

## Reviews

*Re-Vision: A New Look at the Relationship between Science and Religion.*

By Clifford Chalmers Cain. Lanham, MD: University Press of America, 2015. xii + 164 pages. US \$29.99.

Clifford Cain, editor and also author of six of the ten chapters in this book, is the Harrod–C.S. Lewis Professor of Religious Studies at Westminster College, Fulton, Missouri. He solicited contributions by colleagues from the sciences—biology and physics—as well as from philosophy from his home institution to address the issue of cosmology (Laura Stumpe, “The Big Bang Theory,” 17–34), evolution (Gabe McNett, “Seeing the Reality of Evolution,” 45–71), genetics (Jane Kenney-Hunt, “The Complex Relationship between Nature and Nurture,” 95–112), and intelligent design (Rich Green, “Intelligent Design,” 123–43), providing theological commentaries himself to each of these topics besides writing the Introduction (1–15) and the Conclusion (153–58). The book “is intentionally directed toward a general, nonspecialist audience, because the contributors believe that the attempt to relate science and religion should not be reserved for, or monopolized by, experts talking only to each other” (ix). This overarching goal is well achieved. The individual contributors not only explain almost every technical term they use and provide essential references in “notes” at the end of their chapters, but also unfold complex matters in plain language and in such a way that these easily can be grasped (a nice proof of their didactic skills).

While, then, nothing much needs to be said regarding the straightforward, very basic presentations of the scientific topics; it is the theological interpretations that warrant a closer examination, because it is these to which the book’s title refers when speaking of “re-vision.” What is revised and reimagined here is not scientific theory or research as such, but the theological interpretation of scientific and, as in the case of intelligent design, pseudo-scientific theories and research in light of process theology. Process theology “picks up on both the God of the philosophers *and* the God of the Bible” (147, original emphasis), “promotes a view of the world that involves change, development, novelty, and organic unity,” and “posits a concept of God as having two natures . . . a transcendent aspect and also an immanent” one (76). Properly understood, process theology abolishes the concept of an omnipotent God and renders the literalistic, fundamentalist interpretation of the Bible impossible. To thus revise the concept of God and the study of the Bible “is critical” because in light of scientific findings “it is no longer tenable” to cling to a religiously informed deterministic worldview by asserting “a notion of God as divine Regulator with infinite power and meticulous providence” (154). The same applies to “biblical literalism,” for this “not only creates (unnecessary) conflict with science, it also does not do justice to religion’s scriptures themselves” (153; original parenthesis).

With an almost pastoral concern, Cain pleads for a nonconfrontational “conversation” (12) between science and religion for mutual benefit, since both “are needed for a complete picture of reality . . . and make necessary contributions to

human understanding" (148). He also shows how process theological categories like "divine lure," "persuasion," and "enticement" (77, 154) prove to be helpful in this conversation, whereas holding on to concepts of divine omnipotence, determinism, and coercion will lead to unnecessary confrontation (154). If science and religion do not "join forces" the author sees cause for serious worry, especially with regard to "solving the environmental crisis which besets the planet" (90, 156). Only the "understanding of a God who acts through influence"—as conceived by process theology—"is a concept of God that could resonate today with science, with theodicy, and with environmental challenges" (156).

While the purpose and methodology of this publication are well taken, and while Cain's comments, which draw heavily on contemporary theology and biblical scholarship besides making occasional reference to other religions, are trying seriously to do justice to the challenges presented by today's science, the book, actually, is not the conversation its editor claims it is. The book, rather, presents four scientific topics, which give cause for serious controversies in certain Christian circles, accompanied by very considerate theological commentaries apologetic in character. Statements like a theory "allows a possible *place* for God" (38; original emphasis), "can preserve a role for God" (80), "allows 'room' for a role for the Divine" (145, original emphasis), and that "theology and religion want to preserve a role for the divine in the world" (146), to name just a few, reveal a perception of the task that does not challenge scientific monism at all as expected. Christian theology at least is not about making room for God; it is about reflecting intelligently and critically on the biblical witness of God as revealed in Jesus Christ, the history of this witness throughout the centuries, and its meaning for today, whereas religion is the socially and ritualistically formalized lived expression of such witness. Instead of truly conversing with science, Cain accommodates theology and religion to scientific monism by looking for spaces to insert what truly can be known in personal encounter only. Trying to reconcile religion and science in this way ignores the incommensurability of the different approaches to life that faith and science represent. Both are human means to cope with the challenges of life, science being concerned with finding practical solutions and satisfying curiosity by means of critical reflection and observation, while faith is concerned with finding existentially trustworthy, dependable answers to live by, trusting the witness to the living God as revealed in Christ and handed down within the Church. Since mastery of the challenges of life is their common concern, science and faith/religion belong together. That they have fallen apart in such a way that they appear today to be mutually exclusive is a grave distortion which any genuine conversation between these estranged siblings has to be aware of. What is needed is not an accommodation of one to the other but a critical, thoroughgoing discussion of their methodological differences in order not to fall prey to sham controversies.

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*The Atom of the Universe: The Life and Work of Georges Lemaître.*

By Dominique Lambert. Kraków, Poland: Copernicus Center Press, 2015. 464 pages. Photographs. Hardcover or eBook, €49.90.

A few days before his death on June 20, 1966, the Belgian cosmologist Georges Lemaître heard from his collaborator Odon Godart of the discovery of the cosmic background radiation, the “fossil” radiation of the hot dense early phase of the universe. As the visitor recalled: “Despite being very sick, he [Lemaître] lucidly expressed his satisfaction regarding the discovery of a type of cosmic microwave radiation that seemed to confirm the idea of an explosive origin of the universe” (415).

Lemaître, born in 1894, has been one of the fathers of modern cosmology, contributing to the development of mathematical models for the universe based on Einstein’s theory of general relativity. Though this should not be overemphasized, he is more specifically known for his imaginative terminology, “a primeval atom.” He was from the “pays noir,” the area where the coal mines were. After high school he entered a program that would have made him a mining engineer. He served on the allied side at the Belgian front in WWI, and returned to the university in 1919 to pursue mathematics and physics. A year later, he also entered the seminary to become a priest in the Roman Catholic Church. In his dissertation *La physique d’Einstein* he discussed philosophical presuppositions as well as scientific issues. In 1923, he received grants to work in Cambridge, England, with Arthur Eddington, a British cosmologist, science communicator, and committed Quaker, as well as thereafter to make a trip to Canada and the United States, where he studied at Harvard. In his Harvard PhD thesis, he showed how solutions to the equations of general relativity as found by Einstein and by De Sitter could be considered two limiting cases of a more general class of models of the universe. In a subsequent article in 1927, in French, Lemaître derived a linear relation between the distance of a source and its recessional velocity, using data from Hubble to determine what nowadays has become known as the Hubble Constant—after Edwin Hubble who two years later, not knowing of Lemaître’s work, published more data supporting this linear relationship. After Eddington learned of Lemaître’s paper in 1930, an English translation of Lemaître’s paper was published—but without the computation on the expansion rate based on the data available in 1927, because Hubble had more accurate data in his 1929 publication.

In addition to his life as a scientist, which is also of serious interest in the period after the 1920s, Lemaître was a priest. In an interview in *New York Times Magazine* in 1933, he defended the coexistence of religious and scientific perspectives as complementary paths, with different aims. Biblical passages need not be taken literally (211):

But the Bible says creation was accomplished in six days, you protest. “Isn’t that a direct, literal statement?”

“What of it?” retorts the priest. “There is no reason to abandon the Bible because we now believe that it took perhaps ten thousand million years to create what we think is the universe. Genesis simply tries to teach us that one day in seven should be devoted to rest, worship and reverence—all [of] which are necessary for salvation.”

For Lemaître, all his scientific work, including the speculative work on a primeval atom, is metaphysically neutral. “It leaves the materialist free to deny any transcendental Being. . . . For the believer, it removes any attempts to familiarity with God. . . . It is consonant with Isaiah speaking of the ‘hidden God,’ hidden even at the beginning of creation” (Notes for a lecture in 1958; see 332).

Distinguishing the two had been his position all those years, but for “materialists,” including Fred Hoyle and Russian cosmologists, he remained a Roman Catholic priest whose scientific work was suspect of bias by an interest in proving creation. And, sadly enough, Catholic authorities had used modern cosmology in this way. In a speech to the Pontifical Academy of Sciences on November 22, 1951, Pope Pius XII said: “Indeed, it seems that the science of today by going back in one leap millions of centuries, has succeeded in being a witness to that primordial *Fiat Lux*, when out of nothing, there burst forth along with matter a sea of light and radiation” (quoted at 338). Lemaître was one of the members of the Academy present at that speech. Lemaître never criticized the Pope publicly, but from other sources it seems clear that he was not too happy about the conflation of scientific and metaphysical issues. Let me add a source Lambert seems to have missed. In the paper “How Should Cosmology Relate to Theology?,” often seen as the paper that introduced the notion of “consonance” in the modern religion and science discourse (a word I saw in this biography also in writings of Lemaître), Ernan McMullin—himself a priest and philosopher of science—discusses the papal address of 1951. McMullin was a student in Leuven (Louvain), Belgium, at that time. McMullin (1981, 53 n25) adds a footnote of which I quote here the initial lines.

The present writer [i.e., McMullin] was attending a graduate seminar with Lemaître in 1951, and can recall very vividly Lemaître storming into class on his return from the Academy meeting in Rome, his usual jocularity entirely missing. He was emphatic in his insistence that the Big Bang model was still very tentative, and further that one could not exclude the possibility of a previous cosmic stage of contraction. Lemaître was not mentioned in the Pope’s speech, though a member of the Academy. It was said at the time that the principal author of the speech was Fr. Augustini Gemelli, a Franciscan priest-psychologist from Milan on whom the Pope frequently relied in matters scientific.

Lambert does not mention Gemelli in this context, but as the first president of the Pontifical Academy he does appear in his study at various places. Lemaître succeeded him in 1960 as the second president of the Academy, broadening its horizon, adding more non-Catholic scientists including seven Nobel laureates, and initiating study weeks on a wide range of topics.

This is merely a limited sample of the rich and detailed information in the biography written by Dominique Lambert. This biography of Lemaître was published initially in French in 1999. It has been translated for this edition by Luc Ampleman and edited by Karl von Bibber, who have done an excellent job. There is a preface by P. J. E. Peebles and an afterword by Michael Heller, relating the work of Lemaître to developments and orientations that continue to be most relevant. However, most praise should go to Dominique Lambert of the University of Namur, Belgium, for drawing extensively on archives and scientific papers to

bring us a biography of this major scientist, who was also a priest and thus had to reflect on the philosophical issues involved in the co-existence of these two languages and disciplines.

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#### REFERENCE

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*Christ and the Cosmos—A Reformulation of Trinitarian Doctrine*. By Keith Ward. New York, NY: Cambridge University Press, 2015. xvii + 271 pages. US \$29.99.

The book reviewed here is the most recent of more than thirty by this prolific author, philosopher of religion, and Church of England priest Keith Ward, Fellow of the British Academy and former Regius Professor of Divinity and Canon of Christ Church, University of Oxford, to mention only a few of his many prestigious positions. Involved for many years in the interdisciplinary discourse between science and religion, of which his *God, Chance, and Necessity* (1996), *Pascal's Fire: Scientific Faith and Religious Understanding* (2006), and *The Big Questions in Science and Religion* (2008) give ample proof, Ward in this new publication reinterprets the Christian doctrine of the Trinity in light of new cosmological insights. In this book, a sequel to his earlier *The Concept of God* (1977), he states "now that we are aware for the first time in history of the vast extent of the universe and the possibility of many forms of life very different from our own" (260–61) the established anthropomorphic and anthropocentric concepts of God require a "reformulation" so to enable an authentic, meaningful re-appropriation of faith in God today. His reformulation Ward calls "cosmic," since "it conceives of God in relation to a hugely expanded cosmos and not just to humans on this planet" (221).

The book comes with a strange cover showing a small full body x-ray image of a corpse (of a mummy it seems), set against the backdrop of a starry night sky in between a partial blue Earth below and a partial reddish planet above. This trivializes, and thus distorts, the truly demanding content of what follows, which "raises deep human questions about the nature of ultimate reality and of how much humans can hope to understand that reality" (xv). The book consists of five "parts" conveniently divided into forty comparatively short chapters: The threefold nature of the Divine being (1–30), the biblical sources of Trinitarian thought (33–82), the Trinity, immanent and economic (85–142), the social Trinity (145–216), and the cosmic Trinity (219–62); the bibliography and (incomplete) indices of names and subjects follow (263–71). Also supplied is a disclosing "Preface"

(ix–xvi) in which Ward explains the aim of the book and the methodology he uses. “This is not a historical work, detailing the development of Trinitarian doctrine. . . . I look at some of the best-known theological proposals in recent theology . . . By critical engagement with them [viz. Karl Barth, Jürgen Moltmann, Karl Rahner, Catherine LaCugna, John Zizioulas, Richard Swinburne, Hans Urs von Balthasar, D. Brown, Brian Leftow, William Craig, William Hasker, and John Macquarrie, besides a constant critical dialogue with Thomas Aquinas, Aristotle, and Neo-Platonism], I build up a doctrine of the Trinity which is meant to be not a rejection but an authentic development of traditional concerns and to constitute a reworking of the doctrine that will have plausibility and practical significance in the scientific age” (xiv). As an analytical philosopher and “critical realist” (129) Ward insists “on clarity, precision, and the formal analysis of language” when providing his “contribution . . . to contemporary debate about the Trinity and to reflection on the nature of what most religious believers call God . . .” (xv–xvi), thereby indicating an inter-religious agenda, too. He argues passionately from an explicitly, well articulated, sometimes very bold judgmental personal perspective, not minding some redundancies and rephrasing. This approach not only leaves its mark on the casual style in which he presents issues; this also limits the argument somewhat since the author, who self-mockingly admits of “loving” his “own reflection” (179), is more interested in making his point known than engaging in elaborate scholastic disputes. Yet, his lively, at times still very technical, style will engage readers of all disciplines and cultures because he not only avoids footnotes and acronyms but repeatedly reminds his audience of similarities and parallels in other cultures and religions (see 20–21, 75–76, 93, 136, 194, 247, 260); the author, after all, was a Joint President of the World Congress of Faiths for almost ten years.

While one might ask if Ward does full justice to the various Trinitarian concepts he disagrees with when mounting his “resolute defense of monotheism” and insisting—not the least also out of consideration for Islam and Judaism—“upon a unitive view of the Trinity” (145), he certainly is on a clear mission, namely to show that (and how) it is possible to reformulate Christian belief in the Triune God as expressed in the Athanasian Creed (see 3, 5, 239) even though “the God of a hundred billion galaxies will be far beyond human imagination” (106). Holding that all “visual representations of the Trinity are misleading” (140) and that “the representation of God as a male human is grossly inadequate, if not actually idolatrous” (139) since rooted in “the desire for a naively realistic idea of God” (128), Ward is convinced that the newly acquired cosmological knowledge “does help the imagination think that God may really be known by other beings in very different ways than those in which God is known by us” (250).

Admitting that “it is very difficult to find suitable words to use when . . . trying to describe relationships which are unique and probably beyond complete human understanding” (247) the author, like everyone else attempting to do this before, honestly struggles with giving adequate expression to what is beyond words, because “we have no independent access to the innermost being of God” (91). What can be done is “to draw distinctions between different meanings that words may have and point out what may be helpful and what may be misleading” (247). While the reformulation of Trinitarian doctrine will thus become more abstract and universal, it allows for an authentic re-appreciation of God as “the name of

that Mystery which sets a goal of supreme value to the cosmos [the 'Father' in the creation], mediates signs of that goal and value to those who are open to receive them [the 'Son'], and evokes a commitment to hope that the goal can ultimately be realized [through the 'Spirit']" (257). Put in more general terms, speaking about Trinity in light of today's cosmological knowledge means speaking "about how, in this universe, Being by its very nature generates beings, expresses itself in and through beings, and unites them to Being, thus fulfilling a goal inherent in the cosmos as a whole" (259–60).

Christians base their knowledge of the Trinity on God's revelation in Christ according to biblical witness (see Part II). This knowledge rests upon God's contingent self-disclosure in time which surely reveals something of what and who God truly is, but not necessarily everything, especially when pondering cosmic dimensions with "localized symbols for the divine" (139). Even on planet Earth "there may be diverse forms of revelation as the infinite God is disclosed to and responded to by different peoples with different histories and cultures" (261) and where "vestiges of the Trinity" (260) can be found throughout. However, humans have to be made aware that they are called to "participate in the union" with "the divine," to "*theosis*, or sharing the nature of God," that is, becoming "fully indwelt by the Spirit, being united in a communion of being with Christ, and knowing and loving the ultimate ground of all being as 'Father'" (244). For Ward this "is not just a very abstruse theoretical matter" or an idle intellectual exercise, but, rather, "a way of living in relation to a reality which fulfills and perfects human life" (244–45).

This book certainly contains a lot of valuable material for stimulating interdisciplinary as well as interreligious discussion. It not only challenges conventional ideas and concepts about God and Trinity, but also provides innovative and excitingly new perspectives begging for further in-depth exploration and study.

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