The Language of God: A Scientist Presents Evidence for Belief

Francis S. Collins, MD, PhD Free Press, A Division of Simon & Schuster, 2007 (first paperback edition) \$31.50, 234 pages

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he relationship between science and faith is explored at length in Francis Collins' book. The coherent structure and free-flowing composition of this text contributes to an unequivocally clear presentation of one scientist's journey of faith development, and his explanation of how faith and science are inextricably linked. When discussing the polemics of religious and scientific disciplines, Collins—the director of the National Institutes of Health and former director of the National Genome Project—uses a logical, step-by-step analysis of available evidence, and is careful to consider a balanced perspective of both sides before carefully committing to a well-intuited opinion. Insight into past faith-science conflict is provided from examinations of the life and work of noted scholars in each respective field, as well as the opinions of colleagues with whom Collins has personally worked. The central message that the author presents to his readers is that there can be no separation of scientific and religious worlds—rather; they are simply two sides of the same coin.

Throughout the text, Collins provides his readers with insight into his spiritual journey. In Part I he highlights key events from early adulthood that prompted him to embark on introspective spiritual investigation, and includes encounters with people and scientific phenomena that guided his religious position from atheist to believer. Collins shares how he grappled with concepts such as moral law, and four "objections to faith" during this period of faith formation. For instance, when addressing the objection "What about all the harm done in the name of religion?" the author provides two thoughtful responses. First, Collins acknowledges that many wonderful things have also been done in the name of religion. Second, he posits as people we are always striving for the moral law, but as history has shown there have been occasions where we have fallen short of it. Put another way, "The pure, clean water of spiritual truth is placed in rusty containers, and the subsequent failings of the church down

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through the centuries should not be projected onto the faith itself, as if the water had been the problem" (p. 40).

In Part II, Collins outlines certain historical and scientific efforts that have described the nature and origins of the universe, earth, and life on earth. Theories (and those scientists who advanced them) that seek to explain phenomena are delineated succinctly, and this is a distinct advantage for those readers who struggle to understand scientific concepts. The author highlights that scientists are always striving to make a discovery to "shake up a field of research" (p. 58), and that historically, some findings have not always been well received by authorities. For example, Collins argues that Kepler, Copernicus, and Galileo "built an increasingly compelling case that the movement of the planets could be properly understood only if the earth revolved around the sun, rather than the other way around" (p. 59). At that time, the Catholic Church remained strongly opposed to these findings, claiming that this view was incompatible with Holy Scripture. Famous theories, such as the big bang theory, are examined and commented upon by experts in the field of astrophysics. One astrophysicist, Robert Jastrow, adds insight into this theory by offering that "Now we see how the astronomical evidence leads to a biblical view of the origin of the world. The details differ, but the essential elements and the astronomical and biblical accounts of Genesis are the same" (p. 67). Similarly, Collins notes that in the Judeo-Christian tradition, the opening words of Genesis are entirely compatible with the big bang theory. Again, the opinions of noted scientists (Stephen Hawking, Arno Penzias) reveal there is very little chance that the universe could have started and remained sustained without the intervention of God. The key feature of the chapter is Collins' reluctance to acknowledge whether science or religion is correct; instead, he clearly states that "there is nothing inherently in conflict between the idea of a creator God and what science has revealed" (p. 81).

Attention is also given to the anthropic principle, where a number of fascinating, apparent coincidences about the natural world that have puzzled scientists, philosophers, and theologians alike are discussed. Moreover, Collins presents compelling evidence for a common, genetic ancestor in the animal kingdom. This is achieved through an examination of Charles Darwin's work (notably, evolution and natural selection) and Collins' own research. With particular reference to chimpanzees, he explains that there are infinitesimal differences in the genetic sequencing, although no conclusion is drawn that humans evolved from these primates. Instead, Collins once again draws attention to the evolution vs. God argument and poses a question for the interface of bi-

ology and faith: "If evolution is true, is there any place for God?" (p. 142). In light of the presentation of some overwhelming scientific evidence for evolution, he suggests that evolution might have been God's elegant plan for creating humankind. To conclude the part, Collins foreshadows progress towards a "happy and harmonious synthesis" of these two worldviews concerning the origins of the universe and life on our planet.

Part III discusses the perspectives of three considerable sources: the Book of Genesis, Galileo, and Darwin. As an appetizer to this part of the book, some basic statistical data gathered and analyzed by the Gallup organization are shared. These data reflect opinions held by Americans about Darwin's theory of evolution, and on views concerning the origin and development of human beings. After a brief commentary on these findings, Collins revisits the Genesis creation story with the wisdom of St. Augustine. The author rejects a literal translation of the story, examines the earth's geological record, and considers the possibility of creation taking a much more protracted time frame than seven days. Collins acknowledges the diverse interpretations people hold of this text, and urges readers to continue to explore options at depth. To illustrate, the work, Roman Inquisition, and house arrest of Galileo is detailed. In 1992, Pope John Paul II issued an apology for the Church's actions. Collins uses this example as a foothold upon which to base his argument for the evolutionary question. More notably, he asks: Could the same harmonious outcome be realized for the current conflict between faith and the theory of evolution?

Finally, Collins provides four options for the reader to consider: atheism and agnosticism, creationism, intelligent design, and biologos. In each of these options, Collins disinterestedly presents the views of supporters within each religious or secular group. Sequentially, he builds a balanced argument for each option and guides the reader toward his understanding of humankind's quest to be in a special relationship with the Divine. Almost like retracing his own faith development, Collins includes the views of distinguished thinkers (e.g., Stephen Jay Gould, Alistair McGrath) to illustrate the flawed thinking of concepts of agnosticism and atheism. He pleads for readers to be convinced by reason, to avoid "attaching themselves to a flawed foundation" (p. 178), and to "hold fast to the conclusion that science offers no answers to the most pressing questions of human existence" (p. 178). Concepts of creationism and intelligent design are carefully explained within the larger frameworks of scientific inquiry and religious formation. Finally, Collins offers biologos, or the position of theistic evolution, as the most scientifically consistent and spiritually satisfying of any alternative perspective. He asserts that this position will not go out of

style or be disproven by future scientific discoveries, as it is intellectually rigorous and provides answers to many otherwise puzzling questions. Furthermore, biologos "allows science and faith to fortify each other like two unshakable pillars, holding up a building called Truth" (p. 210).

The Language of God is informative, insightful, and intentionally written for a wide audience. It might be particularly useful for teachers and students of the disciplines of science and religious education—perhaps even those who currently struggle with issues of faith and reason. The explanations, analogies, and personal experiences used by Collins allow the reader to obtain a good "feel" for the struggles he himself had with faith, science, reason, and belief. The text presents a well-balanced, cogently explained perspective on the synthesis of faith and science, and relies upon the reader to make a well-informed decision—rather than a unilateral and "forced" pinion from author to audience.

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