5.4 Science (AD 1600–1900)

For some, the Christian story is nonsense.

Are we supposed to shut off our brains and accept ancient ideas about the world that science has proven to be wrong?

During a dinner conversation, Martin Luther apparently talked about a new astronomer who was making the preposterous claim that the earth revolved around the sun. Luther remarked,

> So it goes now. Whoever wants to be clever must agree with nothing that others esteem. He must do something of his own. This is what that fellow does who wishes to turn the whole of astronomy upside down. Even in these things that are thrown into disorder I believe the Holy Scriptures, for Joshua commanded the sun to stand still, and not the earth.[1]

Luther was referring to Copernicus, who was a highly educated leader in the church. Decades later, Galileo, who was also a solid believer in the Christian story, supported the observations of Copernicus. Because this new idea did not seem to line up with some verses in the Old Testament, the church considered Galileo a fool and branded him a heretic.

Moments such as this are part of the church story and are often referenced in conversations about the relationship between science and faith. As science was emerging in the human story, it made elements of faith look foolish. And the debate has continued for the past five hundred years: what is the relationship between science and faith?

Science versus Faith

Why was Martin Luther quoted as an authority on the topic of astronomy? As a pastor, I get very few calls from physicians asking me for my opinion on a medical diagnosis.

In the early 1600s, there was essentially no such thing as *science*. It wasn't even a field of study. In the human story thus far, the greatest thinkers and the most educated were philosophers and theologians. The highest level of study was theology, and everything else fell under that.

Between 1600 and 1900, there was a dramatic shift in the role of science. This period is referred to as the *Age of Enlightenment*, during which René Descartes declared "I think, therefore I am," and Emmanuel Kant wrote that people were finally free to use their own intelligence. It was a time when people boldly began to ask any question and passionately pursue the answers.

In the 1600s and 1700s, physical sciences came to the fore. Galileo provided astronomical evidence that the universe was not what we imagined. Sir Isaac Newton formulated the three laws of motion that we all enjoyed learning in high school. Something about when my body is at rest it should stay at rest? Highly educated in theology, it was never Newton's intention to pit science against his faith. His *laws* were always rooted in the idea of intelligent design. There are laws because there is a lawgiver.

In the 1800s, there was an expansion to the biological sciences. Charles Darwin's theory of evolution was introduced through his book *On the Origin of Species*, and the position of the church regarding creation has been challenged ever since. The tension between science and faith grew with Karl Marx's ideas in social sciences. He went after faith directly through his famous line, "Religion is the opium of the people." He viewed the church as a drug that was sedating people from engaging in thought about the world around them. At the end of the century, Sigmund Freud added behavioral sciences to the growing list and declared that humans were not made in the image of God, but God was made in the image of humans.

Welcome to the *Scientific Revolution*.

Science Nullifies Faith

Between 1600 and 1900, there was a radical shift from theology to science. The world was now being understood on its own, without

reference to God or the Bible. For many, there was no longer a need for God because science was now explaining all the mysteries of life. The world was no longer "God's creation" that we are to enjoy; it had become a puzzle for humans to solve.

The conversation regarding science versus faith grew beyond a healthy debate. Faith was getting the boot.

E. O. Wilson was an influential biologist who was nicknamed "The New Darwin." As an atheist, he had no tolerance for the Christian story, stating, "For the sake of human progress, the best thing we could possibly do would be to diminish, to the point of eliminating, religious faiths."[2]

This makes no sense to me.

In this period of the church (1600–1900), some followers of Jesus packed their belongings in a coffin when they traveled to serve in impoverished parts of the world, fully expecting to surrender their lives as part of their passionate efforts to make a difference. They built thousands of schools all over the planet to educate children in both theology and the sciences. They built thousands of hospitals to care for people whom the wealthy and the governments wanted nothing to do with.

These hospitals and schools were not funded by the "Karl Marx Foundation" or the "Charles Darwin Philanthropic Society." They were funded and built by people who believed they were living in a story where Jesus is King. That's why Oxford, Cambridge, Harvard, Yale, Princeton, McGill, and other universities started as theological schools. That's why hospitals have names such as Saint Luke's, Saint John's, and Saint Paul's.

How is it possible to look at the admittedly imperfect church story and conclude that the world would be a better place without followers of Jesus?

It doesn't make sense.

There must be a better relationship between science and faith than win/lose.

Science Focuses Faith

What if science was never supposed to be in competition with faith? What if the Scientific Revolution helped *clarify* the role of faith?

There was a circle of power between the kings and clergy. They supported and protected each other, and the circle was too powerful for any person or group to penetrate. But enlightened citizens were now listening to Twisted Sister: "We're not gonna take it anymore."[3]

We will no longer be oppressed, and we will no longer be silent. This led to a revolution in America, with people seeking "life, liberty, and the pursuit of happiness," and a revolution in France, with people seeking "liberty, equality, and fraternity." They were determined to break the circle of power and create a better world.

Did they? Did the Age of Enlightenment help or hinder the church?

Sometimes Christians freak out when scientists seemingly attempt to nullify faith. "Those scientists can't teach evolution as a scientific fact to our children. They can't verify the age of our earth—it's all just a guess. They can't remove prayer from our schools. They can't decide when a fertilized egg becomes a person."

Followers of Jesus have been deeply concerned about the growing power of science for hundreds of years, but I'm not sure Jesus has been equally troubled. During the eighteenth century, I doubt Jesus ever thought, "Oh no—they've figured it out!"

I'm equally confident that he didn't say to himself, "So *that's* how that works! Dad never explained that one to me."

I imagine him thinking, "Well done. You've figured out the basic formula of how energy is related to mass and the speed of light. You're learning about relativity. Great work. But you are barely scratching the surface. You ain't seen nothing yet!"

Perhaps it's inappropriate to imagine Jesus using poor grammar, but you get the idea.

Science doesn't erode the credibility of faith; it provides focus to faith. The Bible was never intended to be a scientific book explaining the origin of humanity, nor a political treatise on how to organize civilization. It's a true story about three characters: a God who

created everything the scientists marvel at, humans who are gifted with the magnificent world around us and the ability to explore it, and an enemy who is effectively using science to create doubt in the minds of God's beloved. The Bible is a story, and the story will always trump science and even theology. It's the blind man who says, "I can't explain it. I simply know that I was blind but now I see." Let science continue to do its thing, and let faith do what only it can do: provide us with the Overall story under which everything else falls.

Science is amazing. Most of us walk around with a supercomputer in our pocket that gives us access to over a million terabytes of information. And—it can even make phone calls. But there's so much about God's creation that we don't understand. It's not that we *use* only ten percent of our brain, it's that we only *understand* ten percent of how it works.[4] We've only explored about five percent of the oceans. We don't know why cats purr, why cows face either north or south, or how an octopus can change color and texture to blend into its surroundings.

Let science continue to do what it can do. And let faith focus on understanding and living in the grand story of God.

Science Fuels Faith

Even better than providing focus to faith, what if science is an injection of fuel to help faith burn hot?

In the seventeenth century, it wasn't science *versus* faith. Science was an exciting exploration and appreciation of all God created. It was the continuation of thoughts from an ancient Hebrew song:

> *Great are the works of the LORD;*
> *they are pondered by all who delight in them. —Psalm 111:2*

The deeper we ponder, the greater our delight.

When I was in high school, I listened to Paul Simon, Glass Tiger, and Ratt—among other bands. It's fair to say I didn't have a well-developed appreciation for classical music. In college I joined a fancy *chorale*, which is a just an uppity word for choir. I was learning to sing and play guitar, and I wanted to absorb as much music as I could. Our big project for the season was Mozart's Requiem. We did the whole

piece with a professional chorale, Italian soloists, and the Edmonton Symphony Orchestra. I can feel my posture straighten even as I recall the final concert at the Jubilee Auditorium.

Do I now listen to classical music?

No, I still listen to Paul Simon, Glass Tiger, and Ratt. But I do appreciate the Requiem because I know it. I can still sing along to parts of it. The more we understand something, the more we appreciate it. The more we understand a certain sport, the more we appreciate what professional athletes are capable of in that sport. The more we understand someone's history, upbringing, and backstory, the more we can appreciate that person.

The deeper we ponder, the greater our delight.

Bill Bryson's book *The Body: A Guide for Occupants* was a worshipful experience for me. Bryson is an atheist who is annoyed by Christians who want to push their understanding of the story on others, but he composed a book of science that wonderfully fuels my faith. In the first chapter he wrote:

> Altogether it takes 7 billion billion billion atoms to make you. No one can say why those 7 billion billion billion have such an urgent desire to be you. They are mindless particles, after all, without a single thought or notion between them. Yet somehow for the length of your existence, they will build and maintain all the countless systems and structures necessary to keep you humming, to make you you, to give you form and shape and let you enjoy the rare and supremely agreeable condition known as life.[5]

In the margin of my copy I wrote, "This sounds like a psalm!" This sounds like someone who is in awe of our existence. Bryson clarifies that atoms are building blocks, but they are not alive. The basic unit of life is the cell, but it is made up of little items that are not themselves alive. He concludes, "Yet somehow when all of these things are brought together, you have life. That is the part that eludes science."[6]

Somehow indeed.

Science is not challenging the idea of creation—it's appreciating it. It's unlocking evidence as to how beautiful and intricate God's design is. One of the *actual* psalms says it this way:

Take notice, you senseless ones among the people;
you fools, when will you become wise?
Does he who fashioned the ear not hear?
Does he who formed the eye not see? —Psalm 94:8–9

Take notice! Don't miss out on the incredible marvels of creation you experience every day. It was God who fashioned the ear. Sound hits the eardrum and creates a vibration that passes into the inner ear, which has over 15,000 hair cells that respond to different frequencies and send messages to the brain. All of this happens instantaneously while we take in all the sounds and tones of Mozart's Requiem. The more we understand the ear, the more we appreciate the one who made it.

It was God who formed the eye, the second most complex organ next to the brain. Light enters the eye through the pupil. It's focused within the eye, then projected onto the retina, which is like a movie screen. That image is upside down, but the brain flips it around for us. We have two eyes for the purpose of depth perception. The brain analyzes the differences between the complex images from each eye and determines how far away something is. The brain receives all this information through a million nerve fibers, which is why we can't do a whole-eye transplant. We can replicate the eye, but we can't reconnect the million nerve fibers.

Thanks to the Scientific Revolution, we know a great deal more about the One who created us. The deeper we ponder, the greater our delight.

1. Martin Luther, *Luther's Works, Vol. 54: Table Talk*, ed. Helmut T. Lehmann (Philadelphia: Fortress Press, 1967), 358–359.
2. E. O. Wilson, as quoted at https://www.salon.com/2015/01/28/e_o_wilson_we_should_diminish_to_the_point_of_eliminating_religious_faiths/, accessed May 26, 2022.
3. Twisted Sister was not the most musically mature band in the 1980s, but their tunes were rather catchy.
4. See https://www.scientificamerican.com/article/do-people-only-use-10-percent-of-their-brains/.
5. Bill Bryson, *The Body: A Guide for Occupants* (New York: Doubleday, 2019), 5.
6. Ibid., 6.