

## Religion and Science: The Emerging Relationship Part IV



On Christmas Eve on 1968, the first astronauts to orbit around the moon appeared live on T.V. in millions of homes. The flight commander of the mission, Frank Borman, read the opening verses of Genesis as a way of reflecting on the awe that was felt by the astronauts as they orbited the moon:

*In the beginning God created the heavens and the earth. The earth was without form and void, and darkness was upon the face of the deep: and the Spirit of God was moving over the face of the waters. And God said, 'Let there be light'*

Borman's message concluded: *Greetings from the crew of Apollo 8. God bless you all on the good earth.* Those astronauts were the first people to see the beauty of the earth as a blue and white gem spinning in the vastness of space. It was also a snapshot image of a more friendly vision of the relationship between religion and science. In the 20<sup>th</sup> century a number of discoveries in science have contributed to helping nudge the relationship of religion and science toward a more dialogical model.

The relationship between religion and science in the 19<sup>th</sup> century tended to be characterized by conflict. However, by the early 20<sup>th</sup> century things began to slowly change the nature of the relationship. In 1929, astrophysicist, Karl Hubble, was looking through this telescope and noticed something in space that surprised him. He continued to study what he observed over time and came to the conclusion that galaxies were moving away from each other at the speed of one million miles an hour. He sent his findings to Albert Einstein, who at first rejected these findings by telling Hubble he was mistaken. Hubble invited Einstein to come and observe with him the phenomenon he had observed through the telescope. Einstein did just that and admitted that Hubble was correct. This confirmed for Hubble and Einstein that we live in an expanding universe that was put into motion at the *Big Bang*, some 14 billion years ago. What's more, modern cosmology also maintains that *time* and *space* as we know them began with the

Big Bang as well! Such a finding revealed that we live in a dynamic and changing universe. There is continuity and predictability, as well as, novelty and spontaneous creation! In one area of the Universe there is chaos, in the other part a movement toward equilibrium.



(Einstein on right, Hubble in the middle)

For years scientists argued whether or not we live in an *expanding* or a *steady state* universe. The steady state theory, once championed by Fred Hoyle, holds that the universe always existed, no beginning and no end. Therefore, no act of creation was necessary. This theory was dealt a severe blow when two scientists from Bell Laboratories, Penzias and Wilson, discovered that the universe is bathed in a hiss of radiation that is uniform throughout the universe and could only come from a moment when it began in an act of creation.

This development set off a discussion in the scientific community that began to stimulate questions, such as, who set off the Big Bang? The notion of a Creator, or intelligence behind the creation of the universe began to impose itself on the scientific community. What's more, the delicate mathematical relationships among the forces in the Universe have provoked the question of an *intelligent agent* that created the Universe. In his book, *God and the New Physics*, Paul Davies notes:

*....the numerical coincidences (necessary for an anthropic [human] universe) could be regarded as evidence of design. The delicate fine-tuning in the value of the constants, necessary so that various branches of physics can dovetail so felicitously, might be attributed to God. It is hard to resist the impression that the present structure of the universe, apparently so sensitive to minor alterations in the numbers, has been rather carefully thought out. 1*



Dr. Richard Feynman

There are other impressive aspects of how finely tuned the universe is which have impressed scientists. The great theoretical physicist, Richard Feynman notes that the numerical values of the electromagnetic force present intriguing problems:

*It has been a mystery ever since it was discovered more than fifty years ago, and all good theoretical physicists put this number up on their wall and worry about it. Immediately you would like to know where this number for a coupling comes from: is it related to pi or perhaps to the base of natural logarithms? Nobody knows. It's one of the greatest damn mysteries of physics: a magic number that comes to us with no understanding by man. You might say the hand of God wrote that number, and we don't know how he pushed his pencil. We know what kind of a dance to do experimentally to measure this number very accurately, but we don't know what kind of dance to do on the computer to make this number come out, without putting it in secretly! 2*

No scientist or theologian will stake the *ranch* on such findings but such things remind us that the world we take for granted each day is far more mysterious the more we learn about it. It has even led to some scientists to ponder that God created the universe as the most rational cogent explanation that transcends any human theorizing, including some of the exciting theories surrounding *superstrings* and *multiple universes* ( scientists refer to this as the employment of *Occam's razor*, meaning that the simplest explanation is preferred for any theory). Of course, the modern return to the discussion of the cosmological proof for God is not grounded in what we cannot explain about the natural world and saying God must have done it—the old “God of the gaps” explanation. Instead, this renewed discussion is based on the finely tuned relationships within the universe that continue to intrigue scientists. Theologians have been cautious about aligning with any one scientific paradigm that scientists propose for understanding the universe. This has led to a developing dialogue which continues to engage the question of God from a natural theological viewpoint. However, even if a scientist may come to believe in God because of his or her science, such a belief reveals very little about the God some scientist believe in, apart from the Creator and Sustainer of the universe.



(Dr. Robert Jastrow)

The astrophysicist, Robert Jastrow, continues with a more specific line of thought concerning the mystery of the creation of the universe:

*....Science has proved that the universe exploded into being at a certain moment. It asks: 'What cause produced this effect? Who or what put the matter or energy into the universe?' And science cannot answer these questions.*

*For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.<sup>3</sup>*

We will continue to explore this topic in future editions of the newsletter.

## Notes

1 Paul Davies, *God and the New Physics*, p.189.

2 Robert Lanza, MD and Bob Berman, *Biocentrism: How life and Consciousness are the Keys to Understanding the True Nature of the Universe*, (Dallas: BenBella Books, Inc., 2009), pp.88-89.

3 Robert Jastrow, *The God of the Astronomers*

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