

## ANTHROPOLOGY

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**FEMINISM AGAINST PROGRESS** by Mary Harrington. Washington, DC: Regnery Publishing, 2023. 249 pages. Hardcover; \$29.99. ISBN: 9781684514878.

In many ways, this book is an autobiography of Mary Harrington losing faith. Not losing faith in God. It is not at all clear that she has any faith in God or a higher being. This is a book about her loss of faith in a post-modern worldview with ideas of progress that go along with that worldview. She suggests that this worldview is, in fact, a “quasi-theological regime” (p. 12), and one with powerful economic, social, and media support. In Christian terms, we could call it the “god of this age,” a god with many false promises and claims.

At the heart of this worldview is the idea that “progress” entails “a structure of belief” in which “there exists a kind of axis along which progress can be measured, and that we’re inexorably moving along that axis from ‘more bad’ to ‘less bad,’” and furthermore, “this movement is unstoppable” (p. 12). Harrington writes that her starting premise for this book “is that this structure is a belief, not a fact” and that she is not “a believer in Progress Theology” (p. 13). The book is her attempt to demonstrate why this is the case, why she lost her faith.

The aspect of progress she is most interested in is purported progress with respect to gender, especially where that concerns women. Harrington still considers herself a feminist in the sense that she cares about women’s interests. But she has rejected what she formerly took for granted: “that men and women are substantially the same,” and that both sexes have the equal right “to self-realisation [sic], shorn of culturally imposed obligations, expectations, stereotypes or constraints” (p. 14).

Her transformation to “reactionary feminist” took hold when she became a mother. She realized that feminist ideals like radical autonomy and personal fulfillment are not the greatest goods. Mothering, she discovered, was a great good that entailed giving up one’s autonomy and finding fulfillment in nurturing another.

The book lays out a comprehensive set of propositions for rethinking what it is to be man and woman

in today’s complicated world. She traces the various contours of the sexual revolution which has roots in the feminism of the early twentieth century. She is critical of the advent of the birth control pill for its effects on women’s bodies, mental health, relationships, and the environment, citing various studies to support her critique. The pill, she suggests, is one of the first technological steps toward the feminist ideal of ridding society of sexed differences and increasing female autonomy. But this has not turned out as positive as feminists would have us believe. She asserts that “half a century of concerted feminist effort to stamp out sexed differences as baseless ‘stereotypes,’ in the name of furthering that freedom [from relationships], has succeeded only in shaping what’s for sale” (p. 98). Furthermore, although women have the autonomy they desired with respect to their bodies, this has not led to the utopia they envisioned (pp. 99–100).

One of the most interesting chapters is entitled “Meat Lego Gnosticism.” The premise of this “cyborg theology,” writes Harrington, is “that inner identity is unrelated to physiological form” (p. 142). For cyborg theology, body parts are just that: exchangeable bits of meat that you can dispose of or take on at will—meat Lego pieces. Any wholistic notion of human persons is completely absent from this campaign, a campaign she claims was spawned by technology (pp. 138–39), encouraged by markets, embedded in elite class politics (pp. 150–51), and supported through a variety of sources.

In opposition to all of this, Harrington introduces readers to “reactionary feminism,” a feminism that she claims is good not just for women, but also for men. She specifically argues for three things. First, she argues for traditional, life-long marriage as a common, and therefore a foundational and stabilizing, factor for society (pp. 178–81). Specifically, she suggests that marriage is less for “personal fulfillment, or even romantic love, than an enabling condition for building a meaningful life” (p. 182), and that it includes “cooperation on the domestic economy, and the intimate work of creating a safe and stable space for children” (p. 185).

Second, based on her research, she argues for men-only and women-only spaces because men and women are different by nature and therefore have different social needs. For Harrington, these sorts of

spaces allow men to interact with other men as men, and women to interact with other women as women, while also allowing young men to learn from older men and young women to learn from older women. Interestingly, both of these first two claims are supported by historic Christian teaching as well.

Finally, she advocates against hormonal birth control, not only because the physiological effects on women are often unhealthy, but also because of the effect of estradiol on the environment (p. 208). Once again, Christian teaching about stewardship both of one's body and the creation as a whole dovetail with her ideas here.

Harrington's book is comprehensive, weaving together aspects of marketing, technology, and sociology to provide a revised story of what it is to be male and female. Her research includes everything from personal interviews to Twitter feeds to peer-reviewed journals and studies, the details of which are included in her extensive endnotes. Although she writes in the context of the United Kingdom, she does, at times, refer to work done in the United States, noting the politicized nature of her ideas in that context.

The comprehensive nature of the book along with the lack of a clear thesis, is at times confusing. She is clearly critical of progressive feminism and the prevailing gender ideology that she associates with it, criticism that is lately being leveled by other women who were sold a story by gender studies gurus.<sup>1</sup> Her association of this story with the free-market system and the technology giants embedded in that system is interesting. But it seems, at times, as if she were trying to write two books: one defending male and female as ineluctable categories of nature, and one blaming tech-dominated markets for their profit-based interests in promoting the alternate paradigm of denying sexed differences. Trying to do both muddied the waters in ways that were not always helpful and sometimes confusing.<sup>2</sup>

Scientific specialists in the area of sex and gender may be more critical than I of the studies she cites. From my nonspecialist perspective, I appreciated that she not only took account of scientific studies from peer-reviewed journals, but also included personal reflections from her own experience, as well as that of others, and included opinions and experiences she

learned of through various social media outlets. In general, these are not stories we are told.

As a Christian theologian, I found her insights both surprising and interesting. Surprising because they comport remarkably well with a Christian worldview despite the fact that she is not a Christian. It was also interesting because the new Gnosticism she describes is diametrically opposed to the historic Christian affirmation of the goodness of the material world, including our material bodies. She unknowingly affirms both the biblical teaching that humans are created male and female, and the biblical understanding that humans flourish when they live within the boundaries set by our Creator.

Although her language is at times crass, and some of the examples she offers may be offensive, this book is pro-women as women—including our bodies—and as such, is also pro-men. I would recommend this book to a wide variety of people, including social scientists, technology experts, and theologians. For Christians who feel marginalized by current cultural pressures toward a nonsexed society, pressures that are even supported by many churches, this book will ring true with respect to the historic teachings of the church on sex and gender. It will also encourage them that their basic instincts about sex and gender are, in fact, in line with God's created intentions for humans.

## Notes

<sup>1</sup>For a Christian perspective on this, see, for example, Abigail Favale, *The Genesis of Gender* (San Francisco, CA: Ignatius Press, 2022).

<sup>2</sup>For a helpful look at the problem of big tech companies and their undue influence via social media on young people, a problem that is especially pronounced in young women as Harrington writes, see the Center for Humane Technology's various resources on this topic, including the 2020 film, "The Social Dilemma," <https://www.humanetech.com/>.

*Reviewed by Mary Vanden Berg, Professor of Systematic Theology at Calvin Theological Seminary, Grand Rapids, MI 49546.*

## BIOLOGICAL SCIENCES

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**MODIFYING OUR GENES: Theology, Science and "Playing God"** by Alexander Massmann and Keith R. Fox. London, UK: SCM Press, 2021. vii + 151 pages. Paperback; \$21.49. ISBN: 9780334059530.

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*Modifying Our Genes: Theology, Science and "Playing God"* is a thought-provoking exploration of the ethical, theological, and scientific implications surrounding human genome editing. Written by Alexander Massmann, a theologian, and Keith R. Fox, a scientist, this book examines the topic clearly and is comprehensible even for those without a background in genetics or bioethics. While their ethical considerations are biblically based, they also draw upon arguments in philosophy and other fields to facilitate a more inclusive debate.

Chapter 1 discusses the overall significance of genome editing using CRISPR-Cas9, and lays out key themes discussed in subsequent chapters. Developed by Emmanuelle Charpentier and Jennifer Doudna just over a decade ago, CRISPR-Cas9 greatly simplifies the process of making alterations at precise locations in DNA compared to previous methods. While this molecular tool can be used to genetically modify body cells in children or adults (somatic gene editing), these alterations are not passed on to future generations, unlike alterations to human embryos (germline gene editing), which are of greater ethical concern to Massmann and Fox.

For the benefit of the layperson, chapter 2 provides a basic primer in genetics and the CRISPR-Cas9 method. The authors note that over 10,000 different inherited human diseases are caused by a defect in a single gene and would be the most feasible targets for therapeutic genome editing. However, many human traits and disorders result from a complex interaction between multiple genes and are less amenable to genetic intervention. Moreover, Massmann and Fox point out that environmental, lifestyle, and developmental factors work together with genes to determine human traits and diseases – we are not simply a “product” of our genes alone! They describe, in simple terms, how the Cas9 protein uses a guide RNA to precisely direct the position of a double-stranded cut in DNA, and how repair of the cut by nonhomologous end-joining leads to short deletions or insertions that usually inactivate the gene. Repair of the cut by homologous recombination is less clearly explained in this book. The authors also do not mention base editing or prime editing at all. These variations of CRISPR-Cas9 technology, reported in peer-reviewed journals by 2019, correct mutated copies of genes without making

double-stranded cuts in DNA or requiring a corrective donor DNA molecule.

In chapter 3, the authors briefly summarize the successes so far with therapeutic genome editing in children or adults, especially for genetic disorders involving the blood, such as sickle cell anemia, beta thalassemia, and leukemia. For disorders involving other body tissues and organs, they note the challenge that must be overcome in delivering gene editing tools to enough cells to achieve a therapeutic effect. The problem with delivery is greatly reduced, however, if genome editing is done on embryos.

While safety concerns tend to dominate many ethical analyses of genome editing, especially for germline gene editing, that is not true for Massmann and Fox. The authors acknowledge that technological improvements may eventually reduce the error rate in the editing process to an acceptable level. They reject germline gene editing on other grounds, even for medical purposes. Among their most compelling arguments is that using this technology to edit out “debilitating” characteristics could cause greater stigmatization and marginalization in our society for people with disabilities or serious genetic disorders. In support of this concern, the authors cite negative attitudes toward babies with Down syndrome in Denmark where free prenatal tests are available and 95% of babies diagnosed with Down’s are aborted. From a Christian perspective, they invoke Matthew 25:31–46 in saying that those who are left behind by medical progress, or who are excluded, or who are looked down upon are among “the least of these” and are worthy of our care. On page 64, they call for a renewed effort to include people in society with chronic illnesses and disabilities as we continue to make progress in somatic gene editing.

Massmann and Fox maintain that genetically modifying human embryos carrying a disease mutation is unnecessary if healthy embryos can be identified by preimplantation genetic diagnosis (PGD) following in vitro fertilization, even if it leads to an increase in the number of unused and discarded human embryos. Some may view their preference for PGD over germline gene editing as inconsistent with their concern about stigmatizing those with disabilities, especially since it results in the destruction rather than the “healing” of some human embryos. All they could say in response to that criticism is that both

PGD and genome editing require embryo selection. They advocate limiting the use of PGD to medical considerations, preferably to avoid the birth of a child with a very severe disease. This is consistent with their view (p. 63) that “a meaningful and fulfilled life will be made more difficult by conditions that cause significant and persistent pain.” On page 62, they suggest that it may be possible to select sperm without a harmful mutation before in vitro fertilization to increase the number of eligible healthy embryos for implantation. However, they give no explanation for how this selection might be done without destroying the sperm cells in the process, and no reference is provided.

In chapter 4, Massmann and Fox consider the possible use of somatic or germline gene editing for introducing nonmedical enhancements, such as improved athletic ability, memory, and life span. They argue that genetic enhancements could exacerbate social inequalities for underprivileged people, leading to diminished social participation and reduced political or economic opportunities. They challenge the assumption that greater physical and mental capabilities will produce more fulfilling lives and reiterate their concern that it could lead to discrimination against people living with genetic diseases or disabilities. The authors also question whether it is appropriate for parents to choose enhancements for their children. Would children become more like commodities than precious gifts, subject to our own design or will? Considering these arguments, the authors suggest limiting genome editing to medical and therapeutic procedures, which they define as any intervention that restores or preserves the function of an organ.

Chapter 5 focuses on the history of eugenics around the world. Massmann and Fox note that the murder of about 200,000 disabled people by the Nazis was not motivated by considerations of race or concerns that future generations might inherit a genetic impairment. Instead, it was motivated by economic considerations (the cost of care for the disabled and their lack of productivity) and an “ableist” mentality that emphasizes independence and physical functioning while marginalizing dependence, weakness, and vulnerability. The authors express concern that far-reaching genome modifications, especially genome enhancements, will reinforce an ableist mentality in our society, leading to antidisability prejudice.

In the final chapter (chap. 6), Massmann and Fox consider human dignity, arising from our creation “in the image of God,” and its implications for advancements in biotechnology. They maintain that human dignity is more than just a respect for personal autonomy; it also includes a moral call to work for the benefit of others and to take care of our own bodies and personal health. The authors assert that society should not allow technologies, such as genetic enhancements, to be marketed freely if there is a significant health risk, even if individuals have given informed consent. On the other hand, they note that as God’s image-bearers we can use science to “tame the destructive forces and to restore order where chaos threatens life” (p. 130). The authors conclude that as we employ new technologies to overcome disease and infirmity, we must do so in a way that respects the dignity of patients as well as of the scientists who develop the technologies and the caregivers who administer them. We must also ensure that our zeal for increased levels of function does not lead to the exclusion of those with disabilities.

*Reviewed by Brian T. Greuel, Emeritus Professor of Biology, John Brown University, Siloam Springs, AR 72761.*

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**GOD AND GAIA: Science, Religion and Ethics on a Living Planet** by Michael S. Northcott. New York: Routledge, 2023. 271 pages. Paperback; \$40.00. ISBN: 9780367627744.

Biodiversity loss, water pollution, and declining soil health are major indicators of the ecological crisis facing our planet today. Science can be consulted to address these issues; however, as Michael Northcott argues in his latest book, *God and Gaia: Science, Religion and Ethics on a Living Planet*, unless science resists its scientism it will only exacerbate the current ecological crisis.

Northcott, an ordained Anglican priest and Professor Emeritus of Ethics at the University of Edinburgh, has written extensively on environmental issues.<sup>1</sup> In *God and Gaia*, Northcott explores the Gaia theory of James Lovelock—that “the Earth and her creatures are active agents in the generation of conditions which make the Earth habitable for Life” (p. 2)—from a religious ethics perspective. In effect, “God” in the book title does not indicate that the author will be taking a specifically Christian angle on the Gaia

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theory, but rather taking something more akin to a comparative religions approach. The book is a collection of previously published papers along with new material curated into eight chapters, each with its own abstract and notes section. This arrangement, along with chapter subheadings, aids the reader in following along with Northcott's exploration of the Gaia theory. Northcott draws from a variety of published sources, along with his diverse experiences in Borneo, to get his main points across regarding the dangers of scientism in contrast to the restorative powers of Gaia.

Scientism, the condition in which only knowledge gained from observations is considered true, is an ideology that has created, according to Northcott, a "bifurcation between nature and culture." Northcott provides a history of scientism describing how, following the European enlightenment, anything that was not measurable tended to be viewed with suspicion by many in the West. He elaborates that scientific reductionism led to a top-down approach where the "rights of corporate agents trump the rights of people and species to stable and safe habitats" (p. 157). Northcott uses the example of the global response to the COVID-19 pandemic to demonstrate the full potential of scientism and its globalist and technocratic top-down control. Here, Northcott's one-sided argument regarding the benefits of ivermectin, the ineffectiveness of vaccines, the dangers of lockdowns, and the evils of the United Nations may distract readers from his intent of describing top-down control.

In contrast to scientism and its top-down control, Northcott recommends a Gaian approach to addressing the ecological crisis. While *God and Gaia* is not an introductory textbook, it does provide a thorough overview of the theory and its history. With an understanding of the Gaia theory in place, Northcott focuses on connections between Gaia and Hindu, Taoist, and Christian religious traditions. For Northcott, the Gaia theory can be interpreted as a rediscovery of beliefs held by earlier faith traditions. With great respect, he demonstrates how the Vedic Trinity and the Tao have parallels with Gaia theory's emphasis on the agency of all organisms. Northcott then eloquently demonstrates that medieval Christianity also emphasized the sense of agency in all organisms. Northcott, drawing on philosophers such as Seyyed

Hossein Nasr, explains that most western Christians are unaware of the sacred cosmology of their tradition and its emphasis on the agency of being. For the betterment of the planet, Northcott urges religious traditions "to make more prominent in their liturgies the symbiotic relations between humans and other animals which for most of human history has been central to their mutual flourishing" (p. 261).

Overall, *God and Gaia* does an excellent job of contrasting the current approach of scientism versus the moral and spiritual Gaian philosophy to address the ecological crisis. Northcott is calling for a revival of core aspects of human traditions which modern secular science and philosophy have diminished. This Gaian revival recognizes the agency of all of Earth's systems. Although the Gaian revival and its earth-centered philosophy deviates from a distinctly Christian approach to creation care, readers should find some comfort in this revival as it shows that we are not alone in our efforts to restore the ecological integrity of the Earth.

### Note

<sup>1</sup>See Michael S. Northcott, *The Environment and Christian Ethics* (New York: Cambridge University Press, 1996); \_\_\_\_\_, *A Moral Climate: The Ethics of Global Warming* (London, UK: Darton, Longman and Todd, 2007); and \_\_\_\_\_, *A Political Theology of Climate Change* (Grand Rapids, MI: Eerdmans, 2013).

*Reviewed by Bruce Friesen-Pankratz, Assistant Professor of Environmental Science, Natural and Social Science Department, Providence University College, Otterburne, MB R0A 1G0.*

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**A HISTORY OF BIOLOGY** by Michel Morange. Translated by Teresa Lavender Fagan and Joseph Muise. Princeton, NJ: Princeton University Press, 2021. 418 pages. Hardcover; \$29.95. ISBN: 9780691175409.

A book that introduces the history of biology will be of interest to many readers of this journal. The Preface states that the author, Michel Morange, will present a broad historical overview of the history of biology that, unlike some other histories of biology, will include developments in the twentieth and twenty-first centuries. In this regard, he mentions Lois N. Magner, *A History of the Life Sciences*, 3rd ed. (New York: Marcel Dekker, 2002). Magner's book does cover many scientists and developments in the twentieth century, although, significantly, she does not discuss the modern evolutionary synthesis.

Morange states that he will present a “history which leans on the present to look at the past.” That is, he will use “the past to shed light on the present, not to justify it” (p. xvii). To do this, the author uses a novel approach. Each chapter is subdivided into three sections: The Facts; Historical Overview; and Contemporary Relevance. “The Facts” is the first main section of each chapter; in the subsequent two, he reflects on some of the investigators and their discoveries. As he does so, he is not reticent to give his own evaluations and ideas; this is a strength of the book. Thus, he states that the book will not be a simple listing of facts and persons. For example, in the first chapter Morange suggests that the “hunt for pioneers” (for example, ancient thinkers who used the word “atom”) is futile because the ancient idea had little to do with the development of the modern concept. Excursions such as these can be topics for fruitful classroom discussions.

Five succinct chapters take the reader from ancient Greece and Rome, through the Middle Ages, the Renaissance, the seventeenth century, and the Enlightenment. Chapter 1, in which Aristotle is designated as “the father of biology” (p. 2), offers some welcome thoughts on experimentation and the atomists. The discussion of the Middle Ages includes the suggestion that in the history of a science there may be long periods in which there is little growth in scientific knowledge. The chapter on the Age of Enlightenment, the eighteenth century, examines the history of the classification of organisms and the reproduction of animals. An introduction to the subjects related to reproduction, such as the importance of eggs versus sperm, preformation versus epigenesis, parthenogenesis, and spontaneous generation, would have made this topic more accessible.

Two chapters cover the history of biology in the nineteenth century. The author agrees with the idea that Theodor Schwann and Matthias Schleiden deserve much credit for the emergence of cell theory, but he mentions that some others, notably J. E. Purkinje, also deserve credit for this discovery. Under the heading *The Rise of Germ Theory*, the author describes many investigations that led to the understanding of infectious agents. Pride of place—and the (French) author may surely be forgiven for this—goes to Louis Pasteur and the diverse aspects of his work. This chapter offers a comprehensive

description of the three important French post-revolutionary biologists: Jean-Baptiste Lamarck, Georges Cuvier, and Geoffroy Saint-Hilaire. A good account of Charles Darwin’s theory of natural selection is followed by a description of the reception of this work in Great Britain, America, Germany, and France; in many cases, the theory was altered by the influence of other concepts (e.g., Lamarckism). Once the work by Gregor Mendel on the inheritance of characteristics in peas was rediscovered in 1900, “genetics” was rapidly established in Britain and the United States; it was established more slowly in Germany and France.

The prominence of Naturphilosophie in Germany and surrounding countries is described. Morange makes an excellent connection between his discussion of reproduction and the topic of Naturphilosophie by referring to the work of Caspar Friedrich Wolff, a biologist who was an early adherent of this way of thinking. Morange describes the origins of Naturphilosophie, and the influence of ideas in biology. Many German scientists were influenced by this philosophical school; it was a stimulus in the formulation of cell theory. Erik Nordenskiöld shows that Johannes Peter Müller progressed from speculative ideas about biology to making important contributions in many areas of biology. He supervised many graduate students who became important biologists.

The last three chapters, which address developments in the twentieth and the twenty-first centuries, are not only valuable for the historical descriptions, but also as a survey of biology as it is practiced today. The first chapter describes the emergence of biochemistry, immunology, microbiology, and our understanding of the nature and treatment of cancer. The “rediscovery of Mendel’s laws and the rise of genetics” (p. 256) and the “rise of molecular biology” (p. 264) receive the extensive attention one would expect. Morange is clearly in his element here; biologists of all stripes will benefit from reading this chapter.

The chapter that follows describes the development of population genetics. This leads, aptly, into the topic of the modern evolutionary synthesis—the extended evolutionary synthesis is not mentioned. This is followed by an excellent summary of the various topics within ecology. Morange then describes the origins

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and methods of ethology; he includes the contributions of the three 1973 Nobel Prize winners: Karl von Frisch, Konrad Lorenz, and Nikolaas Tinbergen. The burgeoning field of behavioral ecology, related to the last two topics, is not addressed. In the reflective part of the chapter, the author comments, among other topics, on holism and emergentism, global warming, and the responsibility of biologists.

In the final chapter, Morange takes us on a tour of the developments that start with the science described in the previous two chapters and end in the present century. "Structural biology" (p. 331) is advancing our knowledge of nucleic acids and proteins. The relationship between the modern evolutionary synthesis and molecular biology leads to topics such as evolutionary developmental biology ("evo-devo"), epigenetics, and human genome sequencing. The contributions to human genome sequencing of Craig Venter are acknowledged, but the work of Francis Collins at the National Human Genome Research Institute is not. In the last pages of this chapter, and in the Conclusion section of the book, Morange gives numerous opinions on the topics he has covered.

Biologists will enjoy reading this book for the many insights and opinions it presents. They will appreciate reading about the history of their discipline from a French point of view. The English translation of this French book reads well; however, the footnotes and references need to be more suitable for the English-language readership. The footnotes, especially those intended to provide links to further reading, often refer to French-language books or journal articles; it would not be difficult to find many English language equivalents. Some of the French books listed as references are available in English translations. In the Preface, the author states that readers "should consider this book a first version, which their critical input will help improve" (p. xx). One would hope that the author and Princeton University Press will address this last critical comment about the book, for the book has the potential of being a valuable textbook for students.

*Reviewed by Harry Cook, Professor of Biology, Emeritus, The King's University, Edmonton, AB T6B 2H3.*

## GEOLOGY

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**READINGS ON EVOLUTION AND THE NATURE OF SCIENCE: One Christian's Perspective** by Keith B. Miller. Morgantown, PA: Mastof Press, 2022. 224 pages. Paperback; \$20.00. ISBN: 9781601268129.

Keith B. Miller has dedicated his career to conducting paleontological and geological research and teaching at a public university. In addition to his many contributions to the geoscience literature and his activity in professional societies, he has contributed multiple provocative articles that advanced faith and science dialogue, many in *Perspectives on Science and Christian Faith*. *Readings on Evolution and the Nature of Science: One Christian's Perspective* is a collection of sixteen of Miller's articles published between 1993 and 2018 and one previously unpublished manuscript. The articles are clustered among five sections that represent the foci of Miller's writing and public address.

In The Nature of Science section, Miller addresses misunderstandings of science held by the public. He describes how misconceptions have been promoted by traditional young earth creationists and intelligent design advocates who have great contemporary influence on churches, seminaries, local school boards, and state legislatures. In footnotes to the first article, "The Similarity of Theory Testing in the Historical and 'Hard' Sciences," Miller reveals that the integrity of historical science (such as geology and paleontology) was debated in the development of Kansas science education standards. Drawing from the philosophy of science and using examples from geology, he defends historical science as not different from "hard" science in its predictive and explanatory power.

While evolution is the volume's overarching theme, in the second article Miller examines science's nature as applied to the public debate over anthropogenic global warming. He recognizes widely held misconceptions of science that fuel the rejection of controversial theories such as climate change and evolution. These include misunderstandings of fact and theory and the misconception that "unproven" theories should not become the basis for public action. To demonstrate the importance of scale and context in theory making, Miller presents actual data sets

revealing patterns of global environmental change at different scales and timeframes. Incidentally, those climatic patterns up to 2012, the year of the article's original publication, have persisted since with increasingly observable and negative consequences. Finally, Miller considers the widespread rejection of scientific consensus motivated by religious, economic, political, or philosophical interests.

Two articles in this section focus on evolution as science, written to scientists and science educators likely holding an evolutionary view. In "The Misguided Attack on Methodological Naturalism," Miller rejects the intelligent design (ID) movement's claim that methodological naturalism (MN), the presupposition that limits science's purview to natural phenomena, is effectively the denial of the existence and action of God. Miller identifies that MN originated as an attempt by a Christian philosopher to limit science from transgressing upon questions more appropriately pursued by the arts, theology, and philosophy. "Ironically, by rejecting methodological naturalism, ID advocates have ended up supporting the very scientism that they claim to want to fight against" (p. 26). The article continues with a critical overview of the ID movement and perceived implications for science practice and education. While located in the Evolution and Theology section of the book, this article pairs well with "Design and Purpose within an Evolving Creation," in which Miller addresses claims about MN and evolutionary science by Phillip Johnson (1940–2019) and the ID movement. **Miller's** article was originally contributed to *Darwinism Defeated?* (Vancouver, BC: Regent College Publishing, 1999), a book that captured the debate between ID-anti-evolutionists and evolutionary creationists following the publication of Johnson's provocative *Darwin on Trial* (Downers Grove, IL: IVP, 1991). This section concludes with Miller's PSCF article, "Doubt and Faith in Science and Religion" (PSCF 70, no. 2 [2018]: 90–100), examining how both doubt and faith are relevant, even necessary, in both paths for pursuing truth.

Articles in the Evidence for an Evolving Creation section provide compelling examples of transitional forms and ancestral relationships in the history of life. Two serve as direct responses to claims that the Cambrian "explosion" is fatally problematic for evolutionary theory because so many different

forms appeared so suddenly upon the first appearance of invertebrate groups (the Cambrian Period is dated between 542 and 490 million years ago). Miller describes the difficulty of assigning founding species early in life's history to taxonomic groups and provides examples of metazoans older than the Cambrian showing a progressive, rather than sudden, increase in body plan complexity. Miller presents a well-illustrated and well-referenced overview of the Precambrian fossil record. He argues that the "explosion" extended over 20 million or more years, preceded by at least 40 million years of increasing complexity among soft-bodied metazoans.

"Common Descent, Transitional Forms, and the Fossil Record" is a clearly written and amply illustrated defense of evolution, highlighting different groups of mammals living on Earth over the past some 250 million years and their probable tetrapod ancestors. Miller "climb[s] down the tree of life" to demonstrate how increasingly older ancestors of living mammal groups become more difficult to distinguish from the oldest ancestors of other groups. "Countering Common Misconceptions of Evolution in the Paleontology Classroom" is written for college-level instructors, including an innovative cladogram construction exercise involving dinosaur taxa to demonstrate how evolutionary relationships are determined. Miller emphasizes that presenting scientific concepts in their historical context is an effective way to counter mistaken views that students bring to the classroom.

The nexus of Evolution and Theology is addressed with four articles (including one described above). In "Theological Implications of an Evolving Creation," Miller explains that the evolutionary history of life is consistent with creation's integrity, enormity, and goodness; the immanent and progressive nature of God's creative activity; and the image of God in creation. "An Evolving Creation: Oxymoron or Fruitful Insight?" returns to the nature of science and theology, with an emphasis on exploring ways to diminish the conflict view of science and faith. The section's final article, "God, Evolution, and Becoming Man" was written for seminarians and describes the fossil record of hominins (modern humans and closely related extinct species), demonstrating potential evolutionary relationships using paleontological, genetic, and inferred behavioral comparisons. Miller



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comments on implications for the meaning of *imago Dei* and our understanding of body and soul.

The Problem of Evil section opens with the theological implications of natural hazards. Miller questions if natural catastrophes are a consequence of the Fall described in Genesis 3, satanic manipulations of nature, or generally reflect God's judgment on sinful humankind. Considering the testimony of the Psalms and other biblical narratives, he concludes that post-Fall creation is good. As well, the geologic record reveals that severe natural events occurred with regularity before the Fall. Disturbances we perceive as hazards are essential to the maintenance of natural systems (the natural order). Past attempts to control hazards, such as wildfire suppression, coastal modifications, and flood control often make those hazards worse. Biblical concepts of environmental stewardship can be applied in order to live in harmony with creation.

"'And God Saw That It Was Good': Death and Pain in the Created Order" addresses the question of "natural evil" that leads to unbelief when unresolved, "as it was for Darwin, himself" (p. 198). Miller reviews traditional and novel approaches to theodicy. Recognizing that crucified Christ participates in the suffering and death of his creation, Miller proposes that "physical death, pain, and suffering are opportunities for the expression of Christ-like character" (p. 205). Miller draws insights on the problem of evil from J. R. R. Tolkien's *Silmarillion* and *Lord of the Rings* in the section's final essay.

Science as Christian Vocation is an article co-authored with Ruth Douglas Miller, "Staying on the Road Less Traveled: Fulfilling a Vocation in Science." The Millers encourage students and early career scientists to look to their faith, in its teaching and traditions, to motivate and guide their work in ways that glorify God and further his kingdom.

Throughout, Miller is keen to avoid the sacred/secular dichotomy, believing that God "has a claim on all aspects of our lives" (p. 1). Professors at some Christian colleges are required to write a "faith and learning" paper in order to achieve tenure, an onerous task for those not used to engaging theology in their professional work. Here, Miller has written seventeen such papers while employed by a "secular" university! Science educators can benefit from

reading Miller's work to develop a sound understanding of the purviews of science and theology applicable to topics such as origins, climate change, and public health. I assigned multiple articles found in this volume as reading in several of my college courses. Remarkably, Miller was often three to five years ahead of resurging interest in many of these topics among evangelical scholars. Rather than republishing separate articles with modest overlap in material coverage, Miller might have organized the material into a unified text that could reach a wider or more targeted audience. Perhaps that's next?

*Reviewed by Stephen O. Moshier, Professor Emeritus of Geology, Wheaton College, Wheaton, IL 60187.*

## HISTORY AND PHILOSOPHY OF SCIENCE

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**PIERRE GASSENDI: Humanism, Science, and the Birth of Modern Philosophy** edited by Delphine Bellis, Daniel Garber, and Carla Rita Palmerino. London, UK: Routledge, 2023. 416 pages. Hardcover; \$160.00. ISBN: 9781138697454.

Pierre Gassendi (1592–1655) is one of those names in the history of science whose contribution remains only vaguely understood or remembered. A French Catholic priest, philosopher, mathematician, humanist, and astronomer, Gassendi's advocacy of a theologically re-worked ancient atomic theory of matter was a significant factor in the demise of late medieval Aristotelian conceptions of informed matter. Gassendi was also highly influential in reviving ancient Epicureanism, the hedonist moral philosophy from which modern utilitarianism traces its origins. Advocating a theologically modified form of Sextus Empiricus's ancient skepticism—in which we have knowledge only of observable appearances rather than of metaphysical essences—Gassendi shaped the way modern scientific knowledge came to be understood. Gassendi was thus a key figure in the emergence of modern empiricism, which brought him into prominent conflict with Descartes.

This is a beautifully researched and presented volume by thirteen fine Gassendi scholars. The contributions are divided into three parts: Gassendi's Epicurean Project, Its Genesis and Its Sources; Gassendi the Polemist; and Gassendi's Science and Philosophy in

Context. Further, for a book of niche historical interest, the writing is delightfully clear and accessible. However, for theologically interested readers of *Perspectives in Science and Christian Faith*, this volume has a glaring—yet also illuminating—problem. It is theologically blind.

For the academic specialist in Renaissance studies and early modern science, this volume is eminently solid. The editors and the contributors are all highly credentialed academics who are well respected in Gassendi scholarship circles. The detailed engagement with primary sources, the density of notes and bibliographies, and the scholarly rigor of all contributions are highly impressive. The specialist reader is going to have their understanding of Gassendi incrementally expanded with some interesting new details brought to light, and some existing evaluations in the literature carefully modified and improved. Even so, there are no significant new discoveries in its very carefully researched pages. The great merit of the book is not as a must read for Gassendi specialists, but as an accessible and rich guide for the nonspecialist.

The editors and contributors all seek to demonstrate how important a thinker Pierre Gassendi was. The nonspecialist reader can learn from this book's pages what a powerful influence this remarkable priest and humanist had in his own world, and how that influence remains deeply with us to this day. His influence on significant streams in early modern philosophy, mathematics, science, and theological thinking is deep and lasting. A knowledge of Gassendi is necessary for thinkers interested in understanding the roots of contemporary science and its relation to Christian faith. If you do not know much about Gassendi, I highly recommend reading this book.

Gassendi's legacy is his formative role in modern empiricism, modern hedonic ethics, and modern atomistic materialism. In these domains, Gassendi's influence is remarkably deep. Any good scholarly work that opens our eyes to what he did for us is valuable for helping readers understand the assumption-framing sources of the life-world we now inhabit. But theologically, what Gassendi did for us is more complex than any contemporary historian of modern science can be expected to unpack.

The contributors demonstrate that Gassendi was a very attractive person and thinker, and one cannot

help but like him when reading about his life, his scholarship, and his astonishing intellectual and scientific achievements. But any close look at Gassendi cannot fail to notice both how theologically embedded his work is, and also how inexorably his work leads us away from Christian theology itself over the following two centuries. This "leading away" is, where recognized, assumed to be obvious "progress" in this volume. Gassendi's Christian empirical skepticism, his theologically adjusted form of Democritean atomism, and his complex integration of Epicurean hedonism with Catholic virtue ethics are all remarkable feats of theological innovation. These innovations are latent in the intellectual milieu of seventeenth-century Europe, but it is Gassendi who is the genius who is able to winsomely articulate them. Harnessing forces that have been at work in the Western theological, natural philosophy, and Renaissance mind for some time, this humble man of great learning and astonishing output manifests the intellectually reforming spirit of his times. But the currents are more powerful than this one man. Gassendi could not have known its outcome, but his writings are a significant part of a new movement that firmly takes us out of medieval Christendom and into the secular, and eventually post-Christian, scientific age. The Whigs have labeled this adventure "Progress," but the "Death of God" has been integral to it, which Gassendi himself would no doubt have been horrified by. And the process itself is more difficult to understand than any blithe secular optimism or merely positive historical objectivity can account for.

Given how Renaissance and early modern European natural philosophy grew out of Western Christendom, the manner in which it gave birth to a nineteenth-century science that broke entirely free from Christian theology is hard to explain and complex to evaluate theologically. Anti-religious Progressives of the nineteenth century are clearly the heirs of Gassendi in their atheistic skepticism, agnostic empiricism, calculative hedonism, experimental and mechanistic instrumentalism, and materialistic atomism. Yet not only "they," but "we" Christian naturalists who accept the validity of Thomas Huxley's domain demarcation between science and theology are Gassendi's heirs.

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Gassendi raises significant “science and religion” questions for us today that this volume of tightly historical accounts has no interest in. But it is not even that simple, for underneath the contributors’ theological indifference is the influence of Gassendi’s non-essentialist view of knowledge—in which one can know only observable facts, never essential meanings. Guiding their every evaluation is the assumption that where our modern scientific life-world follows trajectories that trace back to Gassendi, in those trajectories, Gassendi was right. There is no critique of “us” in such a “history”; this idea makes the volume more of a self-congratulatory hagiography of present post-Christian naturalistic prejudices than anything else.

All the really interesting theological questions about our knowledge of nature that Gassendi throws up, are simply not present. The contributors never consider what a world-shaping metaphysical innovation this new philosophy of matter is. The idea that Aristotelian hylomorphism (where all physical beings are matter-and-form composites) might have gotten something right never comes up. Hylomorphism—today totally displaced by Gassendi’s atomism—holds that intelligible qualities, such as purpose and essence, are integral with physical being’s material and efficient causalities. But contemporary sciences—and particularly the life sciences—are trying (ironically?) to understand a world without purpose or intrinsic meaning (what then is a mind and a cosmos for? asks Thomas Nagel). What if there really are purposes and essential meanings embedded in nature that we can to some degree know? We cannot follow up those possibilities if we are determined to stick with Gassendi’s purely atomist philosophy of matter. And the idea never comes up in this book, that Descartes—though, indeed, totally whipped by Gassendi’s skeptical and non-essentialist critiques—may yet have grasped something true about the nature of intelligibility (rational and essential truths) that cannot be explained by an entirely external and phenomenological epistemology. The supposedly objective and merely positivist historical scholars in this volume are all firmly on Gassendi’s side.

The glaring problem with the book—at least to a Christian interested in “science and religion”—is that it has absolutely no interest in what theological lessons we might learn from better understanding the

life and thought of Pierre Gassendi. The book never asks what Gassendi’s atomist, hedonist, and epistemic legacy means for theology and science today. But readers who ask those questions will be better equipped to so do by reading this very fine work of (alas, theologically and metaphysically eviscerated) modern historiography about the life and thought of Pierre Gassendi.

*Reviewed by Paul Tyson, Senior Honorary Fellow with the School of Historical and Philosophical Inquiry, University of Queensland, Australia.*

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**WHO ARE YOU REALLY? A Philosopher’s Inquiry into the Nature and Origin of Persons** by Joshua Rasmussen. Downers Grove, IL: IVP Academic, 2023. 304 pages. Paperback; \$30.00. ISBN 9781514003947.

In this text, philosopher Joshua Rasmussen attempts to understand the nature of human persons (Part One) and their origin (Part Two) through a study of human consciousness. While his book is an exercise in philosophical analysis, he offers reflections on the plausibility of his arguments in light of recent findings in psychology and theoretical physics.

In the first two chapters, Rasmussen establishes the framework for his analysis. Of particular significance is his use of introspection to argue against reductionist accounts of consciousness. By introspection, he means attention to first-person experience of the data of consciousness, such as thoughts and feelings (pp. 8–10). Such attention shows that the best explanation of consciousness will be one that accounts for the reality of mental states. Since we can have what Rasmussen calls a direct, introspective awareness of mental states, we can know these states are real (pp. 30, 40).

The next four chapters build upon this realist account of the contents of consciousness by attending to thoughts, perceptions, intentions, and values. In each case, Rasmussen concludes that the best way to account for the existence of these mental states is by changing our orientation from a “mindlessness frame” to a “mind-first frame” (p. 123). So, for example, introspection reveals that thoughts are real, but are not the same as, nor are they simply reducible to, brain states (pp. 57–59). Likewise, introspection reveals that the elements necessary for a free choice—i.e., agency, intention, and options—are present in

acts of willing, and that the reality of these mental acts is confirmed insofar as they affect material states (p. 116). In summary, the existence of these various mental states requires a mental context, which is the mind. But since mental states also change, there must be a constant that anchors the mental context, and that anchor is what Rasmussen means by a person. "Qualities in consciousness depend on the existence of *someone* with a mind" (p. 142, emphasis mine).

There is much that is relevant in these chapters to those interested in how science might inform philosophy of mind. In his analysis of thoughts, Rasmussen notes physicist Alex Rosenberg's objection to the existence of a mind (p. 74). Rosenberg's critique provides Rasmussen with an example of how science can help philosophy clarify the question. In this case, the question is what kind of material must exist for thoughts to exist. Introspection reveals the need to posit some "material" that cannot be accounted for only by reference to the data of physics. In his analysis of the will, Rasmussen notes that recent studies in neuroscience have found evidence that conscious acts precede the quantifiable brain activity associated with those acts, thus supporting the notion of a free will. Another study found that conscious acts have a significant effect on the brain without contradicting physical laws (pp. 118–19). These and other studies confirm that mental acts, such as conscious intending, affect material states, such as brain activity.

In the final two chapters of Part One, Rasmussen explains the integration of these conscious acts in terms of what he calls the "conscious substance theory." In short, a person is a substance that unifies both mental and material aspects, such that the causal operator is neither a mental nor a material bit, but rather is itself a *capacity* of the conscious substance. Furthermore, this conscious substance explains the *unity* of the person (p. 172). On the one hand, a person can be understood only insofar as the conscious states of that person are affirmed as real. As real as these states are, however, they are all just various parts of what makes a person. The nature of a person is not these parts, but rather is the substance that unifies all these parts. Rasmussen here presents what is perhaps his most interesting example of scientific research relevant to understanding his theory of the person. Physicist Carlo Rovelli explains that matter is best understood as informational, not spatial. This

allows for the possibility that both minds and bodies are just different aspects of an underlying quantum field (p. 165), a possibility to which he returns later in the book.

In Part Two, Rasmussen attempts to explain the origin of persons by delineating the conditions for its source (chaps. 9–11) and then explaining what might fulfill those conditions (chaps. 12–13). First, he argues that anything capable of generating a conscious substance must itself be conscious (p. 207), it must be a unity that integrates conscious acts (p. 216), and it must be identical over time (pp. 231, 233). Then, Rasmussen employs a notion of emergence to explain the origin of persons in light of these three conditions. He considers and rejects both "weak" and "incongruent" notions of emergence that would simply reduce consciousness to third-person, mindless bits of matter (pp. 240, 243). Consciousness must be the result of "strong" emergence of a sort that he calls "substance emergence," meaning that the material from which a conscious substance emerges must itself have the capacity for consciousness. Substance emergence is not incongruent, since the substance in question is congruent with conscious acts; nor is it weak, since the emergent content of consciousness (e.g., a mental image) is not logically predictable based solely on the conscious substance from which the content emerges (p. 246).

The book's argument culminates in chapter thirteen, in which Rasmussen posits what he calls the "source substance" as the origin of persons. The source substance is *fundamental*, such that it does not emerge from any prior substance; it is *conscious*, giving it the capacity to generate consciousness; it generates things according to principles and patterns that are *intelligible*; and it is the substance out of which *persons* emerge. Rasmussen attempts to show the plausibility of the theory in several ways. First, the "informational theory of matter" based on the work of Rovelli (see above) makes sense if the source of all matter is itself a conscious substance and the informational states that constitute matter are themselves the contents of consciousness belonging to the source (pp. 256–58). Rasmussen then explains how a mind-first (as opposed to a mindless) ontology has the advantage of not requiring multiple kinds of substances to explain matter, since a source substance that is conscious can generate both mental and material aspects

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of reality. Rasmussen sees further support for this possibility in recent psychological studies of perception, which understand “particles” to be properties of conscious beings (pp. 260–61). He notes also that a mind-first notion of reality makes sense given that the world is not fundamentally chaotic, but rather is intelligible. Finally, the existence of persons is more plausible if the foundation from which persons emerge is itself personal. Rasmussen concludes the book with a consideration of what he calls the “destruction problem.” If mindless matter (which includes the body) cannot construct a conscious substance, then by symmetry the absence of mindless matter cannot destroy a conscious substance. Therefore, persons can exist even after the body associated with that person ceases to exist (p. 277).

Rasmussen intends the book to be accessible to the lay person while maintaining the interest of the specialist, and he partially succeeds in both respects. Some readers might be encouraged by Rasmussen’s repeated assertion that it’s hard work to ask and answer these deep questions, as well as by his assurances that it will be worth the effort to go where few have dared to tread, though others are just as likely to find these refrains grating and condescending. Those skeptical of Rasmussen’s conclusions will appreciate his willingness to take nothing for granted, including his own existence. The result, however, is that the book wades into debates that are unlikely to help the casual reader follow the argument. Those less interested in the baroque concerns of contemporary analytic philosophy can follow the trajectory of the book’s argument by reading only the introductory and summary portions of each chapter.

All readers will be served well by the book’s most significant contribution to the study of consciousness, which is Rasmussen’s insistence upon the indispensable role of attention to the data of consciousness. Much discussion in modern philosophy of mind not only ignores these data but also actively dismisses them, resulting in what philosopher Bernard Lonergan called the “truncated subject.” Rasmussen is to be commended for his effort to understand human consciousness through his relentless attention to its contents.

Unfortunately, the effort is severely hampered by a conflation between knowing and looking that

permeates the book. Rasmussen’s theory of the nature and origin of persons would be immensely strengthened if understanding (i.e., intellect in action) were to be distinguished from adequate seeing, and if the real (i.e., verified intelligibility) were to be distinguished from that which is adequately seen. Then his theory of the person *qua* conscious substance could be affirmed as real even though it cannot be seen. Furthermore, the emergence of such a substance could be understood by analogy with the paradigmatic instance of emergence, that is, the emergence of the act of understanding out of acts of perception. If readers are unable to complement Rasmussen’s argument with their own grasp of these distinctions, they are likely to either reject the book’s foundational assertions about the reality of their own conscious acts or simply trust Rasmussen that his conclusions are correct. Thus, in the opinion of this reviewer, the book will best serve the reader, casual or specialist, who is able to evaluate the cogency of Rasmussen’s argument without relying on the ocular version of knowing that permeates it.

*Reviewed by Scott Halse, Lecturer in philosophy and humanities at Vanier College, Montreal, QC H4L 3X9.*

## SOCIAL SCIENCES

DOI: <https://doi.org/10.56315/PSCF12-23Twenge>

**GENERATIONS: The Real Differences between Gen Z, Millennials, Gen X, Boomers, and Silents – and What They Mean for America’s Future** by Jean M. Twenge. New York: Atria Books, 2023. 560 pages. Hardcover; \$32.50. ISBN: 9781982181611. E-book; \$16.99. ASIN: B0B3Y9RSFP.

Thinking without comparison is unthinkable. And, in the absence of comparison, so is all scientific thought and scientific research.

– Sociologist Guy Swanson, 1971

Certainly, the ideas behind Swanson’s observations guide the work of San Diego State University psychologist Jean M. Twenge, who has published scores of peer-reviewed empirical studies comparing the responses of different birth cohorts (generations) on the same social survey questions over time. Although limited to the United States here, her empirical research mostly compares present attitudes to past ones and compares different generations to each other in the same time frame. She has long been thinking with comparisons.

Twenge's previous book, *iGen* (2017), drew on publicly available data from four major social surveys to argue convincingly that social media heavily influenced Gen Z (composed of people born between 1995 and 2012), often to their physical and psychological detriment. In her sequel, Twenge seeks to widen the scope and the audience for such research and even purports to predict the future of America. Even if the science of comparing generational cohorts will fall short in predicting the future (as seems likely), readers will benefit from learning about typical traits of different generations or birth cohorts in the United States.

*Generations* compares six generations of Americans: the Silent generation (born 1925–1945), Baby Boomers (born 1946–1964), Generation X (born 1965–1979), Millennials (born 1980–1994), Generation Z (born 1995–2012), and Polars (born 2013–present). Each of the substantive chapters (chaps. 2–7) focuses on a single generation and contrasts its members' average responses on a wide array of social survey questions from twenty-four datasets with a combined number of 39 million respondents. Most readers will be able to identify family, friends, and neighbors from each generation that exemplify some of the attitudes that Twenge labels as distinctive.

Twenge constantly uses charts to show differences between generations and average attitudinal shifts over time. While the book is hefty and full of statistics and charts that can occasionally overwhelm the reader, the prose is mostly lively and sprinkled with humor. The overall impact is to convince the reader that generational cohorts do tend to share outlooks. My copy is studded with post-it flags marking places in the text where her observations surprised me or nailed down something I had only vaguely sensed before. As a member of Generation X, for instance, I was surprised at how many traits identified by Twenge resonated with my own life experiences, and I suspect other readers will have similar "aha" moments for their generation. They can also gain a new appreciation for how other generations have impacted American society.

How have generational cohorts come to differ? Twenge's thesis, laid out on pages 4–19, is that technological changes drive generational differences, often mediated by individualism and a "slow-life strategy,

with lower birth rates, slower development, and more resources and care put into each child" (p. 18). With lower death rates, longer life expectancies, and technological changes, younger generations can take their time in finishing their education, starting their careers, marrying, buying a home, and having children—if they even decide to have children at all. As Twenge notes, "By 2020, the birth rate for both teens and for women in their early 20s was the lowest it had ever been since records were first kept in 1918—about half of what it was in 1990" (p. 377). The slow-life strategy, ascendant for the younger generations, might be the most important shift described in the book, along with declines in religious belief and behavior.

Even if academic researchers might want to quibble about her use of "technology" as a very broad, catch-all term, it is impossible to dispute that these trends are in motion for the typical members of these cohorts. The effects are evident to anyone who knows college-educated young adults in their twenties or thirties. They are less likely to marry, less likely to have children, less likely to attend religious services, and less likely to hold traditional views of gender identity when compared to previous generations. Cross-national comparisons with Canada and other industrialized countries—as well as more diverse countries—might help clarify the reasons for such generational shifts of attitudes and behaviors.

Furthermore, when the book seeks to predict the future in the final chapter, it feels forced. Twenge herself cites at least three failed predictions made by Neil Howe and William Strauss, the previous gurus of generational analysis (p. 295). Readers thirty years from now should return to this volume to see how well Twenge's predictions have held up. One suspects that we will be surprised by some unforeseen trends.

Notably for the readers of this journal, measures of religious observance and belief show steep declines that began with Millennials (born 1980–1994) and continued with Gen Z (born 1995–2012). This is a troubling trend for anyone who cares about social well-being. As Twenge notes, "Humans have an innate desire to believe in something larger than themselves and to seek meaning in their lives. If religion stops filling this role, something else will step in

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to fill it” (p. 504). Twenge cannot help but express a concern for the future of American society here and elsewhere. Christian scholars should join her. After all, our faith is transmitted through the generations. As Psalm 145:4 says, “One generation commends your works to another; they tell of your mighty acts.” Are we failing to transmit the story to younger generations? This book compiles extensive evidence that we might be—and that American society might be worse off as a result.

*Generations* is best understood less as an attempt to advance psychological science and more as a concerned American psychologist’s data-studded jeremiad. Twenge compares thousands of data points in order to persuade us to care about the future of American society, which has promoted individualism to the detriment of collective well-being. Those called to love their neighbor would do well to study the trends here and ponder how they can care better for all generations of those neighbors. For those of who us are part of a kingdom that “endures through all generations” (Ps. 145:13), we can learn from Twenge how to reach members of each of the generations alive today while promoting a less individualistic society.

*Reviewed by Scott Waalkes, Professor of International Politics and Director of General Education, Malone University, Canton, OH 44709.*

## TECHNOLOGY

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**THE DIGITAL PUBLIC SQUARE: Christian Ethics in a Technological Society** edited by Jason Thacker. Brentwood, TN: B&H Academic, 2023. 384 pages. Paperback; \$34.99. ISBN: 9781087759821.

Questions about the role of digital technologies are becoming increasingly important. In 2014, Luciano Floridi published *The Onlife Manifesto*, arguing that the digital and physical worlds were in the process of merging and that any meaningful distinction between offline and online was shrinking. The advance in digital technology provides fertile ground for academic discussion of digital technologies and their role in human society. Following the popularity of *The Age of AI*, Jason Thacker has quickly become one of the prominent voices in evangelical thought in this area. His most recent contribution is an edited volume, *The*

*Digital Public Square*, which focuses on issues of public theology such as censorship, sexual ethics, hate speech, or religious freedom as they present themselves in the digital milieu. Following Jacques Ellul, Thacker dubs this milieu “the technological society.”

The book contains thirteen articles that are divided into three major sections which attempt to articulate a public theology for the technological society. Public theology is a relatively young field. Hak Joon Lee suggests that public theology seeks to engender religious discourse within the context of a pluralistic society by acknowledging the importance of human rights, tolerance, equality, and other democratic values without suppressing the variety of possible expressions of religion.<sup>1</sup> Public theology is a theology done towards, with, and for the general public for the sake of the common good of the society.

The first section attempts to provide the foundation for public theology in a technological society. Chapter 1 sets out a Christian philosophy of technology, chapter 2 advocates for the virtue of patience in online interactions, and chapter 3 charts a middle path between technological optimism and pessimism in US attitudes toward technology. A particular standout is chapter 4, Patricia Shaw’s extensive survey of international technology policy in “The Global Digital Marketplace.” While, like most policy articles, it is a little dry, Shaw’s article is thorough, well sourced, and well organized. Finally, chapter 5 discusses the challenges of free speech in a digital milieu and the limits of policy-based approaches.

The second section of the book includes six articles that address specific issues in public theology with an eye toward specifically digital iterations of these issues. This section covers implications of freedom of speech on digital media (chap. 6), specifically hate speech (chap. 7), content moderation (chap. 8), and pornography (chap. 9). It also addresses the explosion of conspiracy theories and the problem of digital misinformation (chap. 10) and the rise of digital authoritarianism (chap. 11). Finally, the third section offers two articles that articulate the church’s role in the technological society in terms of discipleship (chap. 12) and public witness (chap. 13).

One immediate point worth noting is that this book has more to do with public theology, and specifically concerns around the freedom of expression, than it

does with digital technology. Many of the articles frame the topics they discuss in the context of a digital milieu—for instance, how companies such as Twitter, Meta, or YouTube should approach the filtering or suppression of hateful, pornographic, or otherwise offensive expressions (chaps. 5, 7, 8, 9)—but the central issues of the book do not arise from philosophy of technology or engineering. They are perennial questions in public theology and policy that are explored in the context of the digital world. While I cannot critically interact with every article, a couple of examples will give the reader a sample of what to expect.

In the first introductory chapter, Jason Thacker attempts to set out a uniquely Christian philosophy of technology. He grounds his approach in the work of Jacques Ellul, Neil Postman, and Albert Borgmann, and argues that a Christian philosophy of technology should reject technological instrumentalism or the idea that “technology,” broadly understood, is merely a neutral tool (pp. 7–14). Instead, he argues that a Christian philosophy of technology understands that we interact with technology in complex ways (p. 14), and it seeks to provide “a framework of agency and accountability, alongside expanding our view of technology to see the larger social effects of these tools” (p. 20). However, it is not entirely clear how it does so. Thacker attempts to carve a path between technological instrumentalism and technological determinism, but he doesn’t defend a rigorous account of agency in a digital milieu or clarify when or how digital actors are accountable. This seems particularly significant considering that some scholars argue that machines count as agents in a significant sense—for instance, John Sullins or Christian List. Thacker argues that Christians must adopt a principled pluralism, which is a popular model of social and political interaction among public theologians, and develop a deeper understanding of difficulties faced by the technology industry, government actors, and the populace as they engage in a digital public square (pp. 22–23). Given this, it is odd that the book contains no articles written by engineers, developers, or technologists.

Olivia Enos (chap. 11) provides a well-developed account of the ill effects of explicit digital authoritarianism, defined as “the use of digital technology by

authoritarian regimes to surveil, repress, and manipulate domestic and foreign populations” (p. 266). She focuses on Russian and South East Asian examples including, but not limited to, China. However, as do many, Enos assumes a strong digital libertarianism as the norm, a position with its own challenges. Digital libertarianism has enabled the rise of what Shoshana Zuboff calls surveillance capitalism. It seems plausible to argue that surveillance capitalism and digital authoritarianism have much in common. If this is accurate, then Enos’s digital libertarianism is likely to lead to an alternative version of authoritarianism. While Enos’s account of the challenges raised by explicit digital authoritarianism is very good, it does not effectively take account of the rise of similar trends in digitally libertarian nations; this is a significant weakness of her argument.

*The Digital Public Square* is more about public theology in a world that has embraced the digital than about what it means to live in a digital world, or about a deep consideration of what constitutes a digital public square or a digital community (interesting questions in their own right). It would help for the authors writing on the philosophical and theological side of the discussion to engage in greater depth with a wider array of contemporary sources in the philosophy of technology. The influence of Jacques Ellul is evident. However, Peter-Paul Verbeek is mentioned only once, as is Luciano Floridi. And other prominent philosophers in the discussion such as Don Ihde, Charles Ess, Shannon Vallor, Mark Coeckelbergh or John Danaher are entirely absent.

This book will appeal to those who are interested in public theology. It draws many of its political assumptions from classical liberalism and its theological assumptions from the Reformed tradition. Those sympathetic to these traditions will appreciate this book. Finally, several of the chapters will serve as excellent introductory resources for anyone exploring practical issues of legislation and policy in a digital milieu.

### Note

<sup>1</sup>Hak Joon Lee, “Public Theology,” in *The Cambridge Companion to Christian Political Theology*, ed. Craig Hovey and Elizabeth Phillips (Cambridge, UK: Cambridge University Press, 2015), 44.

*Reviewed by K. Lauriston Smith, Adjunct Instructor, Department of Theology, Grand Canyon University, Phoenix, AZ 85017.*