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ETHICS IN CONVERSATION

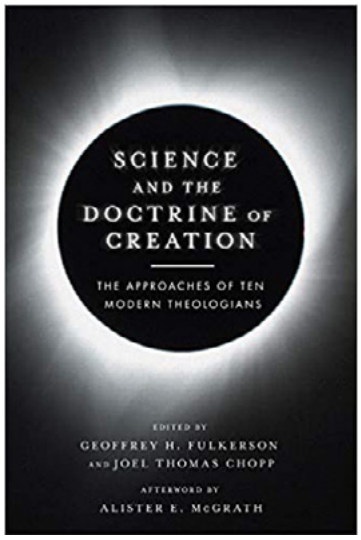
JANUARY 2022 | 26.1

Science and the Doctrine of Creation:

THE APPROACHES OF TEN MODERN THEOLOGIANS

Geoffrey H. Fulkerson and Joel Thomas Chopp, eds. (IVP Academic, USA, 2021).

REVIEWED BY RICHARD GUNTON



As a scientist by training and a follower of Jesus Christ by confession, I am intensely interested in understanding scientific thinking and research as a systematic study of God's creation. Indeed, I am convinced that science should be seen as the human search for structure in the given created order. The possibilities of a philosophy of science built around this core insight are exciting. A philosophical science of the sciences would explore the layers of structure in creation suggested by the various natural and social sciences, and it could then help build theories about how such structure comes to be perceived and articulated through observation, imagination and experiment. I am certainly more interested in philosophy than many of my colleagues in the sciences, and I'm more confident than most Christians I talk to that a Reformational philosophy of science, progressively developed and tested, could eventually help scientists in all kinds of research. Do I need some theology of science?

I have heard "theology of science" advocated[1] and am aware of some contemporary British writers in this genre, but I would not be confident about where to find the most authentic, stimulating or helpful theological reflection on the sciences. And I can see that searching for structure in creation implies holding to some kind of doctrine of creation: at least the belief that nature indeed has some hidden structure. Here, then, was my motivation in reading *Science and the Doctrine of Creation*, a book arising from the "Creation Project" of the Carl Henry Center for Theological Understanding based at Trinity International University in Chicago. Subtitled *The Approaches of Ten Modern*

Anonymous: *God the Architect of the World*

1. e.g., Tom McLeish, *Faith and Wisdom in Science* (Oxford University Press, 2014).

Theologians, this edited volume provides a helpful overview of scientific themes in celebrated thinkers from the mid-nineteenth century to the present. Four of them are German, three British, two American and one Dutch. The means by which they were selected for inclusion are not explained other than that the compilation arose from a two-day conference, but certainly these are notable theologians in the English-speaking world, almost all of whom I had heard of (yet not read). Treated in order of birth, they range from William Burt Pope (1822–1903) to Colin E. Gunton (1941–2003; no close relation!), although the four figures preceding Gunton all survived him, and indeed Jürgen Moltmann (b. 1926) is still with us.

What strikes me as I reflect on the compilation as a whole is the spectrum of plausible views on how theology and the natural sciences might relate to each other. Although it is perhaps unfair to rank and pigeonhole figures with idiosyncratic and sometimes progressively changing views, I will allow the scientist in me to prevail for a moment.[2] Karl Barth (1886–1968) stands out as the theologian least in thrall to the natural sciences, if only by virtue of disengagement; Abraham Kuyper (1837–1920) holds the strongest vision for their Christian reformation; and Thomas Torrance (1913–2007) has the most sustained critical engagement with a natural science (physics). I will return to each of these important views below. The other end of the spectrum is just as well represented. Jürgen Moltmann, Wolfhart Pannenberg (1928–2014) and Robert Jenson (1930–2017) all seem to accept the natural sciences as largely autonomous, without any particular need for Christian influence. More extreme still is the view of Rudolf Bultmann (1884–1976), who considers orthodox Christian beliefs about God's creative work, the nature of sin and the image of God problematical in the light of modern science and accordingly assigns to theology an entirely non-overlapping domain from that of the natural sciences. Sometimes considered the most important New Testament scholar of the twentieth century, Bultmann also has the distinction of being the only subject of this volume whose work is given an overall negative assessment: regarding the sciences, "[Joshua] Jipp concludes that Bultmann's project depends on a set of unhelpful and unnecessary bifurcations" (p.6).

The question of disciplinary autonomy concerns me because I myself identify with the neo-Calvinist tradition originating with Kuyper. In this view, God's common grace gloriously allows for researchers of very different heart-commitments (both regenerate and multifariously

Anonymous: *Superficial Layer of Muscles*

idolatrous) to attain to remarkable degrees of objectivity and thus, in scientific communities, to make shared progress towards discerning the hidden structure of the created order. This may be what Craig Bartholomew means by saying that Kuyper "asserts the independence of science" (p.39); yet on another level "Kuyper distinguishes between normalists and abnormalists when it comes to science" (p.42). This distinction refers to the *antithesis*: that followers of Christ, illuminated by God's word, recognise the abnormal state of creation arising from the intrusion of sin into the world, are born again (*palingenesis*), and therefore approach scientific work differently. Is science autonomous or not, then? Bartholomew helpfully lays out Kuyper's solution to this paradox, as far as it goes: essentially, there is more influence of palingenesis as one moves from observations to theories, and also along a sequence from the natural sciences (presumably starting from mathematics) through the medical, lingual and jural sciences to theological science. This view of theology being one of the "sciences" is striking to anglophone readers, but commonplace in Kuyper's native Dutch, and also German – and shared by some other theologians treated in the volume.[3] A negative answer to the question of scientific autonomy, meanwhile, has been further developed and nuanced in neo-Calvinist thinking downstream from Kuyper, as I shall mention below.

Barth's approach is very different. There is a certain accolade to having appeared in a book on *Science and the Doctrine of Creation* even though "the world of science appears to have no place at all in Barth's massive *Doctrine of Creation*, the entire third volume of the magisterial *Church Dogmatics*" (p.99). Katherine Sonderegger lucidly expounds key aspects of Barth's doctrine of creation, indicating its comprehension of

2 Statisticians call this kind of ordering activity "ordination," but theologians seem to use this word in an entirely different way.

3 Peter Harrison presents an illuminating history of how "science" came to be a monolithic authority opposed to "religion" in *The Territories of Science and Religion* (Chicago University Press, 2015).

all that is under the concept of *saga*: the history of the world's formative events that constitute reality. Whereas Barth's forebear Friedrich Schleiermacher had separated theology and science in a way reminiscent of Bultmann's, Sonderegger shows how Barth appears to leave no space for anything at all outside the subject matter of theology. In closing, however, she speculates about the kind of science that Barth would have welcomed: a disciplinary "*companion* to a world that has encountered its Lord … with a place for temporality … neither reductive nor hostile to the world of purpose and of covenant that makes human history humane … no more amoral than atemporal …" (p.119). Indeed, Sonderegger opines that this may in fact be "the only science that has ever been" (p.119). The thought is certainly attractive, if somewhat nebulous.

T.F. Torrance is considered the greatest theologian of his generation and devoted much of his work to the relationship between theology and physics. He perhaps comes the closest of any theologian treated in this volume to having developed a critical philosophy of science, not to mention an impressive grasp of its history. Moreover, Torrance agrees with Kuyper in taking theology as one of the sciences, and identifying dualisms as the root of much misunderstanding in this area. Kevin Vanhoozer's chapter helpfully distils Torrance's vast output to portray him as a *kataphysical poet*, a realist intent on the scientific pursuit to know things (even Godself) in ways appropriate to their own natures. Accordingly, Torrance discerns better and worse approaches to physics within the history of this science: Newton, for all his insight, made an unhelpful dualistic separation between space and matter, as well as an ambiguous causal gap between physical bodies and God, whereas Einstein had a more relational approach that somehow allowed him to discern the counterintuitive shape of spacetime in a way that also beautifully accounted for gravitation. I can personally vouch for the allure of Torrance's subtle philosophy: reading his *Divine and Contingent Order* left me hungry for more – if somewhat despairing of my ability to grasp it in any fruitful way.[4] Vanhoozer ends his chapter with a series of penetrating questions for Torrance's epistemology, which I think testifies both to its huge potential and to the considerable challenges it offers those who would adopt and develop it.

One more theologian deserves further mention, I feel. Colin Gunton offers a critique of Enlightenment worldviews as manifested in modern scientism and advocates Christian approaches to all spheres of life, including the sciences. Murray Rae's chapter also shows intriguing parallels between Gunton and Torrance, not only in terms of drawing inspiration from both the sixth-century theologian John Philoponus (against Neoplatonism) and the twentieth-century philosopher Michael Polanyi (against positivism), but also in a theory of hearkening to nature in order to understand it properly. In Gunton's case, this comes in the guise of a doctrine of general revelation: a conviction that reality somehow reveals its hidden nature to the attentive scientific inquirer. This is enough to place Gunton somewhere in the middle of my spectrum of views on the autonomy of science, and raises questions for me about how we account for scientific theories that have been overturned in the course of history (must we hold that the now-abandoned theories of caloric, phlogiston and N-rays were revealed truths?). But Gunton's most celebrated legacy is surely his study of trinitarian theology, with the critique of modernity that it affords. The personal, relational dynamic of the Trinity can help us appreciate the rich interconnectedness of the whole created order and avoid the barrenness of materialism, determinism and other typically modernist views. As his namesake, I only regret that C.E. Gunton did not, before his untimely death, venture further into the investigation of a trinitarian philosophical framework that might benefit the natural sciences themselves.

Donato Creti: *Astronomical Observations 06 Jupiter*

Maria Sibylla Merian: *Cherry and Moth Metamorphosis*

Before concluding, I should offer some comments on the scientific coverage of the chapters. Given that, as far as I know, none of the contributors to this volume nor their subjects is trained in natural sciences, it is interesting to look at what scientific themes

4 I note that the *T&T Clark Handbook of Thomas F. Torrance*, already cited here by Vanhoozer, is to be published in March 2022.

are actually considered. The recurring topics are really just two: biological evolution and Newtonian mechanics. In particular, evolution is the focus of Bradley Gundlach's chapter on B.B. Warfield and also treated briefly in the chapter on Kuyper. But it is not quite correct to say that none of the contributors is scientifically trained. The afterword is written by Alister McGrath, whose theological credentials accompany a doctorate in molecular biophysics. McGrath recounts his conversion from atheism to Christian faith during his undergraduate studies in chemistry and the succour that he derived from theological studies a few years later. His closing comments thus help motivate the project of this volume while offering a helpful overview and contextualisation of its significance.

Geoffrey H. Fulkerson and Joel Thomas Chopp are to be commended on having compiled such a broad yet concise and readable overview of modern theological commentary on the natural sciences. I expect that their book will prove stimulating and helpful for theologians, setting alongside each other such varied – indeed, often mutually exclusive – approaches to the sciences. I hope it will also stimulate Christian students of other disciplines to ask more penetrating questions about how deeply an appreciation of Christ as creator, redeemer and inheritor of all things – indeed, how personal and communal discipleship of the world's true king – could transform our understanding and practice of scientific investigation. For myself, I find the Kuyperian contribution to occupy a league of its own, thanks especially to the Christian institution that Kuyper founded[5] (a university rather than a seminary) and the Christian philosophy of sciences that has arisen from his work, starting especially with two faculty members of that university, Dirk Vollenhoven and Herman Dooyeweerd. This Reformational philosophy tradition goes hand in hand with a corresponding Reformational theology, and I hope to see further representation of this tradition in future surveys of theological perspectives on the sciences. Nonetheless, for practising Christian scientists, there is doubtless something to be gained from discovering how ten prominent modern theologians have grappled with various scientific issues: particularly biological evolution, the phenomenon of scientism, and the profound cultural shift whereby intellectual authority has seemingly been transferred from theologians to scientists. Let us pray for new moves of the Spirit of God through our institutions of education, science, engineering and worship, that the doctrine of creation might be more widely indwelt and enjoyed by the time of our Lord's return.

5 The Vrije Universiteit, or Free University of Amsterdam.

Attributed to the Meliacin Master: *Woman teaching Geometry*

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