Romans. I raise these concerns tentatively, leaving their adjudication to experts in New Testament and Pauline studies.[3]

Croasmun's aims in *The Emergence of Sin* are ambitious and, by and large, successful. The book invites and stimulates interdisciplinary engagement and discussion from scientists, social scientists, biblical scholars, theologians, and cultural critics. Perhaps most helpful is the clarity, lucidity, and accessibility with which Croasmun presents emergence theory (I plan to assign one of his chapters to my theological anthropology students), both in its own right and as insightful and illuminative in drawing out more fully than past interpreters the full significance of Paul's personification of Sin in Romans. This, in turn, allows for incisive analysis and critique of social evils, such as racism, going beyond approaches that fall into reductionism due to their inadequate (or lacking) ontologies of social entities. While I have reservations about some of the claims Croasmun makes as discussed above, I heartily recommend his book to all *PSCF* readers and look forward to seeing more critical engagement from biblical scholars.

Notes

[1]Christian Smith, *What Is a Person? Rethinking Humanity, Social Life, and the Moral Good from the Person Up* (Chicago: University of Chicago Press, 2010), 93; cf. 90–98 for the larger discussion.

[2]Eduardo Bonilla-Silva, *Racism Without Racists: Color-Blind Racism and the Persistence of Racial Inequality in America*, 3rd ed. (Lanham, MD: Rowman & Littlefield, 2010).

[3]Scot McKnight, for one, is not convinced by Croasmun's final chapter (especially his presentation of Sin as Roma-tribas), though he is quite impressed with the first four chapters of the book. See his review, posted on his blog on June 11, 2018, https://www.patheos.com/blogs/jesuscreed/2018/06/11/sin-as-tyrant/.

Reviewed by Patrick S. Franklin, Associate Professor of Theology, Tyndale Seminary, Toronto, ON M2M 3S4.

COSMOLOGY IN THEOLOGICAL PERSPECTIVE: Understanding Our Place in the Universe by Olli-Pekka Vainio. Grand Rapids, MI: Baker, 2018. 224 pages. Paperback; $26.99. ISBN: 9780801099434.

There has been a growing market for books that discuss the intersections of science, theology, and philosophy, as evidenced by the popularity of writers such as Paul Davies and John Polkinghorne. Writing about the intersections of these apparently disparate fields is a true challenge that should not be taken lightly, and requires honesty about one's limitations in learning about the fields in which one has not received vigorous training. In *Cosmology in Theological Perspective: Understanding Our Place in the Universe*, Olli-Pekka Vainio makes an attempt to contribute to this rich field. The intention and desire to understand the study of science from a theological perspective is clear from the onset. However, a careless approach to studying science and the lack of humility in subjects for which he has not deeply studied in the traditional sense results in a jarring and unsatisfying conclusion.

The book begins with an overview of the history of the Western concepts of cosmology. Vainio focuses primarily on the Judeo-Christian perspective that shaped the understanding of the universe in the ancient world. Additional pagan viewpoints are occasionally brought in; however, the main focus is first on Jewish philosophical thought and later on a Christian perspective. Vainio continues this discussion of the philosophical/theological influences on science through the modern era, discussing periods of conflict such as in the time of Galileo and identifying instances such as Newton's discoveries, in which the drive for scientific knowledge has furthered the pursuit of a more complete theological understanding of the universe. These chapters are surprisingly thorough for their length and cover the key points for those who are interested in the history of Western science. It is clear that Vainio has studied scientific history and theological history of the Western world deeply. These chapters could have benefited, however, from more comparisons to other theologies that drove ancient discoveries.

After this history, Vainio abruptly switches to the real purpose of the book, which is to examine theological perspectives on astrobiology and questions of life on other planets. Here his lack of scientific study is evident. Vainio includes a discussion of the multiverse, proposing that in a reality in which every possibility is its own universe, there would be many with and without life. These would include evil universes that are antithetical to the notion of a good God. This discussion is intertwined with discussions of fine-tuning and the Drake equation for the improbability of a space in the universe having the right conditions to sustain life.

After discussing these theories, Vainio questions the Christian theological perspective on astrobiology, primarily using C. S. Lewis's works of fiction to describe the Christian perspective. His insights on the Christian perspective on astrobiology are certainly fascinating, but they are not novel. He is in line with most Christian scientific organizations, Christian philosophers, and theologians, concluding that the existence of alien life does not preclude the existence of the Christian God. Nor does it pose problems for Christology. The primary example given for this comes from C. S. Lewis's space trilogy, with beings at different stages of pre- and post-Fall,

each with a unique revelation of salvation from the one God. Vainio concludes that Christians should approach the study of science and theology with a sense of awe and an awareness of what is not known. This is an unnecessary conclusion as most scientists and theologians in the field, Christian or otherwise, take exactly that approach. His statement reveals his ignorance toward what it means to pursue scientific study. Perhaps this statement was intended for readers lacking in both scientific and theological academic pursuits, but this would not be in line with the book's apparent intended audience.

This book suffers from being mistitled. While it is true that the definition of cosmology in a literary sense includes the human perception of the totality of knowledge, most modern readers will think of the scientific field of physical cosmology. This is the scientific study of the origins and ultimate fate of the universe, which are typically not studied from a life science perspective. On the topic of scientific physical cosmology, Vainio says very little. As a physicist, looking forward to expanding my understanding of philosophy relating to my field, I was disappointed. It is clear that the main purpose of this book is to discuss the philosophical implications of astrobiology, another deeply important and nuanced field. A more accurate title, emphasizing the astrobiology focus, would have set a better perspective and drawn the intended audience.

While there are many minor issues with this book, the most grievous is the author's clear lack of scientific understanding. In analyzing different scientific theories such as the multiverse, Vainio cites primarily science philosophy books that have summarized these papers. There is no sense that Vainio has read the original research or done the equational analysis needed to deeply understand the physics theories that he is attempting to discuss. I am reminded of reading works by William Lane Craig, such as *Theism, Atheism, and Big Bang Cosmology*. In this work Craig has rightly been criticized for having a clumsy grasp of the physics for which he is trying to offer philosophical perspective. The difference is that Craig is deriving his physics knowledge from original scientific sources and makes a valiant attempt to wrestle with the theories and equations. Vainio does no such thing. All of the science Vainio presents in both the fields of physical cosmology and astrobiology is coming from science philosophy or popular science books. This is not an acceptable substitution for learning scientific theories at the level needed to offer insightful analysis. The reader is left with the perception that he does not have a real understanding of the science, and as a result most of Vainio's conclusions are weak.

The book, despite its flaws, does have some redeeming qualities which some readers may find beneficial. The summary of the western perception of universal understanding is surprisingly thorough for its short length. Those who are fans of C. S. Lewis and his writings on theological issues of astrobiology in his fiction works will appreciate how these discussions provide a guiding force in the philosophical analysis of extraterrestrial life in this book. This may be an interesting read for those pondering the implications of life outside of Earth from a somewhat Christian perspective. The discussion on Christology and astrobiology is an effective counter argument for anyone (secular or theistic) who holds the belief that the discovery of extraterrestrial life would compromise Christian belief. These sections alone may make it worth a skim. However, with the wealth of available books on the topics of science and faith as well as on the Christian perspective on astrobiology, this one falls flat.

Reviewed by Emily Grace, Assistant Professor of Physics, Northwestern College, Orange City, IA 51041.

READING GENESIS AND MODERN SCIENCE: A Study Guide by Frank De Haan and David De Haan. Grand Rapids, MI: Credo, 2018. 112 pages. Paperback; $9.99. ISBN: 9781625861177.

Reading Genesis and Modern Science is a relatively brief work produced by a father-son team of Christian chemists. Both have earned PhDs and have spent their careers teaching, researching, and ministering among college students at major universities. One is now retired from Occidental College in Los Angeles and the other is working at the University of San Diego. The authors confess a biblically based Christian faith, with deep roots in the Reformed tradition, and a confidence that modern conventional science is not at odds with the authority and truth of scripture. A love for the church and for God's natural creation prompted the project.

The book is intended to be used as a study guide for Sunday School classes or small group discussions to introduce scientific topics with which many Christians struggle. The authors acknowledge that there are risks on either side of positions taken on these topics. Taking an overly skeptical approach to science may lead to rejection of good science and loss of benefits that progress in those fields could bring. On the other hand, rejecting parts of the Bible that seem inconvenient may result in an anemic, ineffective, and misdirected faith. With the risks in mind, their position unabashedly favors an embrace of scientific findings related to the age of the earth, evolution of life including humans, and human-induced or exacerbated climate change.