

Science and Faith

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"In the beginning when God created the heavens and the earth, the earth was a formless void and darkness covered the face of the deep, while a wind from God swept over the waters. And God said, "Let there be light"; and there was light. And God saw that the light was good; and God separated the light from the darkness. God called the light Day, and the darkness he called Night. And there was evening and there was morning, the first day." (*Genesis 1:1*)

The Bible begins with this memorable passage, the first Creation story in the book of Genesis. It's a model of order and goodness, with God creating our familiar world out of the darkness of the primordial chaos. Day by day the earth and its creatures take shape, culminating in the emergence of men and women as the crown of creation. Finally on the seventh day God rests and hallows a Sabbath day.

This story is unsurpassed for its lyrical beauty, yet in the minds and hearts of today's people it's been superseded by an explosion of scientific knowledge. Or has it?

Last summer I talked with two women who lead a consortium of home-schooling families. Several times a year the parents and kids gather for a day of activities, and they described several popular programs. "Then there was the time we had an astronomer... He showed slides and told us the universe was billions of years old. The kids knew better, though. They set him straight!"

How ironic for grade-school students to be lecturing a college-trained teacher. It's a vivid example of the apparent opposition between the perspectives of science and faith.

What is science? What is theology? Are they mutually exclusive, or are there points of connection? Most importantly, how can faithful Christians live with integrity in an age dominated by science?

"Theology" sounds like a ten-dollar word, but we all engage in it. The prologue to the Gospel of John supplies us with the word's literal meaning: "In the beginning was the Word, and the Word was with God, and the Word was God." (*John 1:1*) "Theos" is Greek for God, and "Logos" means Word. Literally, theology is "a word about God."

My collegiate dictionary calls it "the study of divine things or religious truth;" a common working definition is "faith seeking understanding." (*St. Anselm of Canterbury*) It can be hard to define what we mean by "God," but surely there are no limits—so "talking about God" can cover a lot of ground.

Science is such a common term that people often mistake its meaning. The Oxford English Dictionary defines science as “the systematic study of the structure and behavior of the physical and natural world through observation and experiment.” It’s characterized by the use of the “scientific method,” which involves defining a question, observing natural phenomena, formulating a hypothesis to explain them, and testing the hypothesis. Using the scientific method is a community effort—experiments are reviewed by other scientists and must be replicated in order for their conclusions to gain acceptance.

A scientific theory is not something to be “believed in,” but rather to be tested and modified as it is used. Take the question of the age of the universe. Some people say they don’t believe in astronomy because “the Bible says” the universe is six thousand years old. In the first place, that’s not a scientific statement because it’s not based on the observation of natural phenomena. That doesn’t mean it isn’t true; just that it’s not a product of the scientific method.

In the second place, it’s a misleading theological statement—based not on a clear biblical passage but on a questionable interpretation. The Second Letter of Peter says, “with the Lord one day is like a thousand years, and a thousand years are like one day.” (*2 Peter 3:8*) Using that verse as a lens, the six days of creation in Genesis could indicate the passage of six thousand years.

Personally, I’m doubtful about linking one of the last books of the Bible with the first. Another example might illustrate my reluctance to take biblical passages out of their context. Did three thousand years transpire between the Last Supper and Easter morning? Yet the Gospels clearly say, “after three days...” (*Mark 8:31*) Even though I’m not impressed by the reasoning, I do recognize this understanding of the age of the universe as a theological statement.

For a fuller explanation let’s turn to one of my seminary mentors, Dr. Owen Thomas of the Episcopal Divinity School:

“confusion arises because both theology and science seem to be talking about the ‘origin’ of the universe...When scientists talk about the origin of the universe they are referring to the earliest state of affairs they can *describe* in the history of the universe, such as the vast closely packed mass of neutrons in the ‘big bang’ theory...But when theologians talk about the origin of the universe, they are talking about its *ultimate* origin, namely, about the question as to why there ever was a mass of neutrons or...why there is a universe at all and not simply nothing.” (*Introduction to Theology, 1983, p. 101, emphasis added*)

Therefore, Thomas concludes that “proper scientific statements or theories cannot conflict with or support proper theological statements, and vice versa.” They’re simply different kinds of observations.

A familiar example may help to clarify this point. Modern medicine is one of the most remarkable applications of science in our lives. It has developed over centuries through the use of the scientific method, and new advances are emerging every year. There's nothing biblical about medicine—those ancient cultures had different ways of looking at illness. In fact, the use of medical science is contradicted by a clear statement in the Letter of James, “Are any among you sick? They should call for the elders of the church and have them pray over them, anointing them with oil in the name of the Lord.” (*James 5:14*)

Last fall two parents in Wisconsin were convicted of 2nd degree reckless homicide for failing to take their eleven-year-old daughter to a doctor for treatment of juvenile diabetes. (*New York Times, 10-7-09*) Though a frantic aunt from another state finally called the sheriff, the ambulance arrived too late to save the girl's life. Because their actions were based on their faith, the couple received a relatively light sentence.

This case was newsworthy in part because of its rarity. Virtually all Christians are comfortable with medical treatments, combined with prayer, of course. In fact, recognition of the benefits of healing prayer is a major trend in medical education today. We see that science and theology can complement each other in leading to the best outcomes for health concerns.

Science can also stir up our faith by revealing God's creative activity in the world. I remember very clearly the awesome experience of hiking to the bottom of the Grand Canyon. Without knowing anything more about geology than what was written on the map, descending through all those sedimentary layers took me back into ancient eras, far removed from the world I'd left up above. Later, reading about fossil discoveries and becoming more familiar with southwestern landscapes deepened my sense of wonder. The privilege of walking through places carved out by the Colorado River millions of years ago still takes my breath away.

Creationists attempt to make a scientific statement by translating their biblical interpretation to that realm. They hypothesize that six thousand years ago God created the Grand Canyon the way we find it today, layering the strata and placing the fossils “just so.” I'm not the judge of other peoples' theology (though it seems like they're writing a script for God), but it's simply not scientific: there's no way to test their hypothesis experimentally.

Anyway, it's so much more awe-inspiring to picture an unfolding process of creation stretching over billions of years. Scientists can take us back to that seminal moment when all the matter and energy of the universe were concentrated in a single speck of neutrons. In the instant that the creation burst forth (I'm reminded of the words of Genesis: “Let there be light...”) it contained within it the galaxies and suns and planets, with all their wonders. You and I and the Grand Canyon were part of that speck, along with everything else that will ever emerge in the universe.

It's beyond the domain of science to explain where that speck came from or why it burst forth—for that we must turn to theology:

“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 came into being through him, and without him not one thing came into being. What has come into being in him was life, and the life was the light of all people.”

This is not only sublime poetry but much more: a witness of faith which stretches the bounds of human language to point toward the One whom we follow. As Professor Thomas writes, “(Theology’s) answer is that the universe... does not exist of itself without any reason or purpose, but that it exists because God wills that it should exist.” Science, traveling back to its limit in time, helps people of faith to see God at the boundaries of the everyday world.

Scientific discoveries can reveal God’s action in our midst today. Like any grandparent, I’ve got a photo of our three grandsons in my wallet. But scientific advances have brought baby pictures to an entirely new level. The first images Marsha and I saw of them came by email before they were born.

To be honest, those sonograms were pretty fuzzy and confusing—without interpretation they wouldn’t have meant much to me. But they signified an incredible miracle: that billions of years after the Big Bang, God is still creating the world anew. And in these cases, our daughter and son and their spouses partnered with God to bring new life into being. The sonograms reminded us of the sacredness of what was unfolding, and now we get to participate as well.

Wonder-full as these children are, this is just the beginning. Nobel prize-winning biologist E.O. Wilson writes that “only one-millionth of the mysteries of life are currently known” (*Creation, 2006*) Sophisticated telescopes and microscopes are looking outward and inward to degrees we could never have imagined. The farther scientists stretch their vision, the more they inspire our awe and wonder at the unfolding mysteries of the world in which we live. Far from being finished six thousand years ago, God’s creative activity continues to delight and astonish.

I’m thankful both for the expertise of scientists and for the richness of our faith tradition. God has given us different gifts and opportunities, but surely we are meant to join together, growing toward wholeness. In a world so stained by human sinfulness and failure, we desperately need to recognize God’s presence among us.

“All things came into being through him, and without him not one thing came into being. What has come into being in him was life, and the life was the light of all people. The light shines in the darkness, and the darkness does not overcome it.”