminating a pregnancy when one knows the child will be still born or will die briefly after birth. But the largest area of conflict was found in the third category.

The most frequently described domain for conflict is one in which a patient expresses no moral objection to the therapy offered but still “chooses faith over medicine.” “I have had patients,” the theme went, “who, when faced with a diagnosis that there was a traditional treatment for, chose instead to rely on faith and prayer [interview 15].”

The doctors described patients who “trust God more than they trust us.” One example was a patient who refused a colonoscopy after hundreds of polyps were revealed by screening, “because she and her daughter believed in the power of prayer.” Others refused or delayed treatment for conditions believing, “It’s in God’s hands.” Some refused important tests explaining, “I know God will provide – I don’t need that test.” Some put off tests. One doctor told of the problem of a lady diagnosed with breast cancer who declined treatment, choosing instead to simply pray on it. The doctor found that tragic, knowing that six months would dramatically change the profile of what might be done medically for the woman.

⁵ Farr A. Curlin, MD; Chad J. Roach, BS; Rita Gorawara-Bhat, PhD; et al, “When Patients Choose Faith Over Medicine”, *Archives of Internal Medicine* (Jan. 10, 2005), p 88.

These are issues that should be confronted by people of faith. We should consider what we believe is the correct course of action in the midst of medical decisions. But at the center of this is the first basic question: where is God in all of this? Does God direct us to be “people of faith” instead of “people of medicine or science”? Or is this a false choice? I believe this is a false dichotomy. Faith versus science should not exist in competition. The Biblical view has those two on the same team. Faith and science sit on the same side of the teetertotter.

A BIBLICAL VIEW OF SCIENCE

A proper Biblical view of science rightly finds itself in the early chapters of Genesis, but not necessarily the way one might think! An often overlooked passage presenting the roots of the intersection of humanity and science find is found in the story of the Garden of Eden and the fall of Adam and Eve.

The storyline is well known, but a few details aren’t always clearly emphasized. God has created Adam and placed him in a lush garden. God then gives Adam a clear charge:

The LORD God took the man and put him in the garden of Eden to work it and keep it (Gen. 2:15).

This was humanity’s responsibility. It was two-fold. Humanity was to “work” the garden and “keep” the garden. The Hebrew words are instructive. Working the garden is the Hebrew verb *avad* (עָבַד). This verb speaks to laboring, like tilling a field or tending a vineyard, but it also speaks to serving, as one might be called to serve God.⁶

Humanity’s charge from the beginning was to do that work in the world that under service to God, would bring about the fruits of nature. The charge, however, wasn’t simply to work the earth, but also to “keep” it. The Hebrew word translated “keep” is the verb *shamar* (שָׁמַר), often the first verb Hebrew students learn when conjugating verbs! This word also has a broad semantic range, speaking to one having responsibility or charge over something (the garden, a flock, etc.). But importantly, it also speaks of one watching or observing something with intelligent reasoning. Consider the word in these two contexts (the Hebrew verb *shamar* is italicized and bolded for clarity):

⁶ Brown, Francis, *The Brown, Driver, Briggs Hebrew And English Lexicon: with an Appendix Containing the Biblical Aramaic: Coded with the Numbering System from Strong's Exhaustive Concordance of the Bible*. (Hendrickson Publishers 1996), “עָבַד”.

1. Jacob tells his father-in-law that as a part of a deal for a daughter in marriage, “I will again pasture your flock and *keep* it” (Gen. 30:31).
2. The priest Eli watches the barren mother of Samuel praying for a child, “As she continued praying before the LORD, Eli *observed* her mouth.” (1 Sam. 1:12).

In the first passage above, one readily sees the idea in the verb being to have charge over a flock, tending to their care. But in the second passage, one sees the struggle translating the verb as “keep” because the usage there is more oriented to the idea in the verb of “watching carefully and with intelligence.” Of course, if one is to properly tend to sheep, one must be watching them carefully and thoughtfully, but we lose that aspect of the word if we aren’t careful.

Understanding this fuller sense of the word often translated “keep,” helps inform other passages of Scripture as well. Isaiah frequently uses the word and it is translated as “watchman” (e.g., Isa. 21:11-12). One who “keeps” is one who watches carefully and thoughtfully. Isaiah even comments that there are those who see things, without “observing” (the Hebrew word for “keep”) them, paralleling it to people who hear things but don’t pay attention (Isa. 42:20). Isaiah’s usage of the word shows how a guard or watchman should properly see the issues outside the city gates and intelligently assess them before acting. Maybe the people at the gate are safe, and the gates can be opened. Or maybe those outside the gate are enemies, and the gates should stay closed.

In the full sense of *shamar*, humanity is instructed from the beginning to not only work in the earth, but to intelligently observe the earth as a part and parcel of working it. To a scientist, we can perhaps best translate this Hebrew idea of *shamar* in ways that echo typical language of the “scientific method.”

The “scientific method” is the method that is given to scientific discovery and processing often dated back to the 17th century, if not earlier. Although philosophers of science debate the merits of details within the scientific method, the general approach of “(1) observation, (2) hypothesis, and (3) testing” as the method is taught today in most every scientific textbook.⁷

The charge of Adam to “keep” the garden includes the ideas of “observing” the garden intelligently, with any eye toward doing the work necessary to keep the garden in its fullness.

The backdrop for science in our world today grows as we consider the later development of the account of Adam and Eve. As mentioned in earlier chapters,

⁷ A good review of this is found in, Blachowicz, James, “How Science Textbooks Treat Scientific Method: A Philosopher’s Perspective”, *The British Journal for the Philosophy of Science* (June 2009), pp. 303-334.

Adam and Eve chose to disobey God, bringing sin and its consequences to the forefront. God had warned them not to eat of the tree of the knowledge of good and evil. As the ESV translates it,

Of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall surely die (Gen. 2:17).

Without burdening the reader too much with Hebrew, the word translated “day” (*yom* - יוֹם) has a full range of meaning from an actual 24-hour day to an “age” or “era.” One may fairly see it as a period of time. God instructed, and as the story unfolds we see, that eating of the forbidden fruit would bring about an age of death. That era of death is where humanity lives from the expulsion of the garden until today. This is a critical underpinning to a Christian view of science and worthy of unfolding a bit more.

The consequences inherent in the world in the era of death are found in the things around us as well as the implications of those things on humanity. No longer are we fully in control of nature, working and keeping it. Now we are often at its mercy. As God explained the curses that sin brought forth in the age of death, pain is present and multiplied in childbirth, the toil associated with bringing food from a cursed land of death is greatly multiplied as well, and ultimately, people will die.

To the woman he said, “I will surely multiply your pain in childbearing; in pain you shall bring forth children.... And to Adam he said, “Because you have listened to the voice of your wife and have eaten of the tree of which I commanded you, ‘You shall not eat of it,’ cursed is the ground because of you; in pain you shall eat of it all the days of your life; thorns and thistles it shall bring forth for you; and you shall eat the plants of the field. By the sweat of your face you shall eat bread, till you return to the ground, for out of it you were taken; for you are dust, and to dust you shall return.” (Gen. 3:16-19).

This era of death was not without promise, however. God promised that through the offspring of woman would come one who at personal cost, would crush the head of the tempter who aided in bringing about this tragedy (Gen. 3:15).

Into this world, the Biblical view of science properly unfolds. From a Biblical perspective, science is an understanding of how God’s nature works, with a realization that humanity is responsible for learning such things and putting them to work. This Biblical responsibility is heightened by the era of death where humanity lives. People are not to be complacent about the pain and horrors of the age. People should know that pain and difficulties in life are results of sin, not what was made by God as the ideal for life. Science, in its Biblical perspective, then is humanity’s tool for fighting against the misery of the consequences of sin. With science humanity can attempt to alleviate some of the suffering and pain in this world.

Science can help people find better ways to grow food in spite of what nature might otherwise dictate.

A Biblical View of Science

Science is faith's physical tool for fighting the physical pain and difficulties of the fallen world.

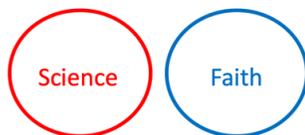
Sometimes science can win, sometimes it can't.



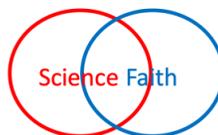
This Biblical view of science is foundational to understanding why science and faith are not at odds. Science isn't on one side of a teeter-totter set against faith. Science is faith's tool to conquer the monster unleashed on the happiness and fulfillment of humanity. Properly used, science can alleviate levels of want and need, make life more comfortable and less painful, heal diseases and restore health. Science isn't a panacea that restores Eden. But in the era of death, science can work toward a better world and better living. That is a godly accomplishment!

Consider in this light, the diagram used earlier in this chapter.

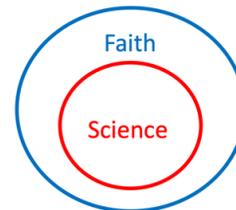
Options on interplay of science and faith



Option 1:
Science and faith oppose each other



Option 2:
Science and faith have areas of overlap



Option 3:
Science is a subsumed in faith

From a Biblical view, faith and science are not opposed to each other, and Option 1 doesn't explain the Biblical role of science. Option 2 is the position to which many Bible believing people adhere. This allows faith to exercise independent of science and allows science to exercise independent of faith. Each have their place, so to speak, and occasionally they occupy the same space. This is not the full Biblical picture of how the two fields relate, however. This view does a disservice to both faith and science.

The Biblical picture is that science is subsumed by faith. This means that valid science is fully embraced as a valid way to understand the world that God has provided. When science finds truth, it is God's truth, no less than if the truth were a moral truth. When Einstein proposed that mass and energy are the same physical entity and could be changed into each other, setting forth his formula for the relativity ($E=Mc^2$), he was not finding truth that is apart from God. He was doing the charge God gave Adam in Genesis. He had observed nature, and put those observations to work.

Perhaps one of the best extended passages of the Bible to illustrate this incorporation of science into a faith worldview is Psalm 19.

The heavens declare the glory of God, and the sky above proclaims his handiwork. Day to day pours out speech, and night to night reveals knowledge. There is no speech, nor are there words, whose voice is not heard. Their voice goes out through all the earth, and their words to the end of the world. In them he has set a tent for the sun, which comes out like a bridegroom leaving his chamber, and, like a strong man, runs its course with joy. Its rising is from the end of the heavens, and its circuit to the end of them, and there is nothing hidden from its heat (Ps. 19:1-6).

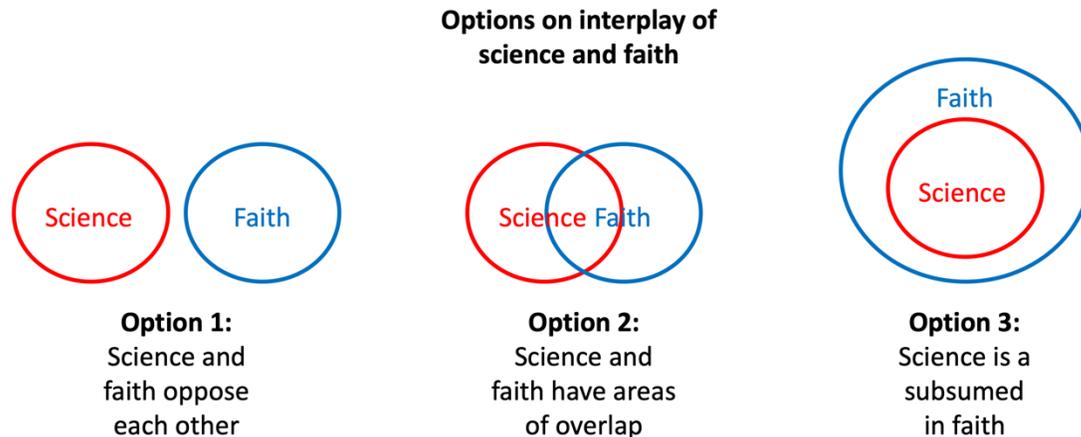
The Psalmist is proclaiming that nature itself is God's work. The rules and laws of nature are not happenstance. They are products of a wise God

CAN'T CHRISTIANS SIMPLY IGNORE SCIENCE?

Does this seem too much? Can't Christians simply ignore science, or, if not ignore, at least compartmentalize it in a different part of our brain and life than our faith? Of course, Christians can, and many do, but more to the point is the issue of whether or not a Christian *should*. As some argue that faith and science are natural enemies – that faith leads to theism (“belief in God”) while science leads to atheism (“disbelief in God”) – Christians should stand firm on the Biblical view that integrates the two. Christians must recapture the ground that science is not only fully compatible with faith, learning of nature is the charge of God to humanity.

People are to explore, understand, and dissect nature in order to better serve God and his purposes.

Return again to the options of faith and science diagram:



To divorce science from faith (Option 1) shuns the very charge God gave humanity at the outset of his revelation in Scripture. If the two areas of study and life seem to conflict, the solution is not severing them, the answer is found digging deeper. A deeper dig in science might reveal an alternate truth. The disciplines of science continue to develop more accurately and deeply. But the interpretation and understanding of Scripture also gets refined by understanding science.

Consider the example of whether the earth is the center of the universe, with the sun and stars revolving around it (“geocentrism”) or whether the sun is the center of our solar system with the earth and other planets revolving around it (heliocentrism). In the early 17th century, Galileo was brought before the church’s Inquisition and was tried for teaching heliocentrism. The church viewed the teaching contrary to passages in the Bible. Galileo was sentenced on June 22, 1633. The judgment announced Galileo’s guilt for:

having believed and held the doctrine—which is false and contrary to the sacred and divine Scriptures—that the Sun is the center of the world and does not move from east to west and that the Earth moves and is not the center of the world; and that an opinion may be held and defended as probably after it has been declared and defined to be contrary to the Holy Scripture.⁸

In truth, the insights of Galileo should have informed the reading of Scripture. The passages that seemed to concern the papal authorities were ones like:

⁸ *Giorgio de Santillana, The Crime of Galileo*, (U. of Chicago Press 1955), pp. 306-310.

- Psalm 113:3 speaks of “the rising of the sun to its setting.”
- Psalm 104:5 “He set the earth on its foundations, so that it should never be moved.”
- Psalm 119:90 “you have established the earth, and it stands fast.”
- Ecclesiastes 1:5 “The sun rises, and the sun goes down, and hastens to the place where it rises.”

Similarly, as the earth was determined to be round (or at least an oval!), passages like Psalm 72:8 that speak of the “ends of the earth” are not invalidated. (See similarly Psalm 74:17 “You have fixed all the boundaries of the earth.”) These poetic words do not mandate a view of a flat earth with edges. These are poetic expression that make a point using the language and concepts of the writer and listener over 2,500 years ago in the hills of Judah. That doesn’t mean that the words aren’t inspired. Nor does it mean that the words don’t speak truth. But the words aren’t God’s scientific pronouncement of the earth’s geography. The words are written in a historical and cultural context, and must be read and understood in that vein.

As believers pursued science, including Galileo Galilei who was a believer in God and Scripture, it became apparent that the readers of Scripture had imposed on the passages above, meanings that the passages never intended. The point of the passages was not a scientific dissertation on astronomy. To read them in that context was to read them out of context. Psalm 113:3, for example, in speaking of the “rising of the sun to its setting,” means simply “all day long.” This language is written from the perspective of the author and hearer. It is language we still use today. One can Google on the Internet and easily find out “sunrise” and “sunset” times.

The reading of Scripture is enriched through the truths revealed by science. Scripture is not diminished.

A second reason Christians must not divorce faith and science is the effect on evangelism. In 2006, Oxford biologist Richard Dawkins published a best seller entitled “*The God Delusion*.” Dawkins pushed his agenda of disbelief citing what he claims is compelling evidence that belief in a personal God is belief in a delusion. He writes, “When one person suffers from a delusion it is called insanity. When

many people suffer from a delusion it is called religion.”⁹ His book has helped propagate the falsehood that no sincere scientist can be a person of faith.

How does the integration of faith and science help spread the gospel? In a number of ways: for one, people who live in arenas of science will not be receptive to a faith that shuns the reliability or truth they know in their everyday experiences. How can the church take its faith to people connected to science if the faith refuses to accept or connect with science?

In this sense Kansas State geologist Keith Miller writes,

Any Christian theology which hopes to compete in the world of ideas must take seriously the conclusions of modern science just as it must take seriously contributions from all other areas of human knowledge.¹⁰

Among some Christians who wish to ignore science, a typical response might be, “But science used to think the world was flat! You can’t trust science!!!” That is not a fair response. One can always find instances or examples to deny a broader general truth. It is no different than the unbeliever saying you cannot trust biblical faith because it was used to teach that the sun moved around the earth.

Of course, everyone knows that scientific knowledge itself grows and changes, leaving some cynical of its reliability, yet there is certainly core scientific knowledge that is part of everyday life, from the computer I use to prepare this lesson to the car I drive daily. So while all may not agree on the reliability of all that is claimed in the name of science,¹¹ most recognize that two plus two is four. It is right to take science seriously and the hope of taking the gospel to those involved in science depends on it.

Another way integration of faith and science helps spread the gospel is similar to the way Greek philosophy assisted in bringing the gospel to countless people in the early church. In the early church some distrusted philosophy as unreliable and constantly changing (much like science), as opposed to the faith in One who is pure

⁹ Dawkins, Richard, *The God Delusion* (Houghton Mifflin 2006) at 406. A well reasoned response to Dawkins is found in the hands of another Oxford trained scientist, Alister McGrath, *The Dawkins Delusion*. See, McGrath, Alister, *The Dawkins Delusion* (SPCK 2007).

¹⁰ Miller, Keith, *Perspectives on an Evolving Creation* (Eerdmans 2003) at xi.

¹¹ “Science” covers many different areas and many sub-divide it into “hard” and “soft” science. Hard sciences are more objective areas like computer sciences, geology, physics, etc. The soft sciences are much more subjective, and accordingly more open to opinion and change. These sciences include psychology, anthropology, etc.

truth – the same today, yesterday and tomorrow. While many distrusted philosophy, others saw it as a fertile groundwork seeded¹² by God and ripe for harvest.

A well-known challenge in the early church issued from Tertullian (160-225), a North African lawyer turned theologian. In his writing “*On Prescription Against Heretics*” chapter seven challenged pagan philosophy as the parent of a number of heresies in the church. From this came his famous line: “What indeed has Athens to do with Jerusalem?”¹³ The question targeted why Greek philosophy (Athens) was so readily discussed and used in the non-Greek church (Jerusalem). Tertullian’s conclusion was to do “away with all attempts to produce a mottled Christianity of Stoic, Platonic, and dialectic composition.”¹⁴

Among the responses to Tertullian’s criticism was a scriptural parallel discerned in the exodus of the Jews from Egyptian bondage. The Jews were able to “plunder the Egyptians,” taking valuables from the Egyptians as they left. In like manner, many in the early church saw the taking of truth from philosophy into the church as a legitimate plundering. They would point out that truth belongs to God, regardless of where it is found.

With an eye toward this historical usage of philosophy as the theological handmaiden of the early church, Alister McGrath has argued that with care, hard science can and should serve the church similarly today:

To appeal to the natural sciences as the handmaid of Christian theology is thus merely to modify the grand tradition of cultural engagement, in the sense that a different handmaid is being proposed.¹⁵

In other words, we can and should use science to help people understand God, his nature, and his marvelous deeds. As McGrath emphasizes, care must be taken, however, because historically many scientific judgments have been shown to be provisional, sometimes with significant shifts in what is believed true.

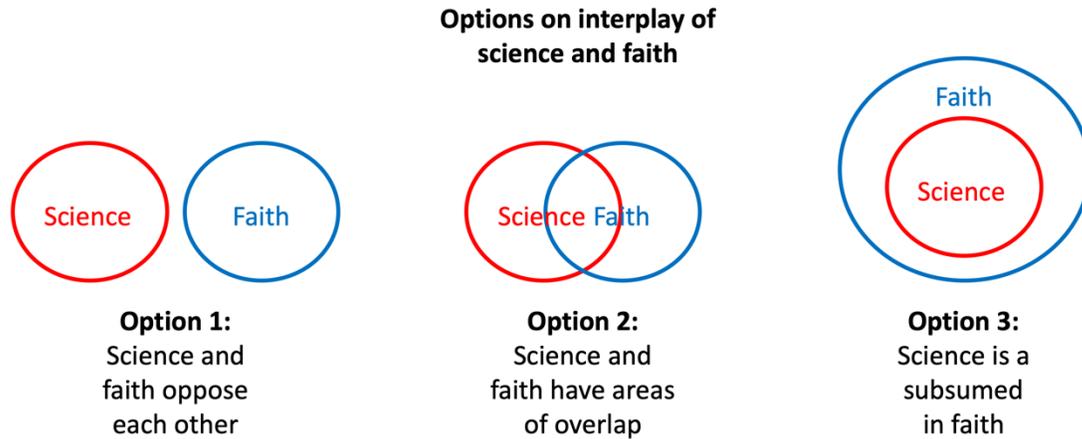
¹² Justin Martyr, who was born in the early 100’s and died between 162 and 167AD was an early Christian apologist (“defender of the faith”) who argued forcefully for the truth of philosophy and reason as part of God’s truth. He wrote two apologies (“defenses”) still available today. In both, he reasoned that people living in the Greek world of philosophy were actually believers in Christ even though they only knew him as the “logos.” *Apologia* I.xlvi.2-3; II.x.2-3; II.xiii.4-6.

¹³ Tertullian, *De Praescriptione Haereticorum*, 7. Translated by Peter Holmes (T&T Clark 1950).

¹⁴ *Ibid.*

¹⁵ McGrath, Alister, *A Scientific Theology: Nature* (T&T Clark 2006) at 19.

So Christians shouldn't shun science, nor silo science into its own area of existence apart from faith (Option 1 in the drawing). Neither should the Christian partially integrate science and faith, as if science has areas of truth outside of what faith produces (Option 2).



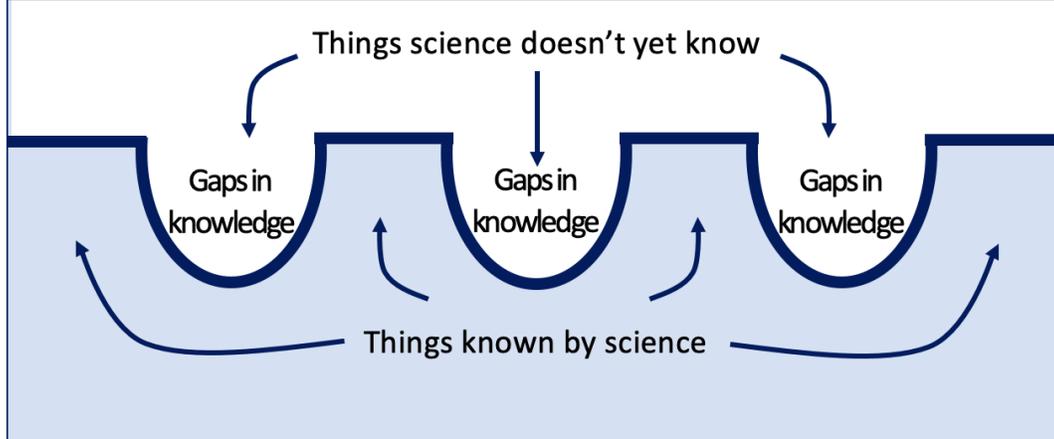
Science does not produce truth that sits outside of faith in God. All truth, whether truth in science or faith, is rooted in God. Christ made a bold claim when he told Thomas, “I am the way, and the truth, and the life” (Jn 14:6). “Truth” has plagued humanity since the beginning. Finding truth, proving truth, relying upon truth, even defining truth has challenged the world’s greatest minds. Christ made the claim for personal and identifiable truth. The orthodoxy of the church has recognized in this claim that God is not simply “honest,” but is both holder and definer of all that is true. As God, Christ can properly claim to be “the truth.”

In this sense, as the church readily acknowledges that all truth, like all wisdom, is rooted in God, the church has nothing to fear from truth — in whatever arena it is found. The truths found in science proceed forth from the truth in God.

Sometimes people have a glitch in their perception of God and his work in the world that merits addressing here. The church has consistently stubbed its toe in this area with a problem descriptively labelled the “God of the Gaps.”

The God of the Gaps theory explains that many have set God up as the force behind things that occur outside the areas of scientific knowledge. People have done this throughout history and many do still today. These people wrongly understand that a “miracle,” unlike the definition provided earlier in this chapter, happens when God does something contrary to the laws of physics. Consider the illustration below.

The Cosmos (“Nature”)



Consider the entire box being the natural world (meaning everything in nature—the universe, etc.). Below the line are things that are known by science. For example, science has explained an eclipse, when the moon gets between the earth and the sun. There are some areas, however, where scientists have not yet learned what is happening in nature. These are places where there are gaps in knowledge. There are times in history when an eclipse would have fallen into this unknown area.

There is a certain tendency in some people to credit God as the cause in the areas with gaps of knowledge. For certain primitive people, it might mean God was displeased when the sun was hidden by what was really just the moon’s preset course through the heavens (an eclipse). Today, the God of the Gaps idea is a bit subtler. Today, things that make no ordinary sense are sometimes termed “God things.”

From a Biblical perspective, it is right and proper to give God credit for things. Scripture teaches that,

every good gift and every perfect gift is from above, coming down from the Father of lights with whom there is no variation or shadow due to change (Jms. 1:17).

But Scripture and faith assigns God credit for everything, whether it is understood by physics or not.

God should never be relegated to the gaps of knowledge. God is the force and source for all matters, those that makes sense, as well as those that do not. When I drive safely to work, “It is a God thing” just as much as when I seem to accidently bump into someone with whom I need to speak.

But when God is assigned to the special places in the gaps, an unbiblical view of God and of nature arises. As scientific knowledge grows, not surprisingly, faith and

understanding seems shallow. God seems to disappear. Science becomes God and displaces faith. This view grows the divide between faith and science. If God is only in the areas of “what science doesn’t know,” then for the curable disease, one trusts in medicine, and gives medicine the credit for the healing. But if medicine hasn’t figured out how to cure a disease, then one turns to God and seeks the divine intervention in the gap. Of course, God is able to divinely intervene, Scripture makes that clear, but God’s intervention is no less real when medical solutions to disease work. It would be unbiblical to think one needs God to “heal” someone only when medical science is unable to do so. As discussed earlier in the definition section, God’s miracles occur above and below the line of knowledge.

God can interrupt the processes of cause and effect in the world. God is able to come in from beyond nature (from super-nature or the “supernatural”) and make a virgin conceive a child. In that sense God is above the line, or in the gaps. But God is also able to work within nature to ensure that Ruth and Boaz have a son who will be grandfather to King David, continuing to bring forth generations later Joseph who would marry the virgin. God is not only in the gaps, he is also in the aspects of nature understood today. When gaps are filled with understanding, they are no less filled with God. Instead, echoing the Psalmist, such understanding displays the beauty of God’s handiwork (Ps. 8).

A proper Christian view, and one that embraces science, sees the workings of this world in truth (including here scientific and medical truth) as proceeding forth from the God of truth. In the box illustration above, God is in the whole box – in all of nature. God is not simply in the gaps where science has not provided a natural understanding. The line between what science knows and understands is irrelevant in placing God in the cosmos.

Certainly, The Christian can and should embrace truth in all areas as manifestations of God and his creation. This leads to a third reason for the faithful to embrace science.

3. Creation demands faith dialogue with science.

Alister McGrath is both a trained scientist and trained theologian. He holds a doctorate in molecular biophysics from Oxford as well as a doctorate in theology. He has published in both arenas, although much more so in theology and matters of faith. In writing on this subject, McGrath has bluntly proclaimed:

A positive working relationship between Christian theology and the natural sciences is demanded by the Christian understanding of the nature of reality itself – an understanding which is grounded in the doctrine of creation... If God made the world, which therefore has

the status of being ‘creation’ as well as ‘nature’, it is to be expected that something of the character of God might be disclosed through that creation.¹⁶

Why is that so? It is premised upon the concept that one can know about God through two different avenues. One knows of God both by what he says as well as what he does. God certainly reveals himself through words in Scripture. But that is not the only way one learns of him. Scripture teaches that God is the Creator. As such, one can see in nature, in the physical world explained by physics, God through his works. In other words, nature shows something of God and his character.

Paul taught this in Romans 1:20:

For his invisible attributes, namely, his eternal power and divine nature, have been clearly perceived, ever since the creation of the world, *in the things that have been made*.

A similar recognition is from the Psalmist, who wrote,

The heavens declare the glory of God, and the sky above proclaims his handiwork (Ps. 19:1).

Michael Poole, who spent most of his adult life learning, teaching, and teaching others how to teach science, has marshaled a number of wonderful ways to understand this concept. Among them are his writings expounding on the approach of “two books.” A number of scientists and theologians have spoken of a book of God’s words (Scripture) and a book of God’s works (nature).

An early writer was Sir Francis Bacon (1561-1626) who wrote,

Let no man... think or maintain, that a man can search too far or be too well studied in the book of God’s word, or in the book of God’s work.¹⁷

One that Poole cites is Dr. Frederick Temple, who would later become the Archbishop of Canterbury. On July 1, 1860, at the University of Oxford, Temple delivered a sixth lecture in a series of eight on the heels of a debate on Darwin’s

¹⁶ McGrath at 21.

¹⁷ Bacon, Sir Francis, *The Advancement of Learning, Volume 1 with notes by F. G. Shelby* (Macmillan 1898) at 9. Some believe that Bacon was further modifying the statements of Tertullian (160-225) referenced earlier in his disregard for the church pursuing Greek philosophy. Tertullian wrote in his books against Marcion that, “God must first be known from nature and afterwards recognized from doctrine; from nature by his works and from doctrine by his revealed word.” See, e.g., Alexander and White, *Science, Faith, and Ethics: Grid or Gridlock?* (Hendrickson 2006) at 27.

theories by biologist Henry Huxley (a/k/a “Darwin’s bulldog”) and Oxford Bishop Samuel Wilberforce. In the sermon, entitled *The Relations Between Religion and Science*, Temple declared,

The student of science...if he be a religious man, he believes that both books, the book of Nature and the book of Revelation, come alike from God, and that he has no more right to refuse to accept what he finds in the one than what he finds in the other. The two books are indeed on totally different subjects; the one may be called a treatise on physics and mathematics, the other a treatise on theology and morals. But they are both by the same Author.¹⁸

Common sense teaches the truth of this. Often, one hears of the importance of living the gospel. Many people learn more watching believers than they do listening to a sermon. It is sensible that what people do, reflects upon them at times as much as what they say.

John Calvin, in his commentary on Genesis, warns against both those who spend their life studying science (“philosophy” was the term used in his day) of the world without regard to God as well as those who spend their time studying God without regard to the world. Calvin wrote,

For men are commonly subject to these two extremes; namely, that some, forgetful of God, apply the whole force of their mind to the consideration of nature; and others, overlooking the *works* of God, aspire with a foolish and insane curiosity to inquire into his Essence.¹⁹

Calvin said that the philosopher (scientist) who is so occupied in investigating nature but failed to turn an eye to the Author of nature was involved in “a most perverted study.” On the other side, however, Calvin added that one who enjoys all that God has made, but fails to study and appreciate God as the Creator, has “the basest ingratitude,” even if all time is spent studying theology!

It makes sense, therefore, that a Christian who believes in God as Creator of the world must take time and support efforts to understand the world. The world communicates about the nature and character of God.

4. Ethical issues demand faith dialogue with science .

Science is very good at some things. Science can tell us about genetic traits and predisposition to disease. Science can give us treatment for diseases that sustain not

¹⁸ See Poole, Michael, *Exploring Science and Belief* (Hendrickson 2007).

¹⁹ Calvin, John, *Genesis* (Banner of Truth 1965) reprint of Calvin Translation Society edition of 1847 at 60.

only life, but also the quality of life. However, there are some things where science cannot measure up! Science fails miserably in establishing ethics and morality. Rosenstein was right when quoted earlier in this chapter as saying that from a pure science view, divorced from faith, there is not right or wrong, no immoral or moral, no genuine objective ethic.

“Science” as a word is relatively recent in origin, dating from the 1800’s. Until then, the fields of study today considered “science” were called “natural philosophy.” Today, science denotes “study of the physical world.”²⁰

Most every student learns the “scientific method.” It is a rigorous method of hypothesizing and testing to produce answers to questions. Science and the scientific method can deliver cause and effect findings, but morality/right and wrong are outside the scope of science. There is no testing method that measures right and wrong. These are things that numbers cannot measure.

Yet, science has opened doors that clearly have huge ethical dimensions. Is it right to clone a human? Is it right to clone an animal? Is it right to genetically alter viruses? What of splicing one organism’s DNA into another organism? Is stem cell research okay if the motive is life saving? Does the type of stem cell matter? Is birth control okay? Are all methods acceptable or only some? Are genetically modified foods okay? Is assisted reproduction?

These are questions created by scientific advances, yet science is useless in providing the moral compass for addressing these questions. Morality and ethics leave the domain of hard science and require insight from philosophy and faith. The faithful community must engage science to understand the implications and to weigh into the discussions from a moral and ethical perspective.

5. “God” is missing in most science books.

Even a cursory review of most science books shows that with maybe a slight exception, the books do not reference or speak of God. The reasons for this are not that no scientists are believers. To the contrary, a number of outspoken scientists are believers. The principle reason seems to be that science books are written to provide a common foundation of knowledge for all scientists to build upon.

While the believer correctly points out the necessity of God in such a foundation, the practical truth is that there is a world of scientists with a world of beliefs on religious matters. They range from believers to agnostics and on to atheists. There are believers in a number of theistic traditions whether Jewish, Islam, Christian, etc. There are religious views of typically Eastern religions, whether Buddhism, Hinduism, or something else. So in the midst of this diversity, science books are

²⁰ Oxford English Dictionary.

written without reference to debated issues of God so the common areas of scholarship do not get wrapped up with areas of disagreement unnecessary to the learning at hand. (One can imagine the difficulties of selling to a broad audience a mathematics textbook that begins with an explanation of the unchanging consistency of God!)

Yet because these texts do not speak of God, it is even more imperative that the believer engages in scientific dialogue and study. It is unfortunate but likely true that many think science has no place for God *because* God is never found in science books.

Conclusion

So, can Christians ignore science? Yes. Should Christians ignore science? Absolutely not! In fact, it is imperative Christians engage their brains in both faith and science, yet many Christians fear to do so. Many fear that science, at least some science, might undermine their faith. They question whether they can still believe in God if their presuppositions about certain matters of science might prove to be wrong. For example, many fear that anything less than a 100 percent literal interpretation of Genesis 1-11 would challenge, if not shatter their faith. That might seem to leave the believer with two options: one is ignore the issues found in understanding Genesis; the second is not to dig too deeply into those issues.

However, there is a third option. Dig, and dig deeply. Dig in faith, but dig without shunning science or common sense. Dig and see if science offers some illumination. Science needs the community of faith and the community of faith needs science. That becomes the next section for consideration.

SCRIPTURE AND ISSUES OF CREATION VS. EVOLUTION

Many people of faith debate the issue of creation or evolution. For a good number of creationists, the issue seems especially important because of two reasons: (1) a belief that the integrity of the Bible is at stake if Genesis is not accorded a literal meaning; and (2) a belief that creationism means a Creator God; therefore, evolution must mean no God. In other words, some believe that without creationism, atheism must be true. Some even argue that creationism is scientifically required in an effort to “prove” God exists.

Before delving into some significant implications of science and the cosmos from a Biblical perspective, these issues confronting many creationists should be addressed. The first measure of consideration is what the text says.

Genesis chapters 1 and 2 – an overview

At first glance, it might seem as if there are two different creation stories. In fact, many biblical scholars assert that there are. Genesis 1-2:3 speak of the seven days of God's creation and rest. God made light and separated it from darkness on day one. On day two, God made an expanse called "heaven" and separated the waters above from the waters below. The third day, God took the waters below the expanse (below heaven) and gathered them into one place so that dry land appeared. God called the land "earth" and the waters "seas." God then had the earth bring forth vegetation, plants yielding seed and fruit trees.

On day four, God set lights in the heavens to separate day and night, and to establish seasons. God specifically made the two great lights: the sun to rule the day, and the moon to rule the night, as well as the stars, setting them in the expanse called heaven.

On day five, God created great sea creatures and every living creature that moves in the water. God also made the birds that inhabit the sky. God blessed the creatures and said for them to be fruitful and multiply.

Day six is when God created the living creatures of the earth. God then made man after his own likeness and in his image. God created man as male and female. As with the fish and birds, God issued the command to be fruitful and multiply.

Day seven is a day without creation; it is the day God rested. God blessed the seventh day and made it holy. This takes up all of Genesis chapter one and the first three verses of chapter two.

Beginning in Genesis 2:4, it seems a second creation story is given. No longer is "God" the acting subject, but now it is the "LORD God" (adding "Yahweh" – LORD – to the Hebrew for God). Chapter two speaks of the LORD God making man at a time "when no bush of the field was yet in the land and no small plant of the field had yet sprung up—for the LORD God had not caused it to rain on the land, and there was no man to work the ground, and a mist was going up from the land and was watering the whole face of the ground—" (Gen. 2:5-6).

God does not provide rain until the flood, but he does make man. The LORD God creates man from the dust of the ground, breathes the breath of life into his nostrils and *then* plants a garden in Eden, placing man there. Man is given the charge of working the garden. In chapter one, God made plants on day three, and man on day six. Chapter two seems to reverse the order with man coming *before* plants. This adds to the concern of some that the stories reflect two different traditions.

Genesis two continues with the LORD God determining that man needs a helper. After giving the man time to name all creatures, God caused him to fall deeply asleep and then created woman from one of his ribs. Awakening, man named her

“woman,” out of recognition that she was made like him and from him. Genesis then transitions to chapter three and the Garden of Eden story.

Must Genesis 1 and 2 be taken literally?

I have worded the question above with care. I did not ask if Genesis 1 and 2 should be taken literally, but rather whether they *must* be taken literally. Importantly, “literal” has different levels of meaning. One may fairly ask, “How literal is literal?”

At one end of the “literal” perspective, a strictly literal reading would have God speaking Hebrew. After all, Genesis 1:3 says that God said, “יְהִי אֹר” pronounced “*y^ehee or.*” (In English, this is generally translated, “Let there be light.”) In strictly literal terms then, Genesis 1:3 says that God spoke in Hebrew. Most any scholar will tell you, however, that the Hebrew language had not even remotely formed in the pre-Abrahamic age.

Now some people who are adamant that Genesis one be taken literally, will still see the idea that God spoke Hebrew as silly, reading the text in English and assuming that the text means that God said something like “Let there be light” in some language or idea, but not necessarily Hebrew. But that isn’t what the passage *literally* says. It literally says that God uttered the words, “יְהִי אֹר”, a sentence in Hebrew.

Others believe a “literal” reading means there must be six days of creation and one day of rest, each lasting 24 hours. Typically, this view also takes the genealogies and associated dating in Genesis five as literal as well, resulting in a view that the earth is somewhere around 6,000 years old.

Others take this section of Scripture as literal holding to six 24-hour days, but not necessarily considering the days successive. In this view, great time periods might have existed between the various days of creation. This is also called the “intermittent day view.”

Still others believe The days of creative actions occurred as written, but they interpret the word “day” as meaning “age,” rather than 24 hours each.

Another way to read Genesis as “inerrant,” even though it is not “literal” in the senses accorded above. The inerrancy refers to the idea that while the days and creative acts were not necessarily literal in how they occurred, the story precisely conveys information that God wanted the Israelites to have to counter the narratives that described gods and events among the pagan neighbors. This means that Genesis is inerrant in saying what God was communicating to those people, in their vocabulary and limited understanding of the physics of the world.

Day Order Issues: To delve deeper into the optional readings of the early parts of Genesis, consider the following problems that arise from the literal idea of creation occurring in six 24-hour days 6,000 some odd years ago:

- There are some obvious challenges with science in things like the dynamic of “evening” and “morning” (Gen. 1:5) when the earth is not rotating around a sun which has yet to be created. (The sun was created on Day Four – Gen. 1:16-19).
- Similarly, the earth “brings forth vegetation” on day three (Gen. 1:12-13) before there is sunlight for such growing plants.

Some believe that the days of creation happened in 24 hours, but that the days have been reordered in the narrative for a point of emphasis. These people believe the numbers assigned are not “sequential,” but rather are identifying tags. An example of this is found in the New Testament when comparing Matthew’s account of the temptations of Jesus with Luke’s account. Matthew has Jesus tempted first with hunger, then at the pinnacle of the temple, then with the kingdoms of the world (Mt. 4:1-10). In Luke, the last two are flipped in order. Luke also starts with the hunger temptation, but then he has the kingdoms temptation, followed by the temptation on the pinnacle of the temple (Lk 4:1-13). This, it is argued, is an example of how the Bible can record history accurately, but change ordering of events to make a point.

24 Hour Day Issues: While many interpret the “day” to mean a literal 24-hour day, others don’t agree. The Hebrew word translated “day” in the Genesis one account of seven “days” of creation/rest is יום, pronounced “*yom*.” This word is used over 2,200 times in the Old Testament. At times it indicates a 24-hour day, for example in Daniel 1:5 where the king of Babylon assigned certain prisoners a daily amount of food and wine. Other times, “day” means the time during 24-hours when it is light, contrasting “day” with “night.” An example is Nehemiah 4:16 where the people are to work by “day” and guard by night. Sometimes *yom* means a “special day,” like the English word, “holiday” (a composite of “holy” and “day”). One finds this in passages like Esther 8:17 where the king fixed the planned destruction of the Jews and “there was gladness and joy among the Jews, a feast and a *holiday* (literally a “good day”).”

If that isn’t enough, *yom* is also used to refer to an era or age. For example, in Amos 9, God spoke to a time where he would rebuild the house of David, repairing its breaches, raising up its ruins and setting it up to be the possessor of the nations. God referred to that era of rebuilding as a “day” (*yom*).

“In that day [*yom*] I will raise up the booth of David that is fallen and repair its breaches, and raise up its ruins and rebuild it as in the days of old, that they may possess the remnant of Edom and all the nations who are called by my name,” declares the LORD who does this.

In light of this full semantic range of meaning for day, (and actually there are more meanings than I have listed. Often, “day” just references some indetermined amount of time.²¹), how does one determine what is meant in Genesis one?

To determine what Scripture means by “day,” one should first look at the context. However, the context doesn’t seem definite one way or the other. Certainly some “days” have “evening” and “morning,” making the word seem to mean 24-hours.

And there was evening and there was morning, the first *day* (Gen. 1:5).

Yet, even in that same verse, the word “day” is already used to refer to a time of light, distinguished from the “night.” The full verse uses “day” twice!

God called the light Day [*yom*], and the darkness he called Night. And there was evening and there was morning, the first day [*yom*].

On top of this contextual melee, this is three days before God even makes the sun! Another issue for interpreting the “day” as 24-hours occurs with the seventh day. This day doesn’t have “evening and morning,” leading some to believe that the Genesis seventh day of God’s rest is still on-going. (God hasn’t restarted with Day One.) If so, then that “day” certainly isn’t 24-hours.

This idea of the seventh “day” still in effect is carried forward in the Book of Hebrews. There the writer explains that believers, “enter God’s rest,” as opposed to others who do not get that blessing.

For we who have believed enter that rest, as he has said... For he has somewhere spoken of the seventh day in this way: “And God rested on the seventh day from all his works.”... So then there remains a Sabbath rest for the people of God, for whoever has entered God’s rest has also rested from his works as God did from his (Heb. 3-5, 9-10).

This view that the seventh day was not simply 24-hours, but was an age/era carries over to the other days as well. Another indication that is used to justify the age/era interpretation is found in Genesis 2:4,

²¹ “In many cases *yom* loses the specific meaning “day” and becomes a rather general and vague word for ‘time, moment’.” Jenni, Ernst and Westermann, Claus, ed’s., *Theological Lexicon of the Old Testament* (Hendrickson 1997) Vol. 2 at 527-529.

These are the generations of the heavens and the earth when they were created, in the *day* that the LORD God made the earth and the heavens.

This passage then goes on to speak of the creation of man, the creation of plants (or the planting of the Garden of Eden), naming all the animals, searching for a mate, the deep sleep of man, and the creation of woman. Those events, it is argued, did not all occur within 24 hours and indicates that “day” is meaning something more.

Many punt on the idea of what “day” means, simply noting the teaching of Scripture that God is outside of time. As a result, whatever “days” may mean to humanity, on this globe rotating around our sun, “days” are certainly not the same to God.²²

An alternate “inerrant” view of Genesis that isn’t “literal”

The science/faith concern that reading Genesis one and two in a less than “literal” way diminishes the authority or authenticity of Scripture is not fair. Scripture uses many literature types and approaches to give the message precisely as God intended to give it, whether the passage is literal, poetic, allegorical, or simply historical narrative. Such comes into play with a historical contextual reading of the Genesis account.

If one were an Israelite, leaving Egypt and encountering pagan neighbors, the story given in Genesis would have had important meaning, but not as a science text book explaining scientific origins. Without a doubt, the Israelites were cognizant of the culture around them. They often strayed into the idol worship of their neighbors, constantly fighting to return to worship of God (see 2 Kgs 11:18-28). Similarly, they sought a king because “all the nations” had one! (1 Sam. 8:5). It seems reasonable to expect that the Jews would be aware of the origins and creation stories of their neighbors. Many of those stories are still available to read today, thanks, in part, to King Ashurbanipal.

In 630BC, Assyrian King Ashurbanipal (668-627BC) ruled in his hot, dry capital city of Nineveh. The king had a tremendous library with thousands of clay tablets, the “books” of his day. These tablets covered most every subject, from the mundane to the fanciful (legal tablets, transactional tablets, *etc.*). In time, the king died, his empire crumbled, and time overcame his library, burying the building and its contents. Then, in the mid-1800’s, archaeologists discovered these tablets, and scholarship of the Old Testament has never been the same. They provide insight in a number of areas, including creation myths of Israel’s neighbors.

Two of the creation stories competing against Israel’s revealed narrative, found in the clay cuneiform tablets, are called the *Atrahasis* and the *Enuma Elish*. Contrary to a self-existent God outside of space and time creating the world, these stories

²² See, e.g., Psalm 90:4; 2 Pet. 3:8.

explain how the gods were created. The gods first efforts were to fight chaos and bring order to the world. As the gods continue to multiply, they did all sorts of human things, though on a grander, more god-like scale. There were working gods who dug the Tigris and Euphrates rivers, piling up the dirt into mountains. There were warring gods, who fought against each other, hacking one dead goddess into two and hurling half of her body into the sky to form the dome of heaven.

In these stories of Israel's neighbors, the gods each have possession over the aspects of creation they either made or came to own. So the god who owns the storms has jurisdiction and control over the weather. The god who owns the sea is the sea. The god who has possession of a certain area of the earth can be both in that earth and also presiding over that part of earth.

In these stories, man is made to take burdens off the gods because the toil involved in the gods' hard work on earth started to wear on them! They were exhausted.

Radically, into a culture and community of this sort comes Israel's creation story that is as opposite as possible. There is one God, not many. God is not made; he is the maker. God does not war against chaos in an effort to bring order; God creates the world in an orderly fashion, forming and filling in ways that are "very good." God does not simply make one aspect of creation to inhabit and rule over. God makes all of creation. He makes everything. God is not relegated to a certain piece of real estate; he presides over all there is. Creation is not a part of God, nor an aspect of his body. Creation is independent of God, something he spoke into being.

God did not grow weary of creating. He was not challenged in digging creeks and rivers or in building mountains. God made all with simple words. He rested not out of fatigue, but because his work was finished, and it was "very good"!

Man was not made to relieve God of burdens; man was made in God's image to enjoy his fellowship and company. God made man and gave to man! In the words of John Collins,

God made the material world as a place for mankind to live: to love, to work, to enjoy, and to worship God. The exalted tone of the passage allows the reader to ponder this with a sense of awe, adoring the goodness, power, and creativity of the One who did all this.²³

The historical context view sees the Genesis account as setting out the truth of God and his creation, not in the sense of science and history, but in the sense of story that teaches a competing truth to the stories surrounding the Jews.

²³ Collins, C. John, *Genesis 1-4: A Linguistic, Literary, and Theological Commentary* (P&R Publishing 2006), at 78-79.

This hones in a focus on the Genesis 1:1-2:4 text beyond a simple literal reading. The key to understanding how that passage is written is found in the first two verses.

In the beginning, God created the heavens and the earth. The earth was without form and void, and darkness was over the face of the deep.

After creating heavens and earth, the earth was both “without form” and “void.” The rest of the creation story becomes an account of God resolving that situation by “forming” things and then “filling” them. The forming occurs in three days, and the filling occurs in the next three days. These two sets of three days correspond to each other as if in a mirror. On days 1, 2, and 3, God forms while he fills those forms on days 4, 5, and 6.

A chart readily shows this relationship and alignment:

	<u>Forming</u>		<u>Filling</u>
Day 1:	God forms “light” (“day”) and darkness “night”)	Day 4:	God fills “light/day” with the sun and “darkness/night” with the moon and stars
Day 2:	God forms “heavens” and “waters”	Day 5:	God fills “heavens” with birds and “waters” with fish
Day 3:	God forms “earth” and “vegetation”	Day 6:	God fills “earth” with animals and mankind eating vegetation

Again, as with the absence of “evening” and “morning,” day seven is different. It is neither a “forming” nor a “filling.” It is a holy day of rest. Reading these days in this structure shows God’s carefully planned provisions for his people. He first builds good habitats and then fills them.

Another aspect or approach to a historical contextual view is espoused by two professors from Wheaton College. John Walton teaches Old Testament at Wheaton and has authored a principal text on comparative studies of the Hebrew Bible with the other contemporary cultures in the area of Israel.²⁴

²⁴ Walton, John H., *Ancient Near Eastern Thought and the Old Testament: Introducing the Conceptual World of the Hebrew Bible* (Baker Academic 2006).

His counterpart at Wheaton is the New Testament professor, and Chair of Biblical Studies at Wheaton Graduate School, G. K. Beale. Beale served as President of the Evangelical Theological Society and is a well-published scholar on biblical studies. He has written on this subject in a book concerned with the erosion of inerrancy in evangelical churches.²⁵

Walton's book sets out the worldviews, the cultural mores, and the competing belief systems in an effort to give original sense to the Genesis stories. He notes that God is communicating in the stories, but,

Effective communication requires a body of agreed-upon words, terms, and ideas... For the speaker [God] this often requires accommodation to the audience. One uses words (representing ideas) that the audience will understand, thus, by definition, accommodating to the target audience... As interpreters, then, we must adapt to the language/culture matrix of the ancient world as we study the Old Testament.²⁶

Put in the context of creation, Walton asserts that comparative studies (comparing Genesis to other stories like the *Enuma Elish* or *Atrahasis*) are important for three reasons. First, it gives more data to help one understand the text. Second, it defends the authenticity of the text as it fits into its age in Scripture. Third, it gives insight into the exegesis of the passage.

Walton notes that comparing the creation stories to the Babylonian and Assyrian myths gives a number of distinctions similar to what I give earlier in this section. Walton then goes further. He argues that the Jews had a similar view of the cosmos to those of other contemporary cultures. He explains a three-tiered cosmos with water locked in the heavens above the hard-inverted shell that is the sky. (Clouds cover the "windows" that open up in the sky allowing some of the heavenly waters to fall upon earth.") Mountains hold up the sky. The sky has the track for the sun, moon, and stars. Earth itself is a disc that sits on pillars above other waters. Underneath the waters and the earth is the underworld. Walton asserts that one should read this worldview in the Genesis creation account as one reads God speaking to the early Jews in their language and mindsets.

Walton, and especially Beale, also go into great detail explaining that the picture painted by the Genesis stories are pictures of the world and creation existing as a big archetype of the Temple for God's dwelling. Eden then functions as the holy of

²⁵ Beale, G. K., *The Erosion of Inerrancy in Evangelicalism: Responding to New Challenges to Biblical Authority*, (Crossway 2008).

²⁶ Walton as 19-20.

Holies which man is sent from because of sin. These works are worthy of focus, but beyond the scope of this chapter.

The net effect of this is that to read Genesis 1 and 2 as literal renderings of how God made the world in six 24-hour days is a choice, but not one that is mandated by Scripture. Scripture is not a science text on origins, but rather a historical account that would have been read quite differently by its original intended audience. In fairness, one shouldn't see any direct correlation with the Genesis story speaking to evolution as fact or fiction. The issue of *how* God made the world is not the point of the Genesis account.

Still, that doesn't mean that the Genesis account isn't worthy of study on the issue of science and faith. It is. But the implications go beyond what most may think.

IMPLICATIONS

To be continued....