



***The Language of God: A Scientist Presents Evidence for Belief* by Francis Collins**

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Reviewed by James Marroquin, MD

Ever since the modern scientific method was forged in the 16th and 17th centuries, religion and science have often been in conflict. Indeed, the archetypal case study of discord between science and faith involves the man who is sometimes called “the father of science,” Galileo Galilei. In our day, science and belief continue to butt heads. Certain conservative Christians see the theory of evolution as a dangerous lie and point to a literal interpretation of sacred texts as the only reliable means of discerning scientific truth. Conversely, some scientists echo Nobel laureate Stephen Weinberg’s recent statement that “anything that we scientists can do to weaken the hold of religion should be done and may in the end be our greatest contribution to civilization” (1).

Stepping into the crossfire between these two warring camps is Francis Collins, a scientist with impeccable credentials and a devout Christian. Among Collins’ accomplishments is a gene-hunting technique called positional cloning, which his laboratory used to isolate the genes responsible for cystic fibrosis, Huntington disease, and neurofibromatosis (2). In 1993, Collins was selected to succeed James Watson, the codiscoverer of DNA, as the director of the Human Genome Project. Under his leadership, a working draft of the human genome was announced ahead of schedule in June 2000. In *The Language of God*, Collins seeks to bring his credibility in both scientific and spiritual circles to bear in an attempt to achieve a harmonious synthesis between science and faith.

Collins begins the book by telling the story of his journey to belief. His parents were Yale graduates who did the “60s thing” in the 1940s, seeking a simple agricultural lifestyle on a farm without the use of machinery. Homeschooled in a place with no running water and few other physical amenities, Collins treasured his unique upbringing for the remarkable culture of ideas created by his parents. He writes, “Those early years conferred on me the priceless gift of the joy of learning” (p. 13). One area in which Collins did not receive instruction was religion, as his parents were relatively indifferent to faith. Collins likewise gave spiritual questions little thought growing up and described himself as a skeptical agnostic through his early adulthood. During his PhD program in physical chemistry at Yale, he read the biography of Albert Einstein. Learning that despite Einstein’s Zionist position after World War II he did not believe in Yahweh, God of the Jewish people, only reinforced

Collins’ conclusion that no thinking scientist could seriously entertain the possibility of such a deity.

A turning point in Collins’ spiritual journey occurred during medical school when he encountered patients whose faith provided them with reassurance and peace during terrible suffering. This led him to question if belief could have a rational basis and to survey the world’s great religions. During his investigations, he was most influenced by C. S. Lewis’ *Mere Christianity*, a collection of radio talks delivered by the legendary Oxford scholar on the BBC during World War II. Lewis argued that the human conscience provides genuine insight into reality, just as our senses or mathematics do. In his view, for example, the statement that the Nazis’ treatment of Jews and slavery in America were morally wrong more closely resembled a fact than a cultural sensibility. Lewis contended that holding up morality as an objective reality rather than merely a human construct requires positing a Being that defines right and wrong. Collins was persuaded by this moral argument for God’s existence and impressed by the rest of Lewis’ case for belief. And though he continued to have doubts, Collins decided to take a leap of faith.

Collins goes on to share some of the rest of his rational basis for belief. He points out that 15 physical constants, such as the strength of weak and strong nuclear forces and the speed of light, all have values within the narrow range necessary for the existence of a stable universe capable of sustaining complex life. The odds of this happening by chance are almost infinitesimal. One theory proposed to explain this coincidence is assuming the existence of an infinite number of universes, each with their own physical constant values. Among these universes, it is postulated, ours happens to contain the physical properties permitting life and consciousness. The alternative explanation for the improbable conditions that make intelligent life possible is that rather than occurring by chance, they reflect the action of the One who created the universe. Collins finds this second account to be more elegant and compelling.

Collins’ next task is proposing a framework for reconciliation between science and religion. He first reviews what astrophysics, the geological and fossil record, and the study of genetic material across species have to say about the question of origins. He concludes that the evidence overwhelmingly reveals a universe billions of years old and that evolution through natural selection is the crucial generator of the diversity and complexity of life.

Collins then presents a case that this modern scientific account of origins is compatible with belief in God and the biblical narrative. Examining the Genesis creation story, he argues that the text intends to impart theological truths rather than provide a natural history. Here he follows a long tradition of biblical exegesis. For instance, in the fifth century, St. Augustine wrote contemptuously of a literal interpretation of the Genesis creation account: “The shame is not so much that an ignorant individual is derided but that people outside the household of

faith think our sacred writers held such opinions . . . and are criticized and rejected as unlearned men” (3).

Collins also rejects intelligent design (ID) theory, which points out the explanatory shortcomings of evolution theory and on this basis postulates the involvement of an intelligent designer. He argues that ID fails to function as a viable scientific theory since it does not predict other findings or suggest approaches for further experimental verification. ID also fails to provide a mechanism by which its hypothesized supernatural interventions took place. Finally, many of the cases in nature that ID points to as examples of the inadequacies of evolution theory are now being shown to be consistent with it after all.

Collins points to theistic evolution as an explanation that reconciles faith and science. It is a view espoused by most serious scientists of all faith traditions and includes among its adherents Asa Gray, Darwin’s chief advocate in the USA, and Pope John Paul II. Theistic evolution holds that God used the

elegant mechanism of evolution to create all of life, including human beings.

Francis Collins is under no illusion that his book will settle the often rancorous disputes between the religious and scientific communities. But he hopes at least to offer a model for more civil and reasonable dialogue. In this respect, I believe he has succeeded.

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1. Johnson G. A free-for-all on science and religion. *New York Times*, November 21, 2006.
  2. National Human Genome Research Institute. Director Francis Collins’ biography. Available at <http://www.genome.gov/10001018>; accessed February 12, 2007.
  3. *St. Augustine, The Literal Meaning of Genesis*, Book I. Translated and annotated by Taylor JH. New York: Paulist Press, 1982:chapter 19 (written c. AD 390).

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