

Reviews

The New Universe and the Human Future: How a Shared Cosmology Could Transform the World. By Nancy Ellen Abrams and Joel R. Primack. New Haven/London: Yale University Press, 2011. XVII + 238 pages, 72 illustrations. \$28.00.

The authors of this book—an outstanding astrophysicist and his spouse, an attorney turned cultural philosopher and a former student of Mircea Eliade—write against the “culture of cynicism” (157) regarding the bleak future of human survival on planet Earth. Based on the 2009 Terry Lectures at Yale University, Abrams and Primack passionately argue for realizing human potential and responsibility in the present “pivotal moment in time,” since “we humans have to think about [the meaning of life on Earth] *for* Earth because . . . we are the only ones who can” (164, original emphasis). Beyond that, humans have also a “responsibility to the universe”—namely “to protect humanity, because humanity is the guardian of an extraordinary occurrence in cosmic evolution—a brain that can conceive of the universe” and, thus, “our existence matters to the universe” (ibid.). The authors want to initiate a “great conversion from short-term fragmental identities to the first serious long-term species identity” by calling for the formation of a well-informed “cosmic society now” (165). This ambitious goal sets the tone and structure of the book written from an American perspective and for an American audience. The style is popular and reflects a sense of urgency, sometimes turning into straightforward preaching, while the print makes frequent use of italics and lavish illustrations—some of which, however, are quite trivial.

The book is divided into eight chapters. The first four unfold the fascinating new view of the universe, while the remaining four show how this knowledge may—and should—impact human behavior to save conscious life from extinction. An extensive section on “Frequently Asked Questions” follows (167–206), containing additional background information to statements made earlier, as also do some of the “Notes” (207–12). The “Recommendations for Further Reading” (213–21) is a brief annotated bibliography for the general public, while “About the Illustrations” (223–31) and the Index (233–38) furnish important details to key images and direct interested readers to related online sources and videos—as occasionally done in the main body of the text as well.

The authors are convinced “that there is a profound connection between our [the humans’] lack of a shared cosmology and our increasing global problems” and optimistically declare that if “we had a transnationally shared believable picture of the cosmos, including a mythic quality story of its origins and our origins . . . we humans would see our problems in an entirely new light and we would almost certainly solve them” (XII). “The real focus of the book” they say, “is on the invitation, and in fact the imperative, to free our society from obsolete, dangerous misconceptions of physical reality, open our minds to the new universe, and begin to teach and cultivate the existing connection between our universe and both our

internal sense of power and our external, political outlooks. In short, this is an invitation to create a *cosmic society*" (XVII, original emphasis).

What is special about the new understanding of the cosmos, according to the Double Dark theory (or Lambda CDM) presented here, is the insight that the universe is "controlled by two invisible things" (4): gravitational dark matter forming galaxies, stars, and planets, and dark energy driving local groups of galaxies apart at an exponential rate; the latter was not discovered until 1998 and modeled for the first time with a supercomputer in the so-called "Bolshoi simulation" in 2009 only. Contraction and expansion operate on different cosmic scales, each following its own set of rules. The space inside local groups of galaxies is "tamed by gravity," while the space outside such clusters is "wild space" marked by expansion (57). Dark energy accounts for 70 percent of the universe, while dark matter makes for 25 percent; only 0.5 percent is visible matter, and the tiny fraction of a mere 0.01 percent of the universe consists of heavy atoms—"stardust" as they call it—the basis of life. Therefore, "from a cosmic point of view we intelligent, self-reflective beings are rare and precious beyond calculation—but we are only possible because of the composition of the rest of the universe" (66).

The preciousness and responsibility of intelligent life in the universe are highlighted further by factoring in the dimension of time, since humans "are stardust plus time" (78) and live in a "cosmically pivotal moment . . . at the midpoint of time on multiple timescales" (79–80), namely on that "of the cosmos, the solar system, Earth, and humanity" (81). Thus, humans have to rise to the occasion "to figure out *quickly* how to transition out of the current period of worldwide human inflationary growth as gently and justly as possible. Cosmology can help—by providing a model for this seemingly insurmountable task" (90, original emphasis). However, drawing on the analogy to cosmic events for appropriate human action in order to make "the transition from rampant growth [analogous to the spark of cosmic inflation] to sustainability [analogous to the slowly expanding Big Bang] that we humans must make" (92) implies that cosmic evolution and human actions are happening within frames of the same scale, which they obviously do not. No doubt, humans are the product of cosmic evolution and their actions have an impact far beyond the immediate horizon. Yet, humans are also individual personalities, each with a concept of life of his or her own informed by contingent cultural and religious plausibilities, something the species consciousness of a cosmic society, which the authors want to instill, is not eager to entertain. Cosmic society, instead, demands to "*see* the new cosmos not just as a new idea in physics but as our shared mental homeland" (117, original emphasis), which is "true for everyone" (120). Therefore, anyone disagreeing challenges not just a particular way of interpreting phenomena, but "sabotages our own future," since such disagreement would be a "rebellion against nature's own revelation, as though it were nothing but an opinion" (141).

Accepting science as "the only possible foundation for a globally unifying story of ourselves" (121) leads to monism with a totalitarian claim. Yet, the authors still want to believe "that we can preserve kaleidoscopic diversity on the scale of our local lifestyles, while . . . finding consensus about events on the encompassing scales of the planet and the universe" (141). This, however, is wishful thinking, since it is precisely certain well-informed lifestyles that cause the

disastrous global catastrophes experienced today, something the authors seem to realize, too, because they timidly admit at one point that “subtle changes in both lifestyle and technology” will be necessary (148), a phrasing not in step at all with the otherwise serious urgency of the text.

Being fully aware of the fact that scientific accuracy and rational argument are not strong enough to bring about the “great conversion” necessary to warrant survival of the human species Abrams and Primack finally draw on the meaning providing imaginary power of mythology to effect the necessary motivational boost by sketching an origin story based on the new cosmology (119–42, 164–65). They regard it as a “potentially empowering, transcendent origin story . . . that could unify so many around the world who may not see eye to eye on other things” (142). Cautioning that the “choice of metaphors to portray the new universe must be strategic,” since any “particular metaphor will have a certain kind of impact on people” (157), they become very particular in the final section of their book about how to educate youngsters in and for a truly cosmic society and close their argument with appealing once again to the unique challenge, “This is an age for heroism—for people willing to start *believing the evidence* that we are at the center of a new universe and at a pivotal moment for humanity, and that we must act accordingly” (162–63, original emphasis).

The New Universe and the Human Future is certainly a very stimulating reading beyond the ordinary. Yet, the transition from scientific to moral reasoning as suggested here is highly questionable because humans are not just “stardust and time.” Humans are also complex individual personal agents driven by more than rationality and emotions, something that certainly would have been addressed if a dialogue between this new cosmology and the new anthropology were attempted—a challenging topic for a desirable sequel.

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Wind, Sun, Soil, Spirit: Biblical Ethics and Climate Change. By Carol S. Robb. Minneapolis, MN: Fortress Press, 2010. xii + 195 pages. Softcover \$20.00.

Global warming is dangerous, and it is worsening. Our responses have been criminally ridiculous, grounded in commitments to ever-growing quarterly earnings reports and to goods and services masquerading as “low cost.” Carol S. Robb wants us to shift our thinking about this crisis into the context of the world God so loves. Our failures to do so are the readily observable destructive trends in weather patterns, ocean acidification, atmospheric CO₂ and other greenhouse gases at peak levels and rising (CFCs perhaps excepted), icecaps and permafrost

melting, and methane outgassing. All are shocking, unnecessary, and together threaten life as we know it on this planet.

Robb's clear and careful writing illustrates her deep understanding of the documents and processes of the climate change negotiations as well as her commitment to social justice as a fundamental aspect of Jesus's ministry. She presents cogent discussions of the Kyoto process, the Intergovernmental Panel on Climate Change (IPCC) reports, and ongoing negotiations up to about 2009.¹ Her experience includes being a representative of the World Council of Churches at The Hague Meeting of the Conference of Parties in 2000. The book is thoroughly referenced with very rich endnotes.

There are two groups of climate deniers. Some religious sects are welcoming a scorched Earth as a sign of the Apocalypse, and some of these actually seek to hasten it. The second group consists of the wealthy and powerful who are worried about rates of economic growth, as currently defined, because, for them, that is the deity from which good things magically spring. By contrast, Robb's reading of the Old and New Testaments points to the reign of God as *here and now*—as seen in lives lived in fairness and justice between humans, and, crucially, between humans and all of nature.

The concept of the global atmospheric commons is central to Robb's analysis because profit and pollution in one part of the atmosphere impact all parts of the globe. *Wind* (think *pneuma*) begins with an almost folksy story about Robb working hard to reduce the carbon footprint of her life, her home, and her campus. She jolts us into attention by noting that even in the face of her numerous successes at good local/global citizenship, being a U.S. citizen means that her carbon footprint is still 19.8 tons of carbon per person per year (tcy) when it needs to be 2 tons—the no-regrets level needed in order to stabilize and diminish atmospheric carbon. We humans, as individuals, corporations, and political decision makers, in every country need to take major steps toward that goal. The European Union generates 8.7 tcy; Russia, 16.2 tcy; and even Trinidad/Tobago is at 10 tcy. China and India, at 2.1 and 0.7 tcy, respectively, are special cases. Their total carbon output is nevertheless huge and masks enormous disparities between classes.

Robb shows us that seriousness, let alone fairness, is lacking in the climate negotiations. For example, the so-called “fairness argument,” championed by developed nations, is, in fact, based on “grandfathering in” their high historical emissions; this simply means that high historic emissions levels would give high emitters “the right to pollute based on having polluted first. . . . The other proposed basis for distributing emission allowances would be equality, such that nations would be assigned allowances based on their population level at a negotiated date” (29). Robb shows that this latter approach would encourage innovation and carbon trading at least as much as the “grandfather” approach and be much fairer to poorer and technically undeveloped nations.

Issues of poverty and gender are of prominent concern throughout the book, both for policy and for ethical responsibility. Robb reports that it is widely recognized, for example, that poor women will be most harmed by the impacts of climate change on indigenous fisheries and agriculture and that women will have “greater responsibility for the care of the increased numbers of the sick expected from higher levels of malaria, cholera, and heat stress” (25).

Saving the atmospheric commons and life in the future requires working to halt and reverse global warming. Achieving this fairly will take huge, real alterations in the practices of the polluting nations. However, the current goals of the climate-change (non)agreement are nowhere near this goal:

[Ideally,] while the polluting nations would engage in a process of contraction [of emissions], the developing nations would eventually converge with the industrialized nations at a point that is safely within the absorptive capacity of the atmosphere. That point could represent per capita global equality. On the whole, however, the question of justice in the distribution of emissions allowances is missing from the discussion of the Kyoto Protocol by the “umbrella nations” which include Japan, Canada, Australia, and the United States [who argue that] it does not matter where emissions originate, because wherever they originate they affect the whole atmosphere [and that] it is more cost effective to lower emissions in poor nations. (32)

Clearly, there is a desperate need for religious precepts and ethical voices in this argument. Robb believes that “people will not change their consumption and production habits on a consistent basis unless they believe that it is fair to do so. So, fairness has political leverage” (33).

Robb’s analyses are straightforward and clear, and she allows readers to develop their own conclusions. But she does not mince words when presenting her conclusions; for instance, “If citizens of industrialized nations allow their representative negotiators to claim in effect, ‘we know we have a large impact on the global atmospheric commons, but we do not want to be inconvenienced by having to pay the true price of the energy and transport we use—*plus* you cannot make us,’ then who are we as peoples of this realm? The term ‘bullies’ comes to mind” (36). Please note, that “If” is rhetorical; this is exactly what the industrialized nations have effected. Her verdict may be summed up as follows: Excessive and unfair wealth accumulation is central to the problems that humans have wrought within the global atmospheric commons. The distributions of resources and despoliation are both unfair. It is now apparent that we cannot wait for politicians of wealthy nations to take the lead in adjusting the policies that protect current economic practices. We, as citizens, must engage conscientiously and politically to force policy changes. And we must come to recognize that “generation of wealth is not the first measure of a good economy, because wealth, when it exists alongside poverty, is suspect” (146).

We must now choose our future. Robb’s program is clear: structure a commitment for the wealthy nations (however late we come to the disaster we have created) to lower their carbon emissions. In the global climate crisis, we still can make some choices. Robb lays out the IPCC scenarios and relates these profound ecological challenges to biblical themes. She notes, particularly in the second part of the book, that the actions of the people of God have always played out in political and economic as well as personal spheres. The Kingdom of God in Jesus’s teaching was a profound, earthly, alternative to the Roman Empire and the Temple. Robb’s final, adroit move is to show that the global atmospheric commons is celebrated in the Bible as an important part of the Kingdom of God and a site of God’s action. Robb has done an enormous service in presenting scientific, political, and religious evidence woven into a compelling call to action

to inspire the resolution of this most acute and global of crises. It is to be hoped that this book foments many discussions.

NOTE

1. For a poignant account of our continuing failure to come to grips with climate change, see the post-Rio 2012 interview with David Suzuki at http://www.democracynow.org/2012/6/25/david_suzuki_on_rio_20_green.

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Spiritual Healing: Scientific and Religious Perspectives. Edited by Fraser Watts. Cambridge: Cambridge University Press, 2011. xiv + 207 pages. £55.00 UK; 95.00 \$US.

This book is the first volume of a set of two (the second yet to be issued) documenting a symposium on “Spiritual Healing” held at Queen’s College, Cambridge, UK, in January 2004 under the aegis of the John Templeton Foundation’s Humble Approach Initiative. Twelve authors of different religious and scholarly backgrounds—scientists (notably psychologists), anthropologists, philosophers, and theologians (some also qualified scientists)—and of different nationalities—British, United States, and French—contributed to the 11 chapters of this well-written book. Chapters 1, 5, 10, and 11 address conceptual issues of “spiritual healing,” which is mainly understood as “special divine action” (pp. 7, 13, 44, 76, 159, etc.), while the remaining chapters present case studies on different aspects of the phenomenon. Each contribution is interesting in its own right and deserves proper recognition, but space does not permit their in-depth discussion here.

The editor, psychologist Fraser Watts, Reader in Theology and Science in the University of Cambridge, and minister in the Church of England, describes the intention of the enterprise modestly as “beginning to frame the issues” (i). At the end of the book, he admits that “an understanding of spiritual healing is very difficult,” but hopes, nonetheless that “the present volume has made a significant contribution to this important task” (180).

The reviewer begs to differ. While applauding the initiative, he cannot but notice that the inquiry into the admittedly tricky phenomenon of “spiritual healing” as presented here is simply not rigorous enough. The book does not really clarify matters, but rather confuses them instead. How so? Several authors plead for “broadening,” “extending,” or “complementing” the reductionist scientific worldview to accommodate “spiritual healing”; some go so far as to take recourse to the “radical science” of “parapsychology” (whatever that means; 167) and

interpret “distant healing” as an effect of “psychokinesis” and “biopsychokinesis,” respectively (174; 140–52). The consequence is not clarification but a blurring of lines of meaningful communication between disciplines. Scientific arguments are diluted and become meaningless, while religious statements get deformed beyond recognition by being pressed into the scientific Procrustean bed. This makes the reader wonder if proofing and vindicating “spiritual healing” to an enlightened critical audience is the hidden agenda of a project framed as an unbiased interdisciplinary inquiry.

Instead of addressing the formal and methodological stalemate between science and religion, the approach taken follows the scientific paradigm of evidence-based effects attempting to make “spiritual healing” acceptable to those who doubt it by trying to measure its physical impact on breast cancer patients, for instance, whereas the real issue at the heart of the debate is the hermeneutical question of how religion and science address and interpret human experiences and world perception. Unfortunately, this question is not addressed at all, which is surprising insofar as the editor explicitly notices himself, “The key question is not whether spiritual healing is to be understood scientifically *or* theologically, but what the relationship should be between theological and scientific accounts” (11; original emphasis). Yet, this is exactly what is missing.

Another regrettable flaw is not the reflected difference between “spiritual healing” and “miracle.” The various papers each present different definitions so that there is no coherence in the argument. Further, none of the authors reflects the temporal dimension of personal salvific/healing experiences that make people interpret respective happenings as “miracles” in the first place. Instead, the discourse focuses solely on the rationality and physical materiality of such healing phenomena that defy conventional explanations, thereby implying that “spiritual healings” are *eo ipso* “miracles.”

Considering the enormous effort that went into bringing this publication about, it is to be regretted that the yield is so poor and disappointing, save the bibliography, which is a valuable repository for any further topic-related research.

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