Biology

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ENVIRONMENTAL SCIENCE: Caring for the Creator's World by Mark McReynolds and Karen McReynolds. Novare Classical Academic Press, 2025. 567 pages. Hardcover; $121.95. ISBN: 9781600517105.

This textbook by Mark and Karen McReynolds serves as an engaging and accessible introduction to environmental science, thoughtfully integrating scientific understanding with faith-based principles of responsibility, stewardship, and moral action. Mark holds a PhD in ornithology and a master's degree in recreation resource science. His extensive experience in environmental science, particularly concerning avian ecology, greatly enhances the credibility and depth of the textbook. He combines scientific rigor with a commitment to environmental stewardship, making the concepts both relatable and engaging for students. Karen is an associate professor of science at Hope International University, with an MA in natural science and a BS in physical geography. Her academic focus spans environmental science and related fields, providing a robust foundation for the book's content. She emphasizes not only the scientific aspects of environmental education but also the ethical implications that come with it.

Environmental Science consists of 11 chapters, organized into coherent sections designed specifically for younger audiences. It serves as an excellent resource for high school or lower-level college students just beginning to explore the mechanics of the natural world as well as the deeper questions regarding humanity's role within it. The book offers a balanced, encouraging, and intellectually rigorous exploration of our planet's systems, the challenges facing them, and the ethical imperatives that arise from a faith-informed perspective. This holistic approach not only makes the content more relatable but also instills a sense of agency among the students.

One of the textbook's most remarkable strengths is the clarity with which it explains core environmental concepts. Rather than overwhelming readers with complex terminology, the authors introduce foundational topics such as ecosystems, biodiversity, energy flow, climate systems, and human impact through vivid examples and real-world scenarios. For high school or lower-level college students who may be encountering environmental science for the first time, the book provides a strong conceptual framework that prepares them for more advanced study. This scaffolded learning environment supports students in grasping complex ideas without feeling intimidated. The illustrations, along with chapter-end exercises, further reinforce key concepts and make the material relatable and easy to digest.

The authors skillfully integrate faith and learning throughout the text, avoiding the pitfalls of forcing religious ideas into scientific content or attempting to offer theological interpretations of scientific mechanisms. Instead, they use faith as a lens through which to understand why environmental science matters and how individuals can respond ethically to what they learn. Throughout the chapters, readers are invited to reflect on themes such as stewardship, responsibility, humility, justice, and care for the vulnerable—values shared across a wide range of religious traditions. Central to this framework is the concept of the Creation Caregiver, a theme interwoven throughout the book. Students are encouraged to view Earth not merely as an unlimited resource but as a gift entrusted to humanity. This perspective fosters a sense of gratitude, humility, and duty toward the planet. Faith integration is subtle; instead of being heavy-handed, it is presented gently, inviting reflection rather than prescribing conclusions. For younger audiences developing their identities, values, and sense of agency, this balanced blend of scientific information and moral insight is particularly meaningful.

A particularly compelling chapter examines environmental justice, providing tools and illustrations that delineate how environmental issues are often intertwined with social equity. For example, the textbook discusses Toxic Tours, which serve as a case study for understanding environmental injustices. They blend scientific analysis of pollution with moral teachings about compassion and equity. Students are encouraged to think critically about how environmental problems disproportionately affect vulnerable communities and how their faith can motivate action toward fairness and restoration. The intersection of values and science in this context presents rich opportunities for classroom discussion and personal reflection, making complex topics more accessible and relevant.

Another highlight of *Environmental Science* is its hopeful and solutions-oriented tone. While it does not shy away from discussing the harsh realities of environmental problems such as climate change, deforestation, and pollution, the authors present a balanced view by showcasing hopeful case studies. These include innovations such as restoration projects, renewable energy solutions, and community-driven conservation efforts. By featuring these examples, the authors not only educate students but also inspire them to imagine themselves as active participants in environmental stewardship rather than passive observers of global issues. The hopeful tone is balanced against reality, helping students maintain a realistic yet optimistic view of the challenges ahead. The textbook also includes numerous opportunities for students to apply what they learn in meaningful ways. The exercises at the end of each chapter are particularly

well designed for high school or lower-level college learners. They prompt not only comprehension of scientific concepts but also personal application and ethical reasoning. For example, students might be asked to analyze problems related to plastic waste in water systems and then reflect on how their own choices influence that system. Alternatively, they may examine habitat loss and connect it to faith-based principles of protecting creation. This dual-layered questioning approach makes the book a strong tool for educators, especially in Christian schools or any educational setting that prioritizes values-oriented learning.

This textbook succeeds in presenting environmental science in a way that is not only rigorous and accessible but also deeply meaningful. Its thoughtful integration of faith and learning presents students with an opportunity to see science not as a separate domain from belief but as a complementary field that enriches their understanding of purpose and responsibility in the world. For educators yearning to find a textbook that encourages both intellectual growth and character formation, this book is an exceptional option. It strikes a balance that neither downplays scientific rigor nor neglects ethical considerations, ensuring that students not only gain knowledge but also develop a sense of purpose.

A noteworthy aspect of *Environmental Science* is that it integrates Christian principles with ecological stewardship, making it particularly suited for faith-based educational environments. In contrast, other faith-based textbooks focus on scriptural teachings while varying in scientific rigor. Secular environmental science textbooks prioritize comprehensive scientific principles and data, often without religious context. This creates a clear distinction whereby the faith-based texts emphasize stewardship aligned with biblical teachings, while secular texts offer a neutral, evidence-focused perspective. Each type serves its intended audience effectively, highlighting the diverse approaches to environmental education.

In conclusion, *Environmental Science* is an outstanding choice for educators looking for a resource that promotes both scientific literacy and character formation through a faith-informed lens. By equipping students with both knowledge and a deeper sense of purpose, this textbook helps cultivate the next generation of thoughtful, responsible caretakers of Earth. Mark and Karen McReynolds offer not only a valid academic perspective but also a moral compass for students navigating the complex and often daunting world of environmental science. This engagement with the material will inspire students to take action in their communities, bringing innovative solutions to the environmental challenges we face today.

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A THEOLOGY OF THE MICROBIOME: An Intersection of Divinity and the Microbial Life Within Us by John F. Pohl. SacraSage Press, 2024. 363 pages. Paperback; $24.99. ISBN: 9781958670538.

The microbiome has been the focus of intense research, especially over the last decade. Topics related to the intersection of faith and the microbiome are ripe with possibility for better understanding the relationship between the human body, the microbiome, the spiritual dimension, and God's nature. This book gives a perspective on how process theology can be used to integrate faith and microbiome science. In this well-researched book, the author goes to great lengths to document both scientific and theological sources; however, it may be a challenging read for those unfamiliar with process theology. A glossary of relevant terms would have been helpful.

John Pohl is a physician who is board-certified in pediatrics and pediatric gastroenterology with clinical and research interests in pancreatitis and cystic fibrosis; his certifications and expertise make him highly qualified to address medical aspects of the human microbiome. The preface reveals that this book is the outcome of his doctoral degree in theology from Northwind Theological Seminary, working under a leading scholar in relational and open theology, Thomas J. Oord.

Process philosophy and theology were developed in the mid-20th century by Alfred Whitehead, Charles Hartshorne, and other theologians. A key tenet of process thought is that God can both affect and be affected by any process found in the universe, from the macro scale to the subatomic particle. Process theology is aligned with open theology, and as such, the outcome of this interactive process is uncertain, and therefore God is not completely omniscient, omnipotent, or immutable.

In the first chapter ("A Call to Metaphysics to Benefit Religion and Science"), Pohl lays a philosophical and historical framework for subsequent chapters, with a focus on comparing the process of science with theology and metaphysics. Metaphysics is seen as a complement to science since it can take into consideration the entirety of nature, including aspects that cannot be addressed by science. In this chapter, the author also begins to articulate the concepts of process theology that challenge the traditional Christian understanding of God's nature in terms of his characteristics.

I found Pohl's discussion of Stephen Jay Gould's concept of nonoverlapping magisteria (NOMA) to be especially interesting. Gould's proposal does not allow any overlap between science (objectivity) and religion or theology (subjectivity). In contrast to NOMA, Pohl redefines a term used in philosophy, "monad," to describe reality in

a more holistic way. His "Subjective Objective Monad" (SO-Monad) is a unit of reality combining both subjective and objective aspects that occur concurrently and in unison as they move through space and time—a concept that is used throughout the book. The subjective aspect of Pohl's thesis includes an emphasis on God's desire for "eternal creativity" and a priority for "nature's freedom." One example of this concept, introduced in a later chapter, is a description of the multitude of interactions that a single *E. coli* bacterium has, over time, within the human gut as it encounters other microbial cells, its chemical and nutritional environment, host cells, et cetera. Process and open theology see each encounter as an opportunity in line with God's priority of nature's freedom; the bacterial cell is given creative freedom by God's design to make decisions and respond to the environment, within nature's limits. These interactions by a microbe are a metaphor or a model for human lives and our opportunities for creativity and freedom in our interactions with our environment, including with other organisms and the divine.

The next two chapters focus on biological and philosophical aspects of the microbiome. Chapter 2 ("Microorganisms and the Microbiome") delves into biological examples and metaphors that support Pohl's model for interaction with the divine. Most microbiome research is focused on the large populations of microbes that inhabit the intestinal tract. The many commensal and symbiotic interactions that develop within the host-microbiome ecosystem depend on a multitude of interactions. Such interactions are described (using process philosophy/theology terms) as "occasions, prehensions, and concrescences" that occur repetitively in biological systems throughout time. It is difficult to find precise definitions within the text for these terms, but according to process philosophy, the initial "occasions" are the basic units of reality, "prehensions" are the way occasions relate, and a "concrescence" is the process by which many prehensions can be combined to form a complete actual "occasion." The interactions of *E. coli* bacteria in the human gut, as they move through time and space, are given as a prime example of these interactions.

As a microbiologist, I found "The Microbiome and the Human Condition" (chapter 3) to be the most informative. Pohl describes the human microbiome in considerable detail based on recent scientific literature. For me, Pohl's most salient contributions came from his medical expertise and discussion of microbial impacts on cystic fibrosis, obesity, Type I diabetes, and cancer. A section on the microbiome and neurology was also enlightening, covering such topics as the positive or negative ramifications of microbes on anxiety and depression, and brain disorders including Parkinson's disease and dementia. Each of these health and disease outcomes is an example of the importance, and necessary interactions, of the microbiome within a healthy human, and a surprising aspect of God's creativity and design.

Chapter 4 ("A Theology of the Microbiome") outlines in more detail the process theological implications of the microbiome. Four approaches are described that can incorporate both the subjective and objective aspects of reality using process theology and the microbiome: modeling, mechanism, mathematics, and metaphor. These ideas are further developed with modeling systems that emphasize the possibility for continuous creation in nature in line with open theology. In Pohl's discussion, he proposes that eternal creativity in an open future is more conducive to God's nature, and that more-abstract forms of mathematics may give new insight into God's co-creative nature. A metaphor approach can be helpful for understanding complex ideas, and Pohl suggests that the microbiome is a metaphysical metaphor for how God interacts with nature.

In the final chapter ("Reconciling Subjectivity and Objectivity in Nature and God") and in the appendix, Pohl further develops a synthesis of the nature of God from a process theology perspective, with emphases on the need for subjective thinking and the importance of love and creativity. In several New Testament examples, Pohl concludes that Jesus's expressions of emotion indicated that he was surprised by events and therefore lacked complete omniscience. Although I am not a theologian, I found his arguments interesting but problematic, and not convincing in light of orthodox views of Jesus being of one nature with God, within the triune, omniscient, and omnipotent Godhead.

I recommend this book, especially chapter 3, for theologians and scientists who seek a greater understanding of recent advances in microbiome research, especially those who are interested in how microbes affect our health in both positive and negative ways. However, the theological perspective may be a hindrance to those not attuned to process theology. Although not espousing orthodox theology, it is a thought-provoking and interesting addition to one aspect of the current biology-theology discussion.

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Christianity and Culture

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CHRISTIANITY AND INTELLECTUAL INQUIRY: Thinking as Pilgrimage by Douglas Jacobsen and Rhonda Hustedt Jacobsen. Oxford University Press, 2025. 221 pages. Hardcover; $29.99. ISBN: 9780197820346.

Douglas Jacobsen and Rhonda Hustedt Jacobsen's new book arises out of their long-term Religion in the Academy Project, which examines connections between higher education and religion. While their previous work, *No Longer Invisible: Religion in University Education* (Oxford University Press, 2012), describes the range of expressions of religion on American campuses, this one focuses on the process of intellectual inquiry at the individual level. *Christianity and Intellectual Inquiry* addresses the loss of Christian cultural clout in the West, particularly in the US, and notes the increasing recognition of the importance of cultural and religious contexts and how these limit our understanding. Jacobsen and Hustedt Jacobsen offer the metaphor of pilgrimage as an alternative paradigm to traditional faith and learning perspectives in Christian higher education.

The authors, with their combined backgrounds in religious history and American higher education, attempt to cover a breadth of topics: the history of the church, the history of higher education, biblical interpretations, and the American rise of identity politics. Their effort to synthesize across these topics is a strength of the book, but also a weakness that makes it difficult for readers to follow its main arguments.

The first section of *Christianity and Intellectual Inquiry* centers on the history of Christian traditions of faith and learning, and the second on the American social context and its faith and learning traditions. The third section attempts to build a view of faith and learning that remains available to everyone, tied to the contemporary emphasis on individual identity, and arguing for a model of pilgrimage as exemplified by four identified pathways: attentiveness, contemplation, proclamation, and compassion. Each pathway includes a representative individual along with an exploration of the pathway's ties to biblical texts and its expressions over the history of American higher education.

The first section showcases the book's strength through its contribution to a reader's understanding of the landscape of faith and learning, grounding it historically in Roman and Persian cultures and across Christian traditions up to the present. This survey connects faith and learning frameworks to the development of creeds; it provides a historical review of traditions in a range of higher educational institutions in the United States.

I found the differentiation of Catholic, Protestant, Orthodox, and Pentecostal approaches to be helpful in contextualizing and broadening our understanding of various traditions. For example, the presentation of Orthodox views of faith and learning explains the worldview of the eastern church, which sees God present everywhere and in everything; thus, secular and sacred intertwine: "they consider learning to have a sacred character because reality itself is sacred" (p. 32).

The second section of the book moves into the social history of the US and the modernist and fundamentalist debate that *PSCF* readers should find familiar, as will readers who have followed the history of Christian higher education. The authors draw on higher education scholars such as George Marsden, and on scientific accounts by ASA Fellow Edward Davis. The survey sets up the discussion over the present era of cognitive pluralism, which made its way into US higher education in the late twentieth century. In this framework, participants see varying perspectives as different but correct ways of seeing reality. The authors state: "Cognitive pluralism maintains that people see reality from a particular point of view derived from the thinking of the racial and ethnic communities to which they belong" (p. 71).

The authors tie cognitive pluralism to two perspectives of intellectual engagement. First, identity-constrained thinking addresses ideas based solely on their previous alignment with personal identity and personal experience. This perspective stands in contrast to a second approach of identity-informed thinking in which one's personal identity forms the ground from which to explore new ideas. Identity-constrained thinking remains closely aligned with a type of tribalism, whereas identity-informed thinking encourages engaging with others who are different. The distinction aligns with David Livingstone's work on place and science (e.g., *Dealing with Darwin,* 2014). Livingstone describes the richness of "trading zones," whereby different cultures engaged in a way that encouraged crossover between science and theology, in contrast to "flashpoints," whereby anxiety over science and theology led to a more tribal response.

Identity-formed thinking translates into the concept of pilgrimage—gaining interest within the Christian community—that broadens the audience to include all those who are seeking to learn something new about themselves and the world around them. Intellectual pilgrimage is thus a form of a faith and thinking process, experienced in all aspects of life. The authors construct four pathways of inquiry within this framework and use one individual as an exemplar for each: Biologist Rachel Carson serves as an exemplar of attentiveness, or empirical observation; Catholic monk Thomas Merton provides an example of contemplative thinking; Black theologian James Cone illustrates proclamation thinking; and physician Paul Farmer represents compassion thinking.

I was disappointed in this latter half of the book. First, in constructing a perspective of intellectual pilgrimage,

the authors' emphasis on individual pilgrimage failed to adequately address how all thinking and knowing remain grounded in communities and traditions, whether science or faith. Thus, the intentional focus on individual pilgrimage leaves the grounding of our personhood weak and unaccounted for. Scientists, for example, work out of a communal understanding of the scientific process, a central tradition informing the exploration of reality.

Second, I found the distinctions among the four pathways to be weak, and, at times, the biblical texts used to argue for the four felt forced and artificial. Rachel Carson lived as an empirical scientist but surely her work involved proclamation and changed the trajectory of environmental understanding and policy. She also expressed deep compassion for the natural world. Paul Farmer operated out of a deep compassion for the health of the underserved but measured his effectiveness using evidence-based practice. His work remained embedded in attentiveness to local systems and cultures. James Cone spoke against structural racism, but the evidence for such broken systems is seen in empirical measurements, including the results of redlining by banks and the pattern of toxic waste facilities concentrated in communities of color. Thomas Merton's representation of contemplation seemed to represent a different type of truth seeking based on self-understanding, rather than seeking understanding about the world around us.

The authors could develop a stronger pilgrimage framework by combining the four pathways into impulses embodied by all on the journey of faith and learning. Henri Nouwen, in *The Wounded Healer* (1972), says that we must first articulate the truth of the pain and suffering in the world and its complex reality. Second, we must be transformed by stories of real people, places, and processes because they are concrete examples of the present state of reality. We must be attentive while we crunch numbers in order to explore the fullness of reality. Third, we should allow our emotional assessment of the situation to be transformed into intellectual understanding. Through our transformation, we may develop a deeper understanding of the societal structures around us and thus have a clearer view on what changes we wish to proclaim. Nouwen concludes that, ultimately, this process of discovery moves us toward a deeper sense of our own self-understanding in God's world.

I would recommend this book to readers for two reasons. First, its breadth adds to what many have experienced as a largely North American conversation about faith and learning. Second, the concept of pilgrimage is a rich one which invites reflection. This lens for viewing faith and learning is one that speaks to the present generation and counterbalances the traditional propositional approach to such discussions.

Reviewed by Janel Curry, president of the American Scientific Affiliation, former dean for research and scholarship at Calvin University and former provost at Gordon College.

History and Philosophy of Science

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THE SHAPE OF WONDER: **How Scientists Think, Work, and Live** by Alan Lightman and Martin Rees. Pantheon, 2025. 208 pages. Hardcover; $28.00. ISBN: 9780593702024.

Ask any person on the street to describe a "scientist." You may receive a wide range of responses. One might mention traits such as intelligence and dedication. Another may imagine a serious person wearing a lab coat. Some may hold scientists in high esteem. Some may suggest a degree of distrust. Lightman and Rees want us to know that scientists are everyday people with special training in pursuit of wonder. In *The Shape of Wonder*, Lightman and Rees endeavor to paint a compelling and winsome picture of who becomes a scientist, how a scientist works, and what their role in public policy and society may be.

The authors are ideally suited for this task as distinguished scholars and ambassadors for the sciences. Alan Lightman is an astrophysicist and currently MIT professor of the Practice of the Humanities. Martin Rees is the former director of the Institute of Astronomy, Master of Trinity College, Cambridge, and co-founder of the Centre for Study of Existential Risks. Both men are passionate about science and those who practice it.

The authors seek to shape how the public sees scientists and their discipline. After debates about policy measures to fight covid and climate change, some groups may be losing trust in scientists and science as whole. Lightman and Rees aim to humanize scientists and dispel myths about what science is and how it is pursued. They define the work of science as "disciplined wonder" and view scientists as ordinary people with extraordinary education. To illustrate this, the authors fill the book with winsome portraits of contemporary and historical scientists in a diversity of fields. One reads not only of these individuals' scientific pursuits, but also of their childhood, hobbies, relationships, and dreams.

The work is structured in eight chapters that explore common questions about the life of a scientist, from why they enter discipline, to how they pursue their craft, to what keeps them going. The book concludes with a discussion of scientists and ethics with respect to their role in public policy debates of our time.

Lightman and Rees are at their best describing the lives of scientists. Reading about these individuals' hopes, dreams, struggles, and even their failings, connects us with these scientists. In addition to numerous historical biographies, Lightman and Rees interviewed five currently active scientists from a wide variety of backgrounds. Often writing in the manner of a travelogue, our duo describe the experience of meeting with their fellow practitioners. At times, readers feel as if they are at tea, listening in on conversations. We see real people. One physicist confesses, "Physics is not the most fun thing I do … sometimes it is very frustrating" (p. 79), before sharing a love of rock climbing. Another featured scientist was inspired in her pursuits by growing up in a disadvantaged community and now researches topics that could help her neighborhood. The authors capture their subjects' "humanness" well, and illustrate that the practice of "disciplined wonder" is open to anyone.

The Shape of Wonder would be a wonderful gift for scientifically inclined students and mentees or someone considering a career in science. It offers a warm introduction to the life and practice of science. However, the book does have its weaknesses. The authors missed an opportunity to explore scientists motivated by faith. They briefly mention physicist Don Page's work in speculative cosmology and casually note that he "retained his fundamentalist beliefs" (p. 95). From the context, the authors seem to be perplexed by an evangelical Christian in physics. I was disappointed that they chose not to interview Page or another scientist from a faith background since "wonder" is an integral part of Christian faith and practice. Such a discussion could have further broadened not only the discussion of wonder in the book, but also the audience for it.

The weakest section was their discussion of ethics and public policy. Lightman and Rees were motivated to write because they perceive a growing distrust of scientific opinion in debates on the environment and public health. Public trust is essential in grappling with the complicated challenges we face in public policy. We need reliable and trusted voices to provide their expertise. At this point, the authors attempt to grapple with the possibility that scientific findings can lead to both good and evil results. They confess that "sometimes it is not easy to define the good" (p. 166). They go on to state, "Our view is that science and the technology resulting from science do not have values in themselves. It is we human beings who possess values. And we should employ those values in how we use science and technology" (pp. 166–67). They conclude that good "probably meant … increasing the well-being-happiness, and quality of life of the largest number of people … and bad diminishes that well-being" (p. 167).

Utilitarianism is speciously attractive as a scientific approach to ethics since it advocates the collection of data and weighing the consequences. This approach can have significant unintended social results since "the greatest number" still leaves a vulnerable minority. The utilitarian view begs the question of what is "good." The authors should consider a broader exploration of ethics for applying scientific knowledge in public affairs. Public Administration scholar James Svara, for example, suggests employing multiple theories as an "Ethical Triangle" that examines policy from the perspectives of "Principles, Consequences, Virtue, and Duty"(p. 82).[1] By examining policy from multiple ethical perspectives, one is forced to ponder that a policy that seems to benefit the majority may not be "good" for all in society.

While the authors approach this work from materialist convictions, the concept of wonder is implicitly Christian. Sometimes it seems that the chasm between the materialist and Christian worldview is too wide to cross. Yet we share a sense of wonder about the world and universe in which we live. As the Psalmist writes, "the heavens declare the glory of God" (Ps. 19:1). When the marvels of the creation fill us with awe, one might just discover that wonder reveals the God-shaped hole in our hearts.

Note

[1]James Svara, *The Ethics Primer for Public Administrators in Government and Nonprofit Organizations*. 2nd ed. (Jones & Bartlett Learning, 2015).

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DESIGNER SCIENCE: A History of Intelligent Design in America by C.W. Howell. NYU Press, 2025. 296 pages. Hardcover; $35.00. ISBN: 9781479827671.

"Intelligent design" (ID) has been debated in the pages of this journal for decades, but *Designer Science* provides something unique: a long-form history of the century-long debate around this specific term. In this book, religion scholar C.W. Howell describes not the arguments themselves, but the intellectual, social, and legal dynamics around them. It provides a valuable resource for anyone who has participated in these debates, giving a historical perspective that individual journal articles cannot, although the author's own beliefs skew the narrative somewhat.

Howell writes his history as a tale of two trials: the 1925 *Scopes* "Monkey Trial" and the 2005 case, *Kitzmiller v. Dover*. Both were local proceedings that drew national attention, both were about education more than about science, and both were more important for their social impact than for their legal findings. Also, both split Christians, some moving away from a literal interpre-

tation of Genesis, others toward it. Chapter 1 ("The Creationists") traces the Christians before ID who were more literal interpreters of Genesis, and who split from other Christians after *Scopes*. Howell provides a fascinating history of the specific intellectual evolution of ID-specific ideas and terms in the 1980s.

Chapter 2 ("Design") tracks the emergence of ID as a distinct, titled movement, positioned as an alternative to both young-earth creationism and atheistic scientific naturalism. The literalism of the ID movement is not a young-earth timespan of seven 24-hour days, but Howell argues it is a literalism nonetheless. To Howell, ID's literalism is one in which living things are literally collections of machines, with the limitations as well as the advantages of machines. As an example of this, one ID proponent, Michael Behe, is quoted as saying that proteins like bacterial flagella are "literal machines" (p. 75). Behe argues that because machines cannot evolve and must be designed, then flagellar proteins must also have been designed. As a result, even ID arguments like Behe's take a mechanical form—a form that accepts many of the implicit, mechanical assumptions of atheistic naturalism.

Howell describes how ID's way of looking at science unfolded in the wider world in chapter 3 ("Politics"). Most prominently, ID proponents are associated with a politically conservative think tank, the Discovery Institute. In the 1990s, the political coalition brought together by the movement was broad and growing, but also fragile. Howell writes that "ID's nebulous nature made it popular and flexible; it also … made it vulnerable" (p. 118).

Chapter 4 ("Backlash") describes the second of the two trials, *Kitzmiller v. Dover*, which Howell describes as a defeat for the ID movement. Some ID proponents contest this, because associates of the Discovery Institute did not lead the suit, and some were discarded by the legal team or withdrew before testifying, with the most prominent exception being Michael Behe. Howell argues that the legal arguments were disorganized as a result. Under scrutiny, claims that ID was a scientific theory without religious content fell apart, including statements Behe made on the stand.

In Howell's telling, this second trial is critical. *Dover*'s legal rejection of ID arguments shifted the entire discussion away from the courts and toward discussion among Christians and atheists. An argumentative triangle developed among ID proponents, theistic evolution proponents, and the New Atheists. Howell believes the biggest split was among Christians, because the New Atheists shared some modernist assumptions with ID proponents. The rivalry between fellow Christians led to a hardening of the rhetoric from ID supporters. Howell proposes that "intelligent design continued to operate primarily as an offensively minded movement that was never able to make its disparate positions fully cohere" (p. 155). Material published in the 2010s "doubled down" on the previous arguments, and the center did not hold.

Chapters 3 and 4 are where Howell's own views (which he discloses at the beginning of the book) influence the historical account most. Howell himself is not a skeptic of the scientific consensus on evolution, which colors how he describes these conflicts. Instead, he is skeptical of the ID movement's own skepticism, and he defends the scientific consensus. Therefore, he magnifies the effect of *Dover* more than an ID proponent would.

Howell's position also influences his argument as he considers the legacy of ID in chapter 5 ("Aftermath"). Here he concludes that ID proponents' tendency to question the scientific consensus led to skepticism about vaccines and climate change, with negative effects. Yet he sees positive effects of this same skepticism, as it led to the Discovery Institute's Walter Bradley Center for Natural and Artificial Intelligence, established in 2018, years before AI usage became the challenge it is today. Howell sees a future in moving from machine-like conceptions of nature toward skeptical assessment of what machine-like conceptions can and should do, developing a nuanced, Christian approach to machine learning and other aspects of AI.

Designer Science is not for those considering ID arguments themselves, but for those who want to know one scholar's view of the long-term social and political context of the argument. Howell deliberately spends more time describing political and legal arguments than scientific ones and does an excellent job of this. His book is not just about tracing the creationist roots of ID arguments, but also the fruits of decades of skepticism of scientific consensus regarding evolution, both good and bad.

Overall, I think Howell maintains proper objectivity toward his subject despite his stated disagreement with the ID proponents he describes. Certainly, this book provides an opportunity for moving forward from the deadlocked rivalry between ID proponents and Christians who accept the broad outlines of evolutionary theory. In particular, the 21st-century questions concerning artificial intelligence might unite Christians who disagree over the 20th-century controversies about evolution. Howell's history offers directions by which we might grow together in our dissent from overly mechanical worldviews.

In summary, this book can be compared to Ronald Numbers's history *The Creationists,* but for the ID move-

ment rather than young-earth creationists. It is not as detailed as the history provided by Numbers, being half the length. However, *Designer Science* is more focused on the ID movement than the young-earth creationism movement, and it includes 21st-century developments such as the Discovery Institute's Walter Bradley Center. This gives me hope. Howell speaks from his own specific perspective about the history of the 20th century and, for the most part, models an objective stance for moving into the 21st century, with opportunities for former rivals to join together in the scientific activity of constantly questioning, evaluating the evidence, and seeking truth.

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THE EMPIRE OF CLIMATE: A History of an Idea by David N. Livingstone. Princeton University Press, 2024. vii + 534 pages, including notes, bibliography, and index. Paperback: $29.95. ISBN: 9780691236728.

The Trump administration announced in December 2025 that it would break up the National Center for Atmospheric Research, one of the premier facilities for weather and climate. Office of Management Budget Director Russell Vought explained that the center "is one of the largest sources of climate alarmism in the country."[1] Critics see this as one more effort by the Trump administration to bury the "inconvenient truth" of climate change and ignore the devastating effects it is likely to have in the coming century.

This reflects the general state of climate discourse in the United States. Climate change is either an existential threat that requires dramatic action, or a hoax used by the political left to justify regulation. There is little room in this debate for more nuanced questions and disagreements.

In *The Empire of Climate,* David N. Livingstone pulls readers out of this narrow debate to explore the idea of climate. It is a remarkably expansive and ambitious study. He writes:

> [M]y aim is to provide an outline chart of the realm I refer to as "the empire of climate." Since ancient times, the idea that the climate exerts a determining influence on minds and bodies, health and well-being, customs and character, war and health has attracted a long line of committed followers. (p. ix)

This book is a warning, first to scholars and secondarily to policy makers. Scholars, Livingstone argues, have too often conflated histories of the past and future: "chronicles of the past and histories of the future merge in claims about the impact of climate and climate change on human society" (p. 7). And they have often slipped into a reductive determinism that hides human agency, and therefore human responsibility. Here Jared Diamond's *Guns, Germs, and Steel* (Norton, 1997) receives considerable attention.

Livingstone works chronologically through four primary areas of climatic determinism: health, mind, wealth, and war. The consistent theme is that climate has been used to justify and expand power structures that favor white Europeans and North Americans. Since Hippocrates in the fifth century, climate has been a cornerstone of medical geography, "interspersed with moral judgements, evaluations of character, depictions of temperament, and assessments of intellectual aptitude" (p. 58). Tropical climates were described as places of moral and health hazards for Europeans. Indigenous peoples in the tropics were often described as morally degenerate, lazy, and feeble minded. According to this narrative, climatic variations made it inevitable that Europeans would dominate the globe intellectually, economically, and militarily.

Throughout, Livingstone draws on contemporary scientists, journalists, and climate activists to argue that climatic determinism is alive and well, here emphasizing climate change predictions that exude inevitability. He develops this most extensively in chapter 11, "Securitizing Climate Change," quoting Chris Huhne, a former British secretary of state for energy and climate change:

> The devastating impact that climate change would have on global food, water, and health meant that "unstable states" would become more unstable. Poor nations poorer. Inequality more pronounced, and conflict more likely. [This, Livingstone writes, is] a refrain echoing its way through the corridors of government, academia, and journalism. (p. 370)

Livingstone's warning is timely, indeed necessary. Framing climate change as an inevitable crisis has potentially dangerous consequences. The more dire and complex the crisis, the more tempting it is to consolidate power and advance a "solution." It is essential to consider how climate has been used in the past to justify racism and slavery, economic exploitation, and other injustices or we run the risk of reproducing those injustices in our quest to slow climate change.

Livingstone acknowledges at the outset that in writing "an introductory guide to a vast terrain," the book "no doubt suffers from the weaknesses of every mapmaking venture: silences, selectiveness, subjectivity" (p. ix). For example, Livingstone focuses almost exclusively on European and American men. But these do not undermine the book's considerable contributions.

The principle challenge I find with the book is that Livingstone emphasizes the specter of climate determinism to such a degree that he does not offer readers any guidance on how to understand climate's agency. Perhaps Livingstone assumes readers will be familiar with work in subfields such as environment and society, and environmental history, which routinely treat the nonhuman world as a historical agent, but it would have been helpful for him to recommend some resources on climate agency.

Furthermore, it is not alarmist or deterministic to say that climate change will have impacts on food production, trade, political conflict, et cetera, even if we do not have precise predictive power. What does it look like to treat these threats probabilistically and appropriately without succumbing to determinism?

It is important to emphasize that historians and historical geographers do not need to solve the problems they describe, and they generally eschew the prescriptive. But Livingstone could have provided examples of contemporary discourse that avoids the trap of conflating past and future histories and the trap of climatic determinism.

In the end, *The Empire of Climate* is a valuable contribution to the historiography of climate, and it provides an important warning. As Livingstone shows, climate has always been socially constructed and used for political and economic gain, so there is good reason to engage the contemporary debate critically and carefully.

Note

[1]Russell Vought (@russvought), "The National Science Foundation," X (formerly known as Twitter), December 16, 2025, 8:17pm, https://x.com/russvought/status/2001099488774033692?lang=en.

Reviewed by James R. Skillen, professor of environmental studies, Calvin University, Grand Rapids, MI 49546.

DOI: https://doi.org/10.56315/PSCF6-26Tagliapietra

PURSUING SCIENTIFIC HUMANISM: Letters Between Werner Heisenberg and Enrico Cantore, 1967–1976 by Claudio Tagliapietra, ed. Cascade Books, 2025. 316 pages. Paperback; $39.00. ISBN: 9798385243297.

Pursuing Scientific Humanism explores the nine-year correspondence between Enrico Cantore (1926–2014), a relatively unknown Jesuit philosopher, and Werner Heisenberg (1901–1976), one of the twentieth century's most influential physicists. The book includes 107 letters discovered in the archives of the Max Planck Society that were meticulously compiled, catalogued, and translated by Claudio Tagliapietra, assistant professor of dogmatic theology and associate director of the DISF Research Center on Faith and Science at the Pontifical University of the Holy Cross in Rome. More than just a collection of letters, *Pursuing Scientific Humanism* tells the inspiring story of a young, idealistic philosopher and a world-renowned physicist who supported and encouraged him.

The book is divided into two parts. Part I begins with an introductory chapter that provides essential historical and biographical context to the correspondence. Because of the success of modern science, rapid advances in technology, and the influence of positivist philosophy, it had become common in the early twentieth century to think of the natural sciences as objective, verifiable, and value neutral, while the humanities were considered subjective, interpretive, and value laden. C.P. Snow, in *The Two Cultures and the Scientific Revolution* (Cambridge University Press, 1959), famously asserted that the humanities and natural sciences could no longer communicate with each other; he worried about the dire consequences this division could have for the world. Cantore sought to bring the "two cultures" together through what he called *sapiential scientific humanism,* which, Tagliapietra writes, "offers a different perspective on the relationship between science and humanism. [Cantore] asserts that science possesses an intrinsic humanistic dimension, serving as a source of moral dignity, educational resources, and freedom" (p. 33). Werner Heisenberg had expressed similar views in *Physics and Philosophy* (Harper & Brothers, 1958), a book that deeply impressed Cantore and prompted the young scholar to write the first letter, expressing his great admiration for Heisenberg's work and requesting a meeting to discuss the philosophical implications of quantum physics. Despite his busy schedule, Heisenberg was sympathetic enough with Cantore's project to grant an initial meeting, which led to a nine-year correspondence.

Following this historical and philosophical overview, Tagliapietra includes an intellectual biography of Enrico Cantore, written by Giuseppe Tanzella-Nitti, Cantore's longtime colleague and friend. While the introductory chapter focuses primarily on Cantore's philosophy of science, this chapter highlights his Christian faith and the role that it played in his thought. For Cantore, both science and humanism were best understood in relation to Christ, the Logos through whom all things were made. "Ultimately," Tanzella-Nitti writes, "it is the origin from the Creator and the intimate and transcendent meaning that nature holds that explain why scientific research is so compelling, why it can become a life's passion, and why doing science is 'a labor of love'" (p. 35, quoting Cantore's *Scientific Man* [Institute for Scientific Humanism, 1977], p. 143). Similarly, as Tanzella-Nitti explains, Christ serves three essential functions in Cantore's humanism:

> First, the Christological reference allows him to frame the reflection on intelligibility and order in nature within a reflection on the Christian Logos, a

> personal logos, thus indicating the appropriate path to overcome pantheism or deism—what we might today call naturalism—that is closed to transcendence …
>
> Second, scientific and technological progress is not an immanent practice aimed solely at improving human living conditions, but rather a participation in the ongoing construction of creation, a construction possible only in and through Christ. United with Christ, humans can, as Cantore would say, engage in "quasi-creativity."
>
> Finally, Jesus Christ, true God and true man, is the model of true humanism, which scientific humanism must also express. (p. 37)

After the intellectual biography, Part I concludes with a brief biological sketch that includes a chronology of Cantore's academic life and publications. As someone who was unfamiliar with Cantore's work, I greatly appreciated these introductory chapters, which not only provide valuable insight into the philosophy of Cantore and Heisenberg, but also help situate their correspondence within the intellectual currents of the mid-twentieth century.

Part II contains the letters themselves, arranged into six chapters, each introduced with historical notes that situate the reader within the unfolding timeline. Forty of the letters are from other individuals who played various parts in the narrative, including personal assistants, editors, and university administrators. The story unfolds gradually, beginning with a tentative exchange of manuscripts and feedback, then following Cantore's career and the many challenges he faced. In these letters, we see Cantore tirelessly work to develop and publish his ideas and to establish an interdisciplinary institute at Fordham University where scientists and philosophers could collaborate in the spirit of scientific humanism. Unfortunately, Cantore struggled to find a wide audience for his work, and his plans for the institute fell through, leading to his unexpected termination from Fordham. Despite these setbacks, Cantore remained steadfast, convinced that his work was worthwhile.

During these difficult years, Cantore often expressed his frustration and disappointment to Heisenberg, who always responded with grace and encouragement. As the letters progress, it becomes clear that Heisenberg genuinely appreciated Cantore's project and wanted him to succeed. In the lowest points, he urged Cantore not to give up and offered practical assistance whenever he could, providing feedback on manuscripts, publishing advice, and letters of recommendation. As Tagliapietra notes, "Without Heisenberg's support, Cantore would not have been able to realize the dream to which he had dedicated his life" (p. 5).

Although Cantore's pursuit of scientific humanism was rooted in his Cristian faith, the letters rarely discuss spiritual matters. For this reason, readers who are primarily interested in the relationship between faith, science, and philosophy should consult Cantore's published work, including *Atomic Order: An Introduction to the Philosophy of Microphysics* (1969) and especially *Scientific Man: The Humanistic Significance of Science* (1977), published the year after Heisenberg's death. For readers with wider interests, there is much to appreciate about this book. *Pursuing Scientific Humanism* offers a candid look at the complexities and challenges of academic life, introduces readers to the depth and originality of Cantore's ideas, and tells an inspiring story of perseverance and dedication to the integration of natural science and the humanities.

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Psychology

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RESURRECTION REMEMBERED: A Memory Approach to Jesus' Resurrection in First Corinthians by David Graieg. Routledge Taylor & Francis Group, 2024. 314 pages. Paperback; $61.99. ISBN: 9781032728636.

The criteria for authenticity (for example, multiple attestation, dissimilarity, embarrassment) have dominated New Testament (NT) scholarship. The basic premise is that applying these criteria can lead to the identification of core truths that potentially trace back to the historical Jesus. This approach has united scholars across a broad ideological spectrum, ranging from the Jesus Seminar, which doubted that much could be known about the historical Jesus, to the views of more-conservative scholars such as Michael Licona, Gary Habermas, and N. T. Wright. However, these criteria are fragmenting in the face of serious challenges. Scholars applying memory theory to the NT are an increasingly influential voice in this debate. *Resurrection Remembered*, an adaptation of Graieg's doctoral thesis, is a reliable, well-written, and concise guide to a memory approach in NT studies. He wisely treads a careful line, not completely abandoning the criteria for authenticity but clearly focusing on mapping out a rigorous memory approach.

Although an academic book, it is accessible to educated readers without a background in NT studies. Detailed footnotes address key scholarly debates and provide further support for arguments made in the main text, along with numerous citations. Part 1 includes a literature review on NT research, with a particular focus on Jesus's resurrection, engaged with memory theory. Graieg provides a concise history of the memory approach and highlights key events such as those found

in the first footnote on the application of memory theory to NT studies (by Wilken in 1971) and the formation of the Mapping Memory Consultation of the Society of Biblical Literature, the first significant gathering of scholars working in this emerging field, by Alan Kirk and Tom Thatcher in 2004.

He also provides brief reviews on the work of key figures, including Bart Ehrman, Tuomas Havukainen, James Dunn, Dale Allison, Matthew Levering, and Peter Carnley. A relatively minor quibble, I think the literature review would have benefited from further interaction with Chris Keith, Anthony Le Donne, Alan Kirk, and Tom Thatcher, who have made notable contributions to the field. However, given the focus of a memory approach to the resurrection, and his interaction with their work later in the book, it would be too harsh to say this is a significant limitation.

Part 2 includes historical criticism and exegesis of 1 Corinthians 6:14 and 1 Corinthians 15. This is a great resource for those interested in the debates around exegesis of 1 Corinthians 15 (for example, the nature of the early creed, whether Paul was aware of Jesus's empty tomb, the meaning of ἐγείρω (raised), the nature of the appearance to the 500, and many others).

In Part 3, Graieg discusses memory theory and data with both breadth and depth. For example, he explains the important distinction between semantic (e.g., factual information, general knowledge) and episodic (specific personal experiences) memory. He makes the shrewd observation that the creed in 1 Corinthians 15:3–58 is likely a semantic memory, and therefore, less susceptible to distortion than other types of memory. This is a nice illustration of how historical criticism and memory theory can combine to generate helpful insights not immediately obvious from a standard historical-critical approach.

Flashbulb memories (memories of dramatic events such as 9/11) are also discussed. I was less convinced by his suggestion that the creed would likely result in a flashbulb memory for the Corinthians, but I agree that 1 Corinthians 15:8 most probably reflects a flashbulb memory of the apostle Paul. Graieg also includes interesting discussions on the transience of memory and the potential for memory distortions and bias.

One of the main strengths of this book is its multidisciplinary approach. As a psychology researcher, I am often frustrated with naïve or overly confident applications of psychology to the NT. I am glad to say Graieg avoids these errors. Part 3 interacts with a wide range of literature on the philosophy, psychology, sociology, and anthropology of memory. Each concept is introduced, summarized, and followed by an assessment of how these findings can be applied to memories of Jesus's resurrection. Graieg's multidisciplinary framework is systematic, transparent, and logical. In addition, it is sufficiently flexible to be applied across the ideological spectrum (i.e., secular, liberal, and conservative scholars) and is a useful tool to help minimize potential bias when using a memory approach to the NT.

The book's focus on 1 Corinthians is both a strength and a potential limitation. It is a clear strength that this is the first study to use a memory approach to Jesus's resurrection in this epistle. Although there are many helpful insights, I wonder whether the richer data available in the Gospels and Acts may more clearly demonstrate the promise of Graieg's approach. Nonetheless, this study of 1 Corinthians provides a solid foundation to build upon, and I look forward to seeing applications to a broader set of literature in the NT and early Christianity.

In summary, *Resurrection Remembered* is a timely study applying a memory approach to (primarily) the text of 1 Corinthians 15. This is a reliable, well-written, and concise guide to an influential approach within NT scholarship. I particularly recommend this book for readers interested in the application of psychological approaches to NT studies. For those better acquainted with the psychological literature on memory, of particular interest is Graieg's review of how this literature has been applied to NT studies in a concise and accessible manner (Part 1). Readers with less background in memory studies, but better acquainted with NT studies, will particularly benefit from discussions on a range of tools and theories from other disciplines that can be applied to their field of expertise (Part 3).

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RESURRECTION: Extraordinary Evidence for an Extraordinary Claim by Nick Meader. Eugene, OR: Resource Publications, 2024. 286 pages. Paperback; $29.98. ISBN: 9781666783056.

In *Resurrection,* statistician and health psychologist Nick Meader notes: "Christians and atheists discussing Jesus' resurrection can sometimes resemble young children on a play date. They use the same toys but play *alongside* each other—rather than *with* each other" (p. 11). The brilliance of his book is precisely that it encourages Christians and atheists to come face-to-face. In doing so, Meader plays, and plays well, the role of the rational parent who gets these children to interact directly with each other by providing them with a universal language for conversation: the language of probability.

The primary thesis of the book is that if you apply probability-based statistical modeling (common tools in

my own field of psychology) to atheists' claims that the resurrection of Jesus is not probable, those models show that atheists are wrong. In fact, these probability models reveal that the traditional Christian explanation of the widespread belief that Jesus miraculously rose from the dead is more probable than the other explanations that have been offered over the years as alternatives.

To make this case, the book opens with one of the cleverest applications of probabilistic reasoning to apologetics I have ever seen: Meader uses statistical modeling to evaluate a famous example given by atheist philosopher David Hume. To illustrate the kind of evidence he believed we *ought* to see if something unusual was true, Hume argued that if an eight-day period of darkness had truly occurred in 1600, this extraordinary fact would be matched by equally powerful evidence demonstrating its validity; expected evidence that Hume himself subsequently articulated. Meader, however, beats Hume at his own game by showing that probability modeling suggests Hume's own hypothetical evidence would not be enough to make the hypothetically true event probable!

After that opening salvo, the book turns its attention to atheists' Hume-like arguments that Christians should have extraordinary evidence for such an extraordinary claim as the resurrection of Christ. Because probability modeling is based on the prior likelihood of an explanation being true, much of the book focuses on establishing the prior probabilities associated with things that contribute to our understanding of Jesus's resurrection, ranging from naturalistic worldviews to psychological mechanisms involved in interpretations of the event. At the close of the book, Meader then quantifies all of these probabilities into a series of statistical models that consistently show that the Christian explanation is the most likely.

The primary strength of the book lies in its much-welcome application of the probabilistic method to apologetics. Even if one disagrees with the conclusions—and Meader acknowledges the limitations, quite admirably calling the model a "work in progress"—the application of probabilistic models to such an important religious event is (at a minimum) a meaningful conversation starter. It forces both sides to truly evaluate the probability estimates that, *in reality*, are already a part of their argument calculus.

The primary weakness of the book is an offshoot of this strength: Meader (who is an extremely successful and highly cited scientist) is of course aware of that the output of any probability model is only as good as the prior probability estimates that go into it; this explains why the book spends the majority of its energy defending the specific probabilities that go into the model. I imagine, however, that many of these probability estimates will be the source of future debate. For the sake of brevity, I will here limit my own comments to specific examples from my own areas of expertise within psychology.

In almost every psychological case (ranging from cognitive dissonance to mass psychosis), I agreed with Meader's prior probability estimates. However, two possible difficulties stood out to me. First, in chapter 8, Meader argues that Christian theology has a higher probability of being true because it is *simpler* than naturalism. I have spent my entire career studying psychological complexity,[1] and I find this argument lacking. Something is not more likely to be true because it is simpler. As I argued in my Christian apologetics book *Complex Simplicity* (2017), the world is, in fact, quite complex. Mere psychological or structural simplicity does not increase the probability of a *match* with that reality. Further, Christian doctrine is (as Meader acknowledges) often quite complex, and theism is almost by definition more complex than naturalism in that it posits everything naturalism posits *plus* the supernatural.

Second, Meader discusses many psychological arguments that might offer alternative accounts of the spread of Christian belief, but in my view he fails to clearly articulate the most probable one: an explanation based not in mass psychosis or cognitive dissonance, but in the much more mundane psychological properties of selective communication. Research suggests, for example, that information is passed on because it is communicable or interesting independent of its truth value.[2] As anyone who has played the game "telephone" can attest, it does not take very long in a communication chain for reality to be reshaped. Of course, communication often does work, and most of what we know that is true about our world is because of *accurate* communication from other people. But even though I disagree with atheists' ultimate conclusions, I have nonetheless thought communication distortion was their best argument—and it seems omitted from Meader's probability models.

To help offset these difficulties inherent in estimating prior probabilities, Meader provides multiple estimates in which he changes the parameters in a more atheist-friendly way. On balance, these alternative estimates—despite being biased *toward* atheism—still show a pro-Christian conclusion. (Indeed, I wanted more of this kind of analysis; the most useful part of the technique is to illuminate exactly what it would take for each side to "win" the probability debate). However, I could not entirely shake the feeling that the overall result seemed at times like a large kitchen sink that is in danger of running the very risk Meader is trying to overcome: If the final probability estimate is dependent on the author being right on *this* many things, perhaps the model itself cannot be trusted?

No work is perfect, especially one that attempts such a grand undertaking as Meader does. But in the final analysis, this book is well worth reading. Indeed, *Resurrection* accomplishes an amazing double: It provides an excellent summary of the burgeoning area of *probabilistic apologetics* for the curious outsider *and* simultaneously offers a remarkable novel contribution for the knowledgeable insider. I have never read anything quite like it, and I hope it inspires a generation of Christian apologists to use probability theory to honestly explore—and defend—our faith.

Notes

[1]For example, Lucian Gideon Conway III and Alivia Zubrod, "Are US Presidents Becoming Less Rhetorically Complex? Evaluating the Integrative Complexity of Joe Biden and Donald Trump in Historical Context," *Journal of Language and Social Psychology* 41, no. 5 (2022): 613–25, https://doi.org/10.1177/0261927X221081126.

[2]For a summary, see Lucian Gideon Conway III and Mark Schaller, "How Communication Shapes Culture," in *Frontiers of Social Psychology: Social Communication,* ed. K. Fiedler (Psychology Press, 2007), 107–27.

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TECHNOLOGY

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TEACH LIKE A HUMAN: Playful Practice and Serious Faith in the Age of AI by David J. Mulder. Wipf & Stock, 2025. 170 pages. Paperback; $27.00. ISBN: 9798385258413.

Are the machines taking over the classroom? In *Teach like a Human*, David Mulder answers that anxious question with neither panic nor naïve enthusiasm, but with something rarer: a theologically grounded, pedagogically wise, and gently playful invitation to rethink what it means to teach as embodied, image-bearing humans in an age of artificial intelligence. Written for Christian educators navigating the rapid rise of AI tools, the book goes beyond tips and warnings to reshape readers' imaginations about technology, humanity, and education.

The author is a professor of education at Dordt University and writes from nearly three decades of experience in Christian schooling and educational technology instruction at the university level—this dual background shows. The book sits at the intersection of classroom practice, theological reflection, and technological literacy. It joins a growing body of Christian engagement with AI and digital culture, yet distinguishes itself by its sustained focus on teaching and by its insistence that the central question for educators is not what can AI do, but what kind of humans are we becoming as we teach with these tools?

The book unfolds in eight parts that move from cultural analysis to biblical theology, and then from technical explanation to classroom application. Early chapters explore the stories that shape our fears and hopes about AI, drawing on familiar cultural touchstones such as *2001: A Space Odyssey*, *The Terminator*, and *The Matrix*. These chapters are not pop-culture detours; they serve to surface the imaginative lenses through which educators interpret new technologies. Are machines our rivals, our servants, or our saviors? The author argues that before we can use AI wisely, we must recognize the narratives already discipling us.

From there, the book turns to consider AI in light of "the big story" of Scripture. Mulder asserts that Creation, Fall, redemption, and restoration provide the theological backbone for a Christian understanding of humanity and technology. Within this framework, human beings are not reducible to information processors. Because teachers and students are not computers, teaching and learning are not simply matters of data transfer; rather, they are relational, formative practices involving bodies, emotions, moral agency, and worship. In this sense, the book resonates strongly with Christian scholarship that frames education as formation rather than mere information transmission.

The book's middle chapters demystify artificial intelligence in clear, accessible prose. Chapters on neural networks, machine learning, and large language models avoid both technical overload and oversimplification. The author emphasizes the probabilistic and pattern-matching nature of AI systems; this helps explain both their impressive fluency and their profound limitations. This portion of the book will be especially helpful for educators whose fears are fueled by the unknown; by showing how AI "thinks" very differently from humans, the author clears conceptual space for more measured ethical discernment.

The heart of the book lies in its treatment of teaching and learning as distinct but related activities. AI, the author suggests, may assist with certain teaching tasks—drafting questions, generating examples, organizing materials—but cannot replace the slow, embodied, and often frustrating process by which students actually learn. The book contrasts "arriving" with "becoming": education is not about efficiently reaching correct answers, but about forming persons who can love God, truth, and their neighbors. In this light, the book's call to "playful practice" names a posture of experimentation, humility, and joy that resists both technocratic control and despairing withdrawal.

The final section of the book features practical AI use cases (such as for leveled reading materials, rubric

development, tutoring systems, and iterative writing). These are among the most immediately helpful for the educator who is daily navigating AI in the classroom. Rather than promoting uncritical adoption, each example highlights both possibilities and pitfalls. The question at the heart of these use cases is ethical and theological: Does this use of AI help students do the "right work," or does it tempt them (and us) to outsource the very practices that form wisdom, perseverance, and integrity? The author's concern about an educational technology arms race is particularly apt. In a competitive environment, schools may feel pressure to adopt tools quickly, but this book urges educators to measure success in terms of faithfulness to their formative mission.

One of the book's major strengths is its tone. Discussions of AI often oscillate between utopian hype and apocalyptic dread. Here, however, the mood is hopeful without being glib, and critical without being alarmist. Humor and warmth surface regularly, reflecting the author's conviction that joy is not peripheral but central to Christian teaching. At the same time, the book has limitations. Readers looking for sustained engagement with broader philosophical debates about consciousness, personhood, or the long-term future of artificial general intelligence will not find it here, as the author's focus is on the present-day classroom. In addition, while the biblical-theological framework is clear and pastorally rich, some arguments are asserted more than rigorously defended. Scholars seeking extensive interaction with contemporary science-and-religion literature on AI may wish for more explicit dialogue with that field. Nevertheless, these are less flaws than signs of the book's chosen focus. It is not a technical monograph or a work of speculative theology; it is a guide for working educators who need practical wisdom and immediate discernment. In this, it succeeds admirably.

Teach like a Human offers a grounded example of how science-faith reflection can shape everyday practice. It takes seriously both the technical realities of AI and the theological claims of the Christian story, and refuses to let either float free of the other. By insisting that the deepest questions about AI are questions about what it means to be human before God, the book reminds Christian educators that their calling is not to compete with machines, but to cultivate distinctly human forms of teaching and learning.

Reviewed by Lynn Swaner (EdD in organizational leadership, MS in counseling), president of Cardus, US, non-residential scholar at Baylor University's Center for School Leadership, and senior fellow at the Center for the Advancement of Christian Education (CACE) at Dordt University.

THEOLOGY

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GOD, PANDEMICS, AND THE HOLOCAUST by Clifford Chalmers Cain. Wipf & Stock, 2025. 125 pages. Paperback; $23.00. ISBN: 9798385222896.

No one is immune to the question of suffering. It is perhaps the oldest question in the book: we wrestle with suffering in the creation stories of Genesis and find the struggle ubiquitous amid the visions of Revelation. We remain tempted to think that modern life possesses a unique claim to mass suffering, with the advent of mass communication and rate of information across the globe. A violent death in Cape Town can be live-streamed to New York City, a shooting of a protestor in Minnesota can be protested in Denmark by the next day. Throughout these accounts of suffering the question of God remains ever-present. Why? Why the child? Why the innocent? Why the intensity? Why the diagnosis? These questions reveal the one thing that, as humans, we both share intimately and find difficult to discuss.

Into this deep well of theological wisdom wades Clifford Chalmers Cain—holder of doctorates in both science and religion, professor emeritus at Westminster College of Missouri, theologian-in-residence at First Presbyterian Church (Greenwood, SC), and clergyman—who deftly stakes his footing early in the short volume. The book is written in a post-covid society where mass suffering marked nearly every global community. No one emerged unscathed from the pandemic, and plenty came away with more urgent theological questions. People that may have accepted personal injuries as a part of God's plan still found it difficult to justify the vast expanse of suffering and death in light of an omnipotent, benevolent God.

To address such questions in his short volume, Cain retells theological narratives of four significant times of mass suffering and death: the Bubonic plague, the Spanish flu, the COVID-19 pandemic, and the Holocaust. In each chapter, he discusses how different religious figures interpreted such experiences of suffering. In each historical event, readers can find people that blamed the suffering on the actions of humanity, and in each event, other interpreters appear determined to fit the suffering into God's greater plan.

This pattern holds until Cain's discussion of the Holocaust, where few interpreters can fathom the depth of suffering (p. 63ff). He points to Elie Wiesel's reflections on anger amid belief: "I never divorced God. It is because I believed in God that I was angry with God, and still am … Whatever I say, it's always from inside faith" (p. 66). Cain moves from this observation to Charles Darwin's account of the brutality of nature,

arguing that Darwin's move from a formal faith into a loose deism occurred due to there being "no other viable theological model to which to turn" (p. 78).

After these—at times harrowing—accounts, Cain embarks on an extended discussion of what he considers to be a more suitable philosophical and theological response to suffering (chap. 6). He generally follows the arguments of theologian Thomas Jay Oord, walking the reader through various theological approaches to the question of divine action and suffering, settling on the ways in which a deeper understanding of love can not only define God's person, but also help us to define the ways in which God is present and powerful (or not) in the world.

Throughout the text, Cain does an admirable job of dealing with a challenging and ever-present conflict. Indeed, in the tradition of process theology from which Cain writes, the question of suffering contributes both a driving and a troubling factor. Since process theology appears well suited to critically engage modern science, some interpreters in this tradition employ an evolutionary approach to human and nonhuman suffering, leaning into the co-created and co-evolutionary nature of the world. Such approaches tend to minimize the suffering of the present for the promises of the future, linking temporal perfection with divine perfection, the challenge of "suffering on the way." For example, people born with disabilities can be too easily cast off as biological and theological imperfections, and questions of eugenics—the intentional selection of healthier and smarter people over others—can too easily be supported. If theological growth is linked to time and biology, then suffering often becomes a bump in the road to perfection.

However, following tightly in Oord's and fellow theologian Catherine Keller's footsteps, Cain does not fall victim to the same mistake; instead, he faces the question of suffering head-on. He does not offer a new theological argument, but the writing provides a well-argued and well-contextualized treatment in our postpandemic global situation. Even if the reader does not necessarily subscribe to Cain's theological approach by the end of the book, all readers can appreciate the clarity of thought and the straightforward approach to challenging and controversial questions.

When it comes to deep theological questions for scientists and ministers, there remains no shortage of answers. However, a book that addresses a modern context, while presenting clear arguments, is always a welcome find. I recommend the book to all who wish to study the question of suffering and the nature of God in this postpandemic world.

Reviewed by John P. Slattery, PhD, executive director, Carl G. Grefenstette Center for Ethics in Science, Technology, and Law, Duquesne University.

Letters

Against Undefined Naturalism

Joshua Lee Harris's article "Against Restricted Methodological Naturalism" (*PSCF* 78, no. 1 [2026]: 27–37) points out problematic aspects of an understanding of science sometimes adopted by Christians to help resolve tensions between science and faith. He addresses the intelligibility and truth-seeking of restricted methodological naturalism (RMN), but unfortunately neglects two more-pernicious and influential problems, namely the meaning of "nature" and of "science." To define "natural" circularly as "not supernatural" (in Harris's words) alerts us to the first of these problems.

The scientific revolution was undergirded by a decision to regard the nature in "natural philosophy" as "the established order or settled course of things," as Robert Boyle put it,[1] and not the seven other varied meanings of nature that he cited. This decision is a commitment that natural philosophy (as science was then called) studies the reproducible aspects of the world, revealed by experiment and repeated observation. They are what enable technology, the practical "relief of man's estate" that Francis Bacon had advocated. Since the world has many other aspects that are not reproducible or settled, attributing to science epistemological commitments such as methodological naturalism (of any type) is unnecessary. And doing so confuses the topical concerns of science with an ontological commitment that there is nothing beyond nature: this is the common implication of naturalism.

The meaning of the word "science," which replaced the expression "natural philosophy" in the early nineteenth century, is even more vexed today because it is routinely confused with what was once called (in Latin) *scientia*, which meant, roughly speaking, any rigorous systematic study. That confusion feeds scientism: the belief that science is all the real knowledge there is, which not only certainly problematizes Christian faith, but also misrepresents and pollutes all the other nonscientific disciplines.[2]

That the meanings of "nature" and of "science" are problematic seems to me a more fundamental critique of invoking methodological naturalism than those Harris addresses. But he and I agree on opposing that invocation.

Notes

[1]Robert Boyle, *A Free Enquiry into the Vulgarly Received Notion of Nature,* ed. Edward B. Davis and Michael Hunter (1686; Cambridge University Press, 1996).

[2]These, and many related considerations are explored in my book *Monopolizing Knowledge* (Fias Publishing, 2011), http://monopolizingknowledge.net.

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Harris Responds to Ian Hutchinson

Ian Hutchinson and I both reject "scientism," the view that natural and/or physical science is the only source of real knowledge. But his response to my recent *PSCF* article (Joshua Lee Harris, "Against Restricted Methodological Naturalism," *PSCF* 78, no. 1 (2026): 27–37)—along with his excellent book, *Monopolizing Knowledge*[1]—adopts a rather different strategy from my own.

Hutchinson argues that the proper subject matter of science ought to be restricted to (a Boylean conception of) "nature," namely, those aspects of the world that happen to be reproducible and therefore amenable to experiment or repeated observation. On this view, the term "nature" takes its meaning not in opposition to "supernatural," but rather to those aspects of our world that are not reproducible in the same way.

So, the concerns motivating Hutchinson's view are orthogonal to the sort of naturalism I criticize in my article. Still, I'm not sure why we should restrict the remit of science to a Boylean conception of nature. In fact, I think there are several reasons not to.

First, as Hutchinson himself points out, there are many enterprises of inquiry that we are (1) accustomed to calling "scientific," but also (2) whose subject matter is not reproducible in the Boylean sense (e.g., certain explanatory inquiries characteristic of evolutionary biology and various social sciences).[2] Adopting such a criterion would therefore commit us to a revisionism about which I'm not enthusiastic.

Second, I'm not confident that Boyle's definition of nature can be said to "undergird" the Scientific Revolution *as a whole* when it comes to the proper subject matter of science/natural philosophy—at least not if this is supposed to be a claim about the self-understanding of major luminaries. Newton thought that God could be among the explanatory posits of natural philosophy, for example.[3]

Finally, if what we want is the *integration* of knowledge,[4] wouldn't it be better to take an inclusive attitude toward the considerable diversity of methods, theories, and subject matter that are—and have been—of use to practitioners of science, contemporary and historical? Unlike Hutchinson, I see no reason to reject the (broad, generous) traditional understanding of *scientia/epistēmē* as the enterprise of seeking explanations or (better) "reasons why" in accordance with widely attested virtues such as empirical adequacy, consistency, unification, and so on.[5] We are told that this tradition "feeds scientism," but I'm not sure why, absent further argument. There is certainly no strictly logical reason to infer from it that science is the only source of knowledge.

Indeed, it seems to me that this venerable sense of *scientia* emboldens the very integrative project that Hutchinson (rightly, in my view) encourages us to adopt. But admittedly that would require a more expansive positive argument on my part.

Notes

[1]Ian Hutchinson, *Monopolizing Knowledge: A Scientist Refutes Religion-Denying, Reason-Destroying Scientism* (Fias Publishing, 2011).
[2]See Hutchinson, *Monopolozing Knowledge*, 58, 74–76, 78–80.
[3]See Andrew Janiak, *Newton as Philosopher* (Cambridge University Press, 2008), 165.
[4]See Hutchinson, *Monopolizing Knowledge*, 185–93.
[5]See Joshua Lee Harris, "Against Restricted Methodological Naturalism," *Perspectives on Science and Christian Faith* 78, no. 1 (2026): 30, https://doi.org/10.56315/PSCF3-26Harris.

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