

Book Reviews

“The Heavens Declare the Glory of God” (Waltemathe) draws on examples of religious motivations for previous voyages, such as fleeing from persecution or from impending disaster (Noah), that could well be motivators for space flights in the future. In addition, the nature of the destination plays a major role in religious motivations for these voyages, and the sense of exploring God’s creation via space travel is relevant. Such a journey gives the traveler a broader perspective from which to see anew our place in the universe, which is one of the more profound outcomes of any pilgrimage.

“Space Exploration as a Religious Pilgrimage” (del Toro) also deals with space travel as a form of pilgrimage, from the perspective that the universe is a holy place where we can get in contact with the divine. The author draws parallels to Earthly pilgrimages, framed around questions such as “where do we come from?” and “what is our purpose?” Space exploration allows us to see ourselves in a different way; this is one goal of pilgrimage.

“Anticipating the Contours of Extraterrestrial Religion” (Hess) places religion in the context of human evolution, as a cultural phenomenon subject to natural selection and societal pressures (as do several other essays in this volume). This leads to a series of questions about what non-Earth religions might be like. Issues of incarnation and eschatology are examined closely. All of this is admittedly hypothetical but leads nevertheless to theological self-examination.

Overall, this book might appeal to those who enjoy reading science-fiction stories that touch on space and religion, even if tangentially. It could also pique the reader’s interest in a range of space-religion interactions. Those wanting a deep exploration of any specific aspect of this topic will be left wanting more.

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A LITTLE BOOK FOR NEW SCIENTISTS: Why and How to Study Science by Josh A. Reeves and Steve Donaldson. Downers Grove, IL: InterVarsity Press, 2016. 134 pages. Paperback; \$12.00. ISBN: 9780830851447.

As its title indicates, this is genuinely a little book, but there is an abundance of helpful information packed into its few, small pages. Reeves and Donaldson state clearly in *A Little Book for New Scientists* that their purpose in writing this book is to “help Christians studying and practicing in the sciences to connect their vocation with their Christian faith” (p. 13). I suspect that the primary audience for their book will be new scientists or new Christians who are scientists,

and I think that these audiences will find this book helpful.

Using the popular two-books metaphor, this book begins by arguing that, because the natural world can teach us about God, we can point to a specifically Christian reason to study science. It cautions that there are limits to what the natural world can teach us about God and, although the book touches on the converse, it does not offer a similar overt caution about what scripture can and cannot teach us about the natural world.

Chapter 2 is dedicated to the history of science, making the important point that science and faith have not always been in conflict. It also briefly outlines the reasons why it was a Christian worldview that laid the foundations for the development of modern science. This chapter ends by helpfully distinguishing between methodological naturalism and scientific naturalism (scientism).

Chapter 3 discusses science as an ethical activity in and of itself. Given the limitations of a little book, I was surprised at the attention the authors gave to explaining that scientists are morally ordinary rather than ethically superior. The authors argue that the scientific method was the source of this sense of ethical superiority, which resulted in widespread trust of scientists. In contrast, scientists are not actually ethically superior because their explanations of the way the natural world works are not value free.

I found chapter 4 to be the least engaging chapter of this book. It outlines special tools for Christians who are scientists to help them avoid pitfalls and temptations. I was less engaged, not because avoiding these pitfalls is unimportant, but because I do not find these pitfalls and temptations unique to science or scientists. I appreciated the section pointing out the problem of specialization and suggest that this could have been a strong argument for learning and doing science in the context of the liberal arts.

Chapter 5 includes a welcome shout-out to the ASA and implores scientists, especially scientists who are Christians, to work toward community building. It points out the value of integrative scholarship as a means to building community. The thorough reminder in chapter 8 that many scientists are people of faith supports this call to community. Chapter 6 asks whether intellectual humility is more difficult for scientists than for others, echoing the theme of chapter 4, and I was similarly unconvinced that this is more difficult for scientists than for nonscientists.

My favorite chapter was chapter 7, and I plan to find a way to work this chapter—if not the whole book—

into some of the courses I teach. The authors do a beautiful job of arguing for as much openness and humility in our hermeneutics as in our science, for listening graciously to each other, for a deep understanding of the cultural context of scripture, and for a commitment to resolving apparent conflicts between science and faith. The appeal to seek dialogue and understanding with a commitment to graceful listening is one we certainly need today in science, faith, and beyond.

The book concludes with a call for scientists to bring science into their churches and how doing so can “positively affect the mission and ministry of the church” (p. 120). I found the arguments in this chapter to be the most compelling of the book. I loved the authors’ appeal for scientists to step forward to educate their pastors and congregations, to open up and lead conversations about the integration of science and faith, and to serve as a bridge between people of faith who may fear science and those whose worldview puts science in place of God. In a world that seems more divided by the day, this message of education and reconciliation may be the most important of the book.

I enjoyed this book. It is extremely accessible. It would be very useful in first-year college or university courses for science majors, for advanced high school students in Christian schools, in adult discipleship classes in churches, or for individuals. I encourage anyone interested in science and faith to pick it up. It is well worth the short time that it takes to read its few, but valuable, pages.

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TECHNOLOGY

IN OUR OWN IMAGE: Savior or Destroyer? The History and Future of Artificial Intelligence by George Zarkadakis. New York: Pegasus, 2016. xxi + 362 pages, endnotes, index. Hardcover; \$27.95. ISBN: 9781605989648.

The origins and possibilities of near-ubiquitous and transformative AI (artificial intelligence) constitute the important subject of this clearly written, often insightful, and provocative work. The book consists of sixteen chapters, framed by an introduction and an epilogue and timeline. This is ambitious popular science writing that weaves together often-contested or speculative ideas and disciplines from history and cognitive archaeology, mathematics, sciences (from quantum theory to psychology), philosophy (expositions here are one of Zarkadakis’s strengths), religion (not so much), engineering, and science fiction (he

cites many morally serious science fiction stories, novels, and movies). A problem with multidisciplinary attempts, of course, is that one cannot have expertise in everything or be familiar with all the relevant scholarship; the science fiction references, for example, are interesting but far from comprehensive. To his credit, the author, a computer scientist, argues that “essential aspects of being human” remain beyond technological reproduction; our intelligence “cannot be captured in formal rules” and is distinctively *embodied*; and biological consciousness cannot be reduced to computational machines (pp. 278–79). He is doubtful about an imminent, apocalyptic “singularity” of artificial *super*-intelligences.

The book begins with two chapters on deep history. Between 150,000 and 50,000 years ago—before religion or science—language birthed intelligence; we created a symbolic “world of animals and things” endowed with spirit, mind, and meaning. This was “the [cognitive] big bang” that, with naturalistic Paleolithic painting, let us come to terms with inevitable death and ultimately imagine making “robots ... as intelligent as ourselves” (pp. 15–16). Zarkadakis zips through millennia of thinking (Aristotle: good; Plato and Descartes: bad), rejecting any hint of non-material life forces or uploadable minds, with helpful discussions of the roles and implications of metaphors, analogies, and narratives in scientific thought about AI. (See chapters three and six on limits to our knowledge.)

Science fiction readers will enjoy the discussion in chapter four, including the old trope of superior robots/androids rising up to exterminate their human creators (see also pp. 270–75). Chapter five, “Prometheus Unbound,” further examines fictional anxieties and fears, especially Mary Shelley’s incomparable *Frankenstein* (1818); the familiar analysis does not engage the scholarly literature, however. We are becoming cyborgs (chap. six) and could create “digital gods” of “infinite wisdom” but we would lose our humanity in merging with them, Zarkadakis cautions.

Chapter seven discusses questions of mathematics, mind, and more philosophy. Chapter eight argues against mind/body dualism, which contradicts physics and disallows humanlike AI (pp. 118–30). The author criticizes Ray Kurzweil’s singularity thesis (after about 2045, AI will be utterly beyond our comprehension) as a “quasi-religious” belief inspired by Teilhard de Chardin’s evolutionary theology (as is the cosmic anthropic principle, pp. 126–28). Scientific claims are verifiable or falsifiable; religious ones are neither (p. 130). Chapter nine again contests philosophical dualism; Daniel Dennett’s 1991 reductive/