

Does science make belief in God obsolete?



Michael Shermer

It depends.

The answer turns on whether one emphasizes *belief* or *God*. Science does not make belief in God obsolete, but it may make obsolete the reality of God, depending on how far we are able to push the science.

On the question of belief in God, the answer is clearly *no*. Surveys conducted in 1916 and again in 1997 found that 40 percent of American scientists said they believe in God, so obviously the practice of science does not make belief in God obsolete for this sizable group. Neither does it for the hundreds of millions of practicing Protestants, Catholics, Jews, and members of other faiths who both believe in God and fully embrace science. Even on one of the most contentious issues in all of science—evolution—a 2005 Pew Research Center poll found that 68 percent of Protestants and 69 percent of Catholics accept the theory.

Of course, reality does not bend to the psychology of belief. Millions of people believe in astrology, ghosts, angels, ESP, and all manner of paranormal phenomena, but that does not make them real. Mormons believe that their sacred text was dictated in an ancient language onto gold plates by the angel Moroni, buried and subsequently dug up near Palmyra, New York by Joseph Smith, who then translated them by burying his face in a hat containing magic stones. Scientologists believe that eons ago a galactic warlord named Xenu brought alien beings from another solar system to Earth, placed them in select volcanoes around the world, and then vaporized them with hydrogen bombs, scattering to the winds their souls (called thetans, in the jargon of Scientology), which attach themselves to people today, leading to drug and alcohol abuse, addiction, depression, and other psychological and social ailments that only Scientology can cure. Clearly the veracity of a proposition is independent of the number of

people who believe it.

On the matter of God's existence, the answer to the question slides toward a *yes*, depending on how far we extend the sphere of science into the space of theology. If we apply the methods of science to understanding all of nature, where would God be and how would we detect Him or His actions? That's the rub. God is described by most Western religions as omniscient and omnipotent, the creator of all things visible and invisible, an Intelligent Designer capable of constructing the universe, Earth, life, and us. If scientists go in search of such a being—as Intelligent Design (ID) creationists claim to be doing—how could we possibly distinguish an omnipotent and omniscient God from an extremely powerful and really smart Extra-Terrestrial Intelligence (ETI)? I call this problem Shermer's Last Law (pace Arthur C. Clarke): *any sufficiently advanced Extra-Terrestrial Intelligence would be indistinguishable from God*.

Here is how the problem breaks down. Biological evolution is glacially slow compared to cultural evolution. Because of this, and the fact that the cosmos is very big and the space between the stars is vast, the probability of making contact with an ETI that is technologically equal to or only slightly more advanced than us is virtually nil. If we ever do encounter the representatives of an ETI, they will be so far ahead of us technologically that they will appear as gods to us. Consider something as relatively simple as DNA. We can already engineer genes after only 50 years of genetic science. An ETI that was, say, only 50,000 years ahead of us would surely be able to construct entire genomes, cells, multi-cellular life, and complex ecosystems. The design of life is, after all, just a technical problem in molecular manipulation. To our bronze-age ancestors who created the great monotheistic religions, the ability to create life was God-like. To our not-so-distant descendants, or to an ETI we might encounter, the ability to create life will be simply a matter of technological skill.

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By pursuing a course of scientific inquiry to its natural extension of examining the nature of God, what we will find, if we find anything, is an alien being capable of engineering cells, complex organisms, planets, stars, galaxies, and perhaps even universes. If today we can engineer genes, clone mammals, and manipulate stem cells with science and technologies developed in only the last half century, think of what an ETI could do with 100,000 years of equivalent powers of progress in science and technology. For an ETI who is a million years more advanced than we are, engineering the creation of planets and stars may be entirely possible. And if universes are created out of collapsing black holes—which some cosmologists think is probable—it is not inconceivable that a sufficiently advanced ETI could even create a universe.

What would we call an intelligent being capable of engineering a universe, stars, planets, and life? If we knew the underlying science and technology

used to do the engineering, we would call it Extra-Terrestrial Intelligence; if we did not know the underlying science and technology, we would call it God.

Science traffics in the natural, not the supernatural. The only God that science could discover would be a natural being, an entity that exists in space and time and is constrained by the laws of nature. A supernatural God would be so wholly Other that no science could know Him.

Does science make belief in God obsolete? Belief, no. God, yes.

Michael Shermer is the publisher of Skeptic magazine (www.skeptic.com), a monthly columnist for Scientific American (www.michaelshermer.com), a professor at Claremont Graduate University, and the author of How We Believe, Why Darwin Matters, and The Mind of the Market.

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