

Starlight and Time

If Satan can get us to doubt one portion of God's word, he will have a much easier time planting seeds of doubt concerning other sections of Scripture. If he can get us to doubt the creation account on the basis of science falsely so-called, what is to keep us from doubting the resurrection account? If one portion of Scripture can be dismissed as mythical history, why not another?

One way Satan attacks the truth of Genesis and the rest of Scripture is by casting doubt upon Scripture's clear teaching concerning the age of the earth. Using data such as the genealogies presented in Genesis and elsewhere, it's not difficult to arrive at six thousand years as the age of the earth. However, if Satan can convince us that the universe is much older than six thousand years, say on the order of billions of years, the truth of Scripture is immediately called into question.

One particular argument, which many unbelievers use to supposedly "prove" that the universe is billions of years old concerns light from distant stars. The reasoning goes like this: Some star formations have been estimated to be billions of light years away; that is to say, they are so far away, it would take light from those stars billions of years to reach the earth. If we can see the light from those stars, it must have been traveling through space for billions of years. Therefore, the universe must be billions of years old.

This is an example of a lie cloaked in scientific language. It is a lie because it directly contradicts God's very own word that he created sun, moon, and stars on the fourth day of creation, some six thousand years ago. The lie is cloaked in language that sounds logical. But, it is a lie just the same.

When faith is confronted with such lies we must cling to the clear teachings of God's word. We don't have to understand all the intricacies of the arguments we hear. We don't have to understand how scientists figured out that the stars are billions of light years away. We don't have to understand how they figured out the speed of light, etc. It may be helpful to understand these things; but such understanding must not be the basis of our faith.

Unbelieving scientists may scoff and call us ignorant simpletons; but, that's nothing new. The gospel, and God's word that reveals it, have always been scoffed at by unbelievers. We need to understand that God's word is sure. If Scripture reveals the earth and the universe to be six thousand years old, that's all we need to know before we reject the lie that the universe is billions of years old. By faith we believe God's word and reject the lie (cf. Hebrews 11:3: "Through faith we understand...").

Faith is not a blind leap into darkness that closes our eyes to understanding. Faith should not be defined as believing those things that make no sense. Far from it, faith uses the spectacles of Scripture to make sense of things. It is helpful therefore, to know that there are explanations for starlight reaching us from such distant places in the universe.

One explanation for the fact that we can see such light from distant stars is that God could simply have created the light that stretches between them and the earth. The same God who created light in an instant on the first day of creation is surely able to create the billion-year light streams that stretch between the stars and us. God could have created the stars and light in transit that make it appear as though they existed for billions of years. This is a valid explanation in that it logically explains how a star that is billions of light years away could be visible even though the universe has only been in existence for six thousand years. It is also a valid explanation because it has its starting point in the truth of God's inspired infallible word.

One criticism of this explanation, however, concerns light streams from stars that never existed and from events that never happened. For example, if the "light-created-in-transit" explanation is correct, then the explosion of a supernova located a billion light years away, which explosion we observe today, never actually happened. All that would have existed in this case would have been a light stream that had been traveling towards earth for six thousand years with the mere appearance of an exploding supernova at the end of that light stream. The reason we would have to say the supernova never actually existed and the explosion never actually occurred is that we know the universe is only six thousand years old. Assuming that the speed of light has always been the same, there would not have been enough time for the light to reach us from one billion light years away, where the supernova explosion apparently occurred. In other words, if we are seeing an event from one billion light years away there are seemingly only two possibilities. The first possibility is that at least one billion light years have passed by since that event happened; this, of course, would be inconsistent with a six thousand year old universe. The second possibility is that God simply created a light stream six thousand years long with the appearance of an exploding supernova at the end of it.

God could certainly do this. But, some wonder whether the light-created-in-transit theory may contradict Scripture, which seems to indicate that God created not just light streams, but heavenly bodies themselves, which he set in the firmament to give light. Genesis 1:16-18: "And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also. And God set them in the firmament of the heaven to give light upon the earth, And to rule over the day and over the night, and to divide the light from the darkness: and God saw that it was good."

In recent years, another explanation has been brewing among creation scientists. The chief proponent of this new explanation is Dr. Russell Humphreys. Dr. Russell Humphreys, and more recently, Dr. Larry Vardiman, have used Einstein's theory of relativity to develop an explanation that makes sense of light from distant stars.^[1] Although Einstein's theory is often associated with the evolutionary Big Bang hypothesis, this is more a result of unbelieving assumptions that are fed into Einstein's theory.

A refreshing aspect of Humphreys' and Vardiman's explanation is that they take Scripture seriously. They do not attempt to explain away the clear teachings of Scripture in the light of apparent contradictions with science. Rather, they seek to make their science fit Scripture. Says Humphreys,

In contrast to the way some scientists promote their theories, I don't expect people to take mine as gospel. For example, many people may prefer the mature creation of starlight, a venerable creationist theory I commented on in appendix A of my book. Even if you like my theory, please try to keep open to the possibility that a better one may come along. I myself remain open, and anticipate my tenure at ICR, with increased attention and time focused on this vital question, to bear much fruit.

Cosmic phenomena are so complex and beyond our ken that it would be especially arrogant to assume God couldn't do what he said he did simply because we can't imagine how. Our imaginations are very limited, but God's is not. Even in cosmology, all things are possible with God (Matthew 19:26). Every human theory needs to conform to the knowledge the word of God gives us. Regardless of the complexities of cosmology, we can know that the world is young because of clear Scripture in clear context, such as Exodus 20:11, "*For in six days the Lord made heaven and earth...*" Our privilege, our mandate, is to try to discern his methods and thoughts, and to give him all praise and glory throughout.^[2]

Humphreys' explanation uses the effect called "gravitational time dilation" to explain how light could reach the earth without billions of years having passed on the earth. Gravitational time dilation is a term used to describe the effect of gravity on the passing of time. This effect has been proven using atomic clocks, one placed at sea level and another atop a mountain. Since the atomic clock at sea level is subject to greater gravitational forces, it runs more slowly when compared to the atomic clock place further away from the earth's center of gravity. This is a striking effect that shows how time and matter in the creation are intimately connected and that time itself is a creature having been created by God in the beginning.

Another significant aspect of this new creationist cosmology is that it does justice to many Scripture passages, which seem to indicate that space is actually a solid material (even though we cannot see or feel it). One such Scripture, Isaiah 40:22, describes how God “stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in.” Sixteen other verses in Scripture contain similar language. These verses indicate that space is like a stretchable cloth. Similarly, Genesis 1:7 speaks of the firmament (Hebrew *raqiya*), which word suggests that space is a solid material that can be spread out, like bronze plates that have been spread out by hammer (cf. Numbers 16:38, “broad plates” using the same Hebrew root word as used in Genesis 1:7 for “firmament”).

According to Humphreys’ solution to Einstein’s gravity equations, the way in which mass is distributed throughout the universe affects the stretching of the fabric of space, which stretching controls the speed of light, which in turn controls the passing of time.

Humphreys’ argument relies on the effect of gravity upon time. The more gravity, the slower the passage of time. Today, the effect on earth is so small that it cannot be noticed unless we look for it using highly accurate atomic clocks. However, in the vast universe, at the beginning of creation, the effect could have been very great. According to calculations, given enough gravity at the center of the universe, time could come to a complete stand-still. Humphreys believes this effect could have taken place and again subsided on day four of creation. While time stood still on earth, processes toward the edge of the universe would continue. This would allow plenty of time for light to travel from distant stars. (Space prohibits us from going into more detail; but the interested reader is referred to the articles by Vardiman and Humphreys in footnote 1.)

It is important to realize that the use of time dilation does not make the universe more than six thousand years old. The truth still remains that God created the original mass of the universe six thousand years ago. Therefore, this explanation does not capitulate to unbelieving evolutionists. To them, it will no doubt be foolishness.

Is this the correct explanation? Perhaps. Our faith, however, should never stand upon our ability to provide an explanation for phenomena in the creation. Whether or not we can explain starlight from distant stars, God’s word must stand as the rule for all truth. “Let God be true, but every man a liar” (Romans 3:4).