

**STILL IN DRAFT FORM 9/21/17**

### **Instructor's Information**

The follow materials are intended to be flexible enough to use in many applications. Feel free to rearrange and revise to fit your situation. You may wish to cut/paste specific sections for use with students. For example, the Discussion Points and Case Studies could be printed separately.

Your feedback is useful. Please help make the material better by contacting me with results and suggestions.

# If We Have Science, Do We Still Need God?

## EXPLORING THE ISSUE

### *Does God like science?*

It surprises many people to learn that we owe much of modern science to the Judeo-Christian worldview. Biblical ideas provided fertile soil for early scientists to expect a physical universe that was orderly, predictable, and knowable. Johannes Kepler, the Father of Physical Astronomy, is quoted as saying "O God, I am thinking Thy thoughts after Thee." How far has science moved away from this perspective? It may depend upon which level of science we examine. Granted there are a multitude of scientists in all fields who would "amen" Kepler. But it is obvious that the popular media consistently portrays science and "religion" in mortal combat.

So, should Christians rally for battle? One of the real dangers in minimizing science is that we lose a strong apologetic in evangelism and spiritual discipline. In the first chapter of Romans, the Apostle Paul gives us one of the clearest connections between science and the Christian's experience.

For since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that people are without excuse. (Romans 1:20, NIV)

The act of observing "what has been made" is perhaps the most straightforward definition of the true scientific process. Science educators make it their primary goal to connect students with "what has been made" (the physical world) through hands-on experiments and activities.

Research supports the value of this observable and inquiry-based approach to science.

There are at least two practical applications of this. First, there is an evangelistic aspect. The physical universe speaks to us about God.

The heavens declare the glory of God;  
the skies proclaim the work of his hands.  
Day after day they pour forth speech;  
night after night they reveal knowledge.  
They have no speech, they use no words;  
no sound is heard from them. Yet their  
voice goes out into all the earth, their  
words to the ends of the world. (Psalm  
19:1-4, NIV)

Ideally, when one first hears the gospel from the *written* Word of God (aka *special revelation*), they have already experienced the Creator through the *natural* Word of God (*general revelation*). Observation of the physical world actually provides a glimpse of the nature of God. In fact, Paul's intent here is to show that there is enough evidence given about God through nature to render one "without excuse" for not responding. Now obviously, this is not a substitute for the true gospel, and the study of science in itself does not lead one directly to the person of Christ. However, Paul does imply that this evidence for an intelligent, mindful Creator should encourage even the pagan to search further.

Although the idea of a Cosmic Designer has been discussed for millennia, modern Christian scientists often refer to the concept as *intelligent design*. It can be observed from the smallest cell functions to the structure of galaxies. They also point to an even more basic evidence—the fact that the entire universe is such that it perfectly suited to allow us as observers to exist and to explore it. This is referred to as the *fine-tuning* of the universe.

Another benefit from this natural Word is its testimony to the child of God. I once had the opportunity to tour Andrew Jackson's home, the Hermitage. I've never met Mr. Jackson personally, but after observing his "creations" I really feel that I know much about his "nature".

The universe is immense and complex. The Creator must be even more so. I am pleased by the order and beauty in nature. The Creator must value those things, too. Even though I can see evil and ugliness, they exist only as aberrations of the goodness and beauty that permeate the creation.

So far, no scientific fact has disproven God, the Bible, or the Christian faith, and according to Romans 1, it never will. Certainly there will be opponents whose interpretations and theories aim to do this, but that is to be expected. As in other endeavors, scientific beliefs are often based not on observed facts, but on previous beliefs and motives. ("Light has come into the world, but people loved darkness instead of light because their deeds were evil." John 3:19).

The "Romans 1 Principle" will always be a thorn in the TOE (Theory of Everything, pun intended) of naturalistic science. As long as humans can observe the creation, those who can respond honestly will see the Creator.

## DIGGING DEEPER

This section offers a brief look at some specific areas of interest. For those with the desire to dig really deeply, see the list of resources below.

### *Intelligent Design*

For centuries we have pondered "Why is there something rather than nothing?" and "I think, therefore, I am." (There. I just used the two most quoted clichés in philosophy in one sentence!) Science is somewhat limited in exploring these ideas, yet the created world undoubtedly informs our perceptions of them. These notions do lead scientists to ask two related

questions: "Why is there *THIS something*, rather than nothing?" and "Why am I able to think about *this something*?"

These questions are especially troubling to atheistic naturalists<sup>1</sup> today. Seriously, why is the universe the way it is? There is no apparent rule within it that mandates that is had to be this way. I can imagine countless ways it *could* have been. What if gravity was a little stronger? What if atoms had four primary particles instead of three? What if matter never condensed into planets and galaxies? In fact, why did there have to be any recognizable order at all? And that leads to the even more perplexing question "Why are we here as conscious observers and able to recognize that order?"

Did you ever consider the complexity of a symphony? Imagine the collective hours of practice that honed the mouths and fingers of the players. But don't stop there. Skilled players would be nothing without highly structured compositions to read and interpret. But keep going! Players and composers would be useless unless skilled instrument makers followed precise, orderly plans for producing violins, flutes, and horns. Need I say more? Of course. There sits the audience with ears able to convert sound energy into electrical signals. And don't even get me started on the brains that can take that conglomeration of complex nerve impulses and hear/interpret/enjoy/remember! Our whole universe is filled with not just complexity, but layer upon layer of coordinated complexity.

While naturalism struggles to explain the source of this order and structure in the universe, those who believe in a purposeful Creator do not. This is especially true if one accepts the Christian doctrine of Creator God as being personal, eternal, loving, and unbounded in every attribute.

This *teleological* (the appearance of purpose and design) argument for God's existence has been discussed throughout history. In the 17<sup>th</sup> Century, William Paley used the analogy of finding a watch along a pathway. Would we assume the watch was the result of chance events?

No, it would indicate an intelligent, purposeful “watchmaker”. In the same way, he reasoned, we observe the created order and assume a Creator.

With our present level of scientific knowledge, one would think the teleological notion would have been explained away. To the dismay of many secular and atheistic scientists, this has not been the case. The more we learn about the intricate workings of cells, biochemistry, astrophysics, and almost every other branch of science, the more evidence of complexity and purposefulness we tend to observe. What Darwin and his contemporaries believed were simple cellular functions are now known to be magnitudes of complexity beyond. And keep in mind, the only alternative to purposeful design is that random, blind chance is responsible for all that we see!

Michael Behe, a leading intelligent design proponent, describes even more complicated systems which he describes as *irreducibly complex*. He uses a mousetrap analogy. There are seven parts that compose the traditional trap (wooden base, spring, trigger, etc.). If any of these parts were missing, it would cease to be a functional mousetrap, and according to Darwinian evolution when a system loses function it will go extinct. Yet how could a mousetrap system ever evolve if it needed all the parts at once. What are the chances that all seven parts would have randomly come together at the same time in the same place?

Behe notes that biology is replete with this irreducible complexity. Even Darwin had problems with this concept in trying to explain how the human eye could have evolved with its many critical parts. What good would an eye be if it were lacking even one of these parts? And unless it was a functioning, beneficial eye, it would not have been retained in the population.

### ***What about evolution?***

Many non-scientists choose to avoid this topic, assuming it takes a degree in biology to grasp fully. There is ample material to engage the advance biology student, but the basic concept of

biological evolution (usually called Darwinian evolution) is fairly simple.

In its most simplistic form Darwinian evolution says this:

“All life that we now observe has come about due to small, random, mindless changes over long periods of time.”

In other words, you are here now because of accidental chemical reactions that took chemicals to cells then to more complex animals, and finally to us all by blind chance. So, a good rebuttal of this, with no particularly advance biological knowledge could be: “Does that sound reasonable?”

We could explore in depth the nuances of this, and indeed many have. For our purposes, though, the Romans 1 principle works quite well. Does our observation of the world around us seem to be the result of random, chaotic, purposeless changes?

### ***The fine-tuning of the universe***

This concept tends to be a bit complicated and math-intensive, so many people tend to overlook it. Physicists, however, point to the fact that the laws of the universe (the rules that make everything work!) seem to be perfectly balanced, not just to work, but to work in a way that allows life to exist. As mentioned previously, it didn’t have to be this way. String-theory (an advanced field of physics) tells us that there are innumerable ways to put together the laws of physics, yet here we are with a system that allows us to be here *and to observe the complexity and elegance*.

### ***What’s the alternative?***

Interestingly, opponents of intelligent design often give excellent “backdoor” support to the concept through their bizarre alternatives. Since the fine-tuning of the universe is so evident (again, *clearly seen*, according to Paul), detractors have difficulty coming up with explanations which do not require an intelligent, purposeful Creator. Some have proposed a Multiverse in which ours is just one of an unimaginably large number of random universes with diverse laws and physical variables. Science fiction abounds with these “alternate dimensions” and “parallel universes”,

yet the fictional concept provides a last-ditch means for atheists to counter the design we observe.

A simplified way to understand this is the firing squad metaphor. Given a firing squad of excellent marksmen that seldom miss the target, there is still a very tiny chance that all of them would miss at the same time. If the squad fires and you find yourself still alive, what a coincidence! How could you just happen to be the one in a zillion that didn't die? Well, if you were in any of the other firings, you wouldn't be alive to know it. In the same way, proponents of the multiverse believe that out of all the "untuned" universes (that do not support life), why should we be surprised to be here in the "fine-tuned" universe?

Note that the whole multiverse idea is a *response* to proponents' problem with our universe's appearance of being designed, not a *conclusion* based on data. Many scientists object to this *ad hoc* method of formulating theories. They maintain that a good scientific method is data driven, not initiated by an aversion to what the data seems to suggest. In spite of it being rich base for sci-fi writers, there is no objective evidence to support the theory, and to its supporters delight, it cannot be falsified. It's also good to remember that some scientists are more concerned with the "workability" of a theory than with its application to reality. Physicist Stephen Hawking says

I take the positivist viewpoint that a physical theory is just a mathematical model and that it is meaningless to ask whether it corresponds to reality... All I'm concerned with is that the theory should predict the results of measurements.<sup>2</sup>

### ***What do Christians believe?***

Some people distance themselves from the whole science-faith discussion because they feel the concepts are too diverse. It seems every contributor has his or her own unique views, and it all just comes down to what an individual happens believe. That's not exactly true. In a big-

picture view, it's either matter and energy mixed with a little blind chance, or purposeful action by an intelligent agent.

Within the Christian camp, however, there are several views as to how the Creator may have worked to accomplish what we now see. Did he create suddenly in a series of immediate events, or did he use natural processes over a period of time?

Generally, the former would identify themselves as *young earth creationists* and the latter *old earth creationists*. "Young Earthers" tend to take the Genesis account literally, with six 24-hour days. This view sets the age of the present earth at 6000 years or so. Old Earthers believe the Genesis days are metaphorical, and not necessarily sequential. They have no problem with the billion-year ages put forth by naturalists, and most accept that God used evolution to bring about humans.

Admittedly, scripture was not intended to be a science text, but at the same time, we should not expect scripture to be in error or contradiction with observed science. It is indeed encouraging that most Christian scientists agree that "In the beginning God created", even though the exact mechanism of his actions might be healthily debated. Here are some discussion points on the various Christian views on origins:

**Creationist** – Believes an intelligent agent created.

**Young Earth Creationist** (short-day creationist) – Genesis 1 is the literal description of how God created the universe. Earth is roughly 6000 years old.

Pros: View fits well with literal interpretation of inerrant, inspired, scripture. Sin, death, and The Fall can be attributed to one man at one point in time.

Cons: Naturalism cannot accept a young earth, therefore, young earth view are not welcome in many scientific endeavors. Although significant scientific data points to a young earth, it is not considered valid by mainstream science.

**Old Earth Creationist** (long-day creationist) – Genesis is likely a poetic presentation of God’s creation of the universe, never intended to portray real history. The universe is at least 10 billion years old.

Pros: View fits well with the naturalists’ view of science. Darwinian evolution is possible. Some parts of the universe seem to be very old.

Cons: When parts of scripture are deemed non-literal, where do we stop? Are miracles and the resurrection also not historically accurate? In addition, if sin occurred with the first man, why did all of those animals die for millions of year before man appeared?

**Theistic Evolutionist** – Basically an old earth creationist, although clearly relying on Darwinian evolution to bring about life as we know it.

**Progressive Creationist** – God used evolution and long time spans, but occasionally stepped in to “tweak” things. Perhaps he took a pair of apes and upgraded them into Adam and Eve.

**Gap Theorist** – A compromise of sorts. God started with the first creation (Genesis 1:1) which was eventually destroyed in a battle with Satan and his demons. He “recycles” the ruined creation (Genesis 1:2 and following) with the literal six days. Fossils and other old things were leftovers from the first creation, thus most of the universe can still be called young.

<sup>1</sup>The term *naturalist* has several meanings in other contexts. In the philosophy of science, *naturalism* is the belief that space, matter, and

energy are all that exist in the universe, with no *supernatural* components.

<sup>2</sup>Hawking and Penrose, *Nature of Space and Time*

## APPLICATIONS FROM THE STORY

Paul seemed to have a good grasp of science. Even though he was deep into science fiction, he didn’t confuse it with real science. It also becomes clear that he has been taught from a naturalistic viewpoint. He understands the mechanism of evolution and seems to accept it as the explanation for life. However, in chapter 27, the Romans 1 Principle is evident. Paul recognizes the problem of blind evolution produces order and complexity...

Such a big universe. How odd that some big “bang” was able to scatter all of these stars through the cosmos like a kid throwing a handful of sand. Even stranger that it could produce all of this intricacy, he thought. That puzzled him. From frogs to distant galaxies... It all seemed to be there for a purpose. No chaos. No random chance. Yet, evolution was all about chance and randomness.

Nathan Monroe offers a view that is becoming common, and is quite troubling to true scientists as well as those with a Christian worldview. This New Age (see the separate section on New Age) perspective has never been friendly to science. New Age thought rejects the idea that any truth can be absolute. It typically casts doubt on our ability to perceive reality. Christians can agree with science (even naturalistic science) that truth is real and knowable. Science depends on the constant, predictable nature of reality. Even when Paul could react from a Christian worldview, his science training made it difficult to accept many of Monroe’s beliefs.

## **SUMMARY POINTS**

## **DISCUSSION POINTS**

## **TERMS YOU MAY ENCOUNTER**

Creationism – The belief that God created the universe.

Cosmology – The study of the nature of the universe.

Fine Tuning – The idea that the physical laws of the universe seem to be “just right” for life and conscious observation of it.

Intelligent Design – The belief that the universe is purposeful and indicative of a mindful cause.

Irreducible Complexity – The fact that some parts of living systems could not have evolved without other related parts evolving at the same time (difficult to explain with Darwinian evolution).

Multiverse – The conjecture that the universe we see is one of many other universes. There is no evidence for this, and it is considered an ad hoc response to the appearance of design and fine-tuning.

Naturalism – When used in context with science, the belief that matter, energy, and space are all that exists. There is no *supernatural*.

Teleology – Literally, the study of “ends” or purpose. Another term for intelligent design.

