
FROM THE EDITOR

God and science: Can we believe in both?

At a recent scientific conference in New York City, a student asked one of the scientists participating in a panel discussion on science and religion a provocative question. “Can you be a good scientist and also believe in God?” The scientist, a Nobel laureate, quickly responded: “Belief in the supernatural, especially belief in God, is not only incompatible with good science, this kind of belief is damaging to the well-being of the human race!” But disdain for religion is far from universal among scientists. Francis Collins, who directs the U.S. National Genome Research Institute and was head of the first team to map the entire human genome, is an example of a highly visible and respected scientist who also openly embraces a religious Christian faith. As palliative care clinicians and researchers, we, as well as our patients, are constantly confronted with this very dilemma: the age-old tension between faith and reason, God and science.

Ever since science rose to prominence as an intellectual and moral force in the 19th century, there has been a debate between two worldviews: the scientific and the religious. Scientists like Darwin and Freud proposed views of the origins of man and the nature of man that were dramatically contrary to religious, and specifically biblical, explanations of the creation of man and the nature of human morality. Freud often referred to himself as “a materialist,” an “atheist,” “a godless medical man,” “an infidel,” and “an unbeliever.” Freud and Darwin set the stage for what has been an ongoing battle between religion and science in modern times.

The battle rages on today and is being intensified in the United States right now by the current debate over the teaching of the Theory of Evolution in U.S. classrooms. Darwin’s Theory of Evolution states that man evolved, over billions of years, from a single cell organism, through a process of random

genetic mutation and natural selection. This process of natural selection caused gradual biological changes over time leading to more and more complex life forms and culminating in man. The Theory of Evolution conflicts with the biblical version of the creation of man in very direct ways. Certainly one example of this is the age of the earth, which, according to modern scientific evidence is measured in billions of years rather than the approximately six thousand years, as would be suggested by biblical account. “Creationists,” or those who believe that the Bible describes the only accurate facts of the creation of man and the world, have failed in their attempts to have their belief in “Creationism” taught in U.S. public schools alongside Darwin’s Theory of Evolution. What has now taken the place of “Creationism” in the debate over what should be taught in science classes in schools is the “Theory of Intelligent Design.” The Theory of Intelligent Design basically states that Darwin’s Theory of Evolution does not adequately explain either how life originated or how extremely complex life forms emerged. An undefined “intelligence” must therefore have been involved in the design and creation of the world and of man and other living organisms. Proponents of intelligent design point out that their theory does not exclude the fact that evolution does take place and explains much of what we have evidence for in support of evolution. Proponents of intelligent design also point out that the “intelligence” that they hypothesize to be behind the design of such complex creatures as man is not necessarily God, in the biblical sense, but possibly some mysterious force as yet not well defined (a force that some of us might refer to as nature, for instance).

The Theory of Intelligent Design appeared to have the potential to be a meeting point for the proponents of science and religion, but interestingly, in the United States, the debate has resulted in greater division between the two camps and a movement toward extremism. Scientists view the Theory of Intelligent Design as the Trojan Horse of

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creationist theory. Once intelligent design gets a foothold in the classroom, creationism will soon follow. For the religious, the Theory of Intelligent Design does not go far enough in defining the “intelligence” behind intelligent design as God.

Freud responded to the question of the existence of God with a resounding “No!” He felt that all beliefs in God and heaven were projections of childish and infantile wishes for the protection and authority provided in infancy by parents. The fulfillment of these childish wishes resulted in a fantasy of a God and heaven and life after death. For Freud, the very idea of an idealized “Superman” in the sky was “so patently infantile and so foreign to reality that it is painful to think that the majority of mortals will never rise above this view of life.” In short, Freud called for man to “Grow-up!” Freud called his worldview “scientific” because of science’s premise that knowledge comes only from empirical research.

Freud also predicted that as the masses of people become more educated, they would turn away from “the fairy tales of religion.” Paradoxically, the opposite has happened. We now live in a world that is more educated than ever, yet religious belief and belief in God is at an all time high. Some 85% of people believe in God, and very high percentages of people identify themselves as religious and people of faith. Although many are religious, there is some diversity in how North Americans feel about the coexistence of science and God. Sixty-four percent of people in a U.S. poll said that they believe “creationism” should be taught alongside “evolution,” and 48% said they believed in evolution and natural selection. North Americans believe that students in school should understand and be exposed to the “controversies.”

C.S. Lewis, the great English novelist and philosopher, started his life as an atheist, but later became a “theist,” a devout Catholic believer in God. Lewis, like the proponents of intelligent design, looked at the world and was overwhelmed by its complexity and miraculousness. He asserted that the universe was filled with “signposts” like the “starry heavens above and the moral laws within” to paraphrase Immanuel Kant, all pointing with unmistakable clarity to the “Intelligence” that must have created the universe. Lewis called for man to “Wake up!” to the evidence of God’s existence in the beauty that surrounds us. Like the proponents of intelligent design, Lewis would have looked at the complexity of the design of the human eye or the intricate cascade of the more than 20 proteins necessary for blood clotting to function normally as examples of the complexity of the human organism. For Lewis, this inevitably suggests the hand of an

“intelligence” involved in a purposeful design rather than the result of billions of random genetic mutations shaped by natural selection.

Lewis was clear that the intelligent designer was the God of the Bible. He was also clear that the source of knowledge or fact was not limited to empirical research, but rather that knowledge also came from “revelation” and “experience,” the type of experience or revelation one may have when holding their newborn infant for the first time. We can come to know “truths” or “facts” through these experiences that are as valid as the facts of empirical research or science. Lewis also pointed out that Freud’s description of belief in God as a childish example of “wish fulfillment” was not a valid argument against the existence of God or heaven. Lewis points out that human beings rarely “wish” for things that don’t exist. We are born with a wish or instinct for thirst and there is water, hunger and there is food, fatigue and there is sleep, libido and there is sex. Therefore the universal wish for God and a heaven may in fact be present in all of us because it too exists.

What does this all mean for those of us who are struggling with the human condition, those of us who live with chronic or life-threatening illness, those who love someone who is facing such a threat, and those of us whose role it is to care for or heal those who are suffering? As a scientist and as a palliative care physician, I am all too familiar with the limitations and shortcomings of science and medicine. What is scientific fact one day is determined to be incorrect the next. A prognosis of 3 months to live with advanced pancreatic cancer unexpectedly results in 9 months of waiting for death. Both physician scientists and patients must admit to the fact that uncertainty and mystery are present in the paths we travel during the course of an illness and during the course of life.

As palliative care physicians we are often in the position of staring, along with our patients, into the mysterious abyss of life’s most unanswerable and unknowable existential questions. How can any of us not marvel at the complexity of the human organism? How can we hold our children in our arms and not have some sense of the miracle that is life. But what about science? Can we merely ignore what science has to say about the material world?

Perhaps we should turn to Albert Einstein for some final clarifying words. Einstein wrote, “Science without religion is lame, religion without science is blind.” In developing the theory of relativity, Einstein realized that the equations he developed led to the conclusion that the universe had a beginning. He didn’t like the idea of a beginning, because he thought one would have to conclude that the

universe was created by God. So, he added a cosmological constant to the equation to attempt to get rid of the beginning. He said this was one of the worst mistakes of his life. Of course, the results of Hubble's experiments confirmed that the universe was expanding and *had a beginning* at some point in the past. So, Einstein became a believer in an impersonal creator God: "I believe in Spinoza's God who reveals himself in the orderly harmony of what exists, not in a God who concerns himself with the fates and actions of human beings." As perhaps the most well-known scientist of all time, Einstein found a way to believe in both God and science. Perhaps

he did not believe in a "personal" God or a Biblical God, but the facts of science led him to the inevitable conclusion that both God and science must coexist.

What conclusions can we draw from all of this? We will obviously all draw very personal and individual conclusions. I know that I am a scientist and a palliative care physician who is in awe of the material world but I am also a human being who will continue to wonder and explore what lies *within, without, and beyond*.

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