

# Book Reviews

## Notes

<sup>1</sup>Brandon Rickabaugh and J. P. Moreland, *The Substance of Consciousness* (Wiley-Blackwell, 2024), 99–100.

<sup>2</sup>See Richard Swinburne, *Responsibility and Atonement* (Oxford University Press, 1989).

<sup>3</sup>See Walter Hopp, *Phenomenology* (Routledge, 2020).

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## SCIENCE AND FAITH

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**CONJUNCTIVE EXPLANATIONS IN SCIENCE AND RELIGION** by Diarmid A. Finnegan, David H. Glass, Mikael Leidenhag, and David N. Livingstone, eds. Routledge, 2023. 346 pages. Hardcover; \$128.00. ISBN: 9781032139685. Ebook; \$42.36. ISBN: 9781003251101.

“If scientists have explained a phenomenon, where’s God?” The basic false forced choice underlying this question is that things happen either (1) because of divine intervention apart from nature’s properties and processes, or (2) because of the operation of those properties and processes with no divine influence. This false forced choice underlies God-of-the-gaps reasoning: scientists’ explanations leave God nothing to do. For instance, arguing against those who think that cognitive science explanations have done away with religion and God as superfluous, James Jones notes that “these findings do no such thing ... The debunkers seem to be assuming that if natural processes are at work, nothing else can be. But no argument is offered to support that assumption” (quoted in Gijsbert van den Brink’s essay, p. 218). This is an example of the false forced choice at work, an unexamined assumption of much of the sciences-faith literature. (Indeed, van den Brink seems to cede too much to this false forced choice too often.)

The edited collection, *Conjunctive Explanations in Science and Religion*, explores this milieu. The contributions are helpfully arranged in dialogue with essays and responses by pairs of authors. This arrangement invites the reader to join the conversation with open, critical ears to hear. Another strength of the book is the range of topics addressed by the authors: There are discussions of scientific and theological methodologies with respect to explanation, the question of design in evolutionary biology, consciousness, emergence, psychopathology and religious experience, role of scientific explanations in Christian faith, divine action, Ockham’s razor, and how distinct scientific and religious explanations should be.

A weakness of the book is that most authors write and think in terms of “science” as a unitary explanatory enterprise instead of more accurately framing discussion in terms of multiple scientific disciplines—sciences (Alister McGrath’s essay is a welcome exception). Explanations can vary widely across the subdisciplines of physics

and among the fields of physics, biology, and psychology. The homogenizing of “science” in the abstract is at odds with the variety of scientific explanations authors deal with in specific cases of different disciplines. One could raise a similar complaint about the homogenizing term “religion” when the authors are dealing with different theological and experiential aspects of Christian faith (although David Brown’s contribution seems to be an exception, focusing more on what is often critiqued as the “God of the philosophers”).

A crucial complex question is how different explanations aimed at distinct questions relate to one another when focused on the same subject matter. An example is explaining why water is boiling in the tea kettle. A thermodynamics explanation would involve features such as heat, pressure, temperature, and volume of water. Meanwhile, a purposeful explanation would be in terms of my desire for some tea. These two explanations involve the same subject matter but are responding to different questions about the water boiling. A conjunctive explanation recognizes that thermodynamics and purpose questions are not only consistent with each other, but both explanations tell us more about the event in question than either explanation alone.

Although the book’s authors typically do not develop this point (McGrath is an exception), scientists often engage in conjunctive explanations when there are multiple factors involved in phenomena (e.g., materials sciences, mechanics, electromagnetism, gravity, and thermodynamics in explaining an experiment and its outcomes). Moreover, it is always the case that scientific explanations leave out numerous factors and stability conditions defining the context making scientific explanations of phenomena possible. Philosophers of science have been helpful with filling in many unstated factors and conditions in scientific explanations. The implication is that conjunctive explanations in the sciences always involve more than just scientific materials and factors.

There also is no consensus about what a conjunctive explanation is (not surprising since there is no consensus about what an explanation is, whether in the sciences, theology, philosophy, or any other fields of inquiry). Several contributions illustrate that we are talking about different ways of knowing, the kinds of questions and explanations relevant to those ways of knowing, and how to put all this into fruitful conversations. Most pressing for the contributors to this book—and more controversial among Christians and non-Christians—is what it means to relate different explanations in sciences-faith contexts: If we have a well-attested scientific explanation for some phenomenon, the diversity of life on Earth for instance, what, if anything, can a theological explanation add (explored from a historical perspective in David Livingstone’s and Rope Kojonen’s essays)?

Theologian Andrew Torrance's essay helpfully argues that a scientific explanation of coming to Christian faith is compatible with a further philosophical/theological explanation from a materialist atheist perspective, a physicalist perspective, or one involving the Holy Spirit's work in a person's life. There is nothing about neurological influences in a person coming to faith that commits one to a materialist explanation being exhaustive. This inference requires further metaphysical assumptions such as reductionism and/or causal closure of the physical to any nonphysical factors. Tom McLeish's essay gives a good discussion with examples of why reductionism often fails in physics (so, why think it holds in any other domains as a general rule?).

Although space does not permit discussion of all the chapters in this book, Torrance's and McLeish's essays illustrate how it is possible to fruitfully situate scientific explanations within larger philosophical and theological frameworks that enhance our understanding of God's good creation. Christians, at least, do not have to be forced to choose between scientific and theological explanations; rather, we can foster mutually beneficial conversations among them.

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**THE FAITHFUL SCIENTIST: Experiences of Anti-Religious Bias in Scientific Training** by Christopher P. Scheitle. New York University Press, 2023. 224 pages. Hardcover; \$35.00. ISBN: 9781479823710. Paperback; \$28.00. ISBN: 9781479823727. Ebook; \$35.00. ISBN: 9781479823741.

In *The Faithful Scientist*, Christopher P. Scheitle explores the identities and experiences of scientists-in-training and the impact of religion in their lives. The book makes a compelling argument about the connections among religion, race, gender, and diversity in science. Diverging from previous studies of scientists and religion, Scheitle focuses exclusively on graduate students training for scientific (biology, chemistry, physics) and social scientific (psychology, sociology) careers. The book combines quantitative and qualitative findings, drawing on 1,300 surveys and 65 in-depth interviews with both religious and unaffiliated respondents in the United States. Over six chapters, Scheitle pairs a unique dataset of statistical insights with rich quotations highlighting the lived experiences of students in the sciences. These chapters provide readers with an understanding of the religiosity of scientists-in-training, their beliefs about the relationship between religion and science, the stigma that religious students may experience in academic settings, the relevance of religion to peer and advisor relationships, the motivation that religion can provide to pursue scientific work, and the influence family life can have on the experiences of graduate students as they

navigate their identity as developing scientists and as religious individuals.

Scheitle argues against a number of common misconceptions about the relationship between religion and science, such as the idea that top scientists who work at or attend more-prestigious institutions are more likely to be areligious (he finds minimal difference in religiosity based on institutional prestige), or that most scientists see religion as conflicting with science (less than a third of scientists in training hold this view, with the remainder seeing them as either independent or collaborative realms). These insights are likely familiar to those who study the intersection between religion and science or have read previous work by Scheitle, but these findings are also paired with many original insights unique to his sample of graduate students. Among these is discussion of the importance of the advisor-advisee relationship in graduate school and the potential salutary influence of having an advisor of the same faith. Considering the strong positive association between religiosity and the desire to start a family (among Scheitle's sample 75% who report being very religious say having children is very important to them compared with 29% who identify as non-religious), he also shows the increased importance of a department culture that values family and work-life balance for religious graduate students.

A particular strength of Scheitle's work is the way he frames religion as an often-overlooked dimension of diversity in scientific careers. As he shows, not only is religion important to the identities, motivations, and ethics of a sizable minority of graduate students in science, but it also overlaps significantly with other identities that are already underrepresented in scientific careers, such as racial and ethnic minorities, as well as women in the case of some natural science fields. Stigma or instances of being treated with less respect as graduate students due to gender or race were reported by 83% of women, 89% of Black students, and 74% of Hispanic students. For religious graduate students, mistreatment due to race and gender may be compounded by the fact that very (64%) and moderately (46%) religious students reported being treated with less respect due to their religion. In addition to leading students to question their identity as future scientists, religious students who felt they have been treated with less respect were also faced with the dilemma of whether to conceal their religious identity. As with race and gender, discrimination due to religion may lead to fewer students pursuing their field at a higher level, reinforcing their marginal status in the discipline.

One area in which the reader may question the generalizability of Scheitle's findings is the selection of universities from which he drew his sample. Respondents exclusively attend universities in the top 60 (according to *US News* rankings) of their discipline. Given that in some disciplines such as chemistry there are around