

## The Web of the Universe

Psalm 19:1-6; Ephesians 4:4-6

Eleventh Sunday after Pentecost, (Aug. 28) 2011

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A hundred years ago in the mill town of Fall River, Massachusetts, Rev. William Wisner Adams preached an annual sermon on the latest developments in astronomy. When asked why he went to such extravagant efforts to lay the most sophisticated study of the stars before his congregation of mill hands and store owners, who did not pretend to understand nor be interested in the subject, Rev. Adams is said to have replied that he did it because it “enlarged his view of God” (from Peter Gomes, *The Good Book*, p. 312).

How different than so much of what we hear today. Instead of approaching science as enlarging our view of God, science is often depicted as the enemy of God and faith and religion. And like so many other things these days, versions of science and religion have become politicized and polarized so that people like you and me get caught in the crossfire.

For example, I believe that creation as found in Genesis 1 and 2 is truth. It is the truth of who we are and who God is; we are creatures. But at the same time, I believe in evolution as truth, too. It tells us how and what but it doesn't tell us who or why. We get into trouble when we get these confused as in treating creationism as science or trying to read the Bible as a science book or vice versa, as when some attempt to make science into the truth of ultimate things. Religious faith and science are two different ways of knowing.

The Texas State Board of Education has become a laughing stock in some parts of the country because of its efforts to force the teaching of creationism in Texas public school classrooms and its hostility to evolution. They are guilty of trying to make creationism into a science, which it is not.

More than one pundit has pointed out that science and religion have been battling for over 400 years now. And it seems that in Texas, some still want to fight the battles of 100 years ago, or perhaps even 400 years ago. I wonder about some of our elected leaders and whether or not they might still believe that the earth is flat.

But these oppositional ways of seeing science and religion have not always been true and they're not true for many today. I remember our own church physicist, Jack Decker, talking about looking up at the stars at night and being deeply moved at the wonder of God and God's great handiwork. Fred Rainwater, who was our own church biologist, until he retired and moved to Dallas, used to have the same sense of wonder of God when viewing cellular life through a microscope. Science can be a way to more fully appreciate God's amazing creativity.

What I'm saying is certainly nothing new. At the heart of the teaching of the church for centuries is that faith seeks understanding. When we realize that all truth ultimately comes from God, then we can seek truth in all the varied ways it shows up. We can learn of God and God's ways through physics and literature, philosophy and biology, art and music, and history and on and on. Indeed, one of the most important ways we are to be faithful disciples of Jesus Christ is that we use our minds to know God and know God's world. So we read and study and think; we go to school and learn. When we come to church, at least this church,

we expect to worship God with our minds as well as our hearts. Jesus said that the greatest commandment is “You shall love the Lord your God with all your heart, and with all your soul, and with all your strength, and with all your mind; and your neighbor as yourself” (Luke 11:27). Did you get the “love God with all your mind” part?

The Bible gives us a world view based on the physics of Aristotle and Ptolemy, in which the earth sits at the center of the universe, and therefore at the center of God’s attention as well – above is the heavens and below is sheol or hell. A thousand years later, Copernicus changed our vision of the universe, theorizing that the sun, not the earth, belonged at the center of things.

In 1611 the King James translation of the Bible was published with a note to readers that creation had occurred on the evening before October 23 in the year 4004 BC. In 1616 the church banned all books that suggested the earth moved at all. Galileo, believing Copernicus was right, continued his research in spite of the ban, but was forced by the Inquisition to renounce his findings.

In 1687, Isaac Newton planted the seeds of a new world view. Laying down the laws of celestial dynamics, he revealed a solar system that worked like a vast machine, with many parts--some as small as atoms and others as huge as the sun, but they all obeyed four laws. He gave God credit for the laws, but the laws themselves left very little for a deity to do. God was perceived as something of a night watchman who dozed in a lawn chair while the stars spun in their courses above.

In many churches to this day you will hear God described as a being who behaves as predictably as Newton’s universe, which makes God easy to

understand. Pull this lever and reward will drop down. But don't touch that button or all hell will break loose. In this clockwork universe, the spiritual quest is reduced to learning the rules in order to minimize personal loss and avoid hell, and maximize personal gain and achieve salvation. We speak of following principles and knowing the eternal laws and God always follows the eternal laws.

A Newtonian universe places emphasis on the individual. The atom is the building block of the cosmos, and everything can be broken down into smaller things, and these are the things that count. In the human universe, then, nations, communities, churches and families are reducible to the individuals who make them up. If a child acts out, take the child to a counselor. Fix the child, without inquiring into the health of the family. If a poor woman sells crack, send the woman to jail to punish her without ever asking about the society which keeps her from supporting herself legitimately. The whole can be fixed by repairing the individual parts, and the whole is simply the sum of its parts.

New studies in science and astronomy give us a new world view, however, challenging our traditional understandings of God and our world. It is not a clockwork universe in which individuals function as discrete springs and gears, but one that looks more like a luminous web in which the whole is far more than the parts. In this universe there are no such things as parts that form the whole, but the whole of the universe is the fundamental unity of reality. The whole is in everything. Everything is connected.

Earlier in our century Albert Einstein stretched our minds to understand relationships between time and space while new understandings about the Big Bang were unfolding. Today physics reveals something Newton couldn't have known and something Einstein wouldn't believe: that once two particles have

interacted with each other, they remain related regardless of their physical distance from one another.

This is the language of quantum physics, and it changes the way we define and see our world. According to the quantum theory, a subatomic particle that decays into two parts becomes a set of “twins”--a single system with two parts, spinning in opposite directions, which, according to the laws of physics, must balance each other. So, if two particles fly apart--one of them heading around the dark side of the moon while the other lingering above your head--and if you could reverse the direction of the one above your head, the one going round the moon would instantaneously reverse itself as well. There is a kind of instantaneous, superliminal communication between quantum particles. Once they have interacted with each other, they have the power to influence each other, no matter how far apart they go. According to quantum physics, this “nonlocality” or relatedness goes beyond human beings to include the whole creation. As hard as we might try to make the creation a machine, it insists on acting like a body, animated by some intelligence that exceeds the speed of light.

It is no longer possible to see the universe as a collection of autonomous parts, as Newton did, existing separately while interacting. The deeper revelation is one of undivided wholeness, in which the observer is not separable from what is observed. Physicist Werner Heisenberg said, “The common division of the world into subject and object, inner and outer world, body and soul is no longer adequate.”

Furthermore, quantum theory says that it is impossible to know both where a particle is and how fast it is going. You can know one but not the other. If you can fix the location of a particle, you cannot measure its momentum. Or if you can

clock its momentum, you cannot say for sure where it is. This is called Heisenberg's principle of uncertainty. It seems that at the core of reality there is an uncertainty which no amount or quality of observation can overcome. In other words, there are some things we cannot know, no matter how much or how well we study them. At the core of reality is an unfathomable mystery.

Quantum physics also says that we don't know if we're talking about particles or waves. Is light made up of waves or particles, for instance? Is it both or neither? If scientists are looking and asking particle questions, then it behaves like a particle. If scientists are looking and asking wave questions, then it behaves like a wave. We cannot know with any certainty. Furthermore, as I mentioned, when the scientist "observes" the very act of observing changes the way the particles or waves interact. There is no such thing as objective observation, as Newton believed. We are not independent from what we study. We are not spectators. All knowers are participants in that which is known. We're all involved and our involvement changes the very nature of reality.

Now, here's what I think this means. And when I say this I'm making a faith statement. Science does not and cannot prove God any more than it can disprove God, so this is what I believe part of what quantum physics is saying from a Christian faith perspective. The Apostle Paul, the writer of Ephesians put it like this: "There is one body and one Spirit ... one Lord, one faith, one baptism, one God and Father of all, who is above all and through all and in all" (4: 4-6).

Now we know Paul's language about God being above all. We are comfortable with the language referring to God up in heaven. But I want us to think about the phrase, "God is through all and in all." Here is a testimony about

God from ancient times that speaks to what we're learning from quantum physics today.

We live in a universe that seems to be connected in some way. A kind of web, or dynamic net, is how some scientists and philosophers and theologians put it. Everything, from the largest to the smallest, is somehow related. And it all moves, not at the speed of light, but faster than the speed of light.

When a mother wakes up in the middle of the night "knowing" that something has happened to her child, we get an inkling of what I'm talking about.

Where is God in all this? Is the web that connects all things, is in all and through all, God or the Holy Spirit? Perhaps. Colossians declares, that in the God we know in Jesus Christ, all things hold together (1:17). God is the unity or union or glue of the universe. God is not up in his heaven watching over the universe as much as God is involved and continuously participating and creating and sustaining. The ancient rabbis said that if God quit breathing, then all the universe would cease to be.

What we believe is that when we give ourselves to Jesus Christ, we acknowledge and commit to this relationship with God, others, and God's creation, the universe. I believe that God has connected us in ways that are unfathomable mystery and we willingly enter into it and embrace it when we give our lives to Jesus Christ. We come to acknowledge that we are participants in this world and what we do or don't do makes a difference.

Newspapers several years ago carried the story of a reporter covering the war in Sarejevo. It happened that a little girl walking on the street right in front of him was severely wounded by sniper fire. Before the reporter could react, a man

had scooped up the little girl and was pleading with the reporter to drive them to the hospital. What could the reporter do? Without hesitation, he loaded them into the back seat of his car and began to drive.

After a minute or two, the man said urgently, “Please hurry; she is still living!” A few minutes later, the man in the back seat said, “Hurry, please, my little girl is still breathing!” Yet a few minutes later, the man said, “Hurry, please, my little girl is still warm.” Soon, they pulled up to the hospital, but it was too late. The girl was dead.

The man and the reporter went into the restroom together to wash the child's blood from their hands. “Now comes the hardest part,” said the man. “What is that?” asked the reporter. “Now I have to go and find that little girl’s father and tell him she is gone.”

The reporter was stunned. “But I thought you were the father. I thought she was YOUR child!”

The man replied, “Aren’t they all our children?”

Science is telling us something that this world desperately needs to know, and something that Jesus and the Bible has taught for centuries. They’re all our children. We’re all connected. And this old world needs a people like Austin Heights Baptist Church that knows that.

Amen and amen.