

Two Stories are Better than One: *Looking Through the Lenses of Faith and Science* | BY WILTON H. BUNCH

Two seemingly incompatible conceptions can each represent an aspect of the truth.

—Louis de Broglie

We live in an amazing world. Parts of it are beautiful beyond description. Parts of it have been so spoiled by humans as to be ugly outside belief. All of it is complex and frequently impossible to understand or even difficult to describe. As a result of our limitations, we frequently resort to different reports of the same event as a way of describing what we may not understand. We sometimes refer to these as “stories,” but this should not be taken to mean we do not believe them. They are accurate but incomplete descriptions of what we cannot explain any other way. We do this regularly in science where we describe what we cannot explain. We also do it in theology with equal confidence that each “story” is true but not necessarily complete.

We can use an analogy from physics. An important idea of Einstein’s relativity is that different observers in different frames of reference will describe an action differently. Einstein’s example is dropping a pebble from a moving railway carriage.¹ I prefer to illustrate it with falling bombs in the Second World War. Most pictures show the bombs dropping in a vertical line, which indicates the photographer was in another airplane traveling at the same speed and, therefore, in the same frame of reference. From the reference point of the ground, these same bombs appear to take the path of a parabola due to their inertia traveling forward prior to experiencing the effect of gravity and beginning the downward motion. For one

observer the bombs fall directly to earth, for another they follow a parabola. Two observers; two different stories. (An important caveat: Einstein’s Theory of Relativity has nothing to do with the social and ethical relativity proposed by those who deny any absolute realities. No matter how the bombs may appear to one observer or another—they do fall and release their destructive force. The differing appearances do not affect the reality of the situation.)

We can also tell a more down-to-earth story to illustrate how different accounts can be given about the same event. Imagine you see a boiling teakettle on the stove and ask, “Why is the kettle boiling?” One answer is that due to the energy imparted by the heat of the burning gas, the kinetic energy of the water molecules produces a vapor pressure equal to atmospheric pressure. Another equally good answer would be “Because I want a cup of tea.”² Neither answer is complete; neither invalidates the other.

An example of two descriptions of the same phenomena from science is the duality of light. In the seventeenth century, natural philosophers proposed on the basis of some elegant experiments that light was a wave, but Newton thought that light must be some type of particle, and his authority carried the day. In 1800 experiments by Thomas Young and others on diffraction and polarization convinced scientists that light was a wave. This description fit the experimental data but led researchers into a dead end searching for the medium through which the light wave traveled.

Max Planck was studying black body radiation and reintroduced the idea that light was a particle, strictly on theoretical grounds in order to make his equations work. This complicated things since the evidence for light as waves was extremely strong, yet other phenomena, such as the way light interacts with certain metals—the *photoelectric effect*, described by Einstein—required light to be explained as a particle. (It is frequently forgotten that Einstein received his Nobel Prize for this work, not his studies and papers on relativity.)

puzzled as to how to describe him. He was a man, certainly, but he delivered a message no man before him, even the prophets, had proclaimed. The church in Antioch emphasized his human qualities. He experienced thirst and hunger, he experienced sorrow and pain. He was an unusual man, but he must be a man.

The church in Alexandria was most impressed with his God-like characteristics. He performed miracles; he even raised the dead. His resurrection and post-resurrection appearances were certainly not that of humans. Fur-



From left: Einstein, Newton, Planck

For at least two decades scientists had a difficult time reconciling the evidence that light behaved as a wave under certain conditions, but under different conditions acted like a particle. Finally quantum physics and mathematics provided an explanation. The present short answer—light travels like a wave but acts like a particle—is true but still somewhat incomplete.

Physicists have no difficulty with the dual nature of light. They know that if in their experiments they ask a question about waves, they will get a wave-like answer. Similarly, if they ask a particle-like question, they get a particle-like answer. This causes no confusion or difficulty. Louis de Broglie, who discovered that particles such as electrons and protons also have waves, put the present understanding distinctly: “Two seemingly incompatible conceptions can each represent an aspect of the truth...they may serve, in turn, to represent the facts without ever entering into direct conflict.”³

There is a parallel in theology. As the early church reflected on the experience of Jesus Christ, they were

thermore, he claimed an extremely close relationship with God the Father. He must be a part of the Godhead.

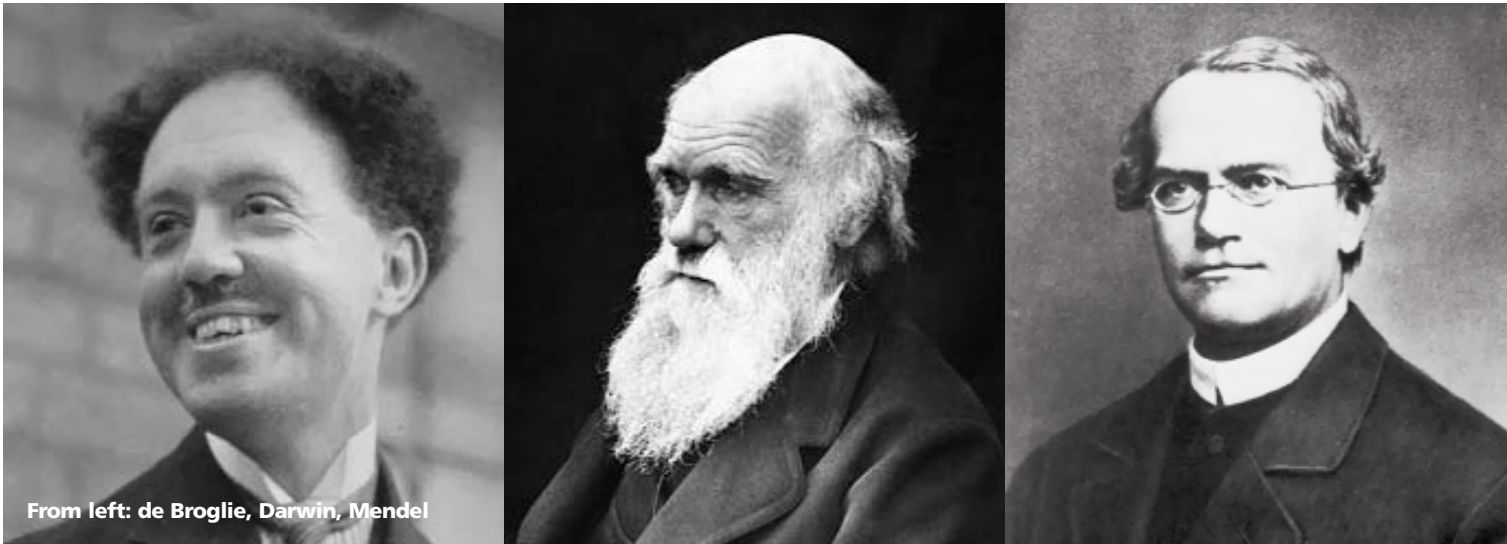
Each of these arguments, and the infinite number of nuances on them, could see one aspect of Christ easily but had great difficulty seeing another. Finally, after much discussion and dissension, they decided both descriptions accurately described Christ, and they arrived at the doctrine of the two natures of Christ. Long before the similar discussions concerning light, they agreed that Jesus was both man and God.

Those Christians who find the various creeds helpful in explaining this belief recite, “God from God, light from light...of one being with the Father, through whom all worlds were made.” Thus, they affirm that Jesus was God. But only a few lines later appear the words, “[he] became incarnate of the Virgin Mary and was made man.” Whether a Christian uses this language or other, the two natures of Christ are an accepted belief. De Broglie’s statement applies here as well: “Two seemingly incompatible conceptions can each represent an aspect of the truth.”

The two explanations of light are found within science, and the two explanations of the nature of Christ are found within theology. However, some events can be told with scientific explanations (stories) and also with spiritual faith (also stories).

Consider the passage in Acts 27, 28 that describes the shipwreck of Paul on his way to Rome. The scientific story concerns a northeast gale, a common occurrence in parts of the year, which engulfed the sailors. The ship could not be steered and was rapidly taking water. The

pedic surgeon. I treated patients and conducted biomechanical experiments and mathematical modeling which I presented at scientific meetings and published in peer-reviewed journals. I taught medical students and trained residents. In other words, I was a hard-working, academic surgeon. There is another story, a story concerning religious faith—a simple faith that was lost, replaced, and now deep and pervading all of me. I attend church; I teach and preach; I pray regularly; I try to “be Christ to all people.” In other words, I



From left: de Broglie, Darwin, Mendel

sailors were working at maximum effort to keep it afloat, passing ropes under the ship to hold the timbers together. They lightened the load by throwing the cargo overboard. Eventually, the ship was lost, trapped on a reef before it could reach the bay that offered safety.

There is also a spiritual faith story to be told of this event. An angel appeared to Paul and promised no lives would be lost—a true prediction. At the shipwreck, 276 lives were saved in a situation where the expected outcome would have been a large number of deaths. After Paul shook off the serpent and did not die from its bite, he had great credibility, and the story of Jesus was brought to the island of Malta. Publius' father was healed, followed by many other healings. In this example Luke tells the entire story without breaking it into two, but reflection shows that there are two very different stories needed to make up the one comprehensive story.⁴

My life best fits in the format of two stories. For most of my professional life I was an academic ortho-

am an ordinary person of faith. These two stories do not contradict; they are complimentary. No doubt, many readers can find these stories very familiar.

I would like to suggest that the issue of the origin of our world can be considered two stories: a faith story and a scientific story. These stories have very different messages but are aspects of the same larger account. Like the stories of the storm and the shipwreck, neither is comprehensive or sufficient by itself, but together we gain a better understanding of the world. (In the following discussion, I am ignoring the well-recognized fact that the initial chapters of Genesis contain two stories. Segregating them would not add clarity.)

The scientific story of the origin of our world goes by the name *evolution*. This describes a series of small changes over a long period of time to arrive at the world as we know it. This account is generally attributed to Darwin who wrote the first comprehensive book documenting the change produced by humans and that occurring naturally.⁵ This was not a new idea. The

notion that nature was in a state of change had been discussed for a hundred years before Darwin and for a hundred and fifty years since.

At the time Darwin wrote, there were a number of serious gaps in the evidence. He did not have a way to describe what mechanism accounted for the physical changes in his subjects, and this led to the rejection of his ideas by many scientists of the time. He did not know of the existence of transitional forms and worried that their lack was a serious objection to his theory. He

large areas of seemingly useless information for protein synthesis but is remarkably informative for tracing lines of inheritance. The evidence supporting the theory of evolution is nearly overwhelming.⁶

There is another story about the origin of our world: the faith story. The creation story of Genesis, written after the Babylon captivity, had the specific purpose of rebutting the myths of the Israelites' captors and providing their own account of the beginnings. Creation was the work of one God who created by speaking, not by



From left: Malthus, Draper, Gould

did not know of the work of Gregor Mendel and his ideas of inheritance, which was nearly contemporaneous (1865) but were dismissed by the scientific community. Reflecting on the ideas of Thomas Malthus and population growth, Darwin suggested that the key to survival was certain privileged traits leading to an increased likelihood that an organism could reproduce and survive. This uneven survival he called natural selection, named by others "survival of the fittest."

Today, the supporting evidence is abundant. The fossil record is systematic and progressive. Recognizing continental drift and utilizing molecular taxonomy gives an explanation of the geographic distribution of plants and animals. Human paleoanthropology has developed into a distinct and robust field identifying more than a dozen distinct species within the human family. The issue is not missing links, but how to connect the dots. The human genome project has provided an understanding of mutations and genetic recombination providing a mechanism of rapid change. The genome also contains

violence. The dome of the heavens was separated from the earth peacefully, not by viciousness. The separation of waters pointed to God's power and shifted the attention away from polytheism. The sun, moon, and stars were not gods but mere objects of creation, even though they were assigned an important role in the ordering of the universe.

God saw that his creation was good, and in particular, the creation of humans was very good. They were made in the image of God and given dominion over the earth. This was in marked contrast to the Babylonian account which described humans as created to become slaves to the gods.

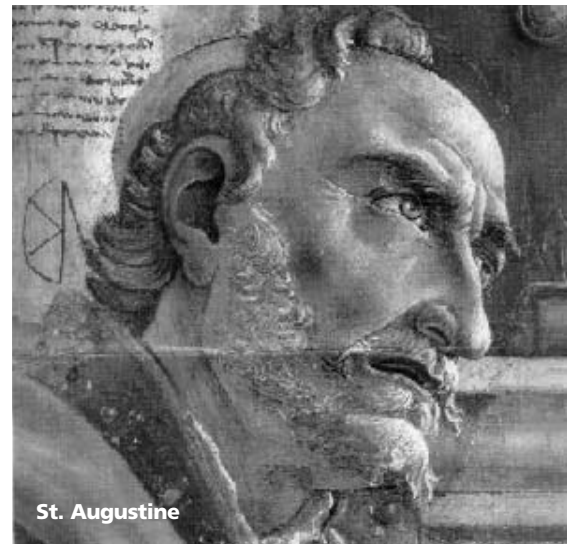
The early church fathers added to the faith story of creation as part of their rejection of Hellenistic and contemporary religions, particularly Gnosticism. They expanded on the identity of the creator God by specifying there was only one God who was not subordinate to any higher power and who was the Father of our Lord Jesus Christ. Creation was a deliberate choice of

this God, not an act of necessity or accident. Human bodies created in the image of God could be redeemed and were not to be denigrated. This last point was critical to support the humanity of Jesus.⁷ Their faith stories did not include a word-by-word literal accuracy of the Genesis account.⁸

As de Broglie would remind us, two seemingly incompatible accounts of a single entity does not mean that they are in conflict. Rather, they can both be accurate descriptions and help each other in explaining what is true. This is a very different stance than much of the rhetoric concerning science and religion of the last two centuries. In 1875 John Draper, professor of chemistry at New York University, presented the relation of science and religion as total conflict, and subsequently multiple authors have presented variations on the theme.⁹ This was a new idea in the history of the relation of science and religion, but it became the defining explanation. In contrast, Augustine's famous quote concerning Christians who knew nothing about science but tried to impress others with biblical accounts, suggested there was no conflict because there was no overlap between them. The same view was argued by Stephen J. Gould,¹⁰ the Harvard evolutionist who coined the term "non-overlapping magisterium."

I believe both science and religion have much to say about creation. The "two story approach" does not require either conflict or isolation. We should think of the stories as complimentary—both are true, and together they add to our understanding. The problem arises when a scientist or a Biblical literalist insists that only his story can be true and any other is a grievous error. Long-held beliefs die hard, and acceptance of a second frame of reference may present enormous difficulties. However hard it may be to accept, with regard to the origins of our earth, two stories are better than one and do not need to be competitive. ■

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St. Augustine

References

1. Einstein, Albert. *Relativity*, trans. Robert W. Lawson. (New York: Three Rivers Press, 1961), 10–11.
2. Burke, Derek C. "Evolution and Creation," *Science Meets Faith*, ed. Fraser Watts. (London: SPCK, 1998), 57.
3. de Broglie, Louis. *Dialectica, I*, 326 referenced in http://en.wikiquote.org/wiki/Louis_de_Broglie.
4. Houghton, John. *The Search For God: Can Science Help?* (Cheltenham, UK: John Ray Initiative, 1995), 64–67.
5. Darwin, Charles. *The Origin of Species by Means of Natural Selection*. (London: Penguin, 1968).
6. Coyne, Jerry. *Why Evolution is True*. (New York: Viking, 2009).
7. Powell, Samuel M. *Participating in God: Creation and Trinity*. (Minneapolis: Fortress Press, 2003) 16–22.
8. Augustine. *The Literal Interpretation of Genesis*, trans. Edmund Hill, O.P. In *The works of Saint Augustine: A Translation for the 21st Century*, vol. 13, part 1. (Hyde Park: New City Press, 1990).
9. Draper, John William. (1875). *The History of the Conflict between Religion and Science*. (Cambridge, UK: Henry S. King & Co [reissued by Cambridge University Press, 2009]).
10. Gould, Stephen Jay. *Rocks of Ages: Science and Religion in the Fullness of Life*. (New York: Ballantine Books, 2002).

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