

Reviews

T&T Clark Handbook of Christian Theology and the Modern Sciences.

Edited by John P. Slattery. London/New York: T&T Clark. 2020. 377 pages. £150.00. (Hardcover). £39.99. (Paperback).

I recommend everyone interested in science-and-religion to read this handbook. I had planned to share my enthusiasm about it with the readers of *Zygon: Journal of Religion and Science* earlier; it was the appearance of a paperback version of this gem a few months ago that triggered me to finally get it out. John Slattery, in his position as Senior Program Associate with the Dialogue on Science, Ethics, and Religion (DoSER) Program of the American Association for the Advancement of Science from 2018 to 2022, was ideally placed to collate this handbook. He is now Director of the Carl G. Grefenstette Center for Ethics in Science, Technology, and Law at Duquesne University.

What is refreshing about the handbook is its combination of rigor, new voices, and new topics, while still being sufficiently “comprehensive” (let us face it: no handbook on science and religion can be fully comprehensive). Representatives from the three major branches of Christianity—Catholic, Protestant, and Orthodox—are featured, as well as an unusually wide range of sciences (including social and environmental sciences). Also, the scientists and theologians discussed are not all the usual suspects. In fact, two of the most commonly discussed figures in science-and-religion, Galileo and Darwin, are *not* on the list by choice, since (i) they “have been the anchors for the vast majority of all work on the intersection of science and theology for the last few hundred years” (4), (ii) many good books have already been written about these scientists, and (iii) “they are still niche figures in the history of Christian theology” (5).

The book contains 24 short chapters, which are clustered around three themes. The first eleven chapters belong to a part on “Historical Explorations,” with chapters on: the Hebrew Bible; Aristotle; Augustine; Basil and the Greek Fathers; Maximus and John of Damascus; Hildegard of Bingen; Thomas Aquinas; John Calvin; George Washington Williams, Frederick Douglas, and Maria Stewart; and Neo-scholasticism. The second theme is “Transitioning from the Twentieth to the Twenty-First Century” and contains three chapters, one each for each major branch of Christianity. As a third theme, ten chapters offer “Explorations in Christian Theology today,” with two chapters on the physical sciences, two chapters on respectively the biological, medical, and psychological sciences, three chapters on the social sciences, and three chapters on the environmental sciences.

This book provides really interesting reading throughout. I learned a lot from it. One catches the allure of science as well as of theology: as Slattery writes: “Science, that basic human instinct to understand the world and its creatures, originates from the same instinct that seeks to explore the mystery of our existence itself. Science and theology can be described in a multitude of relationships—dialogue, coherence, harmony, integration, conflict—but in the end, they are human endeavors, as complex individually as they are entangled. And so, while this

volume encourages further exploration of the widest reaches of scientific fields, it perhaps also encourages humility and simplicity in the face of technological and scientific heterogeneity” (11).

ARTHUR C. PETERSEN

Department of Science, Technology, Engineering and Public Policy,
University College London, London, UK
arthur.petersen@ucl.ac.uk

Reinventing Society with Philosophy, Religion, and Science. Edited by Neil Wollman and Carolyn J. Love. Newcastle: Cambridge Scholars Publishing. 2023. 419 pages. £74.99. (Hardcover).

This book offers a unique contribution to the practice of science advice—the mobilization of knowledge in public decision making—by emphasizing the treasure trove of advice that can be distilled from philosophy, religion, and social science for a diverse set of policy domains. The attention paid by the authors to what theoretical knowledge means in the real world is refreshing. The editors have done an outstanding job in bringing these contributors together in one volume.

For the audience of *Zygon: Journal of Religion and Science*, it deserves emphasizing that the book looks at values throughout and reflects on how old and renewed readings of values may improve cultural practices. “Science” is taken in a broad meaning, with much attention paid to the social sciences, but also the “hard” sciences and their mobilization in, for example, governmental decision-making, are covered.

The book is tightly structured with five parts that each contain three chapters with the same main titles: “Philosophy Applied to x,” “Religion Applied to x,” and “Social Science Applied to x.” With x being “Education,” “Social Welfare,” “Government,” “Criminal Justice,” and “the Economy.” The philosophy chapters utilize Western philosophical traditions and lean heavily on work in ethics and applied philosophy. The religion chapters focus on religious thinking and practices from Christianity, Islam, and Judaism. And the social science chapters call upon investigation and theory from psychology, communications, sociology, social work, criminology, political science, policy studies, educational studies, and economics. Authors come predominantly from the United States, with the exception of two Dutch authors in the economics-focused chapters.

The collection offers lots of practical insights. The editors, in their introduction, complain that “[f]or too long, academics have had little to say to practitioners and policymakers,” which is why they designed the book to “provide foundational principles and practical tools for organizing and operating our social institutions” (x). The audience stretches far beyond academia (which is, refreshingly, not a prime focus at all of the book): “The fifteen essays in this book are written for practitioners and policymakers, teachers, police officers, social workers, legislators, and the like. The authors apply relevant knowledge from their respective disciplines in hands-on, practical ways to make their ideas useful in tackling real-world problems” (x).

Human Becoming in an Age of Science, Technology, and Faith. By Philip Hefner. Edited by Jason P. Roberts and Mladen Turk. Lanham, MD: Lexington Books/Fortress Academics. 2022. 245 pages. \$100.00. (Hardcover).

For an exemplar of *Zygon's* foundational aim to explore the “yoking” together of contemporary scientific knowledge and religious and philosophical perspectives, we need look no further than the “created co-creator” proposal put forward by the journal’s former editor, Philip Hefner (editor, 1989–2008).

Coined in the early 1980s, but developed most substantially in *The Human Factor: Evolution, Culture, and Religion* (1993), the created co-creator summarizes a theological anthropology that takes evolutionary science seriously. It is Hefner’s chosen shorthand to describe humans as gene-culture symbionts who exercise their creative agency on behalf of the natural world to which they belong.

The created co-creator has sparked much discussion and debate over the subsequent decades, and this volume edited by Roberts and Turk is a welcome addition to the conversation. Published in the same year as Hefner celebrated his 90th birthday, this volume combines original content by Hefner himself with eight responses by scholars of Hefner’s work who take up the call inherent in the notion of “created co-creator” to engage thoughtfully with science and technology in service of a more wholesome future.

The book is structured in three parts. The first part contains five chapters are written by Hefner sketching out the sociological and theological context that informed his original proposal. The fourth chapter, in providing a strengthened theological framework underpinning the created cocreator, is especially valuable in making explicit what could only be inferred or even speculated from *The Human Factor* (e.g., the emphasis on cocreation within the context of divine sovereignty rejects progressivism; sin is described with greater reference to scripture than to evolutionary tensions compared with earlier works).

The second part offers two extended response chapters. Jason Roberts brings language from contemporary trinitarian theology to describe the “created co-creator, redeemer and sustainer” to emphasize the ecological responsibility inherent in the cocreative task. Karl Peters adopts a cosmic perspective, tracing the development of the cocreator in the context of evolution and various historical scientific developments.

The third part is comprised of briefer topical responses written by various colleagues of Hefner. Ted Peters contributes two essays in chapters 8 and 11: the first explores the capacity of the created cocreator to confer meaning and purpose, while the second describes the proleptic common good as that purpose. Anna Case-Winters offers a defense against a frequent critique of Hefner’s model—that it elevates human agency almost on a par with divine creativity. Ann Pederson widens out the image-bearing dimension of the created co-creator to take in

nonhuman creatures, refreshingly demonstrating that the model can challenge more anthropocentric approaches to creative agency. Greg Peterson fills out some of the caveats surrounding the notion of human freedom upon which the created co-creator rests, exploring the way in which freedom is conditioned by institutions while offering guidelines for a more just institutional landscape. Mladen Turk concludes on a evaluative note, exploring both the utility and the ambiguity of the “powerful suggestive analogy” (211) that is the created co-creator.

This volume will be of particular interest to those already familiar with Hefner’s work (those unfamiliar would do well to acquaint themselves with *The Human Factor* at least). Proffering rejoinders, clarifications, and extensions of what has proven an enduring and fruitful metaphor within the field of science and religion for more than three decades, this volume advances the dialogue on what it means to be human in an increasingly technological world.

VICTORIA LORRIMAR 

School of Philosophy and Theology, University of Notre Dame Australia, Fremantle
victoria.lorrimar@nd.edu.au

Created Being: Expanding Creedal Christology. By Rebecca L. Copeland. Waco, TX: Baylor University Press. 2020. 158 pages. \$39.99. (Hardcover).

In the past decades, theologians have endeavored to revive Christian ecumenical doctrines that are relevant to contemporary ecological discourse, especially as the world grapples with escalating environmental crises. Among the works that have made it to the list are Ian McFarland’s *From Nothing*, Norman Wirzba’s *Food and Faith*, and Elizabeth Johnson’s *Creation and the Cross*. However, compared with these theologians, one author stands out for taking a more radical hermeneutic stance: Rebecca L. Copeland and her book, *Created Being: Expanding Creedal Christology*. I believe the subscribers of *Zygon: Journal of Religion and Science* might be interested in what she has to say to Christian readers in regard to the relationship between modern biology and theology. In this review, I aim to simply unpack her methodology instead of presenting copious analyses of each chapter.

In this book, Copeland seeks to recover the meaning of Christ’s identity as a “created substance” (created *ousia*) through the lens of evolutionary biology. The main call of this book is quite simple: by recognizing Jesus’ dual identities as both “created” and “divine” substance in our (re)reading of Nicene Christology, readers can more readily acknowledge the expanded scope of God’s salvific act, which affects all creaturely existences without exception, and renounce the Western tendency to falsely treat the environment.

After explaining how Nicene Christology has been criticized as “unjust, incoherent, and implausible” in Chapter I, Copeland provides in three sequential chapters (II–IV) scientific and historical-theological analyses centered on ancient hierarchical-biological systems. These analyses later generate theological and ethical implications, as presented in Chapter V. However, or unfortunately, readers need to first explore her article titled “Ecomimetic Interpretation: Ascertainment, Identification, and Dialogue in Matthew 6:25–34,” which was

published separately, in order to fully grasp her methodology. This is particularly important as the author frequently employs terms such as “ecomimetic investigation,” “ecomimetic interpretation,” and “ecomimetic engagement” throughout the book, which are not adequately explained in any of the chapters.

In the fields of engineering and design, a new industrial turn called the “biomimicry movement” offers engineers and designers a way to address contemporary technical issues by closely examining biological organisms or the complex processes exhibited by those organisms. Building on this approach, she invites her readers to deeply and microscopically investigate the characteristics of all earthly entities, including abiotic ones, that are often neglected in sacred texts, conciliar documents, and other literature. As readers are now biologically and environmentally informed, a reading of the text will result in a different, sometimes more detailed, understanding. “Ecomimetic engagement,” as she declares in *Created Being*, “with representatives from a broad spectrum of created beings from rocks to highly intelligent birds can shape this definition [of created *ousia*] in ways that intentionally counteract the anthropocentric assumptions that have traditionally shaped christological reflection” (33).


Chapter III is particularly noteworthy as the author meticulously observes various nonhuman existences, ranging from inanimate material bodies to rational animals, and discovers shared characteristics that Aristotle had previously associated only with human beings. She contends that the notion of “created *ousia*” in Christian theology ought to be comprehended as the “shared condition” of all of creation, incorporating traits like multiplicity, interdependence, and mutual transformation instead of being limited solely to the term “humans.” This critical shift reaffirms her argument in Chapter II, namely that phrases like “consubstantial (*homoousios*) with us” (Chalcedon) and “consubstantial (*homoousios*) with the Father” (Nicaea) did not establish a God/human dichotomy but rather a divine/created dichotomy. This view is supported by the fact that the early Patristic Christological discourse “carried an implicit affirmation that everything that is not God shares in created *ousia*” (19). In Chapter IV, Copeland delves into “Salvation Christologies,” which often describe Jesus’ incarnation and its purpose as only “for us and for our salvation” (63). In contrast, “Creation Christology” posits that God’s decision to incarnate was to overcome estrangement and include the creation in divine communion, based upon the previously argued understanding of *ousia*. This view sees Jesus’ incarnation and its salvific purpose as extending not only to those who are able to understand the idea of salvation but to every sentient being in the entire galaxy.

I find *Created Being* to be an interdisciplinary work yet holds significant dogmatic value. Its interdisciplinary nature arises from its potential to pique the interest of those who wish to explore the intersection of biology and theology. For instance, readers may be captivated by the author’s discussion of the western scrub-jay, or *Aphelocoma californica*, and their “mourning behavior” in the context of examining Aristotle’s criterion for the “rational soul” that distinguishes between human and animal bodies. In this analysis, she contends that certain animals possess “rational” capabilities. She notes, “Study of western scrub-jay caching has led researchers to hypothesize that these little birds possess several cognitive capacities that were once believed to belong to human beings alone” (45). Moreover, this

book also holds significant dogmatic value because, by blurring the line between human and nonhuman creatures in creedal document, this work could serve as a dogmatic foundation for contemporary discourse, such as transhumanism or evolution, as exemplified in the works of Teilhard de Chardin, Thomas Berry, and Ilia Delio, who have played a significant role in rethinking Christology from the perspective of the end (future). Copeland's Christology, however, develops from the perspective of the beginning (tradition).

One may argue that this book is still entrenched in anthropocentrism. Admittedly, Copeland's ecomimetic interpretation employs Aristotelian categories such as "rationality" or "movement" to describe biotic and abiotic existences. To be sure, if anthropocentrism means an inability to eliminate our biases in proposing terminology to describe nonhuman existences, then this book, along with any other works, can never possibly be nonanthropocentric. In my reading, Copeland adopts a *reductio ad absurdum* strategy that is effective in debunking Aristotelian biases. Yet, this strategy does not imply a desire to be complicit in anthropocentrism that could limit the impact of Christ's incarnational action. Moreover, Copeland herself might also have recognized the distinction between anthropocentric (centered in human) and anthropogenic (generated by human), where the latter is inevitable.

Created Being is both comprehensible and well targeted. Although the author does not explicitly state her intended audience at the outset, her theological ideas and ethical perspectives are presented in an engaging and compelling manner that can be readily grasped by individuals with no background in systematic theology. Furthermore, the book's concise length, clocking in at fewer than 100 pages, is likely to appeal to younger audiences. As such, I wholeheartedly recommend this work to young ecological activists, new-coming theologians, or biology students seeking to broaden their comprehension of the intersections between theology, biology, and ecology.

ABEL K. ARUAN 
 Boston University
 akaruan@bu.edu

Science and Catholicism in Argentina (1750–1960): A Study on Scientific Culture, Religion, and Secularisation in Latin America. By Miguel De Asúa. Berlin/Boston: De Gruyter. 2022. 365 pages. \$118.99. (Hardcover).

Miguel de Asúa's recent book is a much-welcome contribution to the history of science in Argentina, and to the surprisingly meager historical studies on science and religion in Latin America at large. The historiography of science and religion has undergone serious changes ever since John H. Brooke's seminal 1991 *Science and Religion. Historical Perspectives*. The so-called "complexity thesis" was a successful attempt to de-essentialize the historical study of the relationships between science and religion and to make them historically contingent. More than two decades later, Peter Harrison's 2015 *The Territories of Science and Religion* managed to move a step beyond and to challenge the very notions of "science" and

of “religion” as a necessary prolegomenon before talking about their historical relationships. If neither were essential, a-historical categories, their interrelations could hardly have a clear narrative. Yet, both Brooke and Harrison’s works were implicitly rooted in the Anglo-Protestant tradition of natural theology and natural philosophy. There was (and still is) the pending task to see if those historiographical projects can, in principle, be extended to other cultural, religious, and geographical milieus.

The first attempts to *de-colonize* the field, with volumes such as Brooke and Ronald L. Numbers’ 2011 *Science and Religion around the World*, welcome as they are, have at times been accused of indirectly *colonizing* it by spreading *around the world* the categories developed by earlier science-and-religion historians. Be that as it may, there is often an unwanted side effect when spreading the historiographical categories developed in the Anglo-Protestant world to distant worlds (both culturally and geographical) and to *other* religions; namely, the assumption that one can think of the Christian worlds as relatively uniform. That was the gap that projects such as SOW (on science and religion in the Orthodox world) or Miguel de Asúa’s book try to fill.

Science and Catholicism in Argentina is the result of decades of scholarly work by Miguel de Asúa on the history of science and of medicine in that country. In it we learn about the creation and development of scientific institutions and a culture *of* and *about* science in a nation, Argentina, that was, in many respects, brand new in the nineteenth century. Different from other Spanish territories in Latin America, Argentina had, by the time of independence, a very meagre sense of identity, rather weak institutions and very low population numbers. Thus, it became a unique experiment by which the local elites appropriated the new ideas, mostly coming from French positivism, in their attempt to create a modern nation. And this is, in my reading, the most important contribution this book offers to the historiography of science and religion: by importing positivistic narratives about science and religion into a still-nonexistent scientific culture, Argentina was jumping the gun and incorporating narratives about science-and-religion conflicts even before these could arise.

The introduction of this book is a masterpiece on some of the tools needed to produce serious work on the history of science and religion in Latin America and, I would argue, also in many European countries influenced by post-Enlightenment French ideologies, especially positivism and, later, *laicism* and *scientism*. Without a close attention to the different, even opposing, political and juridical systems between English common law and the Continental Napoleonic code tradition, histories about the relationship between science and religion are bound to fail. Equally important are the differences in the internal theological and institutional modes of change within the Reformed Christian churches and traditions and the Catholic Church, though the latter also demands attention to the tensions between regular and secular clergy and between ultramontane and Gallican leanings. De Asúa characterizes these differences using David Martin’s 1978 *A General Theory of Secularization* (and his revised 2005 *On Secularization: Towards a Revised Theory*) and arguing that “it was not the theoretical content of scientific theories but scientific worldviews or ideologies which played a part, if any, in the secularisation of the West” (p. 16).

The book follows a standard chronological division, each chapter delving with a particular time period of the history of Argentina, from a first chapter on “Jesuit science” in the seventeenth and eighteenth centuries to seven more chapters on the increasing creation of naturalistic, scientific, and educational institutions in independent Argentina until the mid-twentieth century. The wealth of material and research in most of the sections is praiseworthy, and the book provides the reader with a vast array of information about politics in Argentina, about many of its most noticeable naturalists and scientists, and about the challenges in the creation of new scientific and educational institutions.

A good example of the first *scientific* movements was the transformation, in 1822, of the Buenos Aires convent of Santo Domingo into a “science center” that housed laboratories of physics and chemistry, a museum of natural history and an astronomical observatory (chapter 3). Interestingly, the building was there but both instruments and personnel had to come from abroad and, even then, it was hardly clear what their task was other than showing that Argentina was going to be built under the guidance of modern science. Another well-known example is the convoluted controversy around the figure of Florentino Ameghino, who defended that humanity in America had started in the area of La Plata and had extended from there to the rest of the Continent. The episode had all the ingredients for a good science-and-religion story since it includes disputes about evolution, national identity, and the creation of a secular saint (chapter 5).

A challenge De Asúa meets with uneven results, however, is that of discriminating between “secular” and “religious” (or “Catholic”, in this case) science. In the first chapter, for instance, he distinguishes the motives behind the study of the local flora and fauna by the members of religious orders and by the officials of the Spanish Crown. The former would be, in the author’s reading, interested in Nature mainly as a means for their apostolate, while the latter would be motivated by the wealth obtainable from natural resources. This dichotomy, as if they were two sets of different, even contradictory, groups of people, looks problematic to me. Later on, the diversity of Catholic actors (from Church officials to local clergy, from religious orders to lay people and lapse Catholics) begs the question as to why some people would be placed on the side of Catholicism and others would not. It seems that, inevitably, a book on the history of science and religion cannot avoid the trap of having to decide *who* speaks for science and *who* represents religion.

Having said that, this book is a must for anyone interested in the history of science and religion and one that should help trigger more studies both in/about Argentina and in/about Latin America.

JAUME NAVARRO

Ikerbasque Research Professor, University of the Basque Country
jaume.navarro@ehu.es