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# REVIEWS

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Joel R. Primack and Nancy Ellen Abrams. *The View from the Center of the Universe*. New York: Riverhead Books (Penguin), 2006. Pp. 386. ISBN 1-59448-914-9. \$26.95, hardback.

This is one of the consistently most interesting, insightful, and powerful books I have encountered.

Often cultural cosmologies, which tell about the significance of human life in the order of things, are distinguished from scientific cosmologies, which describe the origin and nature of the universe based on evidence assembled in astronomy and astrophysics. Rarely does a cosmological vision have room for both cultural and scientific concerns. *The View from the Center of the Universe* is an exception. It is thoroughly grounded in the new scientific vision of the cosmos that has emerged in the past twenty years or so, yet it is sensitive to the need humans have for world orientation through myths, and it offers a compelling case for the significance of humans in cosmic evolution. It is one of those rare books having the power to transform one's understanding of self and world.

Primack's scientific credentials are solid. He is one of the developers of the theory of cold dark matter and has served in leadership roles in prominent professional organizations. His wife, Nancy Abrams, is a gifted writer, lawyer, and consultant to governments on scientific matters. The book is a product of a course they have co-taught at the University of California, Santa Cruz, for a decade. Their writing reflects their concern to be intelligible to non-specialists, yet their footnotes often introduce the more technical aspects of the topic at hand and point to a rich reservoir of further resources. Their lucid prose is augmented by helpful illustrations and symbols. Four of the key drawings are available on the web at <http://viewfromthecenter.com>, and other helpful supplements to the book are also available there.

In a way, the aim of the Primack and Abrams is very close to what Michael Polanyi attempted to achieve in *Personal Knowledge*. In reaction against the false objectivism of his time that eliminated human significance, Polanyi described human involvement in all knowledge and set human achievement in cosmic evolutionary perspective in Part Four. Primack and Abrams do not concentrate on epistemology as Polanyi did, but like Polanyi, they attend to our religious longings while setting their vision on solid scientific ground. Their aim is "not only to help people understand the universe intellectually, but also to develop imagery that we can all use to grasp this new reality more fully and to open our minds to what it may mean for our lives and the lives of our descendants" (8).

The book is divided into three parts: Cosmological Revolutions, The New Scientific Picture of the Universe, and The Meaningful Universe. The first part chronicles the evolution of cosmology from thinking in terms of a flat earth, to the medieval notion of the heavenly spheres in which human existence is central, to the post-Newtonian notion of a vast realm void of meaning. The authors describe the fecund cosmological imagination of the ancient Egyptians with genuine appreciation for "the attitude that *multiple non-dogmatic interpretations* of the cosmos are more inspirational than a single arbitrary story" (48). They also attend to Hebrew and Greek cosmological myths, but perhaps the shamanic worldview of the Huichol Indians garners their greatest appreciation among early flat-earth myths. Their stories "cultivate a sense of kinship, of organic connection, with the universe itself" (35), a connection that has unfortunately been severed in recent centuries.

In recent years many people have called for a new meaning-supporting myth embracing science – Loyal Rue, for instance, or Thomas Berry and Brian

Swimme. Typically the story of evolution has been highlighted as at the core of the needed myth, not the more inclusive vision of the cosmos featured in the work at hand.

Without modern scientific cosmology, no people, no matter how wise, creative, and good, can create a mythic language through which the universe can speak to our global, science-based culture. We need to work together to achieve a cosmic perspective that can inspire a vision powerful enough to master the technological forces that threaten our survival. Whatever myth might emerge, if it is science-based, it won't stand still. As long as the universe expands, the myth must absorb, be tossed out by, or else be enfolded in larger understandings. No myth is for all time, but mythmaking is. (36)

In light of the subject matter of this issue of *Tradition and Discovery*, it is interesting to note that Primack and Abrams, when describing the history of scientific thought, strongly oppose the relativism associated with Thomas Kuhn and his postmodern successors. The authors contend that, with few exceptions, revolutionary "scientific theories do not have to overthrow their predecessors except in the earliest stages of science when a scientific theory is replacing earlier ideas that were not well supported by evidence" (24-25). New scientific theories encompass older theories by defining the limits within which the older theory is true. In emphasizing the progress of science toward ever-larger truths, the authors are again in harmony with Polanyi's vision.

Part Two sets forth the contemporary vision of the cosmos with greater clarity than any other work with which I am familiar. This cosmological vision requires conceptualization that lies well outside our earth-evolved intuitive patterns of thinking. The Big Bang is described as a phase transition from eternal inflation, a phenomenon that is hypothesized to exist "beyond" our realm of space-time. Much of the

density of our universe is constituted by dark energy, a force within space that expands it at rates beyond the speed of light. As a second member of the "Double Dark" theory, dark matter provides the gravitational attraction that has led to the formation of stars and galaxies. Only about half of one percent of all matter and energy constitutes the visible universe with which our senses potentially have some direct contact.

While the cosmos seems to be a very strange place, the authors take great pains to show that it is possible, and indeed vitally important to our survival, for humans to feel a deep connection to this cosmos. In many respects, humans are said to occupy a central place within the evolving cosmos. "The only place beings with a consciousness like ours can ever feel ourselves *belonging* to the universe is at the center. But the longing to be central is not what makes us central: the structure of the universe makes us central" (272). We are roughly midway between the micro and the macro worlds when these are analyzed in terms of orders of magnitude. Ours "turns out to be the only size that conscious beings like us could be. Smaller creatures would not have enough atoms to be sufficiently complex, while larger ones would suffer from slow communication" (161) – and the consequent inability to respond as individuals quickly enough to survive certain environmental hazards. Humans also live on a planet at the midpoint of our planet's career when it offers maximum hospitality for complex life. Its relative stability and maintenance of correct temperature to allow life to evolve indicates we exist at an extraordinary point in cosmic space and time. We necessarily "live at the center of our Cosmic Spheres of Time" (271), which also is the peak period for learning about distant galaxies now beginning to disappear over the cosmic horizon. Finally, we live at a crucial ecological moment when it is imperative that we develop a responsible, humble vision of our impacts on the earth, a vision that can be enhanced by cosmic insights and metaphors.

Primack and Abrams make a brief but powerful pitch for the importance of a scale sensitive vision of things. At every few increasing orders of magnitude,

the increased complexity makes for emergent features that are different in kind than their components. Many thinkers fall into Scale Confusion (for example, applying Newtonian physics to the whole universe) or Scale Chauvinism (of which reductionism is one variety), thought that typically uncritically projects concepts that are useful at the human scale but inadequately relate to reality at other scales. Rather than think only in parochial terms, “one’s thinking should always be on a *larger* scale than one’s actions if those actions are to be meaningful. To act wisely globally, we must think cosmically” (252). At the top of our needs as a people now is to apply scale-appropriate cosmic metaphors so as to foster sustainable prosperity that stretches beyond the mundane here and now. “This planet is so diverse that the way to deal with global problems is not to impose global solutions but to cultivate the *common ground of a large-scale goal* and encourage small-scale, decentralized solutions, appropriate to different situations, created by different kinds of people inspired by that goal” (265).

In this review I can only begin to suggest the richness of *The View from the Center of the Universe*. Not everyone will be convinced that humans inhabit the extraordinary place in the cosmos the authors argue for. Indeed, they quite openly proclaim that they only provide a basis for seeing human existence as meaningful, but that individuals can equally choose despairing or authoritarian views of existence. They never claim to present an artistically compelling myth that might capture our imaginations, but they do think they provide the grounds for meaning-rich myth making that has the great advantage of being grounded in what is real. In my view, they successfully realize this aim; they do provide “*the opportunity to see everything afresh through a new cosmological lens*” (297).

Walter Gulick  
wgulick@msubillings.edu

Francisco J. Ayala. *Darwin and Intelligent Design*. Facets Series. Minneapolis: Fortress Press, 2006. Pp. xi + 116. ISBN: 0-8006-3802-6. \$7.00. paper.

Initially invoking the names of Thomas, Augustine, and John Paul II, Ayala enters into current debates about Intelligent Design in order to establish that (1) religious faith and science are not incompatible with one another and (2) that Intelligent Design is both bad science and bad religion that preys upon faithful people of good will. In making his case, Ayala largely proceeds chronologically, devoting the first chapter to an appreciative but critical discussion of William Paley’s argument from design, faulting it most seriously for dismissing the extent of imperfections in nature (8). Ayala then spends four chapters in a comparatively detailed exposition of evolutionary theory. He summarizes Charles Darwin’s account of evolution by natural selection (chapter 2), sets out additional evidence for the theory (chapter 3), provides an overview of human evolution (chapter 4) and examines more closely the mechanism of natural selection (chapter 5). Ayala is especially keen to make the point that evolution does not happen randomly but incrementally via natural selection, a process that preserves adaptive changes in organisms. As an example, Ayala offers a plausible account of how the complex eye emerged over time rather than as the result of a designer’s work (66-7).

This example hints at what is to come, for having spent several chapters on evolution, Ayala turns to Intelligent Design (ID), devoting but a single chapter, the sixth, to that theory. Therein Ayala identifies the major proponents of ID and responds to their claims. First, he attacks the way proponents of ID juxtapose “theory” with “fact,” thus distorting the use of the term by scientists (72-77). Next, he attacks claims that the intricate complexity of living creatures, especially that of the eye, bacterial flagellum, and blood coagulation, is too much to be explained by chance (80-85). Finally, he presses the issue of oddities and deficiencies in nature that argue against intelligent design (85-89).

Ayala concludes with a chapter devoted to the topic of belief. Intending to show that faith and science do not have to conflict, he finds support in the writings of key figures in Christian history (Augustine, A.H. Strong, Pius XII and John Paul II), as well as statements made on the topic by mainline Protestant denominations (PSUCA and ELCA), and the Central Conference of American Rabbis. He then turns to a brief history of court cases dealing with creationism and ID; notably, supporters of creationism and ID have lost them all. He concludes by explaining how science is methodologically naturalistic and therefore, the excesses of some scientists aside, cannot speak meaningfully about religious beliefs and their implications.

Promising a cogent, rigorous argument that establishes his pair of theses, Ayala delivers a more historical reflection that gives an inordinate amount of attention to evolution, with more philosophical reflections appended to the end. The relative lack of attention to ID gives the appearance of bias (deserved or not) and leaves the book open to such criticism. That criticism itself may not be fair, however. His treatment of evolutionary theories is clear and accessible to a popular audience that likely needs to be more informed about exactly what evolutionary theories claim than what ID is about. Furthermore, although his treatment of ID is comparatively brief, his rejoinders succeed in large part because of the groundwork laid in the previous chapters on evolution.

Conceptually, the most problematic claim Ayala makes is that religion and science can be easily compartmentalized. While there is some truth to the claim that religion and science are radically different discourses, Ayala fails to acknowledge that this “solution” to the conflict between science and religion has its own problems. First, it cannot adequately explain why conflict between science and faith seems so intransigent and occurs so frequently. Secondly (and perhaps related to the first), it takes a very un-Polanyian position that does not acknowledge that faith or belief of some sort underlies even scientific knowing. Regardless, the book will serve as a useful, concise, and

lucid introduction to theories of evolution, as well as a rejoinder to the claims of ID, even if it begs additional philosophical and theological questions.

Paul Lewis  
LEWIS\_PA@Mercer.edu

Brian D. McLaren. *A Generous Orthodoxy*. Grand Rapids: Zondervan/Youth Specialties, 2004. Pp. 297. ISBN: 0-310-25747-6. \$19.99, hardback (also available as a 2<sup>nd</sup> edition, 2006. ISBN 0-310-25803-0. \$14.99, paper).

Brian McLaren has become a respected leader in the Emerging Church movement, a loosely-allied “community” that is rethinking Christianity in and for a post-modern culture. Holder of an MA in English from the University of Maryland, McLaren taught college English from 1978-1986, when he became founding pastor of Cedar Ridge Community Church in the Baltimore-Washington area, a position he held until 2006. He now devotes his time to writing and speaking on a variety of topics related to the emerging church (for more biographical information, see [www.brianmclaren.net](http://www.brianmclaren.net)). The author of several books, McLaren in *A Generous Orthodoxy* represents a confession of faith that he thinks is both faithful to the wider Christian tradition and appropriate for a post-modern age.

The book is divided into two sections, the first of which addresses the topic, “Why I am a Christian.” Herein, McLaren recounts “the seven Jesuses I have known,” from that of conservative protestants to the Jesus of liberation theologians (summarized effectively in a chart on pp. 64-5). He then explores some of the implications of that variety, from which he concludes that Jesus needs to be saved from what Christians have done to him (101). In the second section of the book, McLaren describes the kind of Christian he is, using a dazzling and provocative array of terms. He describes himself as missional, evangelical, post/protestant, liberal/conservative, mystical/poetic, biblical, charismatic/contemplative, fundamen-

talist/ Calvinist, Anabaptist/Anglican, Methodist, catholic, green, incarnational, depressed-yet-hopeful, emergent, and unfinished. While the juxtapositions may not always make intuitive sense, what remains constant is McLaren's driving desire to, in his words, "find a way to embrace the good in many traditions and historic streams of Christian faith, and to integrate them, yielding a new, generous, emergent approach that is greater than the sum of its parts" (18).

Throughout the book, McLaren writes in a clear, non-technical language that demonstrates a high degree of fluency with the Christian tradition in its various incarnations. He has obviously done substantive reading on church history and history of Christian thought. His often playful prose embodies the kind of irenic spirit and generosity that he thinks should characterize an authentic orthodoxy, which does not mean that he is not critical of various expressions of Christianity. For example, he criticizes both ultra-conservative and liberal versions of Christianity while at the same time remains generous in the sense of being willing to learn from both (Chapter 8). Overall, McLaren comes across as a master bricoleur who wants to overcome the dichotomous thinking so characteristic of the modern world.

If there is an intellectual failing in his work, it is that which plagues most works of bricolage. McLaren does not always identify the principle(s) of selection by which he identifies the good of various Christianities, although he sometimes appeals to "the spirit of Jesus" (120) or the limits of language to communicate God's nature (151). Neither does he articulate in detail how disparate convictions can be held together coherently. For example, he notes that what connects Anglicans and Anabaptists is that in different ways they have all resisted modernity (212). That is an intriguing observation, but are their ways of resisting compatible with one another? These "faults" may represent fuzzy thinking on his part (a typical criticism of post-modern works), or a failure of imagination in people too deeply formed by modernist ways of thinking and seeing (a typical post-modernist rejoinder to critics), or some combination of these and other factors. I

wonder, however, if there might be another more Polanyian explanation, i.e., that McLaren knows more than he can say.

Regardless, I bring up Polanyi because this book will be of interest not only to those who follow contemporary developments in Christianity and who are interested in the phenomenon of post-modernism, but also to those who follow the work of Michael Polanyi. Why? Because McLaren's work explicitly draws from Polanyi at some points and shows affinities with Polanyi's ideas at others. Furthermore, I suspect that greater use of Polanyi would strengthen McLaren's responses to those who complain because they do not know how to categorize him.

McLaren explicitly draws from Polanyi's discussion of tacit knowing to treat orthodoxy as the "internalized belief" by which many Christians live and from which they attend to the world (32-33). He again mentions Polanyi by name when he reflects on what it might mean to allow Jesus to be a master teacher. Here, McLaren adapts Polanyi's ideas to describe religious traditions as practices or ways of life or apprenticeships through which we develop personal knowledge (87).

Besides these explicit references to Polanyi, McLaren shows affinities to Polanyi at two points. The first is in the terminology that McLaren uses to describe himself. McLaren explicitly calls himself post-critical instead of post-modern (18). Although from the context it is not clear that he uses the term as Polanyi does, the choice of language is intriguing. The context suggests that post-critical means for McLaren an attempt to form a new whole out of the mixed bag of the past—which does not altogether seem to be what Polanyi means by the term (and is not exactly consistent with McLaren's own stated aim not to seek a "blended" Christianity but a hologram Christianity [66]). Nevertheless, McLaren does seem to be post-critical in the Polanyian sense in that he wants to combine some of the pre-critical, fiduciary dimensions of traditional, orthodox Christian faith with the results of modern historical consciousness (see for

example his discussion of orthodoxy, 28-30). In the end, while McLaren may not use the term exactly as Polanyi does, he appears to embody the post-critical spirit.

Secondly, McLaren's chapter on emergence echoes Polanyi's (and Teilhard's) understandings of the emergence of the noosphere. McLaren, drawing explicitly from the work of Ken Wilber, argues that reality is multi-leveled so that new levels "embrace and build on" rather than exclude earlier levels with the result that human consciousness emerges out of previous levels (279-280).

One point at which McLaren might benefit from closer attention to Polanyi is on the topic of indwelling. McLaren is correct, I think, to treat religious traditions, at their best, as entities in which we dwell tacitly and from which we attend to and understand the world. What is missing from his discussion, however, is any attention to the other part of that dynamic, i.e., breaking out. We indwell in order to break out, a point Polanyi makes explicitly about religious worship (*PK*, 198) and a point that McLaren embodies, even if he does not articulate it. His generous orthodoxy does not passively indwell what most would consider traditional orthodoxy. Instead, the latter is something out of which he breaks, without at the same time severing his ties to it.

In the end, McLaren's *A Generous Orthodoxy* provides a thoughtful, articulate account of an emerging way of thinking about Christian faith that addresses important philosophical, theological, and historical issues in a way accessible and inviting to lay audiences. Of particular interest to readers of *Tradition and Discovery*, the book demonstrates a suggestive way in which Polanyi's ideas can be used to understand the dynamics of religious life. At its best, the book models the generous and ecumenical spirit it advocates, even if it does not provide the detailed argument that philosophers and theologians might prefer. As a kind of mediating theology, it remains to be seen whether a generous orthodoxy can survive the centrifugal forces that H. Richard Niebuhr suggests

inevitably undo all such theologies. Regardless of what their ultimate fate might be, however, McLaren's confessions are well worth dwelling in for the present.

Paul Lewis  
LEWIS\_PA@Mercer.edu

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Annual membership in the Polanyi Society is \$25 (\$10 for students). The membership cycle follows the academic year; subscriptions are due November 1 to Phil Mullins, Missouri Western State University, St. Joseph, MO 64507 (fax: 816-271-5680, e-mail: [mullins@missouriwestern.edu](mailto:mullins@missouriwestern.edu)). Please make checks payable to the Polanyi Society. Dues can be paid by credit card by providing the card holder's name as it appears on the card, the card number and expiration date. Changes of address and inquiries should be sent to Phil Mullins. New members should provide the following subscription information: complete mailing address, telephone (work and home), e-mail address and/or fax number. Institutional members should identify a department to contact for billing. The Polanyi Society attempts to maintain a data base identifying persons interested in or working with Polanyi's philosophical writing. New members can contribute to this effort by writing a short description of their particular interests in Polanyi's work and any publications and /or theses/dissertations related to Polanyi's thought. Please provide complete bibliographic information. Those renewing membership are invited to include information on recent work.