

ISSUES IN PERSPECTIVE

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The Unanswered Questions of Science

We live in a technological age in which science dominates our thinking and offers solutions to many of our fundamental problems. We depend on science and hold this discipline of human knowledge higher than we hold others (e.g., history, literature). At the end of the Scientific Revolution (the 17th century), Sir Isaac Newton synthesized the work of others (e.g., Galileo, Kepler, Brahe, etc.) with his own original thinking, and produced a compressive understanding of the laws of the physical world (e.g., inertia, gravity, etc.). We owe him much; indeed the English poet Alexander Pope declared, "God said 'Let there be Newton and there was light.'" However, the 20th century witnessed the unraveling of many of Newton's assumptions through the work of Albert Einstein in his theories of relativity and through Heisenberg's Uncertainty Principle (among many others). The certainty of the Newtonian physical sciences has been replaced by Einsteinian uncertainty. Frankly, there is so much we really do not know and really do not understand.

Recently, the British publication, *The Economist*, published a profoundly important series of articles on "Science's Unsolved Mysteries." It was a revealing and stimulating series. The questions this series posed demonstrate the need for humility and an awareness of how much we really do not understand about our world, about ourselves and about our place in this complex universe. I want to briefly review these six questions and conclude with a theological proposition.

The Questions:

1. How did life begin? Among other approaches to answer this question, science studies the complexity of the cell, the key starting point for thinking about life and its origins. The cell relies on long strands of DNA to encode its genetic information, shorter strands of RNA to carry that information around and proteins, made using that information, to run the chemical reactions it requires to live. This trifold system is the key to life. How did this develop? When did it develop? How can science explain the irreducible complexity of the cell? Is it a product of random chance? Furthermore, it is only on planet Earth where there is a supply of free oxygen in its atmosphere that comes from the photosynthesis of bacteria and plants. Without this adequate supply of oxygen, life would not be possible. As far as science can now determine, only the process of photosynthesis can generate adequate supplies of oxygen over long periods of time. Why?

2. Is the universe alone? Why are the conditions in the observable universe so finely tuned to the needs of mankind? “Fiddle only slightly with some of physics’ constants, such as the strength of electromagnetism or the strength of the force that binds atomic nuclei, and the resulting universe would be unable to sustain humans, or anything resembling them.” Utilizing the “wave-particle duality” of quantum mechanics, several scientists are theorizing (and that is the key term) the existence of multiuniverses (e.g., “type-one, type-two, type-three”). But as *The Economist* asks rhetorically, “. . . the crucial question for all versions of multiversal theory: Is it true?”
3. Of what is the universe really made? The current model of understanding posits a four-part composition of the universe: Atomic matter, neutrinos, dark matter and dark energy. “In an era when so much of science seems understood, all this uncertainty might appear to be an embarrassment.” Based upon this model of the composition of the universe, 95% of it is still “yet to be discovered.” That is a staggering statistic, demonstrating once again that the deeper humanity delves into understanding the physical universe, the more we discover we really do not understand!
4. What caused the Cambrian explosion? Within the various layers of the geologic time scale model is the Cambrian period (about 542 million years ago) when animal life “exploded.” Over a period that lasted about 20 million years, the world’s fauna diversified from simple beginnings into something resembling the modern complex variety. Annelids, arthropods, brachiopods, echinoderms, mollusks and the ancestors of the vertebrates all made their sudden appearance. Why? Most biologists contend that animals crossed some sort of evolutionary threshold at the beginning of the Cambrian period, which led to the increasing complexity of life. But the explanation as to why is multi-faceted and complex. There is no significant consensus to explain this phenomenon in the geologic record. That it occurred is clear; why it did is not so clear.
5. Why does time pass? At first, this seems to be an odd problem, but the issue is central to the Einsteinian universe, the model almost everyone accepts as an accurate model. Why does time have direction? Why can we not “remember the future?” Einstein’s theory of relativity demonstrated that to explain gravity one must stop thinking of space and time as being distinct. For him the universe’s fabric is a four-dimensional composite of both, a “space-time continuum.” Time is therefore not only “malleable, but manipulable.” The recent movie “Interstellar,” for example, with its “wormholes” that link (as a “corridor”) distant parts of the space-time continuum, was based on this entire theory.
6. What is consciousness? Consciousness is not only a property of having a complex brain, but it is at the heart of human uniqueness. To a degree, consciousness can be measured (it is objective), but is also subjective—it cannot be measured. Are chimpanzees conscious? Dogs? Codfish? Bees? We cannot ask these various forms of life that question, so we really do not know. Further, we really “cannot take a human being

inside the mind of another human being. The hard problem may thus turn out to be the impossible problem, the one science can never solve.”

Several of these questions are highly technical and often difficult to totally understand. But each one demonstrates the need for a deep humility when it comes to science. Because humans are finite, several of these questions may ultimately be unanswerable. So, should such questions drive us, as humans, to God? Perhaps that is the most important question of all. The Bible declares forcefully and clearly that humans are finite and are sinners. That combination of finiteness and sin should cause humanity to stand in wonder at the universe from its vast expanses that the Hubble telescope is enabling us to understand more deeply to the complexity of the human body, including the matter of human consciousness. We don't have all the answers. Perhaps, this side of the New Heaven and New Earth, we never will. It seems to me that the obvious reality of our finiteness and our sin should drive us toward God. He has revealed Himself to us—in both General and Specific Revelation; in His Word and His World. Despite sin, we remain dominion stewards of God's world (see Genesis 1:26ff and chapter 9). We are to be “creative cultivators” with God in His world. He is delighted when we study His world, when we ask questions and probe to find answers. These six questions posed by *The Economist* confirm two truths: Humans are finite and limited by space, time—and sin. They also confirm that God is infinite and transcendent. He knows the answers completely and holistically to these six questions. That we do not have complete, comprehensive answers demonstrates once again our need for Him. His universe is wondrous, complex, majestic and glorious. His creation does indeed “declare the glory of God” (Psalm 19).

See *The Economist* (8 August 2015; 15 August 2015; 22 August 2015; 29 August 2015; 5 September 2015; and 12 September 2015).