



Book Reviews



ENVIRONMENT

THEOLOGY THAT MATTERS: Ecology, Economy, and God by Darby Kathleen Ray, ed. Minneapolis, MN: Augsburg Fortress Publishers, 2006. 245 pages, notes, index. Paperback; \$22.00. ISBN: 0800637941.

Ray, associate professor of religious studies and director of the Millsaps Faith and Work Initiative, Millsaps College, Jackson, Mississippi, wrote the prologue to this book and a chapter entitled "It's About Time: Reflections on a Theology of Rest." The remaining eleven chapters are written by different authors, many of whom are listed as professors of constructive or feminist theology. Sallie McFague, whose own theological commitments, style, and vision inspired the collection, wrote the final essay.

The book is a symposium on three themes critical to Christian thought and practice: the nature of God, the relationship between theology and ecology, and the relationship between theology and economics. The first section of the book includes essays that focus on theology proper with all of the authors sharing several theological presuppositions. First and foremost is a shared commitment to constructive theology. This form of "theology that matters" is in active conversation with biblical texts and the church, and with other "vital discourses of this or any other age." These vital discourses include non-Christian religious traditions, modern day scientific explanations, and the "theological virtue of individual imagination." Most, if not all of the authors, seem heavily influenced by process theology and a pantheistic understanding of God's relationship to the natural world.

Many process theologians believe that an agential-organic model of God is compatible with the portrait of the cosmos provided by postmodern science. This model is described as pantheistic rather than pantheistic since "the universe is dependent on God in a way that God is not dependent on the universe." However, several of the authors lean toward pantheism by advocating various impersonal models and metaphors of divinity. For example, Gordon Kaufman describes God in his essay as the "serendipitous creativity" manifest throughout the universe. Ellen Armour's elemental theology refocuses attention from an invisible, disembodied-but-agential transcendence to a (more or less) visible, embodied, impersonal transcendence. Catherine Keller draws from the whirlwind experience of Job to develop a concept of God as the "inconceivable edge," the Spirit that can only materialize at the edge of chaos. These are but a few of the examples of the ways in which these authors move beyond the traditional, biblical images of God to embrace metaphors and models that (they believe) are more appropriate for life in the twenty-first century.

While some readers may disagree with the theology of the authors, the practical suggestions they offer are worthy of consideration. The major premise of this book is that theology needs to make a difference in the everyday prac-

tices of regular people. The essays that are centered upon ecology highlight the need for Christians to help heal the human race's exploitative environmental habits. If theology is to be responsible, it must actively foster a relationship of care and authentic connection with the earth and its nonhuman inhabitants. As the essays in section two suggest, theology that matters is theology that makes ecology a primary partner.

The essays in section three focus on "economy" and urge readers to reject consumerist values like individualism, self-interest, and short-term gratification. The authors oppose the community-diminishing values of neoliberal economics and embrace "old fashioned" priorities such as care for the earth, intergenerational wisdom, communal values, social justice, and long-term flourishing. They argue rightly that consumerism is a distorted form of spirituality which must be replaced by an alternate vision of "life abundant for all members of God's household." The church is encouraged to articulate, demonstrate, and propagate this vision so that theology in the form of "God-talk" can become theology that matters in the form of "God-action."

The summary on the back cover suggests that the book is specifically formulated for undergraduate and seminary courses. Theologians and students who are sympathetic to process theology, panentheism, and Sally McFague's organic model of the earth as the Body of God will certainly enjoy reading this book. Those who disagree with these perspectives should still read it. The practical applications derived from these models and metaphors are thoroughly biblical and genuinely Christian. The authors admonish us to put our faith into practice by living more lovingly, more humbly, more simply, and more ecologically. This is a message that the church must proclaim and that all Christians must heed.

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RELIGION AND THE NEW ECOLOGY: Environmental Responsibility in a World in Flux by David M. Lodge and Christopher Hamlin, eds. Notre Dame, IN: University of Notre Dame Press, 2006. xiv + 325 pages, index. Paperback; \$40.00. ISBN: 9780268034043.

The editors, professors of biological sciences and history, respectively, at the University of Notre Dame, have assembled nine chapters by authors mostly from secular universities, developing presentations and discussions from a 2002 conference (www.nd.edu/~ecoltheo/). A foreword by Peter H. Raven and the editors' introduction "Beyond Lynn White" emphasize that environmental ethics now must discard the concept of a stable balance of nature as an ideal, because a new view of nature in flux replaced it around 1970-1990. Yet half a century earlier the Canadian botanist Brother Marie-Victorin, of the Roman Catholic order Frères des Écoles Chrétiennes, wrote: "Floras are dynamic units undergoing constant transformations. Their apparent static condition is a delusion ..." (*American Midland Naturalist* 19 [1938]: 489).

Chapters 1-3 are by historians. Elspeth Whitney (chap. 1) asserts that claiming Christianity to be the root of the eco-

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logical crisis, Lynn White's thesis, oversimplifies how this crisis has developed from pre-Christian through medieval to modern times. Mark Stoll (chap. 2) provides evidence that the Protestant, particularly Puritan, beliefs of founders of ecology led them to advocate moral responsibility for the environment. Eugene Cittadino (chap. 3) extends this argument to how these early ecologists and their successors sought to influence social policy in the United States. In these latter two chapters, present-day ecology is seen as shaped by the personalities and ideas of its leaders, rather than as a body of knowledge that strictly describes and explains natural phenomena.

Chapters 4–6, more technical, are by ecologists. Kyle S. Van Houtan and Stuart L. Pimm (chap. 4) give a valuable analysis of four Christian worldviews on species conservation: earthkeeping, skeptic, priority, indifferent. In a table and a list of fifty-one web sites and publications, they associate many denominations, organizations, and individuals with one of these worldviews. Gary E. Belovsky (chap. 5) analyzes ancient climatic and environmental processes as the background for Old Testament events. Readers will need to study his sources to understand his three complex figures on population dynamics. Belovsky's statement about Mediterranean waters rushing into the Black Sea (Noah's flood? p. 153), does not reflect the caution with which conflicting data are discussed in the peer-reviewed literature. Peter S. White (chap. 6) reviews disturbance, on various scales in space and time, in environmental processes, with three clear diagrams. Drawing on his own experience in the Great Smoky Mountains National Park, he shows how disturbance affects strategies for conserving biodiversity. Development of sites prone to erosion, flood, or fire is unwise.

Chapter 7, by Patricia Fleming, a philosopher of science, explores the relation between "is" and "ought," between nature and value. Chapters 8 and 9 are by ecologists. John Haught (chap. 8) considers three approaches to ecological theology: tradition-centered, sacramental, cosmological-eschatological. Larry Rasmussen (chap. 9) criticizes ecomodernity—transformation and management of nature for human benefit—looking to religious traditions of asceticism, sacramentalism, mysticism, and prophetic-liberative practices as sources for morality. The editors conclude the book with their own essay on how environmental concerns should influence religious faith and practice, using the problem of invasive species as an example; they seek to draw together the themes from the various chapters. This volume is more integrated than a conference proceedings collecting diverse papers, but the chapters are still only loosely related. With some 650 references (none noted from *Perspectives on Science and Christian Faith*), it provides background and depth to support its advice on how people of faith should act in response to the environmental crisis.

Christians in environmental studies can use this book as an additional source of opinions on moral and ethical questions. However, believers who profess Christ to be preeminent in all things will find his lordship over creation only mentioned briefly, in a sacramental context; generally the book does not draw explicitly from the teachings of the New Testament. Indeed, the Bible itself is challenged (chapter 5) on the ground that it is not trustworthy for environmental ethics. While there is much of

value in this book, evangelicals need to question some of what is written here.

Reviewed by Charles E. Chaffey, Adjunct Professor of Natural Science, Tyndale University College, Toronto, ON M2M 4B3.



COSMIC IMPRESSIONS by Walter Thirring. Philadelphia: Templeton Foundation Press, 2007. 163 pages. Paperback; \$19.95. ISBN: 9781599471150.

Walter Thirring is the former director of Vienna University's Institute for Theoretical Physics, which "deals with the traces of God in the Creation." That alone should make the reader sit up and take notice. Given that most physicists are atheists, this is unusual. Thirring's career has had a large impact in physics and math, having published numerous textbooks on both classical and quantum physics and a book (with Lieb) on the stability of matter.

The book has seven chapters and nine appendices. The chapters cover the origin of the world, chance vs. necessity, cosmochemogenesis, the size of the universe, chaos in the solar system, why life exists and the anthropic principle. Each of these chapters has anecdotes about some of the biggest names in twentieth-century physics as well as short vignettes of lesser known physicists. If the old adage is correct that the number of readers is reduced by half with each included equation, I suspect that this book will have few readers because it contains at least seventy-four equations. But that being said, I learned from this book, and for that I am thankful to the author.

Thirring's discussion of negative specific energy was fascinating, and while he does not draw the conclusion, this feature of gravitational systems is what makes life possible. Basically suns, black holes, and other gravitating bodies heat up the more radiation they emit. When first thinking along these lines, one is tempted to say this is absurd, but such is not the case. As a proto-star emits energy, gravitational collapse ensues, raising the temperature of the object. Ultimately after the star has become a black hole, Hawking radiation becomes hotter and hotter as the black hole emits radiation and shrinks in size, with the final evaporation of the black hole being the hottest. One can only describe this system as one having negative specific energy. Without it, stars, and thus you, dear reader, would not exist.

Thirring's chapter on randomness does not seem to hit home. He calculates the unlikeliness of the present universe, and mentions ergodicity, Boltzmann's problem of the eternal return, but only in passing. He notes that biological systems are equally unlikely. But his only stab at a solution is to say that in biology it is conceivable that natural selection follows a path which was once "chosen." While that may be true, it is neither science, nor evidence, a charge Thirring throws at the concept of the multiverse.

The biggest drawback is one I find in many modern attempts to unite science with religion. Religion becomes an irrelevant add-on as is illustrated by the chosen path Thirring mentions in biology, as well as the claim in the Foreword that physics deals in the traces of God. One can certainly cite counter-examples. For Stephen Weinberg,

physics traces no god; for Thirring, there is the Divine add-in. Unlike Tipler's *Physics of Immortality*, Thirring provides no grand view of how science and religion meet and support each other, nor is there any explanation of why one should believe that Thirring's God is the God of the Bible, rather than Spinoza's God, or even Ahura Mazda. Even if the grand view is ultimately proven wrong, as was the case with Tipler, it would be a worthwhile exercise.

An interesting thing is the rejection of the anthropic principle as being of much use, which is contrary to most anthropic discussions, including those of atheists like Susskind who try to avoid such design implications by postulating the multiverse. Surprisingly, Thirring does not see it as Susskind does. While the book is a difficult read, it is interesting, and I am pleased to recommend it.

Reviewed by Glenn R. Morton, 10131 Cairn Meadows Dr., Spring, TX 77379.



HISTORY OF SCIENCE

JOHN CALVIN AND THE NATURAL WORLD by Davis A. Young. Lanham, MD: University Press of America, 2007. 250 pages. Paperback; \$35.00. ISBN: 0761837132.

ASA Fellow Davis A. Young is professor emeritus of geology at Calvin College. A life spent in Calvinistic culture and a long interest in a reformed approach to the scientific challenges of the Genesis creation account brings depth to his thinking.

John Calvin's theology of creation, including issues ranging from animal rights to natural theology, was actively debated in the last century, often casting Calvin in a negative light. Recent work by Schreiner,¹ Helm,² and Huff³ has moved the discussion from ideological concerns to what Calvin actually said.

Young's quest to catalog Calvin's writings on nature has three goals: (1) to examine Calvin's use of nature in Scripture, (2) to show how he viewed the science and scientists of his day in sermons and theological works, and (3) to discuss how Christians should view nature.

The Preface demonstrates the diversity of scriptural references to nature. Chapter one sets forth Calvin's views on science, the arts, and learning. Although a few comments seem to have a negative tone, the context of these quotes and many positive references suggest Calvin's approval of science, scientists, and liberal learning in general as a gift of God—worthy of praise and to be valued as useful in enjoying and preserving life. He praised heathen philosophers who skillfully treated the secrets of nature.

Calvin wrote more about astronomy than any other science. This would be natural because of the prominence of the heavens in Scripture, because of the practical value of astronomy (sometimes called astrology), and because astronomy was more advanced. Although Calvin condemned a false astrology (astronomy) which claimed to predict the future, he claimed that the Moon influences the growth of organisms noting that

oysters become full or empty as the Moon waxes and wanes, as does the marrow in bones ... [and] ... that

the heavens may influence human health and that knowledge of the heavens could aid the physician in choosing the appropriate time to order blood-lettings, infusions, pills, or other medical necessities (p. 41).

However, the stars were not the primary cause of effects on the body.

Calvin's views regarding the heliocentric theory of Copernicus have provided much controversy and fodder for the claim of anti-science on the part of the reformers. Young traces the discussion across the years concluding that Calvin took no definitive position. Calvin's alleged anti-science has been a prominent part of the warfare model exemplified by A. D. White, Paul Kocher, Bertrand Russell, and Thomas Kuhn.

Calvin followed Aristotle's views on the sublunar world including such ancient themes as the four elements. Calvin viewed the parts of nature as subject to God's will rather than simply parts of a natural machine. He offered a scientific case for the belief that the earth was at the center of the universe; Calvin was willing to bring biblical text and scientific thinking together. Rain, hail, thunder, lightning, rainbows (which he thought occurred prior to the Flood) could be explained by natural causes. He was critical of weak prevailing theories and was not unwilling to consider the providential intervention of God in the natural order. Everything owes its existence and maintenance to God.

Chapter four considers the physical properties of the earth in the pre-geology era. He accepted the conventional view of a 6,000-year age for the earth and generally followed Aristotle.

Fossils were not of organic origin but grew in rocks as a result of the influence of heavenly bodies. He conceived of the Flood as a global event and discussed the entry of various animals into the ark without mentioning the animals of the Americas. He shared the view that vast regions of subterranean water were present at creation.

The topic, "Calvin on Living Things," ranges from the ostrich to the elephant, from the unicorn to thorns in an intriguing sweep of the living world. Calvin was cautious in committing himself to mechanisms of divine creation and believed in a future restoration of nature to a pre-Fall vegetarian state. B. B. Warfield's suggestion that Calvin may have been a proto-evolutionist is carefully examined (pp. 130-3).

Chapters six and seven consider many aspects of the history and nature of humans and the place of Scripture in earth history. Young emphasizes Calvin's extensive use of the principle of accommodation in relating Scripture and nature.

The chapter, "Calvin and Contemporary Science," may disturb postmodern views on the nature of historical study. However, Young is able to tease out elements of Calvin's thought that are relevant to our time.

This book is comprehensive in terms of Calvin's thinking about creation, nature, and the world. It is indeed a groundbreaking contribution.

Notes

¹Susan E. Schreiner, *The Theater of His Glory: Nature and the Natural Order in the Thought of John Calvin* (Durham, NC: Labyrinth Press, 1995).

²Paul Helm, *John Calvin's Ideas* (Oxford: Oxford University Press, 2004).

³Peter A. Huff, "Calvin and the Beasts: Animals in John Calvin's Theological Discourse," *Journal of the Evangelical Theological Society* 42, no. 1 (March 1999): 67–75.

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NATURAL SCIENCES

THE PHYSICS OF CHRISTIANITY by Frank J. Tipler. New York: Doubleday, 2007. 336 pages, index. Hardcover; \$27.50. ISBN: 0385514247.

Over a decade ago, mathematical physicist Frank Tipler wrote *The Physics of Immortality*. It was a bold book of "science speculation" which *Esquire Magazine* likened to "2001: A Space Odyssey meets *The Divine Comedy*." In it Tipler predicted that universal computer intelligence will eventually evolve into a scientific—some would argue science fiction—equivalent of God. At the core of his thinking was a cosmological concept he called the Omega Point, a singularity outside space and time, and beyond the laws of physics to which the expansion of intelligent "life" inevitably leads. In *The Physics of Christianity*, Tipler refines his argument. The result is another imaginative, idiosyncratic, and often disturbing attempt to provide scientific explanation for Christian dogma.

In layperson's terms—necessitated by my own lack of expertise—Tipler argues that God is the "Cosmological Singularity" consisting of three Hypostases (which he identifies with the Trinity): the Initial Singularity (Holy Spirit); the All-Presents [the plural is very significant] Singularity (Christ), and the Final Singularity (God, the Father). Knowing what "He" wanted to accomplish in universal history, God/Cosmological Singularity created all that exists including the physical laws.

Miracles, Tipler insists, never violate physical laws, only human misunderstanding of how those laws ought to operate. Consequently, he views miracles as inevitable—there is a strong teleological/determinist bent to Tipler's project—from the standpoint of what God/Cosmological Singularity intends in universal history. Tipler includes detailed discussions of how miracles like the Incarnation, the Virgin Birth of Jesus, and the Resurrection make sense scientifically utilizing, respectively, the mathematical procedure known as the Cauchy completion, our knowledge of genetics and the DNA derived from the Shroud of Turin, and the baryon-annihilation process combined with electroweak quantum tunneling. Such a shorthand summary does justice neither to the sophistication nor the problematic nature of Tipler's argument.

Tipler's professional pedigree in theoretical physics is impeccable; he studied under John Wheeler, one of the preeminent American physicists of the twentieth century. [Wheeler collaborated with Einstein and Bohr, and his work on dying stars led to our current understanding

of black holes.] But Tipler has a habit of incorporating debatable scientific notions into the very core of his project. For example, his argument is utterly dependent on the contested concept of the multiverse, which oddly enough is often the resort of those seeking naturalistic alternatives to the religious implications some draw from the Anthropic Principle. Contra many, if not most, cosmologists, he also believes that the universe must, at some point, experience a "Big Crunch," even though the expansion of the universe would argue for the reverse. But I leave such matters to those better equipped to raise them.

What concerns me most about Tipler's approach is that he flattens out reality so that there is no room for the supernatural. For him, it does not exist by definition, save in a naturalistically tamed fashion as Cosmological Singularity. The predictable result is that the mystery and pathos of dogmas like the Incarnation and Resurrection get recast into very technical scientific explanation. And so much is lost in translation. Eternal life, just to mention one example, becomes a computer simulation conceptually not much different from that depicted in *The Matrix*.

As scholars like Roy Bhaskar and Basarab Nicolsecu note, reality is multi-layered, stratified. And when we fail to appreciate this, ordinarily we allow methodology to dictate ontology. To be sure, Tipler is not guilty of this. If nature (even if re-conceptualized in Christian categories) is all there is, then the overall scientific approach he employs is indeed appropriate. But Christians in overwhelming numbers believe "nature is not enough." [For a superb discussion of this, see John Haught's recent book with the same title.] And because it is not, there are other ways of knowing. Thankfully so; otherwise, we might have to agree with Tipler that Christianity should become a branch of physics.

Readers interested in a sci-fi-like version of Christian theology will certainly be entertained and stimulated by Tipler's creative essay. But those wanting a more thoughtful and satisfying exploration of the complementary relationship of physics and Christianity should consult John Polkinghorne's *Quantum Physics and Theology* (Yale, 2007).

Reviewed by Donald A. Yerxa, editor of *Historically Speaking*, *The Historical Society*, Boston, MA 02215-2010; Professor of History, Eastern Nazarene College, Quincy, MA 02170.

THE BIG TREE AT GEORGE AND CHARLOTTE'S HOUSE by Tomm Stanley. Golden, CO: Chelsea Green Publishing, 2007. 30 pages. Paperback; \$11.95. ISBN: 9780473116118.

If you like trees, books with facts about trees, books with artist's pictures of trees, this book is for you. This intriguing book is for children and the curious of all ages. The author has 150 acres near Christchurch, on New Zealand's South Island, where he practices tree ecology. In this short book, he shares what he has learned about trees, and it is considerable.

At the bottom of each page, he shares a tree fact. Here are three of them: More than a quarter of all medicine comes from plants and trees found in wild forests; a one hundred-foot tall tree, such as a pine, produces enough oxygen each year for two people; trees get 90% of their nutrition from the atmosphere and only 10% from the soil.

Since trees cover one-third of the earth, most humans are exposed to an abundance of them. Because this book is illustrated with child-appealing illustrations, it might be concluded that it is written for children. However, "The educational text is written at a pre-teen to early adult level and is perfectly suited to research for school projects, university papers or self-education." A glossary defines each specialized word. For example: "Aculeus is the modified ovipositor or sting of certain hymenopterous insects."

The book is built around a story with informative text covering about one-half of each page. The science may be elementary to those up-to-date on botany. For the rest of us, this delightful book will amuse, entertain, and inform. And if you believe in intelligent design, this book will certainly support your cause.

Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.



ORIGINS & COSMOLOGY

THE TOP 10 MYTHS ABOUT EVOLUTION by Cameron M. Smith and Charles Sullivan. Amherst, NY: Prometheus Books, 2007. 200 pages, index. Paperback; \$14.00. ISBN: 159102479X.

This book is part evolution apologetic and part "Myth Busters" science writing. It does not present any new arguments about the evolution debate to someone familiar with the controversy, but it does frame the discussion in an accessible manner. Scientists who find themselves defending evolution to nonscientist Christians will find several useful historical vignettes, scientific points, and rhetorical tools in this short book. The arguments against evolution are presented fairly, but it is clear that the intended reader is sympathetic to scientific perspectives.

Smith is an archaeologist and Sullivan is a college writing instructor. *Ten Myths* emerged from an article co-written by the two in the *Skeptical Inquirer*. Published by Prometheus Books, *Ten Myths* is not particularly targeted to believing scientists—rare off-hand remarks are mildly derogatory of Christian fundamentalism—but it does not take much patience on behalf of the reader to extract the authors' salient points. To be fair, criticisms of religion are balanced with a critique of naturism.

In the introduction, Smith and Sullivan cite several reasons why the American public is confused about evolution. Public misunderstanding and ignorance of science is the result of poor science education and a paucity of good science programming in the media. The power of myth—defined as explanatory story-telling—increases in influence in the context of poor background knowledge. In this context, it is most problematic for the authors when religious texts are used to provide scientific answers about the natural world. *Ten Myths* combats the misunderstandings of evolution in concise ten-page arguments that are for the most part freestanding.

The ten myths are presented in a logical order. The first chapters address the history of evolution (Survival of the Fittest, It's Just a Theory, The Missing Link); next are surveys from a philosophy of science perspective (Evolution

Is Random, Nature's Perfect Balance); the last group identifies where evolution science and religion clash (Creationism Disproves Evolution, Intelligent Design Is Science, Evolution Is Immoral). Some of the chapters in this introductory text clarify facts and history, while others present more difficult ideas. In the latter case, it sometimes feels like the conflict is oversimplified. Perhaps those chapters could be expanded in a 200-level defense of evolution course.

To satisfy the authors' goal to provide a handbook that dispels myths about evolution, the chapters are well annotated with an extensive index that will help the reader return to a particular argument long after the initial read. The bibliography for each section is good, but not comprehensive. This is a short read (the body of the book consists of 120 of the 200 bound pages), and each chapter has a clever illustration of the myth to be debunked. This book is inexpensive and could be a useful resource for believing scientists wishing to engage fellow Christians on the topic of evolution, or it could introduce students or other individuals to some of the basics of the evolution debate. Folks with a good knowledge of evolution will have encountered these arguments before, but perhaps not in as concise a form.

Reviewed by Thomas Robey, Graduate Student, University of Washington, Seattle, WA 98115.

CREATION, EVOLUTION AND MEANING by Robin Attfield. Burlington, VT: Ashgate Publishing Company, 2006. 234 pages, index. Paperback; \$29.95. ISBN: 0754604748.

Recent years have witnessed a renaissance of high quality books treating the subject of creation and evolution, many of which have been reviewed in this journal. This latest contribution to the Ashgate "Transcending Boundaries in Philosophy and Theology" series features the mature thoughts of environmental philosopher Robin Attfield, professor of philosophy at Cardiff University in Wales.

Attfield adopts a well-ordered philosophical approach to a series of important introductory topics including verification, analogical reasoning, realism and anti-realism, and falsification as they relate to the subject of creation. Along the way he considers the contributions of philosophers and theologians such as A. J. Ayer, J. L. Mackie, Michael Dummett, Ludwig Wittgenstein, Richard Rorty, Karl Popper, Pierre Duhem, W. V. O. Quine, and Donald Cupitt.

The next section undertakes a detailed look at various conceptions related to thinking about creation including creation and time, chance and contingency, various design arguments, Darwinism and design, theism and evil, and arguments concerning purpose, immanence and the argument from value—an important topic that is frequently ignored altogether by other treatments covering the same terrain. Here Attfield finds the classic arguments of David Hume not as airtight against design arguments as some fellow philosophers have assumed. In addition, he carefully considers the contributions of Richard Dawkins and one of his most sophisticated theological protagonists, Keith Ward. The final section takes up evolution and

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meaning and looks at the work of Daniel Dennett as well as concepts of stewardship and givenness.

This volume is one of the finest short cases for a realist understanding of language about God and a well-argued defense of theism and belief in creation. At the same time, it rejects creationism in both its Young Earth Creationism and Intelligent Design variants for philosophical and theological reasons. The writing is clear with crisp descriptions and linkages to major philosophically oriented treatments of the issues presented. The opinions of opponents are accurately presented and reasons for disagreement are neatly summarized. Anyone seeking a good philosophical grounding for Christian apologetics related to the theme of creation will welcome this excellent summary.

Reviewed by Dennis W. Cheek, Vice President of Education, Ewing Marion Kauffman Foundation, Kansas City, MO 64110.

IN SEARCH OF THE GENESIS WORLD by Erich A. Von Fange. St. Louis, MO: Concordia Publishing House, 2006. 362 pages. Paperback; \$19.99. ISBN: 9780758611000.

Erich Von Fange has been active in the young-earth creationist movement for twenty-five years, having published in 1981 a previous pamphlet, *Time Upside Down*. Von Fange was professor of education at Concordia University, Ann Arbor.

The book is divided into five parts covering epistemology, biblical studies and archaeology, evolution, origins, and the Genesis world. Each of these multi-chaptered parts are filled with the most amazing misinformation one could imagine, but understandable given the lack of scientific training on the part of the author. Most of the book is spent trying to convince the reader that we can know absolutely nothing via science. By using the normal controversies of science, Von Fange claims such disagreements prove we can know no truth. Every time a new dating method appears, he concludes all dating is speculative. If fossilized parts of animals previously found separately and later found fossilized together in proper life order, he criticizes science for not knowing this from the separate pieces. But conversely, when things are put together erroneously, he criticizes them for not knowing that was wrong. One can only imagine the boredom, not to mention irrelevancy, of reading 362 pages of this.

The book is confusing, incoherent, stream-of-consciousness-ish and presents no original ideas. Topics arise and are not tied to any grand view. Each paragraph brings new, unrelated topics to the reader. There is no theme or coherency to the book. He never discusses alternative possibilities. He remarks in amazement that a coal seam shows tree "stumps were all broken off at a uniform height" (p. 229), arguing that Noah's Flood was the cause. What he does not even mention is that the dead wood of trees above the water level will rot, while the waterlogged stumps below the water surface are preserved, explaining why all fossil forests tend to have this "amazing" appearance. Water surfaces are quite flat.

There are many "howlers" in the book and therein lies the main entertainment. We learn the Pleistocene began 13 million years ago (reality 1.8.5 MYR). We are told that satellite photos show metal meteorites embedded in the

earth up to several hundred miles in depth; how photos show us beneath the earth surface is unexplained. We are informed that, if you, like the Osage Indians, live on top of a meteor crater, you too will be big of stature. We further are told that worldwide oceanic travel was widespread for thousands of years before Columbus, which if restricted to the Polynesians would be acceptable, but he has everyone taking cruises around the earth throughout history. Venus was a late addition to the solar system, showing he is a Velikovskian. His "scientific thinking" comes shining through when he informs us that he is skeptical of twentieth-century dinosaur sightings other than those seen in the ocean.

His unfamiliarity with research can be seen with the Litopterns, an extinct order of mammals whose legs had similarities to those of the horse. Evolutionists claim that two lineages converged upon the same locomotor solutions. He claims this example disproves evolution. Going further he asks, if convergence was such a big deal, why do we not see many articles on Litopterns? He claims that "an extensive computer search" turned up only seven articles. My Google Scholar search yielded 260 hits.

The most amazing chapter is his "Irreverent Review of Prehistory," in which he reviews all the nut-case books he has read on topics like Atlantis, Mu, flying saucers and the hollow earth. To his credit, he does not support most of them, but one wonders why he would spend this much space even discussing these and making occasional positive comments. What possible value is there in this to Christian apologetics?

Spend your \$19.99 on coffee for you and some friends, where you can discuss reality rather than this stuff.

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DOUBTING DARWIN? Creationist Designs on Evolution by Sahotra Sarkar. Malden, MA: Blackwell, 2007. xvii + 214 pages. Paperback; \$19.95. ISBN: 1405154918.

Sarkar is professor of integrative biology and of philosophy at the University of Texas at Austin. He has accumulated a distinguished publication record since earning in 1989 his Ph.D. from the University of Chicago with a thesis on reductionism and molecular biology. In *Doubting Darwin?* he draws from his background in molecular and evolutionary biology, philosophy of biology, and philosophy of science to respond to the claims of the "Intelligent Design" (ID) movement.

In the opening pages, Sarkar writes that his book should be read as a sequel to biologist Kenneth Miller's *Finding Darwin's God*. Sarkar focuses especially on the ID literature since the appearance of Miller's book. What is different is that Miller's attempted refutation of ID was sketched against the background of a theistic evolutionary worldview (informed at least in part by Miller's Roman Catholic commitments), while Sarkar's response to ID includes a defense of both methodological and metaphysical naturalism.

Sarkar's critique of ID proceeds at three levels. First, Sarkar engages ID's biological claims, interacting especially with the work of Michael Behe, Stephen Meyer, and

Jonathan Wells (chapters 2–4). His main counter arguments are: the incompleteness of scientific explanations does not count against evolutionary theory; and evolutionary theory remains the only biological “game in town,” not because its critics have been silenced (as ID claims), but because critical perspectives have eliminated false hypotheses and confirmed the theory’s explanatory value. Further, against ID claims that random mutations cannot produce irreducibly complex organisms, Sarkar notes that evolutionary theory is based not only on random mutations but also on natural selection that includes environmental factors and other organic relationships. For those familiar with ID literature, the question arises whether Sarkar and mainstream biologists are reading the same evidence as those in the ID camp, but doing so through the hermeneutical lens of naturalism.

Second, Sarkar engages the mathematical arguments regarding specified complexity (chapters 5–8), arguing that William Dembski’s “explanatory filter,” which concludes to design by eliminating regularity and chance explanations, does not adequately account for combinatorial variables (such as blind variation and selection). More importantly, Dembski is over-zealous since the probability factor of any design is not computable, e.g., with regard to the anthropic argument, the probability that the universe is finely-tuned cannot be compared to the probability that the universe is devoid of design since the latter cannot be meaningfully calculated. Sarkar concludes that ID’s mathematical argument is irrelevant unless ID advocates can both quantify the various probability claims and establish a measurable definition of design.

Finally, Sarkar embraces methodological naturalism and defends a weak or fallibilistic form of metaphysical naturalism (following in the tradition of Ernest Nagel, chapter 9). This third level of engagement is refreshingly honest in terms of confronting ID’s claim that mainstream biology assumes naturalism. Sarkar’s nondogmatic vision matches the rhetorical form of ID defenders like Phillip Johnson. To be sure there are also rhetorically extravagant (and indefensible) claims in Sarkar’s book—such as when he says that the work of Darwin and Alfred Wallace have “permanently removed divinity from nature” (p. 39)—but overall, this is a measured and serious response.

Sarkar’s major blunder may be in the decision to label ID as “creationism.” Only a minority of ID theorists embrace that label for themselves, even as there are some (e.g., Michael Denton) who explicitly reject creationism. While Sarkar is at his best as a micro- and evolutionary biologist and philosopher of biology, he is just as clearly out of his element when dealing with the religious and theological complexities across the spectrum from creation science to ID. But even if Sarkar did not mean to adopt a “guilty by association” tactic (which would have been beneath the level of argument present throughout most of his book), it would nevertheless be a further mistake for those in the ID movement to dismiss or ignore *Doubting Darwin?* because of this “mistaken identification.”

Still, with this volume we have a reputable voice added to those disputing ID’s legitimacy to be counted among the (biological) sciences. If ID is to earn its scientific credentials through the same process as all other scientific proposals—viz., through engaging its critics—then we will

need to be on the lookout for an ID response to *Doubting Darwin?* in the not too distant future.

Reviewed by Amos Yong, Professor of Theology, Regent University School of Divinity, Virginia Beach, VA 23464.

THE SCOPES “MONKEY TRIAL” by Anne Janette Johnson. Detroit, MI: Omnigraphics, 2007. 245 pages, index, Hardcover; \$44.00. ISBN: 0780809556.

This is one of a series called *Defining Moments* that deals with historical events that challenged, transformed, and/or determined the course of America’s existence during the twentieth century. The series is produced for the teaching of history in grades 8–12. The author is not identified, but the board of editors includes several educators and librarians. They have produced a volume that is engagingly replete with narrative, photographs, biographies, and primary documents.

Readers of *PSCF* should not too easily discount this volume because of its intended readership. There may be no other extant discussion of these issues that includes such a compilation of objective recounting and primary sources. The documents that are included in the appendix range from the full texts of Bishop Usher’s dating of the creation of the world in the sixteenth century to Judge John Jones ruling against Intelligent Design in public schools in 2005.

The trial of the Dayton, Tennessee, high school math/science teacher and football coach, John Scopes, for violation of the Butler Act took place during two weeks of July in 1925. The book includes chapters that consider events leading up to the trial, daily accounts of the court room machinations, and the final guilty judgment of the jury—a judgment reached in only nine minutes! Interestingly, neither the prosecution nor the defense were satisfied with the way Judge Raulson declared an end to the deliberations. He charged the jury to make their decision on whether a state law had been violated rather than on whether evolution and/or the biblical account were true.

Subsequent chapters survey the ways in which the debate about evolution has continued. Although the Butler Act proscribing the teaching of evolution in Tennessee remained on the books for forty years after the Scopes trial, no other teacher was ever charged with its violation.

The main body of the book concludes with the 2005 Dover, Pennsylvania, school debate. The complete text of Judge Jones ruling that Intelligent Design (ID) was not science is included in the Primary Sources section of the book. This statement is balanced by two essays defending ID—one written by Stephen Meyer and the other Tom Bethell. A Chronology of significant events dealing with evolution from Bishop Usher’s creation dating in 1658 to the Dover school board decision in 1905 is also included.

This account of the Scopes trial included a number of historical details that I, for one, had either forgotten or never knew. One had to do with the background of John T. Scopes for whom the trial was named. He was a graduate in pre-law from the University of Tennessee and had decided to teach for a year or two before continuing his education. He was in his first year of teaching at Dayton when his principal became sick and asked him to take over

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the biology class using the text *A Civic Biology*—a volume that contained material that supported evolution and called Charles Darwin a “great” man. That part of the book had been overlooked by those that approved Tennessee textbooks.

The second detail I had not remembered was that Scopes was not on a crusade to test the Butler act. Nor was he a strong proponent of evolution. In fact, after the trial was over, he could not remember whether he had actually taught evolution. His involvement occurred because of a decision of the American Civil Liberties Union (ACLU) to pay the legal bills of any Tennessee school teacher who would challenge the Butler Act. George Rappleyea—local mine superintendent who was a firm believer in Darwin’s theory—connived with Frank Robinson—the town druggist interested in promoting business—to see if they could find a teacher who would agree to be the lawbreaker. They invited Scopes down for a soft drink at the drugstore and made the bargain.

One additional historical fact of interest was that the decision of the Tennessee Supreme Court overthrew Scopes’ conviction on the basis that Judge Raulson had determined the fine of \$100 rather than allowing the jury to make this determination. Neither Darrow, the defending lawyer, nor William Jennings Bryan, the prosecutor, was satisfied.

I found this book delightful to read. *PSCF* readers will find the volume interesting and truly informative. These issues remain very important for Christian scientists who may need a reminder of this history.

Reviewed by H. Newton Malony, Senior Professor, Graduate School of Psychology, Fuller Theological Seminary, Pasadena, CA 91100.



PHILOSOPHY & THEOLOGY

ONE WORLD: The Interaction of Science and Theology by John C. Polkinghorne. Philadelphia, PA: Templeton Foundation Press, 2007. 116 pages, notes, glossary, index. Paperback; \$14.95. ISBN: 9781599471112.

This is a re-issue of the book first written in 1983–1985 and originally published in 1986. In the preface, Polkinghorne adds a twenty-first century perspective to what has become, over the years, a genuine classic. The book is one member of a trilogy, the others being *Science and Creation* (1988, 2006) and *Science and Providence* (1989, 2005). All ASA members ought to have these three volumes in their personal libraries. I find myself reading them over and over, for the author has the unique gift of presenting deep thought on few pages in a most entertaining way.

Polkinghorne was a Cambridge University professor of mathematical physics when, in the early 1980s, he resigned to study for the Anglican priesthood. In his new career, he eventually rose to become president of Queens’ College and was knighted by Queen Elizabeth II for his service to science, religion, learning, and medical ethics. He also received the 2002 Templeton Prize.

There are seven chapters to this gem, each building on those preceding. They discuss “The Post-Enlightenment

World,” “The Nature of Science,” “Theology,” “The Physical World,” “Points of Interaction,” “Levels of Description,” and “One World.” Polkinghorne’s overall thesis is that both science and religion attempt to tease out “reality” but each with a different perspective. He explores in-depth (how can he do so well in a scant 166 pages?) creation, miracles, and a future life. In his presentation, he argues that scientific reductionism is a bad idea and natural theology a good one. He describes himself as a “critical realist,” claiming that this philosophy can be said of both science and theology; that it provides a base for mutual interaction between the two. He writes that his thinking structure is “bottom up ... seeking to move from motivating experience to attained understanding in a way that is natural for a scientist ...” (Preface, p. xii). He believes wholeheartedly in the unity of all knowledge; this book is based on this claim.

There are two words, not very much used, that Polkinghorne is fond of, and these may well illustrate his critical realist approach. The first is “corrigible.” As understanding progresses and this is true of both science and theology, our theories must be corrigible, else we stagnate. This, he sees, is the great fault of the young-earth creationists, as well as some scientists who make truth claims about certain theories. The second is “verisimilitude.” Polkinghorne claims that “truth” cannot be our necessary goal. “In fact, we shall have to be content with the more modest claim of verisimilitude. Our understanding of the physical world will never be total, but it can become progressively more accurate” (p. 22).

I usually give my books away when I realize I will likely never read or reference them again. This book will never be among that set. I cannot recommend this book highly enough.

Reviewed by John W. Burgeson, 8119 Bideford Lane, Houston, TX 77070.

SCIENCE, RELIGION AND THE MEANING OF LIFE by Mark Vernon. New York: Palgrave Macmillan, 2007. 193 pages, index. Hardcover; \$35.00. ISBN: 0230013414.

This is a remarkable little book. However, the title is not very apt. A better one in terms of content would be “A Treatise on Agnosticism,” although such a title would clearly be a harder sell. The book does touch on science and religion, although tackling “the Meaning of Life” in 193 pages has to be considered somewhat unrealistic, unless it were to be “the number 42” as *The Hitchhiker’s Guide to the Galaxy* would have us believe.

Mark Vernon has a Ph.D. from Warwick University in philosophy, degrees in theology from Oxford University and Durham University, and a physics degree from Durham University. He was a priest in the Church of England from 1994 to 1996 when he quit, disillusioned with what he saw as hypocrisy, to become a freelance writer, broadcaster and blogger. He now declares himself to be a “Christian Agnostic,” and the book under review is a rambling philosophical discourse of what “agnosticism” means. En route, Vernon touches on ideas of Socrates, Newton, and Darwin among many others. The list of topics dealt with in some depth includes humility and hubris, wonderment, “proofs” of God, and the problem of evil.

This thin book is not easy going. Indeed, the philosophical contortions required to defend agnosticism seem to defeat the author. He closes with a chapter consisting of an alphabet soup of terms vaguely related to the rest of the book. Readers can expect to find an intriguing discourse on Vernon's views on science and uncertainty, but unfortunately no final answer on the meaning of life.

Reviewed by Bill Tyson, Research Scientist, Natural Resources Canada, Ottawa, ON Canada K1Y 3K9.

GOD, THE FAILED HYPOTHESIS: How Science Shows That God Does Not Exist by Victor J. Stenger. Amherst, NY: Prometheus Books, 2007. 287 pages. Hardcover; \$28.00. ISBN13: 9781591024811.

Victor Stenger, an emeritus professor of physics and astronomy at the University of Hawaii, is an adjunct professor of philosophy at the University of Colorado. His scientific career was devoted mainly to elementary particle physics. He witnessed the development of the standard model and participated in a number of experiments including the Super-Kamiokande project in Japan that showed for the first time that neutrinos have mass. He has authored many books and has contributed articles to *Skeptical Briefs*. His interests include quantum mechanics, cosmology, and exposing pseudoscience. The book is indexed and has extensive references at the end of each chapter as well as a bibliography.

The book starts, much like most of us physicists think, with a discussion about models, how we do science, and how we feel confident to publish our work in scientific journals. He points out, as some of us also agree, that the Dover case (creationism vs. evolution) actually has damaged science because the definition of science was put in the hands of the law instead of the hands of scientists (pp. 58–60). Stenger believes that religion should be put to scientific test.

It is from this latter point that the analysis proceeds to run through a gauntlet of examples where religious claims (particularly in the Judeo-Christian religion) have come up short on showing scientific evidence for God. Stenger discusses the supernatural, the anthropic principle, the effectiveness of prayer, revelation, providence, the origin of values, and theodicy. Stenger concludes with suggesting how we would live in a Godless universe.

Part of this diatribe may be understandable. There are instances where Christians have done things to incite this kind of response. However, the book is rather misleading in its science. For example, Stenger ignores serious scientific discussion on the anthropic principle, favoring his view that vacuum energy is zero (pp. 146–52). About the same time as this book was going to press, *Science* presented a News Focus (*Science* 313, p. 750) indicating that this view does not constitute a consensus. The truth is not the issue here; rather it is the even-handed presentation of a controversial topic.

This one-sided presentation contributes toward making this book propaganda. Nevertheless, that should be pause for reflection, because Christians are sometimes one-sided in their presentations, also. Naturally, I cannot agree with everything in this book. However, I can

still recommend it to readers of this journal who desire to become familiar with how a contemporary, secular scientist looks at science and religion.

Reviewed by Wayne Dawson, Research Scientist, Structural Biology Laboratory, Chiba Institute of Technology, 2-17-1 Tsudanuma, Narashino, Chiba 275-0016 Japan.



RELIGION & BIBLICAL STUDIES

HOW SHOULD WE TALK ABOUT RELIGION? Perspectives, Contexts, Particularities by James Boyd White, ed. Notre Dame, IN: University of Notre Dame Press, 2006. 328 pages. Paperback; \$40.00. ISBN: 0268044074.

This collection of fourteen essays grew out of a seminar at the Erasmus Institute at the University of Notre Dame. The central focus of the seminar was to allow persons from twelve different disciplines to shed light on religious thought and action from their particular disciplines.

Written for a diverse audience, each essay describes a particular scholar's current academic study of religion. Subjects considered included whether it is possible to be both Catholic and modern in contemporary Chile, whether a liberal can listen with an open mind to a religious argument, and whether science and religion can successfully interface. Each essayist, reflecting on his or her own biases, discusses how to be pluralistic in approach without descending into a universal relativism.

Readers will be stimulated by the range of issues discussed and how religious experience is shaped by pre-existing conceptions and experiences. The interplay of scholarly, political, sociocultural, psychological, and experiential perspectives which these essays highlight is a valuable contribution in itself and the Erasmus Institute is to be commended for shepherding this book through to reach a wider audience of interested readers.

Reviewed by Dennis W. Cheek, Vice President of Education, Ewing Marion Kauffman Foundation, Kansas City, MO 64110.

THE REFORMATION: How a Monk and a Mallet Changed the World by Stephen J. Nichols. Wheaton, IL: Crossway Books, 2007. 160 pages. Paperback; \$12.99. ISBN: 1581348293.

On October 31, 1517, Martin Luther, with mallet in hand, nailed his "Ninety-Five Theses" to the church door at Wittenberg. This mundane and simple act changed the world forever. "Luther's act brought the world out of medieval times and into the modern age" (p. 11).

History matters to Christians. Not just biblical history, but all history is important. Reformation history captures the origin and growth of the Protestant Church which today has over 500 million adherents. For a person who lived a relatively short life (1483–1546), it is an understatement to say that Luther's achievements are impressive. Luther not only started the denomination that bears his name; his sermons, books, hymns, and Christian activism continue to inspire.

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This book not only outlines Luther's life, but also includes the impact other reformers (such as Zwingli, Calvin, Simons, and Knox) exerted on the Church and culture. The Reformers often disagreed and opposed each other. They all faced the strength and structure of the established church, and some of them met a violent death. But they led a movement which stressed the freedom of the conscience and the individuality of believers which became the impetus for religious freedom.

Many historians believe that modern science is an outgrowth of the liberation of the mind which resulted from the Reformation. Post-Reformation scientists Kepler, Newton, Pascal, and Babbage, all Christians, led in the development of modern scientific fact and theory. This book does not devote time to how science was impacted by the Reformation. What it does is capture the Reformation movement in all its diversity of personalities and beliefs. While the Reformers agreed on the need to reform and redirect the church, they did not agree on the direction in which it should go. The different doctrines and denominations of today illustrate that the tradition of diversity begun by the reformers continues unabated. There are many books on the Reformation. Nichols' book is unique in its succinctness and insights. It is also interesting, entertaining, and sometimes humorous. I recommend it.

Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.

THE PROTESTANT EXPERIENCE IN AMERICA by Amanda Porterfield. Westport, CT: Greenwood Press, 2006. 296 pages, photos, illustrations, bibliography, index. Hardcover; \$55.00. ISBN: 0313328013. eBook; \$60.50. ISBN: 0313086214.

Amanda Porterfield's book has an Introduction and five chapters. The Introduction indicates the aim of the book is to explain each generation's understanding of Protestantism in America. The first three chapters are chronological. They chart the changing meaning of "Protestantism" from Martin Luther to Tim LaHaye. The fourth chapter covers the relationships Protestants have had with science. The fifth chapter explains the end of Protestantism (but not Christianity). The last section is a bibliography of about 375 mostly contemporary works used as background material. These complement the approximately 225 end-of-chapter citations; one-third of them are primary sources.

Porterfield is qualified to examine this topic. Her specialties are American Protestant Thought, History of Christianity, and Native American Religions. She was president of the American Society of Church History and is currently co-editor of *Church History: Studies in Christianity and Culture*. She has degrees from Columbia University, Union Theological Seminary, and Stanford. Today she directs graduate studies in religion at Florida State University.

This book does not contain a family tree of Protestantism denominations. It is the moments, movements, and people who are key to the changing understanding of the term Protestantism. This narrative is about change, not a complete history or dictionary.

Porterfield does not make judgments as to the Christian orthodoxy of movements or leaders. A persistent theme is that of Protestants viewing themselves as ordained to dominate all land and peoples they encountered, sometimes subtly and often not so subtly—from Native Americans to immigrants.

As Protestants incorporated Evangelicalism, there entered a competing view of relationship to God. Romantics, not interested in what appeared as a rules oriented version, preferred to encounter God through nature. From the Civil War, two kinds of Romantics emerged: one, egalitarian; one, sentimental. Egalitarian Romantics are "more able to resist the recourse to nostalgia to avoid unpleasant realities," while "Sentimentalists... expected reality to conform to their idealistic expectations and took the strength of their feelings about how things should be as evidence of how they would be." Abraham Lincoln is described as a Romantic Egalitarian while George W. Bush is pegged as a Sentimentalist.

The science chapter begins with the positive attitude and vigorous involvement Protestants have had with science. They expanded science education as part of their missionary efforts. But this unity and excitement around scientific experimentation fractured when the Bible began being treated as a myth by German universities and evolution was introduced. The various responses to these developments included wholesale denial, attempt at integration of the new information among various forms of Protestantism, or abandonment of Protestantism. The significant people and concepts include William James, Herbert Spencer, Racism, Protestant Naturalism, Social Darwinism, Henry Beecher, James McCosh, Charles Hodge, Friedrich Schleiermacher, Moody Bible Institute, Scopes Trial, Seventh Day Adventist Church, Fundamentalism, Creation Science, Richard Niebuhr, and the Social Gospel.

The atomic bomb caused another intense re-examination of science. The author explains how the Death-of-God theology was a response of some Protestants to the constant fear of nuclear annihilation and the American love of technological achievement. In this they saw idol worship and rejected it. This subject is not often addressed and adds value to the work.

The last chapter contends that Protestantism, but not Christianity, is finished. Porterfield carefully fleshes out the key points of Luther and Calvin because this is the Protestantism the Puritans brought to America. Her conclusion that Protestantism has ended is based on the idea that what Luther protested no longer exists. Its key ideas have been absorbed into American culture and are no longer associated with Protestantism. Fundamentalism and Pentecostalism she labels as Post-Protestant in that they stray in key ways from the original precepts of Protestantism.

Porterfield implies modern-day Pentecostalism was first seen in the United States. Evidence indicates this is not so. *The Journal of Beliefs and Values* (August 2004) published "Writing the Pentecostal History of Africa, Asia and Latin America" by Allan Anderson. Anderson explains why this myth persists and provides a bibliography of sources supporting Pentecostalism's non-American beginnings.

This book should be added to the libraries of schools that offer a major program in religious studies. The bibliography alone makes it an essential purchase. The unique subject matter does the same. I highly recommend it.

Reviewed by Winifred Flint, Academic Librarian, winifred.flint.info, Lowell, MA 01850.



SCIENCE EDUCATION

GOD IN THE CLASSROOM: Religion and America's Public Schools by R. Murray Thomas. Westport, CT: Praeger Publishers, 2007. 285 pages, index. Hardcover; \$49.95. ISBN: 0275991415.

Murray Thomas, an educational psychologist who for over three decades headed a program in international education at the University of California Santa Barbara, has studied controversies about religion in public schools all over the globe. His earlier work, *Religion in Schools: Controversies around the World*, summarizes his lifelong academic pursuit of this topic. He brings his perspective to bear in very well-conceived and executed discussions of current controversies about religion in public schools.

The opening chapter discusses in general terms the varied roles the state, religion, a concerned secular public, and the public schools have played. A subsequent chapter lays out a historical context for understanding the nature of current controversies. The remainder of the book then employs a single format to discuss nine topical areas with a focus on how the controversy developed and a set of guidelines for educators. The nine topics are God and Darwin, curricula and text materials, prayer and Scripture reading, holidays and celebrations, financial support, the Pledge of Allegiance, released time and school clubs, symbols and maxims, and matters related to sexuality and sex education. The last chapter deals in turn with state, church, the public, and schools.

The discussion around each issue is thorough with many examples of the impact of various policy options provided. The reader is shown how society as a whole balances the many different factors that must be considered. The complexities are presented, along with the ways in which society at large has reached its current position. The guidelines for teachers in public schools are particularly helpful and should also be required reading for school administrators and school boards that sometimes impose improper restrictions on religious freedom. This is an essential resource for anyone interested in this topic and for school, university, and public libraries.

Reviewed by Dennis W. Cheek, Vice President of Education, Ewing Marion Kauffman Foundation, Kansas City, MO 64110.

HERE, EYEBALL THIS! by David Heddle. Saga Books, 2005. 205 pages. Paperback; \$15.95. ISBN: 189493637X.

David Heddle, who received his Ph.D. in physics from Carnegie Mellon, has written this novel about the first two years of the graduate program in physics at that institution. In the acknowledgments he states that the work is entirely fictional, but his familiarity with Pittsburgh and the Carnegie Mellon campus give it a very real air.

How realistic is the picture of graduate study in physics? A lot has changed since I was in the position of Heddle's main character, Aaron Dern, at a different university over forty years ago. The hot topics in physics are, of course, different, and there are many more foreign students in American graduate programs in the field than there were back then. But some things do not change. The picture of a student who at first is somewhat intimidated by the fact that all his fellow first year students seem to have much better preparation than he does, only to find out where he stands after the first exams, was very familiar to me.

There is a current of religious discussion running through the book. It does not dominate the story but does play an important role in subtle ways. Not surprisingly, much of this discussion has to do with the anthropic coincidences and the possible implications of them for design arguments. The setting of those discussions within the story allows the author to present them as more than purely scientific, or meta-scientific, deductions. The comment of one professor that "everything matters" could be simply an abstract statement about a holistic view of the world, but it takes on added force for Aaron when he is confronted with an ethical decision on the eve of the qualifying exam.

Aaron's encounter with a couple of fundamentalists bent on converting him and the way another student calls the bluff of an anti-Christian professor in a comparative religions class broadens the religious picture. It might have been helpful, however, if those chapters could have been connected a bit more with the scientific themes of the book.

The title of the book is eye-catching but it is natural to wonder what in the world it has to do with physics. Suffice it to say that it has to do with some crude humor of one of the students. Heddle's characters generally talk the way real people talk and not in the prissy way that characterizes some "Christian fiction."

Some readers may wonder if the religious arguments in the novel are leading them to a kind of altar call in the last chapter. If so, they will be surprised and sobered to find themselves confronted instead by an event that, in light of those arguments, poses the question of theodicy in a stark fashion. There is a great deal in the novel besides physics and religion—grad student parties, personal relationships, visits to the families of other students, and other aspects of real life. At times it may seem to meander. But when one finishes the book and looks back at the whole story, one sees a narrative that poses some tough basic questions and is not content with easy answers. It is an interesting and helpful complement to the more familiar types of non-fictional work on religion and science.

Reviewed by George L. Murphy, St. Paul's Episcopal Church, 1361 W. Market St, Akron, OH 44313.



SOCIAL SCIENCE

SOMETHING THERE: The Biology of the Human Spirit by David Hay. Philadelphia, PA: Templeton Foundation Press, 2007. 336 pages, index. Paperback; \$19.95. ISBN: 1599471140.

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David Hay, a zoologist, is Honorary Senior Research Fellow in the Department of Divinity and Religious Studies at the University of Aberdeen. He is also a former director of the Religious Experience Research Unit at Oxford University (now known as Religious Experience Research Centre at St. David's College, Lampeter, University of Wales). A committed Darwinian and a religious believer, Hay believes there is a biological basis for human spirituality. Each person has the potential for spiritual awareness, a kind of sense that, because it has survival value, developed through the process of natural selection.

Something There: The Biology of the Human Spirit provides evidence that spiritual experience is common to all of us and is, as Hay argues, a built-in, biologically structured component of all members of the human species. The book contains excerpts from interviews Hay has conducted over the years with individuals, many of them children, who provide illustrations of their spiritual experiences, the kind of data Hay collects and analyzes. Examples of spiritual experience include awareness of the presence of God, awareness of prayer being answered, awareness of a sacred presence in nature, awareness of the presence of the dead, awareness of an evil presence, and awareness of a transcendent providence or a patterning of events.

Despite the noticeable decline in church attendance and participation in Britain in recent years, each of these spiritual experiences, according to Hay, is reported at a higher rate now than they were twenty years ago on national British surveys. This increase in the reporting of spiritual experience reflects a lessening of the social taboo surrounding spirituality today as compared to years past. While the social inhibition of spirituality may be less now that twenty years ago, there is, nevertheless, a tension found in many individuals between how to maintain one's integrity as part of a rational, scientific, and logical culture and at the same time allow for one's spiritual awareness to flourish. This is the tension that Hay finds in his conversations collected and analyzed over the past thirty years.

The book is divided into four parts. In Part 1, *Context*, Hay develops his perspective of how spirituality is prior to religion and is a built-in, biologically structured characteristic of all humans. Then in Part 2, *Conversations*, Hay presents excerpts from some of the interviews he has conducted to illustrate this perspective and out of which Hay identifies the "primordial core" of spirituality, relational consciousness, which allows for the possibility of relationship with God (to the theist) or the sense of relation to the Other (conceived in secular or religious terms) to the non-theist. In Part 3, *Conflict*, Hay discusses some of the history of the study of religion in psychology as well as some of the recent empirical findings coming from psychology, cognitive science, and neuroscience supporting the idea of relational consciousness, and therefore the innateness of spirituality, in humans. (For those unfamiliar with this growing literature on the biology of spirit, there are many studies suggestive of a genetic, chemical, and neural role in the development of spiritual awareness. Although Hay's coverage of this literature is brief, his book does provide a good bibliography for those wanting to dig deeper into this topic.) Finally in Part 4, *Facing the Crisis*, Hay discusses what might be done to address the social inhibition directed against this innate spirituality and emphasizes

the role churches (and other religious institutions) play in society's spiritual recovery.

While it will not convince the religious/spiritual skeptic, the book does present, in a form accessible to the non-specialist, a reasoned argument for proposing that human spirituality has a biological basis. ASA members unfamiliar with recent studies supporting this idea will find Hay's book a good introduction. For another readable book that provides a more in-depth look at Hay's work on spirituality, see his (along with Rebecca Nye) *The Spirit of the Child* (Fount, 1998).

Reviewed by Kevin Seybold, Professor of Psychology, Grove City College, Grove City, PA 16127.

FREUD'S WIZARD: Ernest Jones and the Transformation of Psychoanalysis by Brenda Maddox. Cambridge, MA: Da Capo Press, 2007. 331 pages, index. Paperback; \$26.00. ISBN13: 9780306815553.

Brenda Maddox is the highly acclaimed biographer of a number of other people including W. B. Yeats, D. H. Lawrence, Rosalind Franklin, and Nora Joyce. This is her first venture into the life of a relatively unsung figure in the history of psychoanalysis.

The adjective "unsung" is somewhat a misnomer, however, in that Ernest Jones is well known among psychoanalysts as a central figure in bringing the movement to London, Toronto, New York, and Boston. He was for years the president of the International Psychoanalytic Association and the author of *The Life and Work of Sigmund Freud*, Vol. 1, 2, and 3 published by Basic Books. Further, it was Jones who arranged for Freud to flee Vienna from the Nazi and settle in London for the final few months of his life.

The sequence of the book's nineteen chapters closely follows periods in Jones' life (1879–1958), from his childhood in Wales to his death in London. In a very engaging style (which incidentally she retains throughout the volume), Maddox begins with a Prologue that has the simple title "March 1938." Here she recounts Jones' arrival in Vienna to effect the escape of Freud and his entourage from the dangers of the Nazi. This is perhaps the best known and most dramatic adventure in Jones' life. When he arrived, Jones was arrested but used ingenuity, obstinacy, and determination to talk his way to freedom and secret his mentor safely away to London. This was but the apex of over thirty years of close friendship and collaboration between Freud and Jones. This prologue leads into the first chapter where the sequence of events in Jones' life leads circuitously into the world of psychoanalysis.

The volume's appeal is enhanced not only by Maddox's thoroughness and penetrating analysis of events but by two sets of pictures that carry the reader illustriously from Jones' childhood to old age. The photos include scenes of the major figures in the development of psychoanalysis up to the early 1950s by which time the center of the movement had left Austria and London for the United States. Jones played a significant, even dominant, role in these developments. Hence Maddox's title *Freud's Wizard!*

Like his mentor Freud, Jones decided in his early adolescence to become a doctor but ended up specializing



in the “talking cure” (as psychoanalysis was early labeled) quite unintentionally. Both men emphasized human physiology. Freud even did his doctoral thesis on “the physiology of the sexual behavior of eels in hopes of obtaining a professorship at the University of Vienna” — an appointment that was denied due to his being a Jew. Jones aspired to become a specialist in neurology who would be appointed to the faculty of University College Hospital — his alma mater affiliated with the University of London. Unfortunately, his acerbic staff relationships coupled with accusations of inappropriate relationships with child patients denied him this privilege and forced him, like Freud, into private practice.

Introduced to Freud’s writings several years after their publication, Jones claimed that he began practicing Freud’s method of free association two years before their first meeting in 1908. As a result of attending a congress on psychiatry and neurology in Amsterdam in 1907, Jones met Carl Jung — Freud’s heir apparent who, after the conference, wrote Freud enthusiastically about “a young man from London ... who is very intelligent and could do a lot of good.” Jones and Freud finally met in April 1908 in Salzburg at a “Meeting for Freudian Psychology” — a gathering of forty-two practitioners that turned out to be the first international congress of psychoanalysis. At the conference, Freud asked Jones to write a book on dreams in English.

Ernest Jones became, without doubt, the major voice of psychoanalysis for the next forty years. He mediated a number of the defections, debates, and developments that permeated the movement as it spread throughout the western world. His speaking ability and his winsome personality served him well. He wrote theoretical treatises, edited a number of journals, and was the publisher of the press that made psychoanalysis dominant.

Maddox has made a major contribution in writing this biography of the “man behind the scenes” whose life, heretofore, was relatively unknown. This volume is recommended for ASAers who have an interest in cultural history.

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Letters

Coping with Bioethical Dilemmas in the Christian Community

Two articles have appeared over the past 2–3 years in *Perspectives on Science and Christian Faith* on embryonic stem cells, both purporting to espouse a Reformed Christian world view. The one by Robert Boomsma¹ allowed for embryo research and the derivation of embryonic stem cells; the other by Adrian Teo and Donald Calbreath² argued for a prohibition of both activities. In each case, the authors consider they can utilize Reformed theological principles to arrive at a well-defined position on a narrowly focused contemporary bioethical issue. However,

since the authors reach diametrically opposite conclusions, one has to question in what way these viewpoints are actually informed by a Reformed worldview. Indeed what does it mean to be informed by such a worldview when discussing embryo research and embryonic stem cells, since the conclusions arrived at in these two papers reflect well-known positions within general bioethical debate?

On reflection it appears that the respective authors have emphasized different facets of the Reformed tradition. While Boomsma sought to maintain a broad view encompassing dominant themes within the Reformed Christian worldview, Teo and Calbreath underscored what they saw as the all-encompassing importance of the human embryo. The challenge for the Christian community is to decide whether it is possible to choose between these approaches on theological grounds and to conclude that one of them is more in line with Christian thinking than the other. In my view it is not, but this may be regarded as a contentious conclusion.

My reason for reaching this conclusion is that there is ethical and theological uncertainty in this area, since distinctly Christian knowledge and understanding of these topics is limited. What is required are theologically-informed ethics, where theological principles are employed to throw light on perplexing ethical quandaries. These two contributions help throw light on important stipulations from a Christian perspective, all of which should be taken into account in reaching practical conclusions on embryo-related questions. Consequently, they should be viewed as complementing one another, each contributing important facets of a Christian perspective. They should not be expected to provide definitive knock-down answers.

It follows from this that there may well be no one exclusive, unerring bioethical Christian position on contemporary issues that traverse scientific, moral, theological, and social boundaries. Far from being a defeatist stance, this underlines the point that Christians should be characterized by commitment to the flourishing of personal life and by attitudes that seek to bring sustenance and hope.

The issues raised by these two articles bring us to the heart of the relationship between the church and science. Christians have to take seriously the insights of scientific investigations, even if these appear to question cherished Christian conceptions. If God is sovereign, as enunciated so effectively within the Reformed tradition, there is nothing in the scientific arena beyond the scope of his interest and concern. Christians are to rejoice in this and be committed to rigorous thinking and debate, always with an openness to new insights, if these appear to forward the kingdom of God.

Christian contributions to bioethical debate will always be circumscribed. Humility and an awareness of human frailty are crucial prerequisites for Christians as they are for everyone else. Nevertheless, Christian voices should be heard, with an emphasis on the range of basic (Reformed) Christian principles outlined by Boomsma, allied with a stress on human dignity at all stages of human existence and across all societies. If this voice is lacking, utilitarian and functionalist considerations may come to reign supreme. But we should not underestimate the hard work and challenging thinking required of all within Christian