

The “Theory of Everything”

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Romans 1:18-25

For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who by their unrighteousness suppress the truth. For what can be known about God is plain to them, because God has shown it to them. 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. So they are without excuse. For although they knew God, they did not honor him as God or give thanks to him, but they became futile in their thinking, and their foolish hearts were darkened.

Claiming to be wise, they became fools, and exchanged the glory of the immortal God for images resembling mortal man and birds and animals and creeping things. Therefore God gave them up in the lusts of their hearts to impurity, to the dishonoring of their bodies among themselves, because they exchanged the truth about God for a lie and worshiped and served the creature rather than the Creator, who is blessed forever! Amen.

I once asked a friend, “What can we do about the problems of *ignorance and apathy* in our society?” His reply was, “I don’t know, and I don’t care.”

In this message, I’m going to ask you to do some heavy *thinking*. John D. Garr has written, “Thinking may be the most painful process known to humanity, but it is essential in today’s ignorant and apathetic world where too often the answer to even the most important questions is, ‘I don’t know, and I don’t care.’ It is time to do more than a casual, cursory review of thought in . . . Scripture . . .” (John D. Garr, *God and Women* [2011], p. xvii).

Physicists are scientists who study the fundamental structure and operations of physical phenomena. This enterprise involves them in the application of quantum mechanics, or the relationships between forces operative at the subatomic level. Cosmologists are scientists who study theories of the origin of the universe, and the forces at work within it. This enterprise involves them in the theory of general relativity, famous from the work of Albert Einstein, which operates on a cosmic scale.

A problem for physicists and cosmologists is this: the theory of general relativity doesn’t harmonize with quantum mechanics. Things we observe on the cosmic scale don’t always behave as they ought to behave when considered from the standpoint of quantum mechanics, and vice versa. That is, the little, tiny things don’t seem to play by the same rules that the great, big things seem to observe.

Now I’m certainly no expert in either physics or cosmology, so I hope I’ve got that right. The stuff I read about all this is way too technical for me to understand the details, especially the mathematical formulae involved. But one thing that comes across to me is this: because of the discrepancy between quantum physics and relativity theory, scientists are looking for the T. O. E.

No, I don’t mean they’re staring at their toes, head cast down in hopeless despair! T.O.E. stands for a theory they’re trying to come up with that reconciles relativity and quantum mechanics, and explains how the universe works on both the subatomic and the cosmic scales. The sought-for T.O.E., in other words, is the *Theory of Everything*.

Now, please be patient with me, because eventually we'll get to the Bible. But not quite yet.

I often lie awake at night thinking about problems, though seldom do I ponder the T.O.E. But there are people who do lie awake nights thinking about it, and some of them have come up with a theory that might eventually reconcile the discrepancy I've described, and thus produce the Theory of Everything. These scientists have proposed a variety of hypothetical solutions that come under the heading of "string theory."

String theory, sometimes called superstring theory, says that everything in the universe is made up of tiny vibrating strings of energy. These strings are so tiny that they can't be seen or detected, because they make up everything else, and anything we could use to try to "see" them would be so much bigger than a string that it could never show it to us. It would be like trying to pick up a dime — just one dime — with a twenty-ton clamshell crane. Strings are so tiny, in fact, that according to the theory they have only one dimension — length — and they vibrate in only two dimensions.

Now we're familiar with the four-dimensional space-time universe of length, width and height, plus time. But, according to string theory, to be the basic "building block" of the universe they have to vibrate across multiple dimensions. That is, strings vibrate two-dimensionally on "surfaces" of more than three dimensions — eleven dimensions, in fact, in most versions of the theory.

Although it's impossible for us four-dimensional creatures to visualize it, according to string theory at every point in the universe as many as eleven dimensions are "curled up" as surfaces for the vibrating strings. There's a name for this multi-dimensionality; it's called the Calabi-Yau manifold, named after the scientists that proposed it. And the frequency with which the strings vibrate on these surfaces determines the kind of subatomic particle they make up: particles with names like quarks, gluons, and the larger particles they cluster into such as photons, electrons, fermions, etc. (Don't ask me anything about this — all I know is what I pick up on the Internet!)

The problem is, there are multiple versions of string theory. So one scientist, Edward Witten, has proposed a way to reconcile all the different versions into one, called M-theory. What the "M" stands for has never been specified; some people think it stands for the "Mother-theory," some call it the "Monster-theory," and some have suggested calling it the "Magic-theory." Whatever it is, M-theory is being put forward as a candidate for the T.O.E., the Theory of Everything.

So why go into all this theoretical detail about what might be the "basic building block" of the universe? There's a good reason and it has to do with promoting and validating a biblical world view — looking at life, the world, and the universe the way the Bible sees them. For several centuries now our culture's outlook on the world has been a materialistic one. People in Western culture have trouble thinking in non-materialistic terms. What really matters, to most people, is hard "stuff" — things they can see, like cars or houses or food or bombs, or things they can see operating, like electric lights or iPads. We think the world, and the things in the world, are solid and substantial, and to us that's what's really real.

Come to find out, though, that none of that stuff is "really real" or solid. According to M-theory, the proposed Theory of Everything, all the stuff in the universe is just made up of tiny vibrating strings. And the strings aren't made up of anything else; they're what everything else is made up from. They're not even "stuff" themselves; they're just vibrating, one-dimensional lines. You and I, and everything around us in this world, are just vibrating frequencies. (Talk about having a "vibrant Christian life!") There's really nothing to us, and nothing to anything else either, except frequencies.

And between every particle in the universe there's an immense space. The distance between the particles of an atom — the nucleus and the surrounding electrons and all the forces involved — is

comparable, on the atomic scale, to the distance between the bodies of our solar system. Someone has suggested that if all the space between all the “hard” stuff of the universe were removed — if, indeed, there really were any “hard” stuff — this universe 93 billion light-years across would shrink to something the size of a grapefruit, or even a golf ball. Yes, we really are nothing but vibrations, and mostly space! (Just call me “Spacey.”)

It’s time to look at the Bible, beginning with Hebrews 11:3: “Now faith is the assurance of things hoped for, the conviction of things not seen. For by it the men of old received divine approval. By faith we understand that the world was created by the word of God, so that *what is seen was made out of things which do not appear.*”

Our culture is fixated on the “hard stuff,” what is “seen” — chemical molecules, cell phones, hamburgers, assault rifles, government entitlements, reproductive organs. The men who wrote the Scriptures knew better. By the Spirit of God they were given insight into the truth that none of those things are the building blocks of reality. They had their own version of the Theory of Everything. The basic building block of all things is an invisible vibration, a frequency. They called it a *word*: “By the word of the LORD the heavens were made, and all their host by the breath of his mouth” (Psalm 33:6). As you know, words are produced by speech, and vocal speech is produced by the *vibration* of our vocal cords. “In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God; all things were made through him, and without him was not anything made that was made” (John 1:1-3). The Bible understands that everything that exists came to be as the result of a vibration.

When the universe was created it had no visible shape, because visibility requires *light*. But, according to some cosmologists, there was no light during those first milliseconds of the “big bang,” because the plasma of the universe was expanding at a speed faster than the speed of light. (You can’t see something that’s moving faster than what you use to see it with.) During those first split seconds the universe ballooned out to perhaps seventy or eighty percent of its present size, and it’s still expanding today. But until there was light, the universe was invisible. As the Bible says, it was “without form and void, and darkness was upon the face of the deep” (Genesis 1:2). But then “God said, ‘Let there be light’; and there was light” (Genesis 1:3). The first particles to be created — about the simplest particles there are — were light photons. And they came into existence because of a vibration, a frequency — a spoken Word. The biblical writers knew this centuries ago, and M-theory is just finding it out today. Perhaps the “M” in M-theory stands for “Maker,” the Creator.

So the Theory of Everything is saying essentially what the Creator revealed to the authors of Scripture two or three millennia ago. Why is this important? Many people, influenced by what they *think* is scientific certainty, regard the Bible as an unrealistic picture of how the world came to be, and how it operates today. Those people will look upon you and me as ignorant, gullible yokels who still believe the unbelievable. So our witness to the truth of Christ, and to the truth of Scripture that testifies to Christ, is likely to fall upon deaf ears. I just want to encourage you, at this point, in your conviction that the truth of the Christian revelation stands upon a more believable foundation than many people are willing to accept.

But, if you’ll permit me to go further, there’s more to be said about how the Bible understands the makeup and operation of the universe.

Physicists and cosmologists recognize four forces that operate on a universal scale: electromagnetism, the strong nuclear force, the weak nuclear force, and gravitation. The weakest of these forces is gravity, which nobody really understands; some have theorized that it has to do with the curvature of space. (Don’t ask me how space can be curved, but a lot of cosmological thinking depends on it.) The strongest force is the strong nuclear interaction, which is 10 to the 39th

power times greater than gravity — but it only operates between pairs of subatomic particles, called quarks or gluons, so its effects are neutralized outside of the atomic nuclei that it binds together. And how it holds these nuclei together is not fully understood.

In between the strong nuclear force and gravity are the other two forces, electromagnetism and the weak nuclear force — sometimes considered two aspects of the same interaction. The weak force is responsible for the radioactive decay of subatomic particles. We're more familiar with electromagnetism, because it's the interaction responsible for almost all the phenomena we encounter in everyday life, except for gravity. Electromagnetism is what allows the atoms of material substances to take shape and interact with each other. So we're not only a vibrating frequency; at another level we're magnetic and electrical. (Just call me "Sparky," and appreciate my magnetic personality.)

I mentioned earlier that the universe, and everything in it including you and me, consists mostly of space — astronomically equivalent space between tiny charged particles. Something has to hold all those particles together so they don't just decay into formless plasma. The strong nuclear interaction and electromagnetism are two forces that do this, on one scale or another — but how do they do it, and for that matter how does gravity work? Reading discussions of this topic, one gets the feeling that physicists don't really understand how these forces operate but are simply giving technical names to phenomena thought to occur, as though naming them would explain why they behave as they do. That's like saying that people gather together because they are gregarious, when being gregarious is just another way of saying that people like to gather together. Exactly how and why an object or substance is able to hold its "shape," given the fact that it consists mostly of space, is probably as puzzling a question now as it ever was, and how the universe is held together remains a scientific mystery.

In the first century BC the Roman philosopher-poet Lucretius wrote a book, *On the Nature of Things*, in which he contended that everything consists only of atoms falling through space. He was following up on the ideas of the Greek philosopher Democritus (fourth century BC). Whether or not the writers of the New Testament were aware of Lucretius's work, they were at least aware of his problem: to make sense of the universe, there needs to be some force that holds things together. In this connection, let's listen to what Paul wrote of Christ in Colossians 1:15-17: "He is the image of the invisible God, the first-born of all creation; for in him all things were created, in heaven and on earth, visible and invisible, whether thrones or dominions or principalities or authorities — all things were created through him and for him. He is before all things, and in him all things hold together." We can add to this Hebrews 1:1-3: "In many and various ways God spoke of old to our fathers by the prophets; but in these last days he has spoken to us by a Son, whom he appointed the heir of all things, through whom also he created the world. He reflects the glory of God and bears the very stamp of his nature, upholding the universe by his word of power."

What would happen if, from within our four-dimensional Newtonian space-time universe, we could observe the effect of introducing additional dimensions into consideration — those additional seven or more dimensions supposedly wrapped up at every point in the Calabi-Yau manifold? Would some kind of "nuclear binding force" allow an object to keep its shape while still passing through the space between the particles of another object? As we've seen, there's plenty of space between the subatomic particles of physical objects to allow them to "pass through" each other, if particular forms of binding energy allowed each object to retain its integrity while doing so.

Is this what happened at the resurrection of Jesus? "Eight days later, his disciples were again in the house, and Thomas was with them. The doors were shut, but Jesus came and stood among them, and said, 'Peace be with you'" (John 20:26). A four-dimensional universe could not have

come into existence unless its Creator was operative in dimensions beyond the four that we normally experience. Could Jesus's resurrection, and what He is able to do as the risen Lord, be the result of God's continued multi-dimensional activity, bringing about a new creation for us through his Son?

Why did I go into all this detail about theories of cosmology and quantum mechanics, superstring theory and the proposed Theory of Everything? As I mentioned earlier, for many people today — to the extent that they ponder questions of truth, which for most is perhaps not very often — science is the authority for what's "really real." It is science in some form, or something claiming to be science, to which people turn if they want "the facts" — "just the facts, ma'am." Our twenty-first century worldview is shaped by a non-supernatural, supposedly scientific, viewpoint that became dominant starting with what's called the Enlightenment in the seventeenth century. Since that time, philosophers and scientists have spoken of "a causal nexus in space and time," the idea that the universe is a closed system of cause and effect that can be understood only in terms of material forces interacting with each other in predictable ways.

To people steeped in such a world view, the Bible with its picture of God, angels, demons, miracles, resurrection, and standards of human conduct must seem like a fairy tale, not to be taken seriously. Even Christians will put the Bible's world into one box, to be considered on Sunday morning, and put the world of today into another box, to be dealt with the rest of the week according to its own presuppositions and set of values. *But the Bible is dealing with the same universe we live in all the time.* Unless we can show that the men who wrote the Bible were smarter than the people and influences that shape our cultural presuppositions and values today, the church won't be able to get people to listen to what it has to say about life, or about the moral order the Creator has built into the universe. For example, it will do no good to declare that "Christ died for our sins" if there's no God to sin against. And it's useless to offer people what God has to give them if they can't imagine a God who has anything to give. Francis Schaffer used to say something like this: The first premise of the gospel is not "Christ died for your sins." The first premise is that *God is real*, and we have to deal with him.

When it comes to how to go about establishing a firmer foundation for Christian truth, we can't just cop out and say, "I don't know, and I don't care." The apostle Paul refused to permit people any such excuse. He wrote, in Romans 1:19-20, "What can be known about God is plain to them, because God has shown it to them. Ever since the creation of the world his invisible nature, namely, his eternal power and deity, has been clearly perceived in the things that have been made." People need to know their Creator so they can know who they truly are, creatures made in his image with a responsibility to him, and realize the life he wants to give them. I believe we'll be able to get this message across most effectively if we present it from the basis of universal reality, the way things fundamentally are as the Bible sees them, and the way scientists are coming to see them with their Theory of Everything — getting to the bottom of things where God is "clearly perceived in the things that have been made."

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