

? CULTURE AND THE BIG QUESTIONS

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WHAT'S EATING THE UNIVERSE? And Other Cosmic Questions by Paul Davies. Chicago, IL: University of Chicago Press, 2021. 208 pages. Hardcover; \$22.50. ISBN: 9780226816296.

I could not have foreseen Paul Davies's latest book appearing. It is distinctively different from his previous books. Once again, it is beautifully written, as only a renowned physicist with a gift for explaining highly abstract concepts in understandable terms could accomplish. Yet this book is much shorter, much more concise, and lacks the long philosophical musings that made Paul Davies's previous books so enjoyable. It contrasts with his earlier work, *The Goldilocks Enigma: Why Is the Universe Just Right for Life?*, a brilliant ten-chapter work over three hundred pages long. That book covers the physics of a universe just right for human life and pursues many different philosophical questions and answers. In contrast, *What's Eating the Universe?* has thirty truly short chapters with just 165 pages of material. Nevertheless, this book is highly recommended, especially for the novice who just wants an overview of the present state of our understanding of physics and cosmology, and a brief foray into some of the big questions.

Davies takes the reader on a journey beginning with the COBE (Cosmic Background Explorer) findings of ripples in the microwave radiation coming to us from every direction. These slight variations in temperature supported the Big Bang model of the universe by connecting the nearly uniform radiation background to galaxy formation with slight "hot spots" necessary to seed the gravity wells, allowing matter to grow from a nearly uniform state to the galaxies we see today. This is just one outstanding example of how scientific investigation has succeeded in explaining our universe.

Davies then presents a historical overview of the major ideas that have contributed to our growing understanding, moving from Copernicus to Einstein. He uses delightful analogies to help the reader grasp the ideas. For example, he uses the analogy of a trained marksman (sharpshooter) to explain how precise the initial expansion of the universe had to be for it to avoid either quickly collapsing or expanding too fast to form stars and galaxies. The many questions addressed by Davies include the speed and shape of space as it expands, the source and nature of matter, including dark matter, and the enigma of dark energy, the cause behind the accelerating expansion of the universe. Davies is a wonderfully gifted writer, and his descriptions are extremely helpful in clarifying these matters.

The title suggests that there are deeply troubling questions about our present understanding of the universe and its governing laws, leaving us with puzzling inconsistencies or paradoxes. And though there are some paradoxes, Davies is the first one to admit that the real story is that our present understanding of the universe via scientific investigation is an overwhelming success. The universe is understandable in terms of elegant mathematical laws that go astonishingly far in explaining and describing what we observe. And this is what's eating Paul Davies, not the universe. Most of his scientist friends have rejected the idea of meaning or purpose intrinsic to this universe, simply accepting the success of science without the need to question why it works. But Davies cannot leave it alone. He writes:

A universe that "just exists" for no reason, with specific properties that "just are," is correctly described, in formal logic, as "absurd." But if there is no rational coherent scheme beneath the surface phenomena of nature, if things "just are," if the universe is absurd, then the success of the scientific enterprise is totally enigmatic. It cannot be pursued with any expectation that the methods adopted hitherto will continue to work, that we will go on uncovering new mechanisms and processes that make sense, for how can sense be rooted in absurdity? (pp. 158–59)

However, for a Christian scientist, the universe is not absurd. It has meaning and purpose because it was created with meaning and purpose by a transcendent Creator God. Its basis of mathematically elegant laws is no accident, but rather a clear case of design, regardless of how God chose to create it. Davies knows this and is quite willing to acknowledge that this avoids the absurdity of a rational universe without a rational cause. Yet Davies persists, in the hope that science itself will one day uncover that deeper layer required to explain it. Davies personally experienced a journey from a Christian upbringing to atheist scientist, finally to agnostic scientist in which the deeper questions arising from science keep eating at him.

Reviewed by Steven Ball, Professor of Physics, LeTourneau University, Longview, TX 75602.

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THE SCIENTIFIC SPIRIT OF AMERICAN HUMANISM by Stephen P. Weldon. Baltimore, MD: Johns Hopkins University Press, 2020. 285 pages. Hardcover; \$49.95. ISBN: 9781421438580.

The Scientific Spirit of American Humanism by Stephen Weldon recounts with approval the rise of non-theistic, and even antitheistic, thought in modern science. At the outset, I will confess to being a biased reviewer (perhaps, even, an antireviewer). If I were to tell this story, I would lament, rather than celebrate, the seemingly antireligious stance lauded in this history. I must

also confess to being an active participant in this history, both as an amateur student in the fundamentalist/modernist controversy in the Presbyterian churches and in my own active involvement in faith-science discussions among evangelicals in the American Scientific Affiliation (ASA). No historical account is objective—it will always reflect its author’s perspective. This is true of this book and of this review.

Weldon tells the history episodically highlighting key people who contributed to this story. He begins in chapter 1, “Liberal Christianity and the Frontiers of American Belief,” with Unitarians (theists/deists who reject the deity of Christ), liberal Protestants, and atheistic freethinkers. After a few chapters, he turns to a largely secular story dominated by philosophers rather than ministers. Chapter 12 presents charts that show how the 1933 Humanist Manifesto had 50% signatories who were liberal and Unitarian ministers, while the 1973 Humanist Manifesto II had only 21%. By the end of book, humanism becomes secular/atheistic humanism. Weldon describes humanism as “a view of the world that emphasizes human dignity, democracy as the ideal form of government, universal education, and scientific rationality” (p. 5). While not explicitly mentioned, but likely included in the phrase “scientific rationality,” is atheism. The 1973 Humanist Manifest II begins with this theme in its opening article about religion:

We find insufficient evidence for belief in the existence of a supernatural; it is either meaningless or irrelevant to the question of survival and fulfillment of the human race. As non-theists, we begin with humans not God, nature not deity.

Chapter 2, “The Birth of Religious Humanism,” tells the early 1900s story of ministers John Dietrich, Curtis Reese, and philosopher Roy Wood Sellers, all who were or became Unitarians. “‘God-talk’ was no longer useful.” Unitarianism ends up being a haven for religious humanists, even for those who have eliminated traditional religious language. These are the roots of today’s secular humanism.

In many ways, this era is the other side of the religious history of America that this journal’s readers may know. The ASA has roots in the more conservative and traditional end of American Protestantism. The old Princeton Presbyterians, Charles Hodge, A. A. Hodge, and B. B. Warfield, represent a strictly orthodox Christianity, but one open to the advances of modern science. One did not have to be theologically liberal to be pro-science. The phenomenon of young-earth creationism is a relatively recent development. Conservative Protestants were not as opposed to conventional science as Weldon’s treatment suggests.

The Humanist Manifesto (1933) is the subject of chapter 3, “Manifesto for an Age of Science.” It was written

by Unitarian Roy Wood Sellers and spearheaded by people associated with Meadville Theological School, a small Unitarian seminary, originally in Pennsylvania; after relocating, it had a close association with the University of Chicago. The Manifesto begins with the words, “The time has come for widespread recognition of the radical changes in religious beliefs throughout the modern world. The time is past for mere revision of traditional attitudes.” The first affirmation is “Religious humanists regard the universe as self-existing and not created.”

“Philosophers in the Pulpit” (chap. 4) highlights the University of Columbia philosophy department and John Dewey, in particular. Dewey was one of the more prominent signers of the Humanist Manifesto and a leading advocate of philosophical pragmatism. This chapter also tells the story of Felix Adler, also associated with Columbia, and the founder of Ethical Culture, an organization with nontheistic, Jewish roots.

“Humanists at War” (chap. 5) and “Scientists on the World Stage” (chap. 6) recount the increased secularization of humanism. Humanists in the 1940s increasingly struggled with the religious character of humanism. Should the category of religion be used at all? During this era, natural scientists, such as evolutionary biologist Julian Huxley and *Drosophila* geneticist Hermann Muller, rather than philosophers, led the most prominent forms of humanism. This humanism was increasingly secular, scientific, and even atheistic.

Weldon is not hesitant to expose the foibles of this movement. Chapter 7, “Eugenics and the Question of Race,” traces how selective population control became part of the conversation. In addition to Huxley and Muller, Margaret Sanger is also part of this story. Philosopher Paul Kurtz makes his first appearance in this chapter and continues to be a significant player in the rest of the book. He was the editor of the Humanist Manifesto and used its pages to explore the question of race and IQ.

Chapter 8, entitled “Inside the Humanist Counterculture,” describes a period dominated by questions of human sexuality and psychology. Weldon’s use of the word “counterculture” is apt. In the 1960s, the feminist Patricia Robertson and lawyer/activist Tolbert McCarroll expressed the zeitgeist of the sexual revolution. The psychology of Carl Rogers, Erich Fromm, and Abraham Maslow moved humanism from a more objective/scientific focus to a more experiential one. They are representatives of the third force (or humanistic) school of psychology, in contrast to Freudian psychoanalysis or Skinnerian behaviorism. Although agreement was rare, by the end of the decade, under Paul Kurtz (influenced by B.F. Skinner), the public face of humanism returned to a more scientific leaning.

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Chapter 9, “Skeptics in the Age of Aquarius,” is one chapter where I found myself, as a traditional evangelical, to be in nearly complete agreement. This chapter describes how New Age beliefs, along with an ascending occultism, came under fire from the scientific humanists under the leadership of Paul Kurtz. Weldon even cites a *Christianity Today* article that makes common cause with the secular humanists in their resistance to the growing occultism of western culture. I found this chapter to be a useful critique of New Age thinking.

“The Fundamentalist Challenge” (chap. 10) and “Battling Creationism and Christian Pseudoscience” (chap. 11) recount the clash between secular evolutionists and fundamentalist creationists, especially regarding the public-school science curriculum and the teaching of evolution. Here the author clearly demonstrates his prosecularist/anti-fundamentalist inclinations. On a more personal note, the mention of Francis Schaeffer, R. J. Rushdoony, and Cornelius Van Til, strikes at my own history. While some elements of this conservative Presbyterianism were clearly anti-evolutionist, others in the conservative Reformed camp were open to the proscience (including evolutionary biology) views of Warfield and Hodge, even in the early days of anti-evolutionism among fundamentalists. While some in the ASA would count themselves among young-earth creationists or flood geologists, the majority are open to old-earth geology and even to evolutionary biology. The reaction of Weldon himself, and other critics of this era, seems more akin to a religious fundamentalism of its own—albeit a fundamentalism of naturalism. Fundamentalists are not the only ones engaging in a culture war. My own view is that old-earth geology, old universe (big bang) cosmology, and evolutionary biology should be taught as the mainstream scientific consensus even in private religious schools. But dissent and disagreement should be allowed among teachers and students alike. Sometimes it seems to me that these fundamentalist creationists and atheistic evolutionists are all more interested in indoctrination than education.

Embedded in chapter 10 is the history of the Humanist Manifesto II (coauthored by Paul Kurtz). It clearly espouses positions antithetical to traditional Christian orthodoxy, especially in the explicit anti-theistic and prosexual revolution statements. But it is striking to me how much agreement I can find with people who so strongly disagree with traditional Christian faith. This tells me two things: while fundamental religious differences may exist between people, there is something about being human in this world that brings Christians and non-Christians together on many very fundamental questions such as liberty, human dignity, friendship, and peaceful co-existence. Such values are not the unique provenance of humanists or Christians or other religious groups. The second thing is that we are much

better at emphasizing differences and seeking to force others to conform to our way than we are at tolerating differences and persuading those who disagree.

The opening of chapter 12, “The Humanist Ethos of Science and Modern America,” brought me once again to a personal reflection that is relevant in reviewing this book. My own love of the natural sciences can be traced to Sagan, Asimov, Clarke, Gould, Dawkins, and others who brought the wonder of science to the broader public. Without denying their a-religious, and even antireligious posture, it is noteworthy that the truths about the natural world are independent of who discovered them or communicates them. And they are wondrous whether or not you acknowledge the hand of God in creating them. The process of science works whether the world was created by God or is the result of properties of the universe that just are. It is interesting to me that a brief discussion of post-modernism appears in this chapter. Postmodernism’s undermining of the objectivity of natural science leads one to wonder whether this undermines the whole book by hinting that a postmodernist perspective is the consistent nonreligious/atheist view. In contrast, the ASA’s faith statement states: “We believe that in creating and preserving the universe God has endowed it with contingent order and intelligibility, the basis of scientific investigation.” According to Christians, natural science is possible because creation is orderly and intelligible. Atheists and skeptics simply assert the world’s orderliness and intelligibility.

Like myself, readers of this journal are likely to have a different perspective on the events traced in Weldon’s book. Nevertheless, the history recounted here helps us to see why there is such a divide between science and those who continue to be influenced by more conservative religious views. As such, it is a worthwhile read and of interest to those who follow the science-faith literature.

Reviewed by Terry Gray, Instructor in Chemistry, Colorado State University, Fort Collins, CO 80523.

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SCIENCE UNDER FIRE: Challenges to Scientific Authority in Modern America by Andrew Jewett. Cambridge, MA: Harvard University Press, 2020. 356 pages. Hardcover; \$41.00. ISBN: 9780674987913.

John William Draper and Andrew Dickson White’s role in fueling popular ideas about conflict between the primarily natural sciences and religion has been often studied. It is now well known that their claims were erroneous, prejudice laden (in Draper’s case against Roman Catholicism), and part of broader efforts to align science with a liberal and rationalized Christianity. In *Science under Fire*, Boston College historian Andrew